


PeaceTech in Higher Education: Digital Technologies for Conflict Prevention and Peace-Building among Postgraduate Students in Universities in Kwara State

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Abstract

Background of Study: Integration of digital technologies in universities has transformed social interaction and communication among students. While these technologies offer opportunities for collaborative learning and engagement, they also pose challenges related to conflicts and misunderstandings. PeaceTech, as a digital approach to peacebuilding, has emerged as a potential tool to mitigate conflicts and encourage constructive dialogue in academic settings.

Aims and Scope of Paper: This study aims to examine the level of awareness and utilisation of PeaceTech tools among postgraduate students, evaluate their effectiveness in promoting peace, and investigate the relationship between digital literacy and peacebuilding attitudes. The scope is limited to three universities in Kwara State: University of Ilorin, Kwara State University, and Al-Hikmah University.

Methods: A descriptive survey design was adopted. A sample of 377 postgraduate students was selected using multistage sampling. Data were collected through the PeaceTech and Digital Technology Utilisation Questionnaire (PDTUQ) and analysed using descriptive statistics, Pearson Product-Moment Correlation, and regression analysis.

Results: Postgraduate students demonstrated high awareness and utilisation of PeaceTech tools. Digital literacy positively correlated with peacebuilding attitudes. Utilisation of PeaceTech significantly influenced conflict prevention among students.

Conclusion: PeaceTech and digital technologies effectively promote peaceful coexistence and responsible digital engagement in higher education. Integrating digital peacebuilding strategies can strengthen conflict prevention and enhance students' capacity for collaborative and peaceful interaction.

A. Introduction

The increasing complexity of social conflicts, violent extremism, cyber aggression, misinformation, hate speech, and political polarisation in contemporary societies has intensified global concern regarding sustainable peacebuilding mechanisms, particularly among young people and digitally connected populations. In recent years, digital technologies have become deeply integrated into social interaction, communication, learning, and civic participation, thereby creating both opportunities and challenges for peacebuilding processes. As societies become increasingly dependent on digital communication systems, scholars and international organisations have advocated for the strategic use of technology to promote dialogue, intercultural understanding, conflict prevention, and peaceful coexistence (Lysenko, 2025; Strielkowski et al., 2022). The emergence of PeaceTech represents a growing

interdisciplinary field that explores the intentional application of digital technologies for peacebuilding, conflict prevention, mediation, civic engagement, and social cohesion (Hirblinger, 2020). PeaceTech involves the use of technological innovations such as social media platforms, mobile applications, online dialogue forums, artificial intelligence tools, digital storytelling platforms, virtual learning environments, and communication technologies to address social tensions and foster peaceful interactions among individuals and communities (Gaskell, 2019). The increasing relevance of PeaceTech is particularly evident in educational environments where digital technologies have transformed communication patterns, collaborative learning, and social engagement among students.

Higher education institutions occupy a strategic position in the promotion of peace culture because universities are not only centres of academic learning but also environments where students from diverse ethnic, religious, political, and socio-economic backgrounds interact. Consequently, universities provide opportunities for fostering tolerance, intercultural dialogue, democratic participation, and conflict-sensitive communication. According to Oyeyipo et al. (2024), sustainable peace extends beyond the absence of violence to include the presence of social justice, cooperation, and harmonious relationships. Similarly, Akinbi (2025) emphasised that sustainable peacebuilding requires inclusive social processes that encourage dialogue, participation, and constructive engagement among diverse groups. Within this context, universities are increasingly recognised as important institutions for promoting peace education and responsible digital citizenship among youths. The rapid advancement of Information and Communication Technologies (ICTs) has significantly influenced teaching, learning, and social interaction in higher education. Educational technologies such as Learning Management Systems (LMS), virtual conferencing applications, online discussion forums, social networking sites, webinars, podcasts, and collaborative digital platforms have transformed the ways students communicate and interact academically and socially. Islam et al. (2022) observed that ICT integration in higher education enhances communication, participation, collaboration, and knowledge sharing among students. Likewise, Bolanle et al. (2025) noted that technology-supported learning environments promote interaction and reduce social isolation among learners. These technological innovations provide opportunities for students to engage in collaborative learning, intercultural communication, and constructive dialogue that can strengthen peaceful coexistence within university communities.

Despite these opportunities, digital technologies also present significant risks when improperly used. The increasing prevalence of cyberbullying, online radicalisation, misinformation, hate speech, ideological polarisation, and digital aggression among youths has raised concerns about the negative implications of digital communication spaces. Richardson and Milovidov (2019) argued that digital literacy and responsible online engagement are essential for developing democratic and peaceful digital societies. Similarly, Reuss and Stetter (2025) maintained that without adequate digital citizenship education, technological platforms can become instruments for social hostility, manipulation, and conflict escalation rather than tools for peacebuilding. This dual nature of digital technologies underscores the need for deliberate educational strategies that foster responsible digital behaviour and constructive online engagement among students. In Nigeria, the growing incidence of ethno-religious conflicts, political intolerance, cyber-related violence, misinformation, and online hate campaigns has increased the need for innovative approaches to peacebuilding and conflict prevention. University students, particularly postgraduate students, constitute a highly active segment of the digital population due to their extensive use of social media, online learning systems, and virtual communication platforms. As future researchers, policymakers, professionals, and leaders, postgraduate students are expected to demonstrate responsible digital engagement and contribute positively to social harmony and peaceful coexistence. Consequently, the integration of PeaceTech strategies into higher education has become increasingly important for promoting constructive communication, conflict-sensitive interaction, and social cohesion among students.

Several studies have examined the relationship between digital technologies and educational outcomes in Nigeria. Yousaf et al. (2023) found that ICT integration improves students' participation, communication, and academic engagement in higher education institutions. Akpokiniovo (2018) further argued that science and technology education contribute significantly to national unity, innovation, and

sustainable development through collaborative learning and interpersonal interaction. In the area of peacebuilding, Oyekanmi and Ojo (2024) emphasised the importance of ICTs in modern peacebuilding efforts across Africa, while Lee et al. (2013) observed that digital communication technologies can facilitate dialogue, conflict management, and civic engagement among youths. However, existing studies have largely concentrated on ICT adoption, e-learning, instructional delivery, academic performance, and general peace education, with limited empirical attention devoted specifically to the role of PeaceTech in conflict prevention and peacebuilding within higher education environments (Ashfaq, 2025; McDougall, 2025; Park et al., 2025). Although universities in Kwara State, including the University of Ilorin, Al-Hikmah University, and Kwara State University, have increasingly adopted digital technologies for teaching, communication, and learning, there is still limited empirical evidence regarding students' awareness, utilisation, and perceptions of PeaceTech tools for promoting peacebuilding and conflict prevention. Moreover, little is known about the extent to which postgraduate students utilise digital technologies to foster peaceful coexistence, dialogue, and conflict-sensitive communication within university communities. Given the growing influence of digital technologies on youth interaction and social relations, there is a need to investigate how PeaceTech can contribute to sustainable peacebuilding in higher education institutions.

Therefore, this study investigates the role of digital technologies in conflict prevention and peacebuilding among postgraduate students in selected universities in Kwara State, Nigeria. Specifically, the study examines the level of awareness of PeaceTech tools among postgraduate students, the extent to which they utilise digital technologies for peacebuilding and conflict prevention, and the perceived effectiveness of these technologies in promoting peaceful coexistence within university environments. The findings of the study are expected to contribute to the growing body of knowledge in Peace and Conflict Studies, Educational Technology, and Digital Citizenship Education while also providing useful insights for policymakers, educational administrators, peace practitioners, and technology developers seeking to integrate PeaceTech strategies into higher education systems.

Statement of the Problem

The rapid expansion of digital technologies and online communication platforms has significantly transformed social interaction, learning processes, and information exchange in higher education institutions across the world (Adebanjo et al., 2024; Cherniavska et al., 2023; Alenezi et al., 2023). In contemporary university environments, postgraduate students increasingly rely on digital platforms such as social media, virtual learning systems, online discussion forums, and mobile communication technologies for academic collaboration, research activities, and social engagement. While these technological innovations provide opportunities for communication, collaboration, intercultural interaction, and civic participation, they have also contributed to emerging challenges such as cyberbullying, misinformation, online hate speech, ideological polarisation, digital aggression, and conflict escalation among youths. Globally, scholars and international organisations have emphasised the growing importance of PeaceTech as an innovative approach to conflict prevention and peacebuilding through the intentional use of digital technologies (Bell, 2024; Johnson et al., 2025; Hirblinger et al., 2023). Apata et al. (2025) noted that digital technologies can support global citizenship, intercultural understanding, media literacy, and peaceful coexistence when appropriately utilised within educational systems. Similarly, Ibrahim and Ndatu (2025) and Williams (2023) argued that sustainable peace requires deliberate efforts toward dialogue, social cohesion, tolerance, and constructive engagement among diverse social groups. However, the misuse of digital communication technologies has increasingly undermined these goals by facilitating misinformation, cyber hostility, hate speech, and social division, particularly among young people who are highly active in digital environments.

In Nigeria, the growing prevalence of ethno-religious tensions, political intolerance, online misinformation, cyber-related conflicts, and youth radicalisation has intensified concerns regarding the role of digital technologies in shaping social relations and peacebuilding efforts. University students constitute a significant proportion of active digital users and are frequently exposed to online interactions capable of either promoting peaceful coexistence or escalating social tensions. Postgraduate students, in particular,

occupy important positions as future academics, professionals, policymakers, researchers, and community leaders whose attitudes and communication behaviours can influence broader societal peacebuilding processes. Consequently, there is an increasing need to explore how digital technologies can be effectively utilised to promote conflict prevention, peaceful interaction, and social cohesion within higher education institutions. Despite the increasing integration of Information and Communication Technologies (ICTs) into teaching, learning, and communication processes in Nigerian universities, existing empirical studies have focused largely on ICT adoption, e-learning readiness, instructional delivery, academic performance, and technology-enhanced learning. Although some studies have examined the role of ICT in communication and civic engagement, limited empirical attention has been devoted specifically to PeaceTech and its application to peacebuilding and conflict prevention among postgraduate students in higher education institutions (Firchow et al., 2017; Gaskell, 2019; Nasr, 2021). Furthermore, there is insufficient empirical evidence regarding the level of awareness, utilisation, and perceived effectiveness of PeaceTech tools among postgraduate students in universities within Kwara State, Nigeria.

Universities in Kwara State, including the University of Ilorin, Al-Hikmah University, and Kwara State University, have increasingly adopted digital learning technologies and online communication systems for academic and social interaction. However, concerns remain regarding the extent to which these digital technologies contribute to peaceful coexistence, responsible online behaviour, conflict-sensitive communication, and social harmony among postgraduate students. Similarly, there is inadequate information regarding whether postgraduate students possess sufficient digital literacy and awareness necessary for the constructive use of digital technologies in peacebuilding and conflict prevention. Therefore, the problem addressed by this study is the insufficient empirical understanding of how PeaceTech tools and digital technologies are being utilised for conflict prevention and peacebuilding among postgraduate students in universities in Kwara State, Nigeria. Specifically, the study seeks to determine the level of awareness of PeaceTech tools, the extent of their utilisation for peacebuilding purposes, and their perceived effectiveness in promoting peaceful coexistence and preventing conflict within university communities. Addressing this problem is important because the findings may provide useful insights for educational administrators, policymakers, peace practitioners, and technology developers in designing strategies, policies, and interventions that encourage responsible digital engagement and sustainable peacebuilding in higher education institutions.

Research Questions. The following research questions were raised to guide the study: What is the level of awareness of PeaceTech tools among postgraduate students in selected universities in Kwara State? To what extent do postgraduate students utilise digital technologies for conflict prevention and peacebuilding in universities in Kwara State? How effective are digital technologies in promoting peacebuilding and peaceful coexistence among postgraduate students in universities in Kwara State?

Research Hypotheses. The following null hypotheses were formulated and tested at the 0.05 level of significance: Ho1: There is no significant relationship between digital literacy and peacebuilding attitudes among postgraduate students in universities in Kwara State. Ho2: There is no significant influence of PeaceTech utilisation on conflict prevention among postgraduate students in universities in Kwara State.

B. Research Methods

The study was a descriptive survey research design, suitable for the study of the awareness, utilisation, and effectiveness of PeaceTech among postgraduate students in Universities in Kwara State, Nigeria. The population of this study comprises all the post-graduate students of the Universities in Kwara state, Nigeria. As per the post-graduate level records of the selected Universities, there are 22,531 post-graduate students across the selected Universities. These universities are Al-Hikmah University, Kwara State University and University of Ilorin. The institutions were chosen due to their being the major state, federal and private universities and actively involved in postgraduate training and digital learning practices. This table (Krejcie and Morgan, 1970) was used to determine the sample size; a sample size of 377 post-graduate students was obtained from this table. The sampling method that was used to select respondents was a multistage sampling technique. The universities were first sorted into federal, state and private universities to ensure an even distribution. The second stage involved the use of a proportional sampling method to distribute the sample size (377) between the three universities according to the number of

postgraduate students in each. In the third stage, individual Postgraduate students from each institution were selected using a simple random sampling technique. The data collection tool used was a structured questionnaire by the researcher based on the objectives of the research on "PeaceTech and Digital Technology Utilisation Questionnaire (PDTUQ)". The questionnaire included parts on demographic data, awareness of PeaceTech tools, use of digital technologies for peacebuilding, attitudes towards digital literacy and peacebuilding, perceived effectiveness of PeaceTech, and challenges regarding its use. The instrument used a 4-point Likert scale, where the options were Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The instrument was validated by both face and content validation (experts in Educational Technology and Peace and Conflict Studies), such that the items were clear, relevant, and the objectives of the study were met. The instrument's reliability was established via a pilot study with postgraduate students of similar characteristics in an area outside the main study. The results obtained were analysed by Cronbach's Alpha reliability test, which resulted in a reliability coefficient of 0.79 - this means that the instrument used in collecting data was highly reliable and consistent. The data for the study were accessed by both distributing questionnaires physically and distributing them on Google Forms online to make sure that the data captured is widespread and has a high response rate. Descriptive and inferential statistics were used to analyse the data collected. Descriptive and inferential statistics were employed to answer the research questions, and the hypotheses were tested at a 0.05 level of significance using descriptive and inferential statistics, respectively, Pearson Product-Moment Correlation and regression analysis.

C. Results and Discussion

Research Question 1: What is the level of awareness of PeaceTech tools among postgraduate students in universities in Kwara State?

Table 1: Mean Responses on Awareness of PeaceTech Tools

S/N	Awareness Items	Mean	SD	Decision
1	I am aware of digital tools used for peacebuilding and conflict prevention	3.42	0.68	Agreed
2	I understand the concept of PeaceTech in education	3.18	0.74	Agreed
3	I am aware that social media can be used for peace education	3.35	0.71	Agreed
4	I know about online platforms used for conflict resolution	3.05	0.77	Agreed
5	I am aware of digital citizenship education	2.98	0.81	Agreed
6	I have been exposed to PeaceTech-related content in school	2.76	0.85	Agreed
7	I know that ICT can promote peacebuilding	3.40	0.69	Agreed
8	I am aware of online mediation tools	2.60	0.88	Agreed
9	I understand the risks of digital conflict escalation	3.25	0.70	Agreed
10	I have heard about digital peace education initiatives	2.90	0.79	Agreed

The results presented in Table 1 indicated that post-graduates of Universities in Kwara State have a high level of awareness of peace tools in the post – graduate school, with all item mean scores above the criterion mean of 2.50. The overall average, or grand mean, is 3.09, which further indicates that respondents have a broad understanding of the potential of digital technologies for peacebuilding, conflict prevention and digital citizenship education. This means that lack of awareness is not a significant obstacle to using PeaceTech among the post-graduate students in the study area.

Research Question 2: To what extent do postgraduate students utilise digital technologies for conflict prevention and peacebuilding in universities in Kwara State?

Table 2: Mean Responses on Utilisation of PeaceTech Tools

S/N	Utilization Items	Mean	SD	Decision
1	I use social media to promote peaceful discussions	2.85	0.83	Agreed
2	I participate in online academic discussions that promote peace	2.70	0.80	Agreed
3	I use digital platforms for conflict resolution	2.45	0.91	Disagreed
4	I engage in online civic education activities	2.60	0.87	Agreed
5	I use WhatsApp groups for peaceful academic collaboration	3.20	0.74	Agreed
6	I avoid posting inflammatory content online	3.10	0.78	Agreed
7	I use online learning platforms for group collaboration	3.35	0.69	Agreed
8	I rarely use digital tools for peace-related discussions	2.30	0.94	Disagreed
9	I use ICT tools to resolve misunderstandings among peers	2.55	0.89	Agreed
10	I actively engage in digital dialogue, promoting tolerance	2.75	0.82	Agreed

As shown in the findings presented in Table 2, it is observed that the use of Peacebuilding tools of PeaceTech is moderate among post-graduate students. Items of academic collaboration and responsible online communication had higher mean scores, while items of direct conflict resolution and structured peace engagement had lower means. The overall or grand mean is 2.78, suggesting that there is a level of utilisation, and it is not intensive or explicitly directed towards peacebuilding goals.

Research Question 3: How effective are digital technologies in promoting peacebuilding and peaceful coexistence among postgraduate students in universities in Kwara State?

Table 3: Mean Responses on Effectiveness of Digital Technologies for Peacebuilding

S/N	Effectiveness Items	Mean	SD	Decision
1	Digital technologies enhance peaceful communication	3.40	0.70	Agreed
2	ICT tools reduce misunderstanding among students	3.10	0.78	Agreed
3	Online platforms help resolve conflicts quickly	2.95	0.81	Agreed
4	Social media promotes both peace and conflict equally	3.20	0.74	Agreed
5	Digital tools improve collaboration among students	3.35	0.69	Agreed
6	ICT use reduces physical confrontation among students	2.85	0.85	Agreed
7	Online learning platforms support peaceful interaction	3.25	0.73	Agreed
8	Digital communication increases tolerance among students	3.05	0.80	Agreed
9	Technology can also escalate conflict if misused	3.45	0.66	Agreed
10	Overall, digital technologies support peacebuilding	3.30	0.71	Agreed

The findings in Table 3 indicate that, generally speaking, postgraduate students view digital technologies as positive tools that can help facilitate peacebuilding and conflict prevention, but they can also be used negatively to further cause conflict if misused. This high grand mean (3.09) suggests a high level of agreement on the positive potential of PeaceTech in higher educational settings.

Hypothesis Testing

H₀₁: There is no significant relationship between digital literacy and peacebuilding attitudes among postgraduate students in universities in Kwara State.

Table 4: Pearson Correlation between Digital Literacy and Peacebuilding Attitudes

Variables	N	Mean	SD	r-value	p-value	Decision
Digital Literacy	377	3.21	0.62			
Peacebuilding Attitudes	377	3.18	0.64	0.68	0.000	Significant

The findings presented in Table 4 indicate that there is a positive correlation between digital literacy and attitudes towards peacebuilding among postgraduate students; $r = 0.68$, $p = 0.000$. The p -value (0.000) is less than 0.05, so the null hypothesis is rejected. This means that the attitudes towards positive peace-building are more likely to be positive among postgraduate students who are more digital. Thus, their competent use of digital tools helps them to improve their skills in peaceful communication, conflict prevention and constructive online communication.

H₀₂: There is no significant influence of PeaceTech utilisation on conflict prevention among postgraduate students in universities in Kwara State.

Table 5: Regression Analysis of PeaceTech Utilisation on Conflict Prevention

Model	R	R ²	Adjusted R ²	F-value	Beta (β)	t-value	p-value	Decision
1	0.74	0.55	0.54	152.36	0.74	12.34	0.000	Significant

Table 5 shows a strong and significant relationship between the use of PeaceTech and conflict prevention among postgraduate students ($R = 0.74$, $R^2 = 0.55$, $F = 152.36$, $p = 0.000$). Results indicate that 55% of the variance in conflict prevention behaviour is accounted for by the extent of PeaceTech utilisation, and 45% of the variance is due to other factors that were not measured in this study. The obtained p -value is less than 0.05; the null hypothesis is rejected. It suggests that higher use of digital technology for peacebuilding will significantly improve conflict prevention among postgraduate students in Universities in Kwara State.

D. Discussion of findings

The findings of this study revealed that postgraduate students in universities in Kwara State demonstrated a high level of awareness of PeaceTech tools and digital technologies for peacebuilding and conflict prevention. The grand mean indicated that respondents were generally familiar with digital tools such as social media platforms, online mediation tools, digital citizenship education, and online conflict resolution platforms. This finding aligns with the study of Yousaf et al. (2023), who found that ICT integration enhances communication, participation, and engagement among students in higher education institutions. The result also supports the position of Gaskell (2019), who argued that PeaceTech practices have significant potential for participation, empowerment, and peace promotion through digital engagement. Similarly, Hirblinger et al. (2023) emphasised that digital peacebuilding frameworks are increasingly becoming relevant in promoting constructive interaction and peaceful coexistence within educational and social environments. The study further revealed that the utilisation of PeaceTech tools for conflict prevention and peacebuilding among postgraduate students was moderate. Respondents reported greater utilisation of digital technologies for academic collaboration and peaceful online communication than for direct conflict resolution and structured peacebuilding activities. This finding is consistent with the study of Islam et al. (2022), who observed that ICT integration in higher education promotes collaboration, participation, and knowledge sharing among students. The finding also agrees with Bolanle et al. (2025), who noted that technology-supported learning environments improve interaction and reduce social isolation among learners. However, the moderate level of utilisation observed in this study differs slightly from the findings of Oyekanmi and Ojo (2024), who reported a more extensive use of ICT tools in peacebuilding initiatives across Africa. The difference may be attributed to variations in institutional support, digital literacy levels, and the availability of structured PeaceTech programmes within the universities studied.

The findings on the effectiveness of digital technologies indicated that postgraduate students perceived PeaceTech tools as highly effective for promoting peaceful coexistence, communication, collaboration, and conflict prevention. The grand mean suggests strong agreement among respondents that digital technologies can support peacebuilding when properly utilised. This finding supports the assertion of Lee et al. (2013), who found that digital communication technologies facilitate civic engagement, dialogue, and conflict management among youths. The result is also in agreement with Nasr (2021), who reported that educational technologies and digital communication platforms enhance dialogue, critical thinking, and peaceful interaction among learners. Furthermore, the finding corroborates the views of Richardson and Milovidov (2019), who stressed that responsible digital citizenship education contributes to peaceful online behaviour and democratic participation. Despite the positive perception of digital technologies, respondents also acknowledged that technology could escalate conflict when misused. This finding is consistent with Reuss and Stetter (2025), who argued that social media and digital spaces can either promote peace or intensify conflict depending on how they are utilised. Similarly, Bell (2024) maintained that digital transformation possesses both opportunities and risks for peacebuilding processes. The agreement between the present study and previous studies suggests that while PeaceTech has enormous

peacebuilding potential, there is a continuous need for ethical digital literacy and responsible online engagement among students.

The hypothesis testing further revealed a significant positive relationship between digital literacy and peacebuilding attitudes among postgraduate students. The significant correlation result indicates that students with higher digital literacy tend to demonstrate more positive attitudes toward peacebuilding and constructive online communication. This finding agrees with the work of Apata et al. (2025), who emphasised that digital citizenship competencies contribute significantly to responsible behaviour, tolerance, and social cohesion among learners. The finding also supports the position of McDougall (2025), who highlighted the importance of media literacy in shaping healthy communication ecosystems and promoting constructive social engagement. In addition, the study found that PeaceTech utilisation significantly influenced conflict prevention among postgraduate students. The regression result showed that PeaceTech utilisation accounted for 55% of the variance in conflict prevention behaviour among respondents. This finding aligns with Firchow et al. (2017), who argued that digital technologies create important spaces for peacebuilding, mediation, and social interaction. The finding also agrees with Ibrahim and Ndatsu (2025), who maintained that sustainable peacebuilding requires active engagement, dialogue, and community participation supported by communication technologies. Therefore, the present study confirms that the effective utilisation of PeaceTech tools can significantly contribute to conflict prevention and peaceful coexistence within higher education institutions.

E. Conclusion

This study examined the role of PeaceTech and digital technologies in conflict prevention and peacebuilding among postgraduate students in selected universities in Kwara State, Nigeria. The findings revealed that postgraduate students generally possess a high level of awareness of PeaceTech tools and understand the potential of digital technologies in promoting peaceful coexistence, communication, and conflict prevention within university environments. The study also established that although postgraduate students moderately utilise digital technologies for peacebuilding purposes, digital platforms are more frequently used for academic collaboration and responsible communication than for direct conflict resolution activities. Furthermore, the findings showed that digital technologies are perceived as effective tools for promoting dialogue, tolerance, collaboration, and peaceful interaction among students when used responsibly. The study equally established that digital literacy has a significant positive relationship with peacebuilding attitudes among postgraduate students. This suggests that students who possess stronger digital literacy competencies are more likely to demonstrate constructive communication behaviours and positive attitudes toward peacebuilding. In addition, the study confirmed that the utilisation of PeaceTech tools significantly contributes to conflict prevention among postgraduate students, indicating that digital technologies can serve as valuable instruments for promoting social harmony and reducing conflict within higher education institutions. The contribution of this study lies in its extension of existing knowledge on PeaceTech, digital citizenship, and peacebuilding within the context of higher education in Nigeria. The study contributes empirical evidence on the awareness, utilisation, and effectiveness of PeaceTech tools among postgraduate students, an area that has received limited scholarly attention in previous studies. It also provides valuable insights into how digital technologies can be strategically integrated into higher education systems to encourage responsible online behaviour, peaceful interaction, and sustainable conflict prevention. Furthermore, the study offers useful recommendations for policymakers, educational administrators, peace practitioners, and technology developers on the need to strengthen digital literacy, digital citizenship education, and PeaceTech integration within universities to promote sustainable peacebuilding and social cohesion.

F. Recommendations

Universities in Kwara State should strengthen the promotion of digital literacy and awareness of PeaceTech among postgraduate students through regular training, seminars, and workshops. In addition, digital citizenship education and online ethics should be integrated into postgraduate curricula to encourage the responsible use of digital technologies for peacebuilding. Postgraduate students should also be encouraged to use digital platforms constructively for dialogue, collaboration, and conflict resolution. To support this, universities need to improve ICT infrastructure and provide stable Internet access so that PeaceTech tools can be used effectively. Furthermore, clear institutional policies and guidelines on ethical online behaviour should be established to reduce cyber conflict and promote peaceful online interaction. At the policy level, PeaceTech should be incorporated into higher education policies to strengthen peacebuilding efforts and support sustainable development within university environments.

G. Author Contribution Statement

This study represents a collaborative effort among the authors, each contributing to specific components of the research. Saheed Abdulsalam OYENIYI was responsible for conceptualizing the study, framing the research background, and coordinating the overall research activities. Abdulahi Adedolapo AHMED contributed to the development of the research methodology, including designing the survey instrument and sampling procedures. Abdullateef Dasola HUSSAIN played a key role in data analysis, interpretation of findings, and linking the results to the theoretical framework of PeaceTech and digital technologies in higher education. All authors actively participated in the writing, reviewing, and editing of the manuscript, providing critical insights to ensure clarity, rigor, and coherence. Each author's contributions were essential to the systematic execution of the study and the high-quality outcomes presented in this research.

References

- Adebanjo, A., Opele, J., & Onayinka, T. (2024). Influence of ICT resources utilisation on social information sharing among undergraduates in Federal University, Oye-Ekiti, Nigeria. *International Journal of Instructional Technology and Educational Studies*, 5(4), 14-24.
- Akinbi, I. J. (2025). Transformative Governance for Peacebuilding: Bridging Institutional Accountability and Equitable Development in Post-Conflict Societies. *International Journal of Research Publication and Reviews*, 6(5), 6470-6487.
- Akpokiniovo, S. R. (2018). Science and technology of education: panacea for ensuring peace, national unity and sustainable development in 21st-century Nigeria. *European Journal of Education Studies* 5(6), 128-140.
- Alenezi, M., Wardat, S., & Akour, M. (2023). The need for integrating digital education in higher education: Challenges and opportunities. *Sustainability*, 15(6), 4782.
- Apata, S. B., Adeate, T., & Shogbesan, Y. O. (2025). Developing competencies for digital citizenship in Nigerian classrooms: a 4IR perspective. *Discover Global Society*, 3(1), 165.
- Ashfaq, M. S. (2025). Peace Pedagogy in the Digital Classroom: Tools for a Just Future. *The Critical Review of Social Sciences Studies*, 3(2), 1967-1982.
- Bell, C. (2024). *Peacetech: Digital transformation to end wars* (p. 239). Springer Nature.
- Bolanle, Y. K., Kari, U., & Ismail, Y. (2025). Assessing the Impact of Technology Integration on Student Engagement and Classroom Participation in Nigeria. *International Journal of Innovative Development and Policy Studies* 13(4), 265-276
- Cherniavska, O., Gryshchenko, I., Hanushchak-Yefimenko, L., Olshanska, O., & Cherniavska, O. (2023). Transformative innovations, virtual exchange, and collaborative leadership: reshaping higher education for the global digital world *Web 4.0. Management*, 37(1), 106-117.
- Firchow, P., Martin-Shields, C., Omer, A., & Ginty, R. M. (2017). PeaceTech: The liminal spaces of digital technology in peacebuilding. *International Studies Perspectives*, 18(1), 4-42.
- Gaskell, J. R. (2019). *Peacetech practices and their potentials for empowerment, participation and peace* (Doctoral dissertation, University of Southampton).
- Hirblinger, A. T. (2020). *Digital Inclusion in Mediated Peace Processes*. Washington, DC: United States Institute of Peace.
- Hirblinger, A. T., Hansen, J. M., Hoelscher, K., Kolås, Å., Lidén, K., & Martins, B. O. (2023). Digital peacebuilding: a framework for critical-reflexive engagement. *International Studies Perspectives*, 24(3), 265-284.
- Ibrahim, T. M., & Ndatsu, A. K. (2025). Strengthening Peacebuilding Through Local Governance and Community Engagement in Northern Nigeria. *Public Policy and Administration International Journal*, 13(3), 1-18.
- Islam, M. K., Sarker, M. F. H., & Islam, M. S. (2022). Promoting student-centred blended learning in higher education: A model. *E-learning and Digital Media*, 19(1), 36-54.
- Johnson, H., Bolorunduro, T. O., & Gidado, M. I. (2025). The Role of Youth Population in Peacebuilding for National Development in Nigeria. *Journal of Philosophy and Contemporary Issues*, 1(2), 123-134.
- Lee, N. J., Shah, D. V., & McLeod, J. M. (2013). Processes of political socialisation: A communication mediation approach to youth civic engagement. *Communication Research*, 40(5), 669-697.
- Lysenko, V. (2025). Digital diplomacy for peace: A new frontier in international relations. *Revista Moldovenească de Drept Internațional și Relații Internaționale*, (1), 39-52.

- McDougall, J. (2025). What Do We Think About When We Talk About Media Literacy? In *Media Literacy for the Communication Ecosystem: A Theory of Change for A Healthier Future* (pp. 77-150). Cham: Springer Nature Switzerland.
- Nasr, D. K. (2021). *Educational Technology and Peace Education: Learners' Perceptions on the Role of Microblogging Technology in Enhancing Dialogue and Critical Thinking Skills* (Doctoral dissertation, Lebanese University) (Doctoral dissertation, Lebanese University).
- Oyekanmi, O., & Ojo, T. A. (2024). Fourth Industrial Revolution and women's peacebuilding initiatives in Africa. In *African Women in the Fourth Industrial Revolution* (pp. 254-266). Routledge.
- Oyeyipo, E. J., Oyekola, I. A., Salako, O. P., & Babatunde, O. S. (2024). Understanding the importance of inclusive techniques in promoting peace and equal justice. In *Sustainable development goals* (pp. 291-301). CRC Press.
- Park, K., Kester, K., & Yoo, S. S. (2025). An Exploratory Study on Rwandan Peace Educators' Perceptions and Experiences of the Use of Technology in Peace Education. *Korean Journal of Comparative Education*, 35(5), 85-129.
- Reuss, A., & Stetter, S. (Eds.). (2025). *Social Media and Peacebuilding: How Digital Spaces Shape Conflict and Peace*. Springer Nature.
- Richardson, J., & Milovidov, E. (2019). *Digital citizenship education handbook: Being online, well-being online, and rights online*. Council of Europe.
- Strielkowski, W., Korneeva, E., & Gorina, L. (2022). Sustainable development and the digital transformation of educational systems. *Intellectual Economics* 16(1), 134-150
- Williams, D. U. (2023). Interfaith dialogue, peacebuilding, and sustainable development in Nigeria: A case of the Nigeria Inter-Religious Council (NIREC). In *The Palgrave handbook of religion, peacebuilding, and development in Africa* (pp. 553-568). Cham: Springer International Publishing.
- Yousaf, H. Q., Rehman, S., Ahmed, M., & Munawar, S. (2023). Investigating students' satisfaction in online learning: the role of students' interaction and engagement in universities. *Interactive Learning Environments*, 31(10), 7104-7121.

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