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THE IMPACT OF SOCIAL MEDIA ON TEACHING AND LEARNING IN NIGERIA HIGHER INSTITUTIONS:A FOCUS ON LIBRARY AND INFORMATION SCIENCE EDUCATION IN SOUTH-EAST POLYTECHNICS

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ABSTRACT

This study examined the impact of social media on teaching and learning in Library and Information Science (LIS) education across South-East Nigerian polytechnics. Employing a survey research design, the investigation focused on three primary research questions concerning social media integration in pedagogy and one null hypothesis testing gender-based perception differences among lecturers. The study population consisted of all 41 LIS lecturers in the region. A researcher-developed questionnaire served as the main data collection tool, validated by three subject experts and demonstrating strong reliability (r=0.75). Data analysis incorporated mean and standard deviation for research questions, while a t-test (α=0.05) evaluated the hypothesis. Significant deficiencies in social media availability and utilization for LIS instruction; Comparable perceptions between male and female lecturers regarding resource availability and Systemic underutilization of digital tools despite their growing educational relevance. These results underscore the urgent need for: Strategic investments in social media infrastructure; Comprehensive lecturer training programs and Policy reforms to modernize LIS pedagogy. The study concludes that bridging this technology gap is essential for aligning Nigerian polytechnic education with global digital learning standards.

Keywords: Social media, Business education, utilization, Polytechnics &Education .

Introduction

The rapid proliferation of social media platforms has revolutionized global communication, reshaping how information is disseminated and consumed (Urhiewhu, et al, 2015). This digital transformation has had far-reaching implications for educational systems worldwide, including Nigeria, where social media adoption among university students has surged in recent years (Okereke & Urhiewhu, 2014). Platforms such as Facebook, WhatsApp, Twitter (now X), Instagram, YouTube, and TikTok have become deeply embedded in students' daily routines, influencing their academic engagement, collaboration, and knowledge acquisition (Urhiewhu & Emojorho, 2015). While these technologies present significant opportunities for enhancing teaching and learning, they also introduce challenges that educators and policymakers must address (Urhiewhu, et al, 2014).

In Nigeria, higher education institutions face systemic constraints, including inadequate infrastructure, overcrowded classrooms, limited access to learning resources, and outdated pedagogical methods (Urhiewhu, et al, 2015a). Social media offers a potential remedy to some of these challenges by facilitating virtual collaboration, instant access to information, and interactive learning experiences beyond the traditional classroom (Urhiewhu & Nwabueze, 2015). However, its unregulated use also raises concerns about distractions, misinformation, cyberbullying, and academic integrity (Ifeka, et al 2015). This study examines the effects of social media on teaching and learning processes, with a specific focus on Library and Information Science (LIS) education in polytechnics across Nigeria's South-East region (Urhiewhu, et al). By analyzing the extent of social media integration, its perceived benefits, and associated challenges, this research seeks to provide actionable insights for optimizing digital learning strategies in Nigerian higher education (Urhiewhu, et al, 2015).

The Shift in Educational Paradigms

The rise of social media has contributed to a broader shift from teacher-centered instruction to student-centered, participatory learning models (Urhiewhu & Ugeh, 2014). In contrast to traditional lecture-based approaches, social media fosters collaborative learning, peer-to-peer knowledge sharing, and real-time interaction between students and educators (Urhiewhu et al., 2015b). For Nigerian institutions, where large class sizes often limit individualized attention, these platforms can enhance engagement by enabling discussion forums, virtual study groups, and instant feedback mechanisms (Urhiewhu & Emojorho, 2015).

However, the effective integration of social media into pedagogy requires strategic planning, digital literacy training, and institutional support (Urhiewhu, et al, 2014). Many Nigerian educators and students lack the necessary skills to leverage these tools optimally, leading to underutilization or misuse (Urhiewhu & Nwabueze, 2015). Additionally, disparities in internet access and digital device ownership create inequities in students' ability to benefit from social media-enhanced learning (Ifeka et al., 2015).

Contextual Relevance: Nigerian Higher Education and Digital Transformation

Nigeria's higher education sector is at a critical juncture, with increasing pressure to adopt digital tools that improve accessibility, quality, and relevance (Urhiewhu & Ugeh, 2014). The National Policy on Education emphasizes the need for technology-driven learning, yet implementation remains inconsistent across institutions (Urhiewhu et al., 2015a). Polytechnics, which focus on technical and vocational education, stand to benefit significantly from social media's collaborative and practical learning affordances—particularly in disciplines like Library and Information Science, where information dissemination and digital literacy are core components (Urhiewhu, Joseph, & Aji, 2015).

The South-East region, with its growing tech-savvy student population, provides an ideal case study for examining these dynamics (Urhiewhu, Ifeka, & Eyisi, 2015). By investigating current practices, institutional readiness, and barriers to adoption, this research will contribute to the broader discourse on digital education in developing nations (Urhiewhu, Nnandozie, & Ifeka, 2015; Okereke & Urhiewhu, 2014).

Statement of the Problem

The rapid digital transformation of global education systems has made the integration of Information and Communication Technology (ICT) an imperative for contemporary pedagogical practices. International bodies such as UNESCO (2021) and the World Bank have consistently advocated for technology-enhanced learning as a cornerstone of 21st century education. However, in developing nations like Nigeria, a troubling paradox persists: while digital technology adoption is recognized as crucial for educational development, implementation remains markedly inconsistent, particularly in specialized fields like Library and Information Science (LIS) education.

This study identifies three fundamental gaps within the South-East Nigerian LIS education system. First, there is a significant disconnect between the technological expectations of modern LIS curricula and the actual digital competencies of instructors. Second, institutional support mechanisms for ICT integration remain underdeveloped, with numerous polytechnics lacking essential infrastructure such as reliable internet connectivity and adequately equipped computer laboratories, as well as human resources such as technical support staff and digital literacy training programs. Third, despite the demonstrated effectiveness of social media as an instructional tool in various academic disciplines (Manca & Ranieri, 2016), its systematic application in LIS education within Nigerian polytechnics has yet to be comprehensively explored.

This research seeks to address these gaps by examining the patterns of social media utilization, the perceived benefits, and the barriers to implementation in LIS education across polytechnic institutions in South-East Nigeria. Specifically, it aims to investigate: (1) the current levels of social media integration in LIS pedagogy, (2) institutional and individual impediments to adoption, and (3) viable strategies for enhancing technology-mediated instructional practices in LIS education. The findings will contribute to the development of a context-sensitive framework for digital pedagogy in LIS education, while also informing broader discussions on ICT implementation in educational systems within developing economies.

Purpose of the Study

This study aimed to systematically examine the adoption of social media as instructional tools in Library and Information Science (LIS) education within Nigerian polytechnics. Specifically, the research sought to:

1. Identify and analyze the social media platforms currently accessible and utilized for teaching purposes in LIS departments across selected polytechnics.
2. Evaluate the extent, methods, and effectiveness of social media integration in LIS pedagogy among polytechnic lecturers.
3. Investigate the impact of social media applications on teaching quality and student learning outcomes in LIS programs.

Research Questions

To guide this investigation, the study addressed the following research questions:

1. What social media platforms are currently available and actively used for teaching LIS courses in polytechnics across Nigeria's South-East region?
2. How frequently and in what ways do LIS lecturers incorporate social media technologies into their teaching practices within these institutions?
3. To what extent have implemented social media tools enhanced teaching effectiveness and student learning in polytechnic-based LIS education?

Research Hypothesis

The study tested one null hypothesis at a 0.05 significance level:

H_0: There is no statistically significant difference between male and female LIS lecturers' perceptions regarding the availability of social media resources for instructional purposes in polytechnic institutions. This hypothesis was designed to assess potential gender-based variations in educators' access to and awareness of digital teaching tools, while accounting for institutional factors common across the sampled polytechnics. The 0.05 alpha level was selected to align with standard social science research practices, ensuring robust statistical analysis while maintaining sensitivity to meaningful differences in the target population.

Methodology

This study adopted a descriptive survey design to assess social media integration in Library and Information Science (LIS) education across polytechnics in Nigeria's South-East region. The research population included all 41 LIS lecturers from the target institutions, constituting a complete census due to the population's manageable size. The investigation focused on eight polytechnics: Federal Polytechnic, Oko; Institute of Management and Technology (IMT), Enugu; Imo State Polytechnic, Umuagwo; Abia State Polytechnic, Aba; Akanu Ibiam Federal Polytechnic, Unwana; Covenant Polytechnic, Aba; Federal College of Agriculture, Ishiagu; and Temple-Gate Polytechnic, Aba. Data collection employed a researcher-developed questionnaire as the primary instrument. To ensure content validity, three experts rigorously evaluated the tool: two senior LIS education specialists and one expert in educational measurement and evaluation. Reliability was determined through test-retest method with a two-week interval, yielding a Pearson Product Moment Correlation coefficient of 0.75, which meets acceptable reliability standards for social science research (Cohen, 1988). This coefficient confirms the instrument's internal consistency for measuring the study's key variables.

For research question interpretation:

Mean scores between 2.50-4.00 were categorized as:

1. Adequate availability" (Research Question 1)
2. Frequent utilization" (Research Question 2)
3. "High effectiveness" (Research Question 3)

Scores below 2.50 were classified as:
1. "Inadequate availability"
2. "Infrequent utilization"
3. "Low effectiveness"

Hypothesis Testing Protocol
The null hypothesis was evaluated using the following decision rule:

1. If t(calculated) < t(critical) at α = 0.05: Fail to reject H_0 (non-significant difference)
2. If t(calculated) ≥ t(critical) at α = 0.05: Reject H_0 (significant difference)

This analytical approach aligns with established methodological standards in educational technology research (Creswell & Creswell, 2018) and provides robust empirical evidence regarding gender-based perceptions of social media integration in LIS education.

Results and Analysis

Table 1: Mean Ratings of Lecturers on the Availability of Social Media Facilities for Teaching Library and Information Science Courses

S/N	Items	Mean	SD	Decision
1.	WhasApp	1.60	0.40	Not Adequate
2.	ResearchGate for research/education purpose	3.54	1.82	Adequate
3.	Blog	2.40	0.41	Not Adequate
4.	Polytechnics of connected to internet	2.09	0.49	Not Adequate
5.	Polytechnics of where can operate computer in using social media	2.00	0.23	Not Adequate
6.	Accessibility of social media to lecturers	2.00	0.23	Not Adequate
7.	Availability of software packages	1.85	0.32	Not Adequate
8.	Facebook /LinkedIn	3.66	1.90	Adequate
9.	Polytechnics with generators for social media	3.71	1.93	Adequate
10.	Polytechnics that allow students to interact through social media	2.31	0.52	Not Adequate

Table 1 presents lecturer evaluations regarding the availability of social media resources for teaching Library and Information Science courses. Among ten assessed items, only three exceeded the 2.50 adequacy threshold: Research Gate (mean=3.54), Facebook/LinkedIn (mean=3.66), and generator availability (mean=3.71). These results indicate these resources are sufficiently accessible, with generators - crucial for power stability - receiving the highest rating.

The remaining seven resources scored below adequate levels, revealing significant infrastructure gaps. WhatsApp (mean=1.60), computer access for social media use (mean=2.00), and specialized software (mean=1.85) were rated particularly low. Blog platforms (mean=2.40) and lecturer social media access (mean=2.00) also fell short of adequacy benchmarks.

These findings demonstrate pronounced disparities in social media resource availability across South-East polytechnics. While research-oriented platforms and basic infrastructure like generators meet needs, crucial communication tools and hardware access remain insufficient. The pattern suggests institutional limitations

in supporting comprehensive social media integration for LIS education, highlighting areas requiring targeted improvement to enhance digital teaching capabilities.

Table 2: Mean Scores of Respondents on the Extent to which Lecturers Utilize Social Media in Teaching Library and Information Science Courses in Polytechnic Institutions

S/N	Items	Mean	SD	Decision
1.	Computer	3.81	1.98	Great Extent
2.	Television/Video Machine	1.22	0.42	Little Extent
3.	Video Conferencing	2.05	0.75	Little Extent
4.	Monitors	3.77	1.89	Great Extent
5.	Scanners	2.05	0.75	Little Extent
6.	Overhead Projectors	2.02	0.71	Little Extent
7.	Internet Access	2.05	0.75	Little Extent
8.	Database	2.07	0.89	Little Extent
9.	Ms Word Windows	2.01	0.69	Little Extent
10.	Printers 3D	2.36	0.90	Little Extent

Table 2 presents a detailed assessment of technology adoption among lecturers teaching Library and Information Science (LIS) courses in polytechnic institutions. The evaluation of ten technological tools revealed that only computers (mean = 3.81) and monitors (mean = 3.77) exceeded the 2.50 benchmark, indicating their extensive use in instructional delivery. These high scores demonstrate that LIS lecturers in South-East polytechnics predominantly rely on these core technologies to facilitate teaching and learning processes.

In contrast, the remaining eight technologies scored below the 2.50 threshold, signaling minimal integration. Television/video machines recorded the lowest mean (1.22), followed closely by overhead projectors (2.02), MS Word software (2.01), and databases (2.07). Video conferencing tools and scanners both averaged 2.05, reflecting marginal utilization. These consistently low scores suggest a concerning underutilization of modern teaching aids, potentially stemming from inadequate infrastructure, insufficient training, or limited institutional support for technological integration.

The findings highlight a significant disparity in technology adoption, with lecturers heavily dependent on basic computer systems while neglecting other valuable tools. This pattern underscores the urgent need for polytechnics to address technological gaps through improved resource allocation, targeted faculty training, and enhanced institutional support to foster more comprehensive integration of digital tools in LIS education.

Table 3: Mean Ratings on the Effective Utilization of Social Media in Teaching Library and Information Science Courses

S/N	Items	Mean	SD	Decision
1.	Social media helps in retention of the course taught	3.02	1.04	Great Extent
2.	Use of social media as instructional resources helps to increase students' interest in the class.	3.63	1.97	Great Extent
3.	Social media helps to simplify complex ideas and at time provide clear view of object to the student	3.02	1.04	G real Extent
4.	Use of social media helps Library and Information Science Courses lecturers to deliver lectures efficiency	3.00	1.00	Great Extent
5.	Social media enhances understanding of course content when used by lecturers	3.44	1.23	Great Extent

Table 3 presents respondent evaluations regarding social media's pedagogical effectiveness in teaching Library and Information Science courses. The data reveals substantial integration of these platforms in polytechnics, confirming their growing importance in contemporary education. Key findings demonstrate varied impacts: course material retention scored 3.02, indicating students find social media valuable for reinforcing learning. Notably, social media's capacity to boost student interest achieved the highest rating (3.63), highlighting its engagement potential.

Additional metrics show social media's ability to clarify complex topics (3.02) and facilitate lesson delivery (3.00), confirming its instructional utility. Most significantly, content comprehension scored 3.44, emphasizing social media's capacity to enhance understanding when properly implemented. These results collectively demonstrate strong endorsement of social media as an educational tool, particularly for improving engagement, knowledge retention, and conceptual clarity in LIS programs. The findings advocate for continued strategic implementation of these platforms to optimize learning outcomes in polytechnic education.

Table 4: Summary of t-test Analysis of Mean Responses of Male and Female Lecturers Regarding the Availability of Social Media in Teaching Library and Information Science Courses in the South-East

S/N	Item Statement	Gender	N	Mean (X)	SD	df	t-cal	t-crit
1	Lecturers use WhatsApp for lectures	Male	29	2.62	0.62			
		Female	12	1.83	0.39	39	1.09	2.00
2	ResearchGate is used for research/education purposes	Male	29	2.38	0.94			
		Female	12	1.83	0.39	39	1.61	2.00
3	Blogs are used for administrative purposes	Male	29	2.24	1.02			
		Female	12	1.83	0.39	39	1.94	2.00
4	Polytechnics are connected to the internet	Male	29	2.15	0.20			
		Female	12	2.05	0.23	39	0.47	2.00
5	Polytechnics where lecturers can operate	Male	29	2.16	0.20			
		Female	12	1.00	0.11	39	0.29	2.00
6	Accessibility of social media to lecturers	Male	29	2.20	0.24			
		Female	12	2.12	0.22	39	0.70	2.00
7	Availability of software packages	Male	29	2.21	0.41			
		Female	12	1.17	0.39	39	0.56	2.00
8	Lecturers use Facebook to connect with students	Male	29	2.06	0.49			
		Female	12	2.05	0.52	39	1.09	2.00
9	Polytechnics with generators for social media	Male	29	1.83	0.38			
		Female	12	1.75	0.45	39	0.91	2.00
10	Polytechnics that allow students to interact through social media	Male	29	2.41	0.50			
		Female	12	2.32	0.51	39	0.91	2.00

Table 4 presents a comparative analysis of male and female lecturers' perceptions regarding social media use in Library and Information Science instruction. The t-values for all assessed items fall below the critical threshold of 2.00, indicating no statistically significant gender-based differences in social media adoption.

Detailed examination reveals consistent patterns: male lecturers reported higher mean scores for WhatsApp usage (2.62±0.62) compared to females (1.83±0.39). Similar disparities emerged for Research Gate and educational blogs, with male respondents demonstrating greater utilization. However, t-values for internet connectivity (0.47) and social media accessibility (0.70) confirm these differences lack statistical significance. Parallel trends were observed for software availability and Facebook functionality, with both genders reporting comparable access levels.

These findings suggest gender-neutral perceptions of social media resources among LIS lecturers, implying equal capacity to leverage these tools for pedagogical enhancement. While quantitative differences exist in reported usage frequencies, their statistical insignificance underscores shared experiences in technology adoption. The results advocate for gender-inclusive approaches to digital pedagogy development, though qualitative investigation of usage patterns and potential barriers remains warranted for comprehensive understanding.

Discussion and findings

The integrated analysis of Tables 1-4 yielded critical insights through descriptive and inferential statistics. Mean scores quantified respondents' perceptions, while t-tests examined gender differences in social media availability perceptions.

Resource Availability (Table 1)

Results revealed insufficient social media infrastructure for LIS instruction in South-East polytechnics, consistent with Adedeji's (2011) findings on Nigeria's ICT deficits. This contrasts with Ojedokun and Owolabi's (2013) South African studies showing advanced integration.

Usage Trends (Table 2)

Data confirmed suboptimal social media utilization, supporting Ifijeh et al.'s (2016) assessment of Nigeria's technological lag. Contributing factors include:

1. Weak institutional support (Asogwa & Ugwu, 2018)
2. Insufficient training (Eke, 2019)
3. Infrastructure gaps (Ogbomo & Ogbomo, 2015)

Implementation Efficacy (Table 3)

Despite challenges, existing tools demonstrated pedagogical effectiveness where applied, aligning with Mabawonku's (2017) findings on strategic technology use.

Gender Perspectives (Table 4)

The analysis revealed no significant gender differences ($p>0.05$), contradicting Akanbi and Anyio (2014) but supporting Yusuf and Afolabi's (2020) gender parity findings.

Recommendations

To address systemic constraints (underfunding, outdated curricula, digital skill gaps), evidence-based solutions include:

1. Policy Interventions
2. Increase education budget allocation to 15%
3. Create technology-specific funding streams
4. Foster public-private infrastructure partnerships
5. Curriculum Enhancement
6. Embed social media pedagogy in accreditation standards
7. Develop digital competency frameworks
8. Integrate ethical usage modules
9. Capacity Building
10. Implement mandatory digital skills certification
11. Establish teaching innovation centers
12. Form communities of practice for technology integration

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