

Digital Citizenship Skills and Sustainable Civic Behavior Among Social Studies Students in Ethiopia

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Abstract

This study investigated the relationship between digital citizenship skills and sustainable civic behaviour among Social Studies students in Ethiopia. Specifically, the study examined the relationship between digital communication skills, digital etiquette, digital security awareness, and sustainable civic behaviour among Social Studies students. The study adopted a quantitative research approach using a descriptive correlational survey research design. The study was conducted in Addis Ababa, Ethiopia. A sample of 400 Social Studies students was selected using a multistage sampling procedure involving purposive and simple random sampling techniques. Data were collected using a structured questionnaire titled Digital Citizenship Skills and Sustainable Civic Behaviour Questionnaire (DCSSCBQ). The instrument was validated by experts in Educational Technology, Social Studies Education, and Measurement and Evaluation, while its reliability was established using Cronbach Alpha statistics. Data collected were analyzed using Pearson Product Moment Correlation (PPMC) to answer the research questions and test the hypotheses at a 0.05 level of significance. The findings revealed that digital communication skills had a significant positive relationship with sustainable civic behaviour ($r = 0.682, p < 0.05$). The study also found a significant positive relationship between digital etiquette and sustainable civic behaviour ($r = 0.731, p < 0.05$). Furthermore, digital security awareness showed a significant positive relationship with sustainable civic behaviour ($r = 0.645, p < 0.05$). The study concluded that digital citizenship skills significantly contribute to sustainable civic behaviour among Social Studies students in Ethiopia. It was recommended that educational institutions integrate digital citizenship education into Social Studies programmes to promote responsible digital participation and sustainable civic engagement among students.

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1. Introduction

The increasing integration of digital technologies into education, communication, governance, and civic life has

transformed the way individuals interact, participate in society, and perform their civic responsibilities (Wulandari et al., 2021; Lozano-Díaz & Fernández-Prados, 2020). Scholars have argued that contemporary citizens require

more than traditional civic competencies because participation in modern society increasingly occurs through digital environments that demand responsible and ethical engagement (Al-Otaibi, 2025; Webster, 2025). As digital technologies continue to shape social and political interactions, educational systems are under growing pressure to prepare learners with the competencies necessary to function effectively as responsible digital citizens (Guerrero Elecalde et al., 2024; Consoli, 2024). The growing dependence on digital platforms for communication, information sharing, civic participation, and social interaction has made digital citizenship skills a critical educational concern rather than an optional competency.

Digital citizenship has emerged as a major educational concept for promoting responsible participation in digital environments (Rumiati et al., 2024; Putri et al., 2025). Existing literature describes digital citizenship as the knowledge, values, skills, and behaviours required for safe, ethical, responsible, and effective use of digital technologies (Wulandari et al., 2021; Prabhakar, 2022). Researchers have consistently emphasized that digital citizenship extends beyond technological competence to include social responsibility, ethical decision-making, respectful communication, and civic engagement in digital spaces (Al-Otaibi, 2025; Webster, 2025). This broader understanding of digital citizenship is important because technological proficiency alone may not guarantee responsible civic behaviour among students. Students may possess digital skills but still engage in behaviours that undermine democratic values, social harmony, and sustainable civic participation.

The growing significance of digital citizenship is particularly evident among young people who spend considerable portions of their daily lives interacting through digital platforms (Kammer et al., 2021; Kowalczyk, 2024). Research shows that digital environments have become important spaces for civic dialogue, social participation, political engagement, community mobilization, and democratic expression among youths (Peart et al., 2022; Otieno, 2025). Digital technologies have enabled students and young citizens to participate in civic activities beyond traditional physical settings through online discussions, advocacy campaigns, information sharing, and community engagement initiatives (Consoli, 2024; Egobueze & Nwaoburu, 2025). These developments have fundamentally changed the nature of citizenship by creating new forms of civic participation that require digital competencies for effective engagement.

Among the various dimensions of digital citizenship, digital communication skills have been identified as a critical factor influencing civic participation and social interaction (Xu et al., 2018; Al-Otaibi, 2025). Digital communication skills involve the ability to communicate effectively, appropriately, and responsibly through digital platforms and technologies (Rumiati et al., 2024). Studies indicate that individuals with stronger digital communication skills are more likely to participate in civic discussions, collaborate with others, exchange ideas, and contribute positively to online communities (Peart et al., 2022; Consoli, 2024). Similarly, youth-led civic movements across Africa have demonstrated how digital communication platforms facilitate social mobilization, public awareness campaigns, and democratic participation among young people (Otieno, 2025; Kowalczyk, 2024). While these studies provide evidence of the importance of digital communication, limited empirical attention has been given to how digital communication skills influence sustainable civic behaviour among Social Studies students in Ethiopia.

Digital etiquette has also gained considerable attention within digital citizenship scholarship because of its role in promoting ethical and respectful online behaviour (Soler-Costa et al., 2021; Zheng et al., 2024). Digital etiquette refers to acceptable standards of conduct that guide individuals' behaviour during online interactions (Syzykbayeva et al., 2025). The increasing prevalence of cyberbullying, hate speech, online harassment, misinformation, and other forms of inappropriate online conduct has raised concerns regarding the quality of interactions within digital communities (Soler-Costa et al., 2021; Wulandari et al., 2021). Research findings suggest that individuals who demonstrate strong digital etiquette are more likely to engage in respectful communication, maintain positive relationships, and contribute constructively to civic discourse in digital environments (Zheng et al., 2024; Syzykbayeva et al., 2025). Digital etiquette may be particularly important for Social Studies students because the discipline emphasizes citizenship values, social responsibility, respect for diversity, and democratic participation. However, available studies have not adequately examined how digital etiquette relates to sustainable civic behaviour among Ethiopian students.

Another important dimension of digital citizenship is digital security awareness. Digital security awareness involves understanding digital risks and adopting behaviours that protect personal information, privacy, and online identities (Elrayah & Jamil, 2023; Al-Otaibi, 2025). The growing incidence of cybercrime, phishing attacks, identity theft,

misinformation, and privacy breaches has increased the need for individuals to develop security-conscious behaviours when using digital technologies (Apata et al., 2025; Elrayah & Jamil, 2023). Previous studies have reported that individuals who possess higher levels of digital security awareness demonstrate safer online practices and more responsible engagement within digital communities (Elrayah & Jamil, 2023; Putri et al., 2025). Digital security awareness may also influence broader civic behaviour because individuals who understand digital risks are more likely to participate responsibly in digital civic activities and contribute positively to sustainable online communities.

The concept of sustainable civic behaviour has become increasingly important within citizenship and civic education discourse. Sustainable civic behaviour refers to consistent actions, attitudes, and practices that promote democratic participation, social responsibility, community development, respect for diversity, and long-term societal well-being (Lozano-Díaz & Fernández-Prados, 2020; Peart et al., 2022). Sustainable civic behaviour extends beyond occasional civic participation by encouraging continuous engagement in activities that strengthen social cohesion, democratic values, and community development (Kowalczyk, 2024; Otieno, 2025). Existing literature indicates that digital environments now serve as major platforms through which sustainable civic participation is expressed and practiced (Consoli, 2024; Peart et al., 2023). Consequently, understanding the factors that promote sustainable civic behaviour within digital contexts has become an important research priority.

Several studies have established connections between digital citizenship competencies and civic engagement outcomes (Peart et al., 2022; Kammer et al., 2021). Research has shown that digital citizenship skills contribute to democratic participation, online activism, community involvement, and civic responsibility among students and young adults (Peart et al., 2023; Consoli, 2024). Similarly, studies have demonstrated that ethical digital behaviour, responsible online communication, and digital literacy support positive civic engagement and social participation (Wulandari et al., 2021; Putri et al., 2025). Despite these contributions, much of the existing literature focuses on general digital citizenship constructs rather than examining specific dimensions such as digital communication skills, digital etiquette, and digital security awareness in relation to sustainable civic behaviour.

The need for this study becomes more evident within the Ethiopian educational context. Ethiopia has recently

strengthened its focus on citizenship education through curriculum reforms aimed at promoting civic responsibility, democratic values, ethical behaviour, and social cohesion among students (Citizenship Education as Moral Discipline and Bounded Civic Agency, 2025). The revised citizenship education curriculum recognizes the importance of preparing students to function effectively in an increasingly digital society while contributing positively to national development and democratic participation (Citizenship Education as Moral Discipline and Bounded Civic Agency, 2025). Furthermore, the inclusion of topics related to citizens in the digital technology age within Ethiopian citizenship education materials reflects growing recognition of the importance of digital citizenship competencies among learners (Citizenship Education as Moral Discipline and Bounded Civic Agency, 2025). However, empirical studies investigating digital citizenship skills within Ethiopian educational settings remain limited.

A critical review of available literature reveals that most digital citizenship studies have been conducted in Europe, North America, Asia, and a few African countries such as Ghana, Nigeria, and South Africa (Salifu et al., 2025; Apata et al., 2025; Al-Otaibi, 2025). Although these studies provide valuable insights, their findings may not fully reflect the sociocultural, educational, and technological realities of Ethiopia. Additionally, many existing studies have concentrated on digital literacy, digital citizenship education, or online civic engagement without specifically examining how digital communication skills, digital etiquette, and digital security awareness relate to sustainable civic behaviour among Social Studies students (Consoli, 2024; Peart et al., 2022).

It is against this background that this study seeks to determine the relationship between digital communication skills, digital etiquette, digital security awareness, and sustainable civic behaviour among Social Studies students in Ethiopia. Specifically, the study aims to determine the relationship between digital communication skills and sustainable civic behaviour, examine the relationship between digital etiquette and sustainable civic behaviour, and investigate the relationship between digital security awareness and sustainable civic behaviour among Social Studies students in Ethiopia. The findings of this study will contribute to the growing discourse on digital citizenship and provide evidence that may support curriculum improvement, citizenship education programmes, and digital literacy initiatives aimed at promoting responsible and sustainable civic participation among Ethiopian students.

Literature Review

Digital communication skills and sustainable civic behavior

Digital communication skills have been recognized as an important component of digital citizenship because they enable individuals to interact, exchange information, collaborate, and participate effectively in digital environments (Rumiati et al., 2024; Cunningham, 2016). Scholars argue that the growth of social media, online discussion platforms, and digital communication technologies has expanded opportunities for civic participation beyond traditional physical spaces by allowing young people to engage in civic discussions, advocacy activities, and community-related issues through digital channels (Christensen et al., 2021; Bennett et al., 2010). Research has shown that students who possess effective digital communication skills are more likely to express opinions on social issues, participate in online civic discussions, collaborate with peers on community matters, and engage in democratic processes through digital platforms (Peart et al., 2022; Consoli, 2024). Similarly, Kim and Yang (2016) reported that internet literacy and communication-related digital competencies significantly contribute to adolescents' civic engagement by enhancing their political interest, participation, and social involvement. The increasing use of digital communication tools among young people has therefore transformed civic participation into a more interactive and networked process where communication skills play a central role in promoting civic awareness and engagement.

Empirical studies further indicate that digital communication skills contribute to sustainable civic behaviour by supporting continuous participation in civic activities, responsible online engagement, and constructive interaction within digital communities (Xu et al., 2018; Peart et al., 2023). Digital communication enables students to access civic information, engage in discussions about public issues, mobilize support for community initiatives, and develop collaborative relationships that strengthen civic participation (Otieno, 2025; Egobueze & Nwaoburu, 2025). Christensen et al. (2021) found that social media communication supports the development of digital citizenship and civic engagement when students use digital platforms to discuss societal issues and participate in civic-oriented activities. Likewise, studies on digital citizenship education have shown that communication-oriented digital skills foster critical digital literacy, civic awareness, social advocacy, and responsible participation in society (Empowering Civic Engagement Through Digital

Citizenship Education, 2024; Japar et al., 2024). Despite these findings, most previous studies were conducted outside Ethiopia and focused largely on general civic engagement, digital citizenship, or online participation rather than sustainable civic behaviour among Social Studies students.

Digital etiquette and sustainable civic behaviour

Digital etiquette is widely recognized as a fundamental component of digital citizenship because it promotes respectful, ethical, and responsible behaviour during online interactions (Soler-Costa et al., 2021; Liu, 2026). Digital etiquette, often referred to as netiquette, consists of the behavioural norms and communication standards that guide how individuals interact within digital environments such as social media platforms, online classrooms, discussion forums, and virtual communities (Ribble, 2015, as cited in Liu, 2026; Syzdykbayeva et al., 2025). Scholars argue that digital etiquette encourages individuals to communicate respectfully, tolerate diverse opinions, avoid harmful online behaviour, and contribute positively to digital communities (Jones & Mitchell, 2016; Webster, 2025). Research has further shown that respectful online behaviour is closely associated with positive digital citizenship outcomes because students who practice digital etiquette are less likely to engage in cyberbullying, online harassment, hate speech, and other forms of irresponsible online conduct (Soler-Costa et al., 2021; Saputra et al., 2025). Similarly, Zheng et al. (2024) reported that instruction on online etiquette and communication improves students' ability to interact responsibly and respectfully in digital spaces, thereby supporting the development of qualified digital citizens.

The relationship between digital etiquette and sustainable civic behaviour has attracted growing scholarly attention because civic participation increasingly occurs through digital platforms and online communities (Webster, 2025; Peart et al., 2023). Sustainable civic behaviour involves responsible participation in civic activities, respect for others, social responsibility, constructive dialogue, and continuous engagement in activities that promote community well-being and democratic values (Lozano-Díaz & Fernández-Prados, 2020; Peart et al., 2022). Studies suggest that students who demonstrate strong digital etiquette are more likely to engage in respectful civic discussions, collaborate effectively with others, and contribute positively to civic-oriented online communities (Jones & Mitchell, 2016; Christensen et al., 2021). Jones and Mitchell (2016) found that respectful online behaviour and online civic engagement are interconnected dimensions

of digital citizenship, indicating that students who display positive online conduct are also more likely to participate constructively in civic activities. Furthermore, educational initiatives that promote digital etiquette have been found to strengthen responsible online participation, civic awareness, and social responsibility among learners (Saputra et al., 2025; Nichols, 2024). Despite these findings, most previous studies focused on general digital citizenship, online behaviour, or civic engagement in non-Ethiopian contexts, leaving limited evidence on how digital etiquette relates to sustainable civic behaviour among Social Studies students in Ethiopia.

Digital security awareness and sustainable civic behaviour

Digital security awareness has become an essential component of digital citizenship because it equips individuals with the knowledge and skills needed to protect themselves, their information, and their online interactions from digital threats (Elrayah & Jamil, 2023; Learning.com, 2025). Digital security awareness involves understanding online risks such as cybercrime, phishing attacks, identity theft, cyberbullying, privacy breaches, and misinformation, as well as adopting responsible practices to reduce such risks (Al-Otaibi, 2025; Apata et al., 2025). Scholars have argued that as students increasingly rely on digital technologies for learning, communication, and civic participation, awareness of digital security becomes necessary for promoting safe and responsible engagement in digital environments (Takavarasha, 2019; Oguine et al., 2025). Studies indicate that students who possess stronger digital security awareness are more likely to protect personal information, practice safer online behaviours, evaluate online content critically, and avoid activities that may threaten their well-being or the well-being of others (Elrayah & Jamil, 2023; Learning.com, 2025). Furthermore, digital citizenship education programmes that emphasize online safety, privacy protection, and security awareness have been found to improve students' responsible online conduct and reduce harmful digital behaviours (Saputra et al., 2025; Sarbaini, 2026).

The relationship between digital security awareness and sustainable civic behaviour is increasingly receiving attention because civic participation now occurs within digital spaces where issues of trust, safety, privacy, and ethical engagement are critical (Peart et al., 2022; Consoli, 2024). Sustainable civic behaviour involves responsible participation in community affairs, adherence to ethical standards, respect for others, and continuous engagement in activities that promote social well-being and democratic

values (Lozano-Díaz & Fernández-Prados, 2020; Kowalczyk, 2024). Research suggests that individuals who are aware of digital security practices are more likely to engage responsibly in online discussions, participate in civic activities safely, and contribute positively to digital communities because they understand the consequences of irresponsible digital behaviour (Elrayah & Jamil, 2023; Sarbaini, 2026). Security awareness has also been linked to responsible online decision-making, ethical conduct, and greater confidence in participating within digital civic spaces (Bada et al., 2019; Oguine et al., 2025). Similarly, studies on digital citizenship education indicate that awareness of online safety and digital risks strengthens responsible online engagement, promotes ethical behaviour, and supports the development of informed digital citizens capable of contributing positively to society (Saputra et al., 2025; Sarbaini, 2026). Despite these findings, existing studies have focused largely on online safety, cybersecurity behaviour, or digital citizenship in general educational contexts, with limited attention given to the relationship between digital security awareness and sustainable civic behaviour among Social Studies students in Ethiopia.

Specific objectives of the study:

1. determine the relationship between digital communication skills and sustainable civic behaviour among Social Studies students in Ethiopia.
2. examine the relationship between digital etiquette and sustainable civic behaviour among Social Studies students in Ethiopia.
3. investigate the relationship between digital security awareness and sustainable civic behaviour among Social Studies students in Ethiopia.

Research Questions

1. what is the relationship between digital communication skills and sustainable civic behaviour among Social Studies students in Ethiopia?
2. What is the relationship between digital etiquette and sustainable civic behaviour among Social Studies students in Ethiopia?
3. What is the relationship between digital security awareness and sustainable civic behaviour among Social Studies students in Ethiopia?

Research Hypotheses

1. There is no significant relationship between digital communication skills and sustainable civic behaviour among Social Studies students in Ethiopia.

2. There is no significant relationship between digital etiquette and sustainable civic behaviour among Social Studies students in Ethiopia.

3. There is no significant relationship between digital security awareness and sustainable civic behaviour among Social Studies students in Ethiopia.

Research Methodology

This study adopted a quantitative research approach. Quantitative research focuses on the collection and analysis of numerical data in order to examine relationships among variables and test research hypotheses using statistical procedures (Creswell & Creswell, 2018). The quantitative approach was considered appropriate for this study because it enabled the researcher to obtain measurable data on digital communication skills, digital etiquette, digital security awareness, and sustainable civic behaviour among Social Studies students and determine the relationships among the variables.

The study employed a descriptive correlational survey research design. According to Creswell (2012), correlational research is a quantitative design used to determine the degree and direction of relationships that exist among variables without manipulating them. Similarly, descriptive correlational research seeks to describe existing conditions and examine the relationships among variables as they naturally occur (McCombes, 2023). The choice of the descriptive correlational survey design was based on the nature of the study, which sought to determine the relationships between digital communication skills, digital etiquette, digital security awareness, and sustainable civic behaviour among Social Studies students in Ethiopia without introducing any form of experimental treatment. The design therefore enabled the researcher to collect data from a large number of respondents and establish the extent to which the independent variables relate to the dependent variable.

Area of the Study

The study was conducted in Addis Ababa, the capital city of Ethiopia. Addis Ababa is the political, educational, economic, and technological center of the country. The city hosts a large number of secondary schools, colleges, and universities that provide Social Studies-related programmes. Addis Ababa has experienced significant growth in internet connectivity, digital technology adoption, and educational technology integration, making it suitable for investigating issues relating to digital citizenship and civic behaviour among students. The city also provides a

diverse student population drawn from different cultural, social, and economic backgrounds, thereby offering an appropriate setting for examining digital citizenship skills and sustainable civic behaviour among Social Studies students.

Population of the Study

The population of the study comprised all Social Studies students in selected higher education institutions in Addis Ababa, Ethiopia. These students were considered suitable for the study because Social Studies education emphasizes citizenship education, civic responsibility, democratic participation, social responsibility, and ethical behaviour, which are closely related to the variables investigated in this study.

Sample and Sampling Technique

A sample of 400 Social Studies students was selected for the study. The sample size was considered adequate because it provided sufficient representation of the target population and enhanced the reliability of the findings. A multistage sampling procedure was employed. First, purposive sampling was used to select higher education institutions offering Social Studies programmes in Addis Ababa. Thereafter, simple random sampling was used to select respondents from the identified institutions. The use of simple random sampling ensured that every Social Studies student had an equal opportunity of being selected for the study.

Instrument for Data Collection

The instrument used for data collection was a structured questionnaire titled Digital Citizenship Skills and Sustainable Civic Behaviour Questionnaire (DCSSCBQ). The questionnaire was divided into two sections. Section A contained demographic information of the respondents, while Section B contained items measuring digital communication skills, digital etiquette, digital security awareness, and sustainable civic behaviour. The items were structured on a four-point Likert scale of Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1).

Validity of the Instrument

The instrument was subjected to face validation by three experts in Educational Technology, Social Studies Education, and Measurement and Evaluation a University in Addis Ababa. The experts examined the questionnaire in terms of clarity, relevance, appropriateness, and adequacy of the items in measuring the variables under investigation. Their observations and corrections were incorporated into

the final version of the instrument before administration.

Reliability of the Instrument

The reliability of the instrument was established through a pilot study involving 30 Social Studies students outside the study area but with similar characteristics to the target population. The data obtained from the pilot study were analyzed using Cronbach Alpha reliability statistics. A reliability coefficient of 0.72 was obtained and considered acceptable for the study.

Method of Data Collection

The researcher personally administered the questionnaire to the respondents with the assistance of trained research assistants. The purpose of the study was explained to the respondents, and adequate time was provided for completion of the questionnaire. The completed copies were collected immediately after completion to ensure a high return rate.

Method of Data Analysis

The data collected were coded and analyzed using the Statistical Package for Social Sciences (SPSS). Research questions were answered using Pearson Product Moment Correlation (PPMC) to determine the degree and direction of the relationships between the variables. The hypotheses were tested using Pearson Product Moment Correlation at a 0.05 level of significance. The decision rule was that any calculated p-value less than 0.05 would lead to the rejection of the null hypothesis, while a p-value greater than 0.05 would result in the acceptance of the null hypothesis.

Results

Research Question 1

What is the relationship between digital communication skills and sustainable civic behaviour among Social Studies students in Ethiopia?

Table 1: Pearson Product Moment Correlation Analysis of the Relationship between Digital Communication Skills and Sustainable Civic Behaviour among Social Studies Students in Ethiopia (N = 400)

Variables	N	Mean	SD	r-value	Decision
Digital Communication Skills	400	3.21	0.56		
Sustainable Civic Behaviour	400	3.35	0.52	0.682	Strong Positive Relationship

Interpretation

Table 1 shows the relationship between digital communication skills and sustainable civic behaviour among Social Studies students in Ethiopia. The analysis yielded a Pearson correlation coefficient (r) of 0.682, indicating a strong positive relationship between digital communication skills and sustainable civic behaviour. This implies that students with higher levels of digital communication skills tend to exhibit higher levels of

sustainable civic behaviour. Therefore, digital communication skills are positively related to sustainable civic behaviour among Social Studies students in Ethiopia.

Research Question 2

What is the relationship between digital etiquette and sustainable civic behaviour among Social Studies students in Ethiopia?

Table 2: Pearson Product Moment Correlation Analysis of the Relationship between Digital Etiquette and Sustainable Civic Behaviour among Social Studies Students in Ethiopia (N = 400)

Variables	N	Mean	SD	r-value	Decision
Digital Etiquette	400	3.28	0.49		
Sustainable Civic Behaviour	400	3.35	0.52	0.731	Strong Positive Relationship

Interpretation

Table 2 presents the relationship between digital etiquette and sustainable civic behaviour among Social Studies students in Ethiopia. The result revealed a Pearson correlation coefficient (r) of 0.731, indicating a strong positive relationship between digital etiquette and sustainable civic behaviour. This suggests that students who demonstrate higher levels of digital etiquette are more likely

to exhibit sustainable civic behaviour. Therefore, digital etiquette has a positive relationship with sustainable civic behaviour among Social Studies students in Ethiopia.

Research Question 3

What is the relationship between digital security awareness and sustainable civic behaviour among Social Studies students in Ethiopia?

Table 3: Pearson Product Moment Correlation Analysis of the Relationship between Digital Security Awareness and Sustainable Civic Behaviour among Social Studies Students in Ethiopia (N = 400)

Variables	N	Mean	SD	r-value	Decision
Digital Security Awareness	400	3.17	0.58		
Sustainable Civic Behaviour	400	3.35	0.52	0.645	Strong Positive Relationship

Interpretation

Table 3 shows the relationship between digital security awareness and sustainable civic behaviour among Social Studies students in Ethiopia. The Pearson correlation coefficient (r) obtained was 0.645, indicating a strong positive relationship between digital security awareness and sustainable civic behaviour. This means that students who possess higher levels of digital security awareness tend to demonstrate higher levels of sustainable civic behaviour.

Therefore, digital security awareness is positively related to sustainable civic behaviour among Social Studies students in Ethiopia.

Hypothesis 1

There is no significant relationship between digital communication skills and sustainable civic behaviour among Social Studies students in Ethiopia.

Table 4: Pearson Product Moment Correlation Analysis of the Significant Relationship between Digital Communication Skills and Sustainable Civic Behaviour among Social Studies Students in Ethiopia (N = 400)

Variables	N	r-value	p-value	Alpha Level	Decision
Digital Communication Skills	400				
Sustainable Civic Behaviour	400	0.682	0.001	0.05	Reject H_0

Interpretation

Table 4 reveals that the Pearson Product Moment Correlation analysis yielded an r -value of 0.682 with a corresponding p -value of 0.001, which is less than the alpha level of 0.05. Since the p -value is less than 0.05, the null hypothesis was rejected. This indicates that there is a significant positive relationship between digital communication skills and sustainable civic behaviour among Social Studies students in Ethiopia. Therefore,

students with higher digital communication skills tend to demonstrate higher levels of sustainable civic behaviour.

Hypothesis 2

There is no significant relationship between digital etiquette and sustainable civic behaviour among Social Studies students in Ethiopia.

Table 5: Pearson Product Moment Correlation Analysis of the Significant Relationship between Digital Etiquette and Sustainable Civic Behaviour among Social Studies Students in Ethiopia (N = 400)

Variables	N	r-value	p-value	Alpha Level	Decision
Digital Etiquette	400				
Sustainable Civic Behaviour	400	0.731	0.001	0.05	Reject H ₀

Interpretation

Table 5 shows that the Pearson Product Moment Correlation analysis produced an r-value of 0.731 and a p-value of 0.001. Since the p-value is less than the stipulated alpha level of 0.05, the null hypothesis was rejected. This implies that there is a significant positive relationship between digital etiquette and sustainable civic behaviour among Social Studies students in Ethiopia. Consequently, students

who exhibit higher levels of digital etiquette are more likely to demonstrate sustainable civic behaviour.

Hypothesis 3

There is no significant relationship between digital security awareness and sustainable civic behaviour among Social Studies students in Ethiopia.

Table 6: Pearson Product Moment Correlation Analysis of the Significant Relationship between Digital Security Awareness and Sustainable Civic Behaviour among Social Studies Students in Ethiopia (N = 400)

Variables	N	r-value	p-value	Alpha Level	Decision
Digital Security Awareness	400				
Sustainable Civic Behaviour	400	0.645	0.001	0.05	Reject H ₀

Interpretation

Table 6 indicates that the Pearson Product Moment Correlation analysis yielded an r-value of 0.645 and a p-value of 0.001. Since the p-value is less than the alpha level of 0.05, the null hypothesis was rejected. This result shows that there is a significant positive relationship between digital security awareness and sustainable civic behaviour among Social Studies students in Ethiopia. Therefore, students with higher levels of digital security awareness tend to exhibit greater sustainable civic behaviour.

Discussion of Findings**Discussion of Findings Related to Objective One**

The finding of the study revealed that there is a significant positive relationship between digital communication skills and sustainable civic behaviour among Social Studies students in Ethiopia. The result showed that students who possess higher levels of digital communication skills tend to demonstrate stronger sustainable civic behaviour. This finding suggests that the ability to communicate effectively through digital platforms contributes positively to students' civic participation, social responsibility, community engagement, and democratic involvement. The finding may be attributed to the fact that digital communication skills enable students to exchange ideas, participate in civic

discussions, access civic information, collaborate with others, and engage in activities that promote societal development. Through digital communication platforms, students are able to express opinions on social issues, participate in community discussions, and contribute to civic-related activities that support sustainable social development.

The finding is in agreement with the study of Peart et al. (2022), who reported that digital and socio-civic skills significantly promote youth participation and digital citizenship by enhancing communication, civic engagement, and social involvement. The result also supports the findings of Consoli (2024), who found that communication-oriented media education practices positively predict online civic engagement among students. Similarly, Otieno (2025) observed that digital communication platforms play a major role in mobilizing youths for civic participation, advocacy, and community engagement in Africa. The finding further agrees with Egobueze and Nwaoburu (2025), who reported that digital competencies enhance political engagement and democratic participation by providing citizens with opportunities to participate actively in civic discussions and governance processes. Therefore, the finding implies that strengthening digital communication skills among Social Studies students may contribute significantly to promoting sustainable civic

behaviour and active citizenship in Ethiopia.

Discussion of Findings Related to Objective Two

The finding of the study revealed that there is a significant positive relationship between digital etiquette and sustainable civic behaviour among Social Studies students in Ethiopia. The result indicates that students who demonstrate higher levels of digital etiquette are more likely to exhibit sustainable civic behaviour. This finding suggests that respectful, responsible, and ethical online behaviour contributes positively to students' civic attitudes and social responsibility. The finding may be explained by the fact that students who observe appropriate online conduct are more likely to respect others' opinions, engage in constructive dialogue, avoid harmful online practices, and participate responsibly in civic activities. Digital etiquette encourages positive interpersonal relationships, tolerance, cooperation, and responsible communication, which are important characteristics of sustainable civic behaviour.

The finding is consistent with the study of Soler-Costa et al. (2021), who reported that netiquette promotes ethical online behaviour, responsible communication, and positive social interaction within digital environments. The finding also supports Zheng et al. (2024), who found that digital etiquette literacy improves students' engagement, learning motivation, and responsible online behaviour. Similarly, Jones and Mitchell (2016) observed that respectful online behaviour is strongly associated with civic engagement and positive digital citizenship outcomes among young people. The finding further agrees with Syzdykbayeva et al. (2025), who reported that online communication culture and digital etiquette contribute significantly to responsible participation within online communities. Therefore, the result suggests that promoting digital etiquette among Social Studies students may strengthen civic responsibility, ethical behaviour, and sustainable participation in community and societal activities.

Discussion of Findings Related to Objective Three

The finding of the study revealed that there is a significant positive relationship between digital security awareness and sustainable civic behaviour among Social Studies students in Ethiopia. The result indicates that students with higher levels of digital security awareness tend to demonstrate stronger sustainable civic behaviour. This finding suggests that awareness of online safety, privacy protection, cybersecurity risks, and responsible technology use contributes positively to civic responsibility and sustainable participation in digital communities. The finding may be

due to the fact that students who understand digital security risks are more likely to engage responsibly in online activities, protect personal and community information, avoid harmful digital practices, and contribute to safer digital environments. Such responsible online conduct supports broader civic values, including accountability, ethical behaviour, and social responsibility.

The finding is in line with the study of Elrayah and Jamil (2023), who reported that cybersecurity awareness positively influences responsible online behaviour and safe digital engagement. The result also supports Al-Otaibi (2025), who found that digital citizenship skills, including digital security awareness, contribute significantly to responsible communication, ethical technology use, and positive social participation among university students. Similarly, Apata et al. (2025) observed that digital citizenship competencies, particularly those related to online safety and security, are essential for preparing students to participate responsibly in digital societies. The finding further agrees with Putri et al. (2025), who emphasized that digital security awareness enhances responsible digital citizenship by promoting ethical online practices and safe participation in digital environments. Therefore, the finding implies that improving digital security awareness among Social Studies students may contribute substantially to sustainable civic behaviour, responsible digital participation, and the development of informed digital citizens in Ethiopia.

Conclusion

Based on the findings of this study, it was concluded that digital citizenship skills play a significant role in promoting sustainable civic behaviour among Social Studies students in Ethiopia. The study established that digital communication skills, digital etiquette, and digital security awareness each have significant positive relationships with sustainable civic behaviour among the students. This indicates that students who possess stronger digital communication abilities, demonstrate responsible online conduct, and exhibit greater awareness of digital security issues are more likely to engage in responsible civic practices, participate actively in community affairs, and contribute positively to societal development.

The study further concludes that digital citizenship competencies have become important requirements for effective civic participation in contemporary digital societies. As civic engagement increasingly occurs through digital platforms, students require not only technological skills but also ethical, responsible, and security-conscious

behaviours that support democratic values, social responsibility, and sustainable community participation. The findings therefore suggest that strengthening digital citizenship skills among Social Studies students can contribute significantly to the development of informed, responsible, and active citizens capable of supporting sustainable social development in Ethiopia.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Educational institutions in Ethiopia should integrate digital communication skills training into Social Studies and citizenship education programmes to enhance students' ability to participate effectively in civic discussions, community engagement activities, and democratic processes.
2. Teachers of Social Studies should emphasize responsible digital communication practices by encouraging students to engage in constructive online discussions, collaborative learning activities, and civic-oriented digital interactions.
3. Schools and higher education institutions should organize regular seminars, workshops, and awareness programmes on digital etiquette to promote respectful online behaviour, responsible communication, tolerance, and ethical engagement in digital environments.
4. Curriculum developers should incorporate digital etiquette education into citizenship and Social Studies curricula to strengthen students' understanding of acceptable online conduct and responsible participation in digital communities.
5. Educational authorities should provide continuous digital security awareness programmes that educate students on online safety, privacy protection, cybersecurity risks, and responsible technology use.
6. Government agencies, educational stakeholders, and technology organizations should collaborate to develop policies and initiatives that promote digital citizenship education among students in Ethiopia.
7. Schools should establish digital citizenship clubs and civic engagement programmes that encourage students to apply digital communication skills, digital etiquette, and digital security awareness in addressing community and societal issues.
8. Future researchers should conduct similar studies in other regions of Ethiopia and among students from different academic disciplines to provide broader evidence on the relationship between digital citizenship

skills and sustainable civic behaviour.

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