

Leveraging Technology for Enhanced Civic Engagement Education in Nigeria Tertiary Institutions: Opportunities and Challenges

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Abstract

Civic engagement education plays a critical function in determining, informed and active citizens in the world over. In the ever changing landscape of Nigerian tertiary education, the incorporation of technology stands as an important avenue for ensuring civic engagement education. However, in Nigeria tertiary institutions, there exist both benefits and obstacles in utilizing technology to promote this education. It is on this basis that this study investigates the importance of technology to revolutionize civic engagement education. The study adopted a qualitative approach, synthesizes data from all encompassing review of literature, including academic journals, case studies, government policy statements, relevant government publications and expert opinions on technology use in education. Insights from these sources inform the analysis of technology's role in ensuring civic learning and participation among university students in Nigeria. The research identifies major benefits for using technology, such as the interactive e-learning platforms, electronics tools, and mobile apps to involve students in civic issues and participation. The study also found that obstacles such as insufficient technological apparatus, varying levels of digital literacy among students and staff, inadequate investment, and concerns over digital privacy and security pose enormous challenges to the full integration of technology in civic engagement education. Based on the findings, the study propose a strategic method that includes touch up digital framework, raising digital competence of both students and

staff and as well putting in place policy initiatives that safeguard student privateness and data among others.

Key words: Leveraging Technology, Civic engagement, Tertiary institutions, Nigerian students

Introduction

In recent years, the intersection of technology and education has changed the landscape of teaching and learning, providing new possibilities for ensuring civic participation among students in Nigerian higher institutions. These researchers, Mcknight, O'malley, Ruzic, Horsley, Franey, & Bassett, (2016) posited that, as the country grapples with major social, political, and economic problems, the essence of civic education in preparing students to become rational, involved, and responsible citizens has never been more important. In this regards, the integration of digital tools into civic participation holds major potential for strengthening students, enhancing democratic values, and promoting positive social transformation.

Technology has become an essential part of the contemporary society, transforming various facets of human life, including education and civic involvement (Mcknight, *et al.*, 2016). In the recent past, the benefit of technology as an apparatus for promoting civic participation has favorable major recognition, majorly within the circumstances of higher education. According to Adeowu & Bakare (2024), technology offers unmatched benefits for extending civic engagement, ensuring dialogue, and empowering citizens to partake with issues of public attention. Alluding to the above view, Dekker (2020) posits that through digital tools, social media, and internet forums, individuals can engage, partner, and advocate for social change like never before. In the area of education, technology has the benefit to democratize access to citizenship education resources, ensure learning experiences, and promote a culture of active citizenship among students.

In a Nigerian setting, where long-established forms of civic participation may be hindered by socio-economic variables, technological discoveries present a encouraging opportunity for overcoming obstacles and extending the benefits for civic engagement. Corroborating this, Adeowu & Bakare, (2024) conclude that by manipulating technological tools and platforms, Nigerian higher institutions can generate holistic educational setting that promote informed decision process, deep thinking, discourse, and public participation among students.

The incorporation of technology into civic participation education is not without obstacles (Kong, 2014). It needs to be stressed that concerns such as digital gap, information anxiety, and information leakage fears must be put into consideration to ensure unbiased access and meaningful involvement for all students. Hollstein & Smith (2020) note that there is a need for attentive pedagogy strategies that explores the opportunities of technology while ensuring the rectitude of civic education concepts.

Premised on these assumptions, this study seeks to investigate the benefits of technology as apparatus for ensuring civic participation within Nigerian higher institutions of learning. Through a critical appraisal of previous studies, conceptual frameworks, and practical examples, it aims to highlight the benefits and obstacles inherent in using technology to promote a more rational, engaged, and empowered citizenry in Nigeria.

Research Objectives

The objectives of this study are to:

- i. identify varied forms of technological apparatus that are used in ensuring civic participation education
among Nigerian tertiary students,
- ii. investigates the role of technology in promoting civic participation education,
- iii. analyse the obstacles hindering the use of technological tools in propelling civic engagement education.

Methods

The study adopted a qualitative strategy and relied on existing secondary data drawing references from the previous studies, evidence-based research, online based resources, policy statements, journal articles of different degrees and other relevant government publications. Content analysis was used to scrutinize the data.

Conceptual Framework Analysis

Civic participation circumscribe the active participation of individuals in participatory governance, community programmes, and public engagement with a view of confronting societal concerns and enhancing the public welfare. It involves a variety of activities, including voting, volunteering, advocacy, and community organizing, all of which contribute to the strength and fortitude of egalitarian societies. Similarly, Hylton, (2018) posits that civic participation education

enhances the knowledge, skills, and values necessary for impactful engagement in civic life, ensuring individuals to become rational, engaged, and responsible individuals.

Placing into perspective of civic engagement education in Nigeria's higher institutions deserves a grasp of the socio-political environment and learning environment within country. Nigeria, as a promising and varied nation, faces many problems ranging from political impasse, security challenges such as kidnapping, Boko Haram, cattle rustling, hyperinflation to socio-economic inequalities. In the views of, Kehinde-Awoyele & Adeowu (2023) civic engagement education come into view as a critical component the of tertiary education, with a view to enhancing learners with the understanding, competency, and values needed for active involvement in collective decision-making, community building, and social transformation.

Within Nigerian higher institutions civic engagement education takes different forms, including instructional courses, co-curricular activities, and volunteer work. However, in spite of its essence, civic participation often faces problems such as inadequate resources, insufficient institutional motivation, and a lack of synthesis into the curriculum. Also, the Nigerian tertiary education system is portrayed by increasing importance on technological invention and online literacy. James *et, al* (2016) were of the view that technology presents both benefits and flaws for civic engagement education, and as well presents new opinion for involving students, motivating discourse, and enhancing civic awareness, but also raises questions about opportunity, fairness, and digital divide. Overall, contextualizing civic engagement in Nigeria's higher institutions, it involves identification of its importance within the wider socio-political context, understanding its present obstacles and opportunities, and inquiring inventive strategy, including the unification of technology, to ensure its prowess and relevance in preparing students for engaged citizenship and social responsibility.

In the words of Bresinger, *et,. al.* (2014) technology integration refers to the calculated and systematic incorporation of digital apparatus, resources, and platforms into educational practices to promote teaching, learning, and students' involvement. In the terms of civic community engagement education, technology incorporation offers benefits to expand access to civic education resources, enhance interactive and collaborative learning experiences, facilitate communication, and cooperation among students and community members. Geng, (2021) posits that digital tools such as social media, internet forums, and mobile apparatus provide course of

action for students to involve in civic discourse, access information, and muster for collective action.

Educational activities encompass the methods, policy of action, and approaches embraced by educators to promote learning and enhance the performance of educational objectives. Chen, *et. al.*, (2022) argued that in the space of civic engagement education, effective and efficient educational practices stress active learning, critical reasoning, and cooperative learning opportunities that promote students to make use of their understanding and competency in real-life situations. Teaching approaches such as service-learning, hands-on learning, and activity-based learning provide opportunities for students to embark in inquiry-based learning, collaborative activities that mark community needs and ensure civic obligation. Kehinde-Awoyele & Adeowu (2024) observed that educational practices in civic participation education should be comprehensive, culturally effective, and appropriate to students' live experiences, securing that all learners have unbiased access to civic engagement opportunities and resources.

The Linkage between Civic Engagement, Technology and Educational Practice

The convergence of civic engagement, technology integration, and educational activities inform the investigation of this study by offering a comprehensive framework for comprehending the role of technology in propelling civic participation within Nigerian higher institutions.

Civic engagement drives the study's analysis by pointing out the all-inclusive goal of ensuring active participation and civic obligation among students. Through underpinning the analysis in the tenets of civic participation, the study stresses the imperative of ensuring democratic principles, community participation, and societal transformation through education. This view frames the study's examination of how inventions in technology can be grasped to promote meaningful civic learning experiences and allow students to participate in democratic and civic processes.

Technology blending dictates a significant role in the study's analysis by serving as the central point for investigating forward thinking to civic participation, James, *et al* (2016). The study carried out by Kahne Hodgins & Eidman-Andahl (2016) discovered that, technology has the ability to expand opportunities to civic education resources, enhance hands-on learning, and ensure communication and partnership among students. Premised on this, the study seeks to pick out

impactful plans for blending technology into educational practices. This view guides the inquiry of how electronic platforms, online apparatus, and mobile applications can be used to promote civic engagement and propel students to become active citizens of social transformation.

Educational activities dictates the study's examination by providing a conceptual framework for comprehending how inventions can be effectively integrated into teaching and learning processes. Through dissection of pedagogical strategies such as service-learning, hands-on learning, and issue-based learning, the study investigates how inventions can hold up experiential learning, critical investigation, and community-based participation in civic education. This point of view guides the examination of how educators can harness technology to create strong and holistic learning situations that promote civic consciousness, critical inquiry, and social obligation among students. Overall, the integration of civic participation, technology intersection, and educational practices informs the study's investigation by providing a holistic conceptual framework for understanding the importance of technology to propel civic participation education within Nigerian higher institutions.

Examination of Conceptual and Practical Strategies to Integrating Technology into Educational Settings

The infusion of technology into educational systems involves both conceptual frameworks and practical strategies aimed at promoting teaching and learning experiences. This investigation examine the theoretical point of view and practical approaches for effectively blending technology into educational system, with a focus on enhancing participation, partnership, and student-focused learning.

Theoretical Approaches

In the view of Adeowu & Bakare (2024), constructivist strategies stress the active acquisition of knowledge through impactful connections with the learning environment. In the context of technology blending, constructivism advocates for the use of online tools and resources to promote student exploration, investigation, and problem-solving. By providing opportunities for hands-on trial, experiential learning, and factual experiences, technological invention can support constructivist strategies and enhance deep understanding and critical reasoning skills. Applying constructivism concepts, with the help of discoveries, teachers can design programmes

that motivate students to investigate primary sources, examine historical documents, and participate in discussions. The importance of this according to Ferrucci, Hopp & Vargo, (2021) is that, it ensures democratic thinking among students by propelling free debate and mutual understanding. This helps the children develop critical thinking abilities, which galvanize them to analyze and comprehend problems better necessary for civic participation.

Social learning theorist posits that learning occurs through link and interface within networks of people, resources, and technology. In educational settings, connectivist strategies stress the role of digital networks, online communities, and internet platforms as sources of knowledge and learning opportunities (Gordon, Elwood & Mitchell, 2016). Through the use of technology to access and advance to digital tools, students can be involved in partnership knowledge creation, peer learning, and global discourse, thereby deepening their understanding of critical issues and perspectives.

Considering Social Constructivism theory, Adeowu & Bakare (2024) stresses that the role encompasses the social relationship, cultural situation, and language in determining learning experiences. In the context of technology infusion, socio-cultural view highlights the value of collaborative learning environments, framework and culturally germane pedagogies. Lyer, Carrington, Mercer & Selva (2018) argues that by integrating digital apparatus and platforms that promote communication, partnership, and knowledge transfer, educators can create all-encompassing learning environments that honour different views, promote cultural sensitivity, and enhance students to become energetic agents in their own learning.

Practical Approaches/Strategies

The discovery of digital technology in the 21st century and the habitual use of smartphones, laptops, and tablets in their day-to-day activities as slowly introduced blend learning which fuse the benefits of traditional face-to-face teaching with electronic learning experiences, giving way for resilience, customization, and differentiation. In an integrated learning situation, technology can be used for deliver instructional delivery, enhance discussions, and provide avenue for independent practice and thinking. Gordon *et. al.*, (2016) posited that by using electronic platforms such as learning management systems, web conferencing platform, and educational apps, teachers

can create individualized learning pathways that give room for different learning styles and preferences while propelling student participation and independence.

One best path through which inventions in the area of technology could be used to enhance civic participation education is the use of self-directed classroom. In problem-based model, instructional content is delivered outside of class time through online platforms, readings, or experiential lectures, allowing for more active, partnership, and student-oriented learning experiences during class sessions. Technology dictates a critical role in the self-directed classroom approach by providing path to instructional materials, facilitating pre-learning preparation, and bankrolling in-class activities such as discussions, group work, and hands-on projects (Fajari, 2020; Hussin *et. al.*, 2018). Through inquiry learning, the chalk and talk lecture-based model, teachers can improve class time for deeper learning, critical reasoning, and peer relationship, thereby ensuring student participation and academic performance.

Another strategy of essence is hands-on learning which is an inquiry-based strategy that stress real world, projects to enhance deep understanding, problem-solving skills, and student agency. According to Dekker, (2020) in a technology-propelled problem based learning environment, students can use online tools and materials to undertake research, collaborate with peers, and create interactive presentations or artifacts that demonstrate their learning. With involvement in hands-on tasks that tackle meaningful issues or challenges, students develop critical reasoning competence, communication skills, and digital skills while making associations between classroom learning and real-life contexts (Bowyer, 2020).

Accordingly, conceptual and practical grand design to mash-up of technology into educational systems provide teachers with a rich conceptual framework for plotting, engaging, inquired learning experiences that promote partnership, transformation, and discerning analysis (Kock *et.al.*, 2012: Supatmo *et.al.*,2019: Geng, 2021). By drawing on different conceptual perspectives and capitalize on cutting-edge technology, teachers can create holistic, ever evolving learning environments that nourish students for success in the virtual world.

The incorporation of technology into civic participation education in Nigeria has major impact for ensuring effective citizenship, enhancing social justice, and driving positive societal development. As established by the case studies and investigation, technology provides lifetime opportunities to

ensure civic education inventiveness and permit students to become rational, engaged, and effective citizens. However, it also presents challenges that must be resolved to realize its full impacts. Here are some reflections on the benefits of technology for civic engagement education in Nigeria.

Hutchison, & White (2020) posits that technology incorporation can guarantee access to civic education resources, including electronic courses, digital libraries, and interactive materials, thereby providing students with a lot of information and learning chances that may not be available through conventional means. It has been observed that virtual tools and platforms can promote interactive and student centered learning experiences, promoting participation, partnership, and dialogue among students. Online discussion, collaborative projects, and computer-generated simulations have been found to create progressive learning environments that encourage active engagement and critical reasoning resulting in better civic participation of higher institutions students (Gil de Zunga, et. al., 2012). Technology has the benefits to democratize access to civic education materials and opportunities, addressing issues of geography, socio-class status, and organizational problems. With online platforms, digital resources, and virtual learning environments, Nigerian higher institutions can expand path to civic education for diverse student populations, including those in rural and underserved areas.

Gleason & Baldwin-Philippi (2014) found that technology incorporation in civic participation education can enhance deep thinking skills and virtual literacy skills, ensuring students to dissect information diligently, investigate sources, and traverse virtual environments responsibly. Through dealing with different views and multimedia content, students imbibe the craft and disposals necessary for rational citizenship in the virtual age. With digital tools, internet activism, and virtual advocacy campaigns, technology expands the students and citizens participation, enabling them to spread the news of social issues, mobilize for collective efforts, and hold governments and organisation accountable. Nigerian students are becoming more sophisticated in using internet platforms to call for fairness, fundamental human rights, and environmental stewardship, exemplifying the digital transformation of technology to propel good societal advancement. (Keegan, 2021; Pi-Chun Hsu, 2021).

In an ever increasingly virtual and interconnected world, expertise in technology is critical for success in the personnel (Gil de Zunga et. al., 2011; Ferrucci, et. al., 2021). Incorporating

technology into civic participation education, Nigerian higher institutions can provide students with the virtual skills, deep thinking abilities, and team-oriented skill needed to thrive in the contemporary workplace. Technology ensures critical investigation, information fluency and media literacy expertise essential for informed citizenship in the technological age. Sari, Sumanmi, Astina, Utomo & Ridhwan (2019) posited that through web-based research, multimedia analysis, and online debates, students learn to appraise sources, recognise truth from misrepresentation, and critically investigate complex social and political concerns, promoting a culture of critical reasoning and well-informed decision-making.

Challenges and Way Forward

Despite the possible advantages of technology incorporation differences in access to technology and internet connectivity exist, majorly in rural and geographically isolated communities in Nigeria. Supatmo et. al., (2019) observed that the digital gap promote disparities in educational opportunities and restraints the effectiveness of technology-driven civic participation initiatives. To tackle the digital gap, institutions can invest in networking evolution, provide endowment or loan facilities for acquiring devices, and create community Wi-Fi hotspots in rural areas.

Insufficient digital framework, limited access to gadget, and inadequate funding for virtual materials pose major constrains to the effective incorporation of technology into civic participation education in Nigerian higher institutions. Without sufficient awareness and investment in technical underpinnings, larger percentage of students may be unable to fully gain from technology-driven learning experiences (Ahrari, et al., 2014). Institutions can invest in upgrading cyber-infrastructure, including superfast internet connectivity, modern day technology, and end-user license. Moreover, educators can develop eventuality plans and disconnected assets to reduce the effects of technological disruptions.

The multiplication of internet content and information raises issues about the quality, validity, and dependability of virtual resources used in civic participation education. Students must develop deep thinking skills and online literacy expertise to steer cyberspace effectively and discern credible sources from misrepresentation and propaganda. While confirming the above view Afify (2019) posited that technology incorporation in civic engagement education raises

germane responsible data handling considerations related to information assurance, internet monitoring, and electronic privacy. Students' personal information and digital shadow must be guided from unregulated access and misuse, and educators must make sure that electronic platforms and apparatus comply with pertinent privacy legislations.

Effective incorporation of technology into civic participation education requires well defined teaching design, training and re-training, and support for educators. Many educators may lack the required training, skills, and self-trust to effectively combine technology into their teaching activities, leading to not taking advantage of online apparatus and missed opportunities for initiatives. Institutions can provide expertise development opportunities, tutoring programmes, and mutual aid network to help teachers ensure confidence and expertise in using technology for education (Sari et al., 2019).

Limited virtual literacy knowledge among students and teachers may limit their ability to effectively and efficiently steer digital apparatus, appraise electronic information, and involve in impactful online interactions. Institutions can provide internet training programs and workshops for students and teachers, in a wide range of topics such as digital safety, information literacy research skills, and internet citizenship (Adeowu & Bakare 2024). Also, educators can spur digital competence instruction into course curricula and provide continuous support and guidance as students expand their skills. Sub-cultural factors, multilingualism, and contextual diversities may impact students' behaviour towards technology and their who rather have modes of involvement. Teachers can adopt culturally competent teaching practices, integrate local knowledge and views into course content, and provide adaptable learning pathways that house diverse cultural backgrounds and learning styles.

Conclusion

In conclusion, technology has innovational capability for civic involvement education in Nigeria, providing opening to democratize access, raising voices, equip students, develop rational thinking, and drive good societal development. It is believed that responsible use of power of inventions, Nigerian higher institutions can facilitate the goals of civic involvement, empower a new generation of rational, reliable and efficient citizens, and contribute to building a more holistic, participatory, and endurable society for all.

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