

Information Literacy Skills in the Digital Society Among Undergraduate Students of Public Universities in Benue State, Nigeria

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Abstract

This study examined information literacy skills in the digital society among undergraduate students at public universities in Benue State, Nigeria. Using a descriptive survey design, the population comprised 1,661 students from Joseph Tarka Sarwuan University and Moses Orshio Adasu University, both in Makurdi. A 10% sample of 166 students was selected using proportionate stratified and simple random sampling techniques. Data were collected using a validated structured questionnaire covering students' information literacy skills, use of digital information resources, extent of skill utilisation, and challenges encountered. Descriptive statistics, including means and standard deviations, were used to analyse the data. Findings revealed that undergraduate students possessed a high level of information literacy skills (cluster mean = 2.69), actively utilised these skills when accessing digital resources (cluster mean = 2.63), and frequently engaged with online journals, e-books, academic databases, and open-access platforms (cluster mean = 2.59). However, challenges such as limited training, poor access to digital devices, unstable internet connectivity, and insufficient library support significantly hindered the acquisition and application of these skills (cluster mean = 2.77). The study concludes that while students are generally competent in information literacy, institutional support and infrastructural improvements are essential to maximise effective utilisation. Recommendations include introducing structured training programmes, enhancing digital infrastructure, integrating information literacy into curricula, and increasing library support services.

Keywords: Digital Society, Public Universities, Undergraduate Students, Information Literacy Skills

Introduction

The contemporary world is increasingly shaped by a digital society in which information creation, storage, access, and dissemination are predominantly mediated through digital technologies. Continuous advancements in information and communication technologies have transformed social, economic, and educational systems, positioning digital information at the core of everyday activities. In this rapidly evolving environment, individuals are constantly exposed to vast quantities of information, alongside challenges such as misinformation, information overload, and rapidly changing digital tools. As a result, the digital society demands competencies that extend beyond basic literacy, particularly the ability to locate, evaluate, interpret, and use information effectively and ethically. Martin (2019) explains that these competencies are essential for meaningful participation in a knowledge-driven society.

Within this digital context, public universities occupy a strategic position as institutions mandated to advance teaching, research, and knowledge dissemination. Their responsibilities now extend beyond traditional classroom instruction to preparing students for participation in digitally mediated academic and professional environments. The integration of electronic libraries, online learning platforms, academic

databases, and digital repositories into teaching and learning processes has become a defining feature of university education. Smith (2022) observes that the effectiveness of these digital integrations depends largely on students' capacity to engage competently with information systems. University libraries, academic departments, and lecturers therefore play a critical role in supporting students through access provision, instructional support, and structured information literacy programmes.

Undergraduate students represent the largest population within public universities and are central to this digital transformation. Their academic activities increasingly rely on electronic books, online journals, institutional repositories, and open-access resources for coursework and research. However, undergraduate students enter university with diverse educational, socio-economic, and technological backgrounds. Nguyen and Bradshaw (2022) note that variations in prior exposure to digital tools and information systems often result in unequal levels of competence among students. While some students demonstrate confidence in navigating digital environments, others struggle with basic information-handling tasks, creating disparities in academic engagement and performance.

Information literacy skills, therefore, constitute a critical requirement for undergraduate students operating within public universities in the digital society. These skills enable students to define information needs, design effective search strategies, critically evaluate information sources, and apply information ethically in academic work. Adeoye and Adeoye (2017) point out that students who lack these competencies often depend excessively on general search engines, use non-scholarly materials, and exhibit poor citation practices, which may lead to plagiarism and weak research outcomes. Understanding how undergraduate students acquire and apply information literacy skills, as well as the challenges they encounter, is therefore essential for improving academic performance, research quality, and lifelong learning capacity. It is against this background that this study examines information literacy skills in the digital society among undergraduate students of public universities in Benue State, Nigeria.

Statement of the Problem

The digital society has transformed how information is produced and accessed, requiring undergraduate students in public universities to possess strong information literacy skills for effective academic engagement. Despite widespread access to digital technologies and online resources, many students struggle to identify credible sources, develop effective search strategies, evaluate information for reliability, and apply information ethically. In public universities in Benue State, students' frequent use of digital platforms is often superficial, marked by overreliance on search engines, use of non-scholarly sources, poor citation practices, and plagiarism, suggesting gaps in information literacy competence. These challenges are further compounded by limited formal information literacy instruction, inadequate curriculum integration, weak library-user education programmes, poor internet connectivity, and unequal access to digital tools. However, there is limited empirical evidence on the level, utilisation, and challenges related to information literacy among undergraduate students in Benue State, making it difficult to develop effective interventions. The study addresses the lack of comprehensive empirical data on information literacy skills among undergraduates in the digital society.

Objectives of the Study

The general objective of this study is to examine information literacy skills among undergraduate students of Public Universities in Benue State, Nigeria, in the digital society.

The specific objectives are to:

1. Determine the level of information literacy skills possessed by undergraduate students of public universities in Benue State, Nigeria, in the digital society.
2. Identify the types of digital information resources used by undergraduate students of public universities in Benue State, Nigeria.
3. Examine the extent of utilisation of information literacy skills by undergraduate students when accessing and using digital information resources.
4. Assess the challenges affecting the acquisition and effective application of information literacy skills among undergraduate students of public universities in Benue State, Nigeria.

Theoretical Framework

The Big Six Information Literacy Skills Model, developed by Eisenberg and Berkowitz in 1987, explains information literacy as a structured process through which individuals recognise information needs, locate relevant sources, evaluate content, and apply information effectively. The model outlines six related stages defining the task, selecting appropriate search strategies, accessing information, using information meaningfully, organising ideas, and evaluating outcomes which together describe how learners engage with information in academic contexts. By viewing information literacy as a step-by-step process rather than a single skill, the model highlights the importance of both technical abilities and critical thinking in information use. This framework is particularly relevant to undergraduate students in the digital society, where information is abundant and often unfiltered. In public universities in Benue State, the model provides a useful lens for understanding how students interact with digital information resources and why gaps may exist in their information practices. It also helps explain how factors such as limited training, poor infrastructure, and weak institutional support can disrupt students' ability to move effectively through the information cycle. As a result, the Big Six model offers a clear and practical theoretical foundation for examining information literacy skills and related challenges in higher education.

Conceptual Framework

This study is anchored on the following concepts:

Digital Society

The rapid integration of digital technologies into everyday life has fundamentally reshaped how people communicate, work, and learn, creating new expectations for accessing and using information. In the digital society, knowledge is produced, shared, and consumed largely through online platforms, social media networks, and digital repositories. Martin (2019) explains that this transformation places higher cognitive demands on individuals, requiring them to evaluate information critically rather than consume it passively. The sheer volume, speed, and diversity of information flow mean that individuals must develop skills to distinguish credible information from unreliable or misleading content. These changes have profound implications for education, as traditional teaching approaches now coexist with technology-mediated learning environments. Luo and Bo (2020) observe that students are increasingly expected to use digital tools for problem-solving, research, and collaborative learning. Universities, as centres of learning and innovation, are therefore tasked with equipping students with the competencies required to function effectively in this environment. Preparing students for the demands of the digital society requires not only access to technology but also structured support that fosters critical engagement with information resources.

Public Universities

Public universities play a pivotal role in producing skilled graduates who can contribute meaningfully to national development through teaching, research, and innovation. As publicly funded institutions, they are at the forefront of expanding access to higher education and digital information resources. Jones (2021) explains that by integrating digital technologies into curricula, library services, and research support systems, public universities create opportunities for students to develop critical thinking and informed decision-making skills. The extent to which public universities achieve these objectives depends largely on the availability of digital infrastructure, skilled personnel, and structured instructional programmes. Nguyen and Martinez (2020) highlight that disparities in access to digital resources and institutional support can significantly influence how students engage with information. Within these institutions, undergraduate students constitute the largest group of learners, and their ability to utilise available digital resources effectively serves as an important indicator of institutional success in fostering digitally competent graduates.

Undergraduate Students

Undergraduate students face growing academic demands that require efficient navigation of digital resources for coursework, research, and skill development. Their success in higher education depends not only on intellectual ability but also on their capacity to interact effectively with electronic journals, academic databases, learning management systems, and institutional repositories. Johnson and Smith (2023) observe that many students encounter challenges such as over-reliance on search engines, difficulty evaluating information sources, and improper citation practices, all of which can undermine academic outcomes. The academic performance and long-term learning potential of undergraduate students are closely linked to their mastery of digital and information-related competencies. Smith, Johnson, and Williams (2022) note that deliberate instruction and guided engagement with digital resources are necessary to support students in developing these skills. The experiences of undergraduate students therefore provide valuable insight into how information literacy skills are applied in practice and highlight the need for structured programmes that promote effective information use.

Information Literacy Skills

Information literacy skills enable students to transform information into meaningful knowledge that supports problem-solving, informed decision-making, and responsible participation in academic and professional contexts. These skills involve recognising information needs, developing effective search strategies, evaluating sources critically, synthesising information, and applying it ethically. Gibbons, Smith, and Brown (2019) explain that in an era characterised by information abundance and misinformation, such competencies are essential for academic success and lifelong learning. For public universities in Benue State, fostering information literacy among undergraduate students is crucial for addressing gaps in research ability, digital resource utilisation, and ethical information practices. Dada, Ohwofasa, and Azaki (2025) emphasise that libraries, coursework, and user education programmes serve as key platforms for developing these competencies. Through sustained institutional support and student engagement, information literacy skills emerge as outcomes of interactions among the digital society, university structures, and learner experiences, providing a foundation for effective participation in higher education and the broader knowledge economy.

Review of Related Studies

Udoh, Ekpenyong and Olowookere (2020) investigated the digital literacy skills of undergraduate Library and Information Science students and their use of electronic information resources in two federal universities in Nigeria. Guided by five objectives, the study adopted a descriptive survey design, targeting a population of 250 final-year students from Michael Okpara University of Agriculture, Umudike (MOUAAU) and the University of Uyo (UNIUYO). Of these, 120 were selected via accidental sampling, and 112 completed the questionnaire, yielding a 93.33% response rate. Data were analysed using descriptive statistics and IBM-SPSS Version 23. Findings revealed that students had access to diverse electronic resources, including e-dictionaries, e-encyclopedias, e-journals, e-books, online databases, search engines, and CD-ROMs. Students' digital literacy skills encompassed email use, internet surfing, social media, basic computer operations, electronic search and retrieval, and accessing resources via search engines. These skills were acquired through formal coursework, practical training programmes, self-funded IT courses, peer support, and trial-and-error learning. Students applied these skills for document formatting and printing, downloading resources, submitting assignments online, and social networking. However, challenges such as erratic electricity, limited internet access, insufficient digital facilities, high training costs, uncondusive learning environments, and ineffective teaching methods hindered the effective acquisition and utilisation of digital literacy skills. Both the previous and present studies adopt a descriptive survey approach and examine students' literacy-related competencies and challenges in university settings. While Udoh et al. focused on digital literacy skills and electronic resource use among final-year LIS students in two federal universities, the present study extends to all undergraduate levels in public universities in Benue State and broadens the scope to information literacy in the digital society. The gap addressed lies in wider geographical coverage and a more holistic evaluation of skills, utilisation, and challenges.

Yila (2024) investigated the relationship between digital literacy skills and the utilisation of digital information resources among undergraduate students at the University of Lagos. The study aimed to determine the level of digital literacy skills of the students, examine how extensively they used digital information resources, and explore the relationship between these skills and resource utilisation. Using a survey research design, 210 final-year undergraduates across 12 faculties were selected through a multi-stage sampling technique, and data were collected via structured questionnaires. Analysis of the data showed that the students possessed a very high level of digital literacy skills; however, their actual use of digital information resources was notably low. Regression analysis further revealed a positive linear relationship between digital literacy skills and the utilisation of digital resources. This suggests that while students have strong digital competencies, they do not fully apply these skills in accessing and using available digital information, highlighting the need for focused training to improve effective utilisation. Both the present and the previous study are similar in using survey methods to assess students' literacy skills and engagement with digital information resources. However, previous concentrated on final-year students in a single university and emphasized the relationship between digital literacy and resource utilisation. The present study fills the gap by providing a broader, multidimensional assessment of information literacy across institutions and undergraduate levels, beyond mere correlation analysis.

Soyemia and Olalere (2022) investigated Digital literacy skills and academic engagement of Library and Information Science students in universities in South-West, Nigeria. The study population was 395 final year Library and Information Science (LIS) students in three (3) selected universities accredited to offer Library and Information Science and allied courses in South-West, Nigeria. A sample size of 199 was determined using Taro Yamane's (1973) formula. Stratified random sampling was used to select the

respondents who participated in the study. A structured and validated questionnaire was used for data collection. The study found that digital literacy skills had positive and significant influence on academic engagement of undergraduates. Both studies focus on Library and Information Science undergraduates and employ descriptive survey designs to examine literacy-related competencies. Unlike the present study, the previous study limited the investigation to final-year students in South-West Nigeria and examined digital literacy mainly in relation to academic engagement. The present study addresses the gap by expanding the scope to information literacy skills, resource use, utilisation patterns, and challenges within a different regional context.

Dada, Ohwofasa and Azaki (2025) examined the acquisition of information literacy skills for information retrieval and utilisation among undergraduate students of Moses Orshio Adasu University, Makurdi (MOAUM). Anchored on the ACRL Information Literacy Competency Standards, the research adopted a descriptive survey design and involved a stratified random sample of 600 students drawn from various faculties. Data were collected using a structured questionnaire and analysed through mean and standard deviation. The findings indicated that students possessed a moderate level of information literacy skills (cluster mean = 2.72), but lacked formal training opportunities to enhance these competencies. Information retrieval abilities were fairly high (mean = 2.67), as students were familiar with tools such as the Online Public Access Catalogue (OPAC) and institutional digital repositories. Resource utilisation was frequent (mean = 2.80), with a notable preference for internet-based sources. Despite this, several challenges persisted, including inadequate training programmes, poor internet connectivity, limited access to academic databases, and low awareness of library resources (mean = 2.83). Both the present study and the previous research are similar in design and focus on undergraduate information literacy skills within Nigerian universities. Dada et al. concentrated on a single institution and examined acquisition and utilisation of information literacy skills across faculties using ACRL standards. The present study bridges the gap by covering multiple public universities, focusing specifically on LIS undergraduates, and offering a more comprehensive digital-society perspective.

Adeoye and Adeoye (2017) studied the digital literacy skills of undergraduate students in Nigerian universities. The research design employed for this study was the descriptive survey design. The population for this study was 60,997 undergraduate students of Obafemi Awolowo University, University of Ibadan and University of Lagos. However, a multi-stage sampling technique was used to arrive at a sample size of 595 for the study. The instrument used was a questionnaire. Data were analysed using frequency distribution tables; percentages, mean scores and standard deviation in the Statistical Package for the Social Sciences (SPSS). Findings of the study revealed that the majority of students admitted that they were confident in their level of information literacy skills, especially in using other people's work (found online) without committing plagiarism. The students also indicated confidence in their level of Information and Communication Technology literacy skills, particularly when writing online 2 on a web page for private use. Likewise, a high percentage of respondents were confident in their level of media literacy skills when using media-capture devices, e.g. recording on video. The present study and the previous research share key similarities, including the use of a descriptive survey design, structured questionnaires, and a focus on assessing information or digital literacy skills among undergraduate students in Nigerian universities. They share methodological similarity with the present study through the use of a descriptive survey design and quantitative analysis to assess literacy skills among undergraduates. Their study, however, adopted a broad, multi-university approach emphasising students' self-reported confidence in digital and media literacy skills. The present study fills the gap by providing a focused,

discipline-specific, and context-sensitive assessment of actual information literacy skills, utilisation, and challenges among LIS undergraduates in Benue State.

Research Methodology

The study employed a descriptive survey design to assess information literacy skills among undergraduate students of Library and Information Science in public universities in Benue State, Nigeria. The population comprised 1,661 students from Joseph Tarka Sarwuan University, Makurdi, and Moses Orshio Adasu University, Makurdi. A 10% sample of 162 students was selected using proportionate stratified and simple random sampling techniques. Data were collected using a validated, reliable structured questionnaire covering students' information literacy skills, use of digital information resources, extent of skills utilisation, and related challenges. Responses were analysed using descriptive statistics, with a mean benchmark of 2.50, to determine levels and patterns of information literacy skills in the digital society.

Results and Discussion

Distribution and Return Rate

S/N	Institution	Population	Sample Size	Returned	Return %
1	Joseph Tarka Sarwuan University, Makurdi	404	40	37	92.5%
2	Moses Orshio Adasu University, Makurdi	1,257	126	118	93.7%
	Total	1,661	166	155	93.4%

The distribution and return table show that out of a total population of 1,661 undergraduate students across Joseph Tarka Sarwuan University (404) and Moses Orshio Adasu University (1,257), a sample size of 166 (10%) was selected, with 155 questionnaires returned, yielding an overall response rate of 93.4%. The high return rates across the two institutions in Benue State suggest that students were willing and available to provide information on their information literacy skills, digital resource usage, and related challenges.

Cluster A: Mean and Standard Deviation of the level of information literacy skills possessed by undergraduate students

S/N	Statement	N	Mean	SD	Dec.
1	I can clearly define my information needs before starting a research task	155	2.73	0.91	High
2	I am able to select appropriate keywords for effective searches in digital platforms	155	2.69	0.87	High
3	I evaluate the credibility and reliability of digital information sources	155	2.65	0.89	High
4	I can synthesize information from multiple digital sources to create new understanding	155	2.71	0.85	High
5	I apply ethical practices such as proper citation and avoiding plagiarism when using digital information	155	2.67	0.92	High
6	Cluster Mean	155	2.69	0.89	High

The cluster A results indicate that undergraduate students possess a high level of information literacy skills, with a cluster mean of 2.69. Key strengths include defining information needs, keyword selection, synthesising information, and ethical use of information. These findings align with Udoh et al. (2020), who found that LIS students in federal universities demonstrated strong digital literacy skills, particularly in electronic search and retrieval, and in ethical use of information for assignments and research. Similarly, Adeoye and Adeoye (2017) reported that students across multiple Nigerian universities were confident in their information literacy skills, including plagiarism avoidance and ICT usage. However, the findings differ slightly from Dada, Ohwofasa, and Azaki (2025), who reported a moderate cluster mean of 2.72 at Moses Orshio Adasu University, suggesting that while students had basic skills, formal training opportunities were lacking. The current study shows a slightly higher overall proficiency, possibly due to the inclusion of students across all undergraduate levels rather than a single institution or final-year students only.

Cluster B: Mean and Standard Deviation of types of digital information resources used by undergraduate students

S/N	Digital Resource	N	Mean	SD	Dec.
1	Online academic journals/e-journals	155	2.61	0.88	High
2	Electronic books (e-books)	155	2.57	0.85	High
3	Academic databases (e.g., JSTOR, ScienceDirect)	155	2.59	0.87	High
4	Institutional repositories	155	2.55	0.91	Moderate
5	Open access platforms (e.g., Google Scholar, ResearchGate)	155	2.63	0.84	High
6	Cluster Mean	155	2.59	0.87	High

The results from cluster B show that students frequently use online academic journals, e-books, academic databases, and open-access platforms, with a cluster mean of 2.59. Institutional repositories were moderately used, suggesting some gaps in awareness or access. This aligns with Udoh et al. (2020), who found LIS students had access to diverse electronic resources, including e-journals, e-books, and online databases. The findings also partially align with Yila (2024), who noted that while students possessed high digital literacy skills, their actual use of digital information resources was relatively low, highlighting a utilisation.

Cluster C: Mean and Standard Deviation of types of digital information resources used by undergraduate students

S/N	Skill Application	N	Mean	SD	Dec.
1	I plan my research approach before searching digital resources	155	2.67	0.88	High
2	I critically evaluate the relevance of online information sources	155	2.63	0.90	High
3	I use advanced search techniques to retrieve information efficiently	155	2.61	0.86	High
4	I integrate information from multiple digital sources to complete assignments	155	2.64	0.89	High
5	I properly cite all digital sources used in my academic work	155	2.59	0.91	High
6	Cluster Mean	155	2.63	0.89	High

The cluster mean for the extent of utilisation of information literacy skills is 2.63, indicating high application of skills in planning research, evaluating sources, advanced searching, integrating information, and proper citation. These findings support Soyemia and Olalere (2022), who reported a positive relationship between digital literacy skills and academic engagement among LIS undergraduates in South-West Nigeria. Similarly, Udoh et al. (2020) highlighted that students applied their digital literacy skills in retrieving information, downloading resources, submitting assignments, and social networking.

Cluster D: Mean and Standard Deviation of the challenges affecting the acquisition and effective application of information literacy skills among undergraduate students

S/N	Challenge	N	Mean	SD	Dec.
1	Limited knowledge or training on using digital resources effectively	155	2.81	0.92	High
2	Poor access to computers or digital devices	155	2.77	0.95	High
3	Unstable or slow internet connectivity	155	2.85	0.91	High
4	Difficulty in evaluating the credibility of online information sources	155	2.73	0.89	High
5	Insufficient support from library staff in using digital resources	155	2.69	0.87	High
6	Cluster Mean	155	2.77	0.91	High

Cluster C report Students several challenges affecting skill acquisition and application, including limited training, poor access to computers, unstable internet, difficulty evaluating sources, and insufficient library support, with a cluster mean of 2.77, indicating these challenges are significant. This concurs with Udoh et al. (2020), who found that erratic electricity, limited internet access, insufficient digital facilities, and high training costs hindered the effective acquisition and utilisation of digital literacy skills. Similarly, Dada et al. (2025) highlighted inadequate formal training and limited access to digital resources as persistent barriers. Yila (2024) also noted the underutilisation of digital resources despite high digital literacy skills, emphasizing infrastructural and awareness challenges.

Conclusion

The study concludes that undergraduate students in public universities in Benue State generally demonstrate high information literacy skills and actively apply these competencies in accessing and using digital information resources. They show proficiency in defining information needs, selecting keywords, evaluating sources, synthesising information, and applying ethical practices such as proper citation. Students also utilise a variety of digital resources, including online journals, e-books, academic databases, and open-access platforms. Nevertheless, the acquisition and effective application of these skills are hindered by significant challenges, including limited formal training, poor access to digital devices, unstable internet connectivity, and inadequate library support. Overall, the findings suggest that while students possess foundational competencies, targeted institutional interventions are required to strengthen their ability to navigate the digital society fully.

Recommendations

The following recommendations are made based the findings of the study:

1. Structured Information Literacy Training: Public universities in Benue State should implement formal training programmes, workshops, and seminars to enhance students' information literacy skills across all undergraduate levels.

2. Improvement of Digital Infrastructure: Institutions should invest in reliable internet connectivity, sufficient digital devices, and access to up-to-date electronic resources to support effective utilisation of information literacy skills.
3. Curriculum Integration: Information literacy should be embedded across undergraduate courses, ensuring that students acquire, practice, and apply these skills systematically throughout their academic programmes.
4. Enhanced Library Support Services: University libraries should provide dedicated support, including user education sessions, online tutorials, and personalised guidance, to help students overcome challenges in accessing, evaluating, and applying digital information resources effectively.

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