



ASSESSING THE IMPACT OF SOCIAL MEDIA ALGORITHMS AND POLITICAL PROPAGANDA ON STUDENTS' CIVIC KNOWLEDGE AND VOTER AWARENESS IN COLLEGES OF EDUCATION IN IMO STATE

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ABSTRACT

The rapid proliferation of social media platforms has reshaped information consumption and political engagement among Nigerian youth, particularly in tertiary institutions. In Imo State, colleges of education train future teachers whose civic competence shapes subsequent generations. This study assessed the impact of social media algorithms and political propaganda on students' civic knowledge and voter awareness across selected colleges of education. Employing a mixed-methods design, the research surveyed 800 students, conducted 40 in-depth interviews, and performed content analysis of 500 social media posts during the post-2023 election period. Findings revealed high exposure to algorithm-driven content, with platforms such as WhatsApp, Facebook, and X (formerly Twitter) amplifying propaganda techniques, including emotional appeals, misinformation, and echo chambers. Quantitative analysis showed a moderate negative correlation between high exposure to biased content and civic knowledge scores ($r = -.42, p < .01$), while qualitative themes highlighted distorted voter awareness and reduced critical evaluation skills. Urban students reported greater access but higher susceptibility to polarization compared to rural counterparts. The study developed guidelines for integrating digital literacy into civic education curricula and produced a policy brief for institutional reforms. These outcomes underscored the dual-edged nature of social media in fostering or undermining informed citizenship, recommending targeted interventions to mitigate propaganda effects while harnessing platforms for democratic engagement.

Keywords: social media algorithms, political propaganda, civic knowledge, voter awareness.

Introduction

The proliferation of social media platforms has transformed how young people access information, engage with civic issues, and form political opinions. In Nigeria, where digital penetration continues to rise rapidly, social media algorithms curate personalized content that shapes users' exposure to political narratives, often amplifying propaganda and misinformation. This phenomenon holds particular significance for college students, who are at a formative stage in developing civic knowledge and voter awareness. In Imo State, colleges of education serve as vital institutions for training future educators, whose civic competence directly influences the civic orientation of the next generation of Nigerian learners. However, limited empirical evidence exists on how social media algorithms and political propaganda affect students' understanding of civic responsibilities and electoral participation.

Social media algorithms, designed primarily to maximize user engagement, frequently prioritize sensational, emotionally charged, or ideologically aligned content. This curation process exposes users to biased or misleading political propaganda, which distorts civic knowledge and undermines voter awareness. In Imo State, students in colleges of education, as prospective teachers, prove especially vulnerable due to their heavy reliance on platforms like WhatsApp, Facebook, and X



for news and discussions. Such exposure risks impairing their ability to critically evaluate political narratives and to participate meaningfully in democratic processes.

Despite growing national concerns about misinformation, particularly evident during the 2023 general elections, research on these digital dynamics within Nigerian tertiary institutions remains sparse. Without evidence-based interventions, the unchecked spread of propaganda through social media may erode democratic participation among young people and future educators. This study addressed these gaps by examining the interplay between social media algorithms, political propaganda, and students' civic competence in Imo State's colleges of education.

The primary objective was to evaluate the impact of these digital forces on civic knowledge and voter awareness. Specific objectives included identifying the extent of students' exposure to political propaganda on social media, assessing the influence of algorithm-driven content on their civic knowledge and voter awareness, and developing recommendations for integrating digital literacy into civic education curricula to foster informed citizenship. By merging these elements, the research highlighted both the transformative potential and the risks of social media in shaping democratic values among teacher trainees in a bilingual and politically dynamic region like Imo State.

Social media has emerged as a double-edged sword in political socialization, particularly among African youth. Studies in Nigeria demonstrated that platforms enhanced political awareness and mobilization during the 2023 general elections, with youth leveraging WhatsApp and X for information sharing and activism. However, algorithms often created echo chambers that reinforced biased narratives and amplified propaganda, leading to misinformation and reduced trust in electoral processes. Research on southwestern Nigeria found moderate positive correlations between social media use and civic engagement ($r = .51$), yet noted the risks of shallow participation that failed to translate into sustained offline action. In southeastern contexts similar to Imo State, exposure to fake news and emotional appeals on social media correlated with distorted perceptions of political candidates and lowered critical evaluation skills among tertiary students. Global and regional evidence further illustrated algorithmic influences on polarization.

Algorithms prioritizing engagement shifted partisan feelings significantly within short periods, effects comparable to years of traditional exposure. In Nigeria, propaganda techniques such as conspiracy theories, hate speech, and fabricated endorsements proliferated during elections, with students in colleges of education reporting heavy daily use (often exceeding four hours). While social media boosted awareness of issues like governance and voter rights, it frequently undermined voter awareness by promoting "slacktivism," where online activism substituted for actual voting. Content analyses revealed that emotional appeals and misinformation dominated political posts, particularly on WhatsApp groups targeting youth.

Civic education in Nigerian tertiary institutions has traditionally emphasized constitutional rights and electoral processes, but integration of digital literacy remains inconsistent. Recent national efforts incorporated digital literacy into school curricula, yet colleges of education lagged in addressing algorithm-driven propaganda. Studies on media literacy interventions showed promise in enhancing critical skills, with digitally literate students demonstrating higher civic engagement. Socioeconomic and locational factors influenced outcomes: urban students in Imo State accessed



diverse platforms but faced greater polarization, while rural students encountered connectivity barriers that limited both exposure and benefits. This study extended prior work by focusing specifically on teacher trainees, whose role as future civic educators amplified the stakes of these digital influences.

Method

This study adopted a mixed-methods approach to evaluate the impact comprehensively. The research was conducted between March and October 2025 across four purposively selected colleges of education in Imo State (two urban-dominant in Owerri zone and two in semi-rural Orlu/Okigwe zones) to capture locational variations. Ethical clearance was obtained from the Imo State Ministry of Education and institutional review boards. Informed consent was secured from all participants, with anonymity assured. Participants and Demographics A total of 800 students (stratified random sample) and 40 staff/lecturers (purposive for interviews) participated. Students were predominantly NCE (Nigeria Certificate in Education) levels 1–3, aged 18–25. Table 1 summarizes participant demographics.

Table 1: Demographic Characteristics of Student Participants (N = 800)

Characteristic	Frequency	Percentage (%)
Gender		
Male	412	51.5
Female	388	48.5
Age Group		
18–20 years	320	40.0
21–23 years	360	45.0
24–25 years	120	15.0
Zone/Location		
Owerri (Urban)	420	52.5
Orlu/Okigwe (Semi-rural)	380	47.5
Program Level		
NCE 1	280	35.0
NCE 2	300	37.5
NCE 3	220	27.5
Daily Social Media Use		
<2 hours	150	18.8
2–4 hours	320	40.0
>4 hours	330	41.2

Quantitative data were collected via structured questionnaires measuring exposure to propaganda (Likert scale), civic knowledge (adapted 30-item test, $\alpha = .87$), and voter awareness (self-reported scales). Inferential statistics included descriptive means, correlation analysis, and regression to examine relationships between algorithm exposure and civic outcomes. Qualitative data from semi-structured interviews and focus groups were transcribed, coded thematically using NVivo, and analyzed for patterns in propaganda impact and critical skills. Content analysis of 500 purposively sampled social media posts (from public political groups and student feeds) coded for propaganda techniques (e.g., emotional appeals, misinformation) and algorithmic biases (e.g., repetition, prioritization). Triangulation across methods enhanced validity and reliability.



Presentation of Results

Table 2: Mean Civic Knowledge and Voter Awareness Scores by Exposure Level and Location

Exposure Level / Location	Civic Knowledge Mean (SD)	Voter Awareness Mean (SD)
Low Exposure (Urban)	68.5 (12.1)	71.2 (11.8)
High Exposure (Urban)	55.3 (15.4)	58.7 (14.9)
Low Exposure (Semi-rural)	66.8 (13.5)	69.4 (12.7)
High Exposure (Semi-rural)	59.1 (14.8)	62.3 (13.6)

Quantitative results indicated substantial exposure: 68% of students reported daily encounters with political content, with algorithms directing 55% toward ideologically congruent posts. Civic knowledge mean scores were moderate (M = 62.4, SD = 14.2), but higher exposure to propaganda correlated negatively with scores (r = -.42, p < .01) and voter awareness (r = -.38, p < .01). Regression analysis confirmed algorithm-driven content as a significant predictor of reduced critical evaluation (β = -.29, p < .001), controlling for gender and location. Urban students scored higher on exposure but lower on balanced civic knowledge compared to semi-rural peers.

Discussion

The findings demonstrated that social media algorithms and political propaganda exerted a notable negative influence on civic knowledge and voter awareness among students in Imo State’s colleges of education, consistent with national patterns observed during the 2023 elections. High exposure fostered polarization and misinformation, aligning with studies showing algorithmic shifts in partisan attitudes and the prevalence of fake news in Nigerian digital spaces. The moderate correlations underscored how engagement-maximizing algorithms prioritized sensational content over factual civic education, echoing concerns about slacktivism and shallow participation.

Urban-rural differences highlighted infrastructural and access inequities, with urban students facing greater risks of echo chambers despite higher connectivity. These results extended prior research on youth political engagement by focusing on teacher trainees, whose future role in civic instruction made the implications particularly salient. Barriers included inadequate digital literacy training and curriculum gaps, despite national pushes for digital integration. The study’s recommendations integrating media literacy modules emphasizing source verification, algorithmic awareness, and balanced political discourse addressed these directly. In Nigeria’s evolving democratic context, where youth constitute a growing voter bloc, unchecked propaganda risks long-term erosion of informed citizenship. Limitations included self-reported data biases and the snapshot nature of content analysis; future longitudinal studies could track sustained effects.

Conclusion

This study revealed the extent to which social media algorithms and political propaganda shaped students’ civic knowledge and voter awareness in Imo State colleges of education. It identified dominant platforms and content types driving influence, particularly emotional and misleading posts that undermined critical evaluation. The research produced practical guidelines for embedding digital literacy within civic education curricula, equipping students to navigate misinformation effectively. A policy brief for college administrators and policymakers advocated curriculum reforms, teacher training in digital citizenship, and institutional fact-checking initiatives. These outcomes contributed to fostering informed citizenship among future educators, strengthening Nigeria’s democratic processes by addressing digital threats while leveraging social



media's mobilizational potential. Ultimately, the findings called for collaborative efforts among educators, technologists, and policymakers to ensure social media supports rather than subverts civic competence in bilingual and diverse societies like Imo State.

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