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EXPLORING THE RELATIONSHIP BETWEEN DIGITAL LITERACY AND ELECTRONIC INFORMATION RESOURCES USE AMONG UNDERGRADUATE STUDENT OF GOMBE STATE UNIVERSITY

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Abstract
This study examined the relationship between digital literacy and electronic information resources use among undergraduate students of Gombe State University in Nigeria. The study sought to find level of digital literacy, level of electronic information resources use and determine the relationship between digital literacy and electronic information resources use among undergraduate students in Gombe State University. The study adopted a quantitative using survey design. The study found that the level of digital literacy is high. The also result revealed low extent of EIRs use and the study finally found that there is no significant relationship between digital literacy and electronic information resource use among undergraduate students in Gombe State University. The study concludes that there is no significant relationship between digital literacy and electronic information resource use among undergraduate students in Gombe State University. The study finally, recommend that Undergraduate students should sustain their digital literacy skills in order to reach the highest level of digital literacy. Undergraduate students should integrate their digital literacy skills into electronic information resources use. Undergraduate students should be encouraged to use electronic information resources to improve their extent of electronic information resources use.

Keywords: Digital Literacy, Electronic information resources use, Undergraduate students, Gombe state university

Introduction

Digital literacy skills are vital in today's information society for accessing information, enhancing employability, enabling effective communication and collaboration, fostering critical thinking, ensuring online safety, supporting lifelong learning, and promoting empowerment and inclusion in the digital age. Digital literacy is regarded as the competence to effectively navigate, evaluate and utilize information with help of digital technologies. It encompasses a range of skills, including basic computer proficiency, critical thinking, information literacy, and online communication. In an increasingly digital world, digital literacy has become indispensable for individuals to participate fully in society, access information, and engage in meaningful online interactions. Digital literacy starts with the foundational knowledge of operating computer hardware and software, including file

management, using word processing software, and understanding computer terminology. According to Fraillon, Schulz, and Ainley (2019), basic computer skills are crucial for individuals to navigate digital environments effectively. International Association for the Evaluation of Educational Achievement (IEA) observed that student's computer literacy skills had a significant impact on their ability to perform online tasks and critically evaluate digital information.

Digital literacy entails the skills to find, assess, and proficiently utilize digital information. Information literacy skills help individuals discern credible sources, assess the reliability of information, and avoid misinformation or fake news. American Library Association (ALA) describe information literacy the competence to identify the need for information and possess the skills to effectively find, assess, and utilize the required information. ALA emphasizes that information literacy is crucial in the digital age, where vast amounts of information are available online (ALA, 2021). Digital literacy promotes the development of critical thinking abilities, empowering individuals to engage in critical analysis and evaluation of information. It involves questioning the validity, relevance, and accuracy of information, as well as identifying biases or manipulations. Koltay (2011) highlights that digital literacy is closely linked to critical thinking. Digital environments require individuals to critically evaluate information and make informed decisions. This includes understanding the potential biases of digital sources, verifying information from multiple sources, and recognizing the influence of algorithms and personalized content.

Digital literacy encompasses effective online communication skills, including etiquette, netiquette, and responsible online behaviour. It also involves understanding online privacy, security measures, and protecting personal information. The National Education Association (NEA) emphasizes the importance of digital literacy for online safety. They state that digital literacy skills enable individuals to navigate online spaces responsibly, protect their privacy, and avoid potential risks such as cyberbullying, identity theft, or scams (NEA, 2016). Therefore, digital literacy is a multifaceted skill set necessary for individuals to thrive in the digital age. It encompasses fundamental computer competencies, information literacy, the ability to think critically, and skills in online communication and ensuring one's safety. These skills empower individuals to effectively navigate digital environments, critically evaluate information, and engage responsibly online.

In the contemporary era characterized by a growing reliance on digital technologies, digital literacy holds significance It empowers individuals with knowledge and skills needed to navigate digital environments, critically evaluate information, and engage responsibly online. Here are some key reasons highlighting the importance of digital literacy, supported by relevant citations. It provides individuals with the skill to access and utilize a vast range of information and resources available online. According to Van-Deursen and Van-Dijk (2019), digital literacy positively influences individuals' access to information, educational opportunities, and their overall ability to participate in the digital society. It enables individuals to bridge the digital divide and take advantage of the numerous benefits that digital technologies offer.

Digital literacy empowers individuals to take control of their own learning and personal development. Hargittai (2016) emphasizes that digital literacy skills enable individuals to participate in self-guided learning, acquire new knowledge, and develop essential digital skills. It promotes lifelong learning and adaptability in an ever-changing digital landscape. Digital literacy is a critical skill set sought by employers across various industries. Proficiency in utilizing digital tools, navigating online platforms, and conducting critical assessment of information has become increasingly indispensable for achieving success in professional environments. Research by European Commission (2016) highlights that digital literacy significantly impacts individuals' employability and job prospects, emphasizing the importance of digital skills in a rapidly evolving job market.

Digital literacy fosters critical thinking skills necessary for evaluating and analysing information in the digital realm. As stated by Choi and Kim (2020), digital literacy enables individuals to critically assess the credibility, accuracy, and bias of information encountered online. It helps individuals avoid falling victim to misinformation, disinformation, or fake news, promoting informed decision-making and responsible digital citizenship. In today's digital society, digital literacy plays a crucial role in facilitating active participation in democratic processes. Digital platforms offer avenues for civic engagement, political discourse, and social activism. Study Mossberger, Tolbert, and McNeal (2008) highlights that digital literacy empowers individuals to engage in online political activities, stay informed about public issues, and participate in democratic decision-making. Thus, digital literacy is of paramount importance in enabling individuals to navigate the digital landscape, access information, critically evaluate content, and participate fully in the digital society. It empowers individuals and students with the skills necessary for personal, educational, and professional

advancement while promoting active citizenship and informed decision-making in the digital age where electron information resources are on the increase.

Electronic information resources EIRs play a crucial role in modern research, education, and information dissemination. Their importance stems from their ability to provide convenient and timely access to a vast amount of information, facilitate knowledge discovery, and enhance scholarly communication. Electronic information resources are digital materials and databases that provide access to a wide range of information, including scholarly articles, e-books, research data, multimedia content and more (Borgman, 2015). Electronic information resources encompass various types of digital materials that are stored, managed, and disseminated electronically. They offer numerous advantages over traditional print resources, including instant access, ease of search ability, and the competence to access up-to-date information from diverse disciplines. These resources are typically accessed through electronic platforms, including digital libraries and online databases or institutional repositories for use.

The utilization of electronic information resources involves making use of digital materials and databases to gain access to, retrieve, and effectively utilize information for diverse purposes, such as research, education, or personal enrichment. It involves employing electronic platforms and tools to search, navigate, and interact with digital content. Users employ electronic platforms, such as online databases or digital libraries, to search for relevant information. They utilize search functions, keywords, and filters to retrieve specific content or explore a broader range of resources within a given field or topic. Electronic information resources enable users to access the full text of articles, books, or other materials in digital formats. Users can view or download content directly from the electronic platform, facilitating immediate access to the desired information. Electronic platforms often provide various navigation features, such as table of contents, hyperlinks, or related article suggestions. Users can navigate through digital content efficiently, explore related materials, or follow cross-references to deepen their understanding of a subject.

Electronic information resources may include multimedia elements, such as videos, images, or interactive visualizations. Users can engage with these multimedia components to enhance their learning experience, visualize data, or grasp complex concepts. Many electronic platforms offer collaborative features, such as annotation tools or shared document repositories. Users can collaborate with peers or colleagues, annotate digital content, leave comments, or engage in discussions, fostering interactive and collaborative learning or research environments.

The utilization of electronic information resources holds significance across multiple domains, including research, education, and professional fields. It enables individuals to access a wide range of digital content, retrieve relevant information efficiently, and leverage digital tools for learning, collaboration, and knowledge dissemination. Electronic information resources provide individuals with access to an extensive and diverse range of digital content, including scholarly articles, research papers, books, and multimedia materials. These resources offer a wealth of information from different disciplines and sources, empowering users to explore various topics and stay updated with the latest knowledge (Nicholas, Boukacem-Zeghmouri, Rodríguez-Bravo, Watkinson, Abrizah, & Herman, 2016). Use of electronic information resources is vital for researchers and students as it facilitates research, learning, and knowledge acquisition. Electronic platforms enable efficient searching, retrieval, and organization of information, allowing users to locate relevant resources quickly. They provide advanced search functionalities, filters, and citation tracking tools that aid in literature reviews, data analysis, and the development of evidence-based arguments (Radcliff, Bruskotter, & Kobayashi, 2017).

Electronic information resources foster collaboration and knowledge sharing among researchers, educators, and professionals. Digital platforms offer features such as shared document repositories, online forums, and collaborative tools that facilitate collaborative research, peer feedback, and knowledge exchange. These resources enable global connectivity and interdisciplinary collaboration, leading to the advancement of knowledge (Borgman, 2015). Electronic information resources provide access to up-to-date and current information. Digital platforms often offer real-time updates, preprints, and early access to newly published research. This timeliness is crucial for researchers and professionals to stay abreast of the latest developments and contribute to ongoing scholarly conversations (Nicholas et al., 2016). Electronic information resources contribute to the preservation and long-term accessibility of digital content. Digital repositories and archives ensure the preservation of valuable research outputs, enabling future access and reference. Open access initiatives further promote the accessibility of knowledge by removing barriers to information (Borgman, 2015).

Statement of the problem

The significance of electronic information resources lies in their ability to offer swift and convenient access to a vast array of content, comprising scholarly articles, books, and multimedia resources. Nevertheless, there is a prevalent notion that EIRs in tertiary institutions are not fully exploited due to a lack of proficiency in digital skills (Ankrah & Atuase, 2018).

The optimal utilization of e-resources by individuals relies on the digital literacy skills of the intended users, which are essential for maximizing the benefits derived from electronic information resources. Digital literacy promotes a greater utilization of library resources, especially in academic environments, enabling users to fully leverage the potential of electronic information resources. (Isibika & Kaishe, 2018). Therefore, this study examines relationship between undergraduate students in Gombe State University Nigeria, use electronic Information resources and digital literacy.

Objective of the Study

The primary objective of the research is to explore the correlation between digital literacy and the utilization of electronic information resources among undergraduate students of Gombe State University in Nigeria. The specific objectives are to:

1. Ascertain the level of digital literacy among undergraduate students in Gombe State University

2. Find out the level of electronic information resources use among undergraduate students in Gombe State University

3. Determine the relationship between digital literacy and electronic information resources use among undergraduate students in Gombe State University.

Research Questions

The following research questions guided this study:

1. What is the level of digital literacy among undergraduate students in Gombe State University

4. what is the level of electronic information resources use among undergraduate students in Gombe State University

Hypothesis

The hypothesis was tested at 0.05 level of significance.

H0: There is no significant relationship between digital literacy and electronic information resources use of undergraduate students in Gombe State University

Methodology

Survey method was adopted for this study. The target population for this study comprised of 1,430 mainly 400 level students' undergraduate students of faculties of Education in Gombe state university. The choice of 400 level students is because students at this level are expected to understand electronic information resources than the students at the lower levels. Cluster

sampling technique was used to determine the sample size for the study. The sample size for the study comprised of (143) 400 level students' undergraduate students of faculties of Education in Gombe state university. A self-structured questionnaire was used as the instrument for this study. The data collected was analyse using descriptive and inferential statistics. The descriptive statistics was done using percentage, mean and standard deviation, while the inferential statistics was done using Pearson correlation model with the aid of Statistical Package for Social Science software version 21.

Presentation of Results

Research Question One: what is the level of digital literacy of undergraduate students in Gombe State University?

Table 1. Level of Digital Literacy of Undergraduate Students

S/N	Item	VH	H	L	VL	Mean	SD
1	My ability to navigate and use digital devices such as computers, smartphones, and tablets is	85(59.4%)	41(28.7%)	13 (9.1%)	4 (2.8%)	3.45	0.78
2	My ability to comfortably use various software applications and online tools for different tasks (e.g., word processing, spreadsheets, email, social media) is	83(58.0%)	41(28.7%)	11 (7.7%)	8 (5.6%)	3.39	0.86
3	My ability to effectively evaluate the credibility and reliability of information found online is	75(52.4%)	45(31.5%)	21(14.7%)	2 (1.4%)	3.35	0.78
4	My ability to be aware of privacy and security concerns when using digital technologies and take appropriate measures to	72(50.3%)	48(33.6%)	15(10.5%)	8 (5.6%)	3.29	0.87

	protect my personal information is					
5	My ability to understand and follow ethical guidelines and practices when using digital resources, such as respecting copyright laws and giving credit to original sources is	72(50.3%)	44(30.8%)	22(15.4%)	5 (3.5%)	3.28	0.85
6	My skills of using online communication tools (e.g., email, instant messaging, video conferencing) to connect with others	74(51.7%)	41(28.7%)	17(11.9%)	11(7.7%)	3.24	0.94
7	My ability to efficiently search for information using search engines and online databases to find relevant and accurate resources is	67(46.9%)	37(25.9%)	30(21.0%)	9(6.3%)	3.13	0.96
8	My ability to proficiently create and edit digital content such as documents, presentations, images, or videos is	52(36.4%)	59(41.3%)	20(14.0%)	12 (8.4%)	3.06	0.92
9	My ability to learning and adopting new digital technologies or tools as they emerge is	58(40.6%)	47(32.9%)	26(18.2%)	12(8.4%)	3.06	0.96
10	My believe that digital literacy is	53(37.1%)	51(35.7%)	22(15.4%)	17(11.9%)	2.98	1.00

	essential for success in the modern world is						
	Grand					**3.22**	**0.89**

Source: Field survey, 2023

Decision rule: if mean is below 1.0-1.995=very low, 2.0-2.99=low, 3.0-3.99=high and 4.0 above = very high

The result in Table 1 represents the respondent opinion on the level of digital literacy of undergraduate students in Gombe State. The level of digital literacy according to the report in table 1 is high (grand mean=3.22, SD=.0.89). This implies that digital literacy of undergraduate students in Gombe State University have not reach their optimal level. The result further reveals that ability to navigate and use digital devices such as computers, smartphones, and tablets (mean=3.45),the competence to comfortably use various software applications and online tools for different tasks e.g., word processing, spreadsheets, email, social media (mean=3.39) andthe competence to effectively evaluate the credibility and reliability of information found online (mean=3.35).

Research Question Two: What is the extent of electronic information resources of undergraduate student in Gombe State University?

Table 2: Extent of Electronic Information Resources of Undergraduate Student

SN	Item	VHE	HE	LE	VLE	Mean	SD
1	Using electronic information resources helps me find relevant information for my research or academic work to a	33(23.1%)	49(34.3%)	36(25.2%)	25(17.5%)	2.63	1.03
2	I feel confident to effectively search and retrieve information from electronic databases or digital libraries to a	30(21.0%)	44(30.8%)	33(23.1%)	36(25.2%)	2.48	1.09
3	I use electronic information resources to a wider range of scholarly content compared to traditional print resources to a	24(16.8%)	45(31.5%)	38(26.6%)	36(25.2%)	2.40	1.04
4	I use of electronic platforms enhances my overall	26(18.2%)	42(29.4%)	38(26.6%)	37(25.9%)	2.40	1.06

	research, learning and efficiency to a						
5	I utilize electronic information resources to access the latest and contemporary information relevant to my field of study to a	23(16.1%)	42(29.4%)	38(26.6%)	40(28.0%)	2.34	1.05
6	Collaborative features of electronic platforms (e.g., shared document repositories) facilitate collaboration and knowledge sharing among researchers and peers to	42(29.4%)	40(28.0%)	42(29.4%)	40(28.0%)	2.29	1.03
7	Electronic information resources offer user-friendly navigation and browsing options, allowing me to explore content efficiently to a	16(11.2%)	36(25.2%)	59(41.3%)	32(22.4%)	2.25	0.93
8	The use of electronic information resources has improved my ability to critically evaluate and analyse information to a	16(11.2%)	25(17.5%)	59(41.3%)	43(30.1%)	2.10	0.96
9	I use electronic information resources outside of my institution or geographic location to a	19(13.3%)	32(22.4%)	35(24.5%)	57(39.9%)	2.09	1.07
10	I find it convenientl to utilize electronic information resources	12(8.4%)	28(19.6%)	44(30.8%)	59(41.3%)	1.95	0.97

	compared to traditional print resources to a						

Source: Field survey, 2023

Decision rule: if mean is below 1.0-1.9=very low extent, 2.0-2.99=low extent, 3.0-3.99=high extent and 4.0 above = very high extent

The result in Table 2 shows the opinion of respondents on the extent of electronic information resources use of undergraduate students in Gombe State University. The extent of electronic information resources use of undergraduate students reported in table 2 is low (grand mean=2.29, SD=1.02). This implies that undergraduate students do not consider electronic information resources as resources that can enhance the academic performance. This result further reports that I find it convenient to utilize electronic information resources compared to traditional print resources (mean=1.95), I use electronic information resources outside of my institution or geographic location (mean=2.09) and the use of electronic information resources has improved my ability to critically evaluate and analyse information (mean=2.10) were all low.

Test of Hypothesis

Relationship between digital literacy and electronic information resources of undergraduate students in Gombe State University.

Table 3 Relationship between digital literacy and electronic information resources

Variables	Mean	Standard Deviation (SD)	N	R	P	Remark
Digital literacy	2.93	0.58	143	-0.05	0.561	Not Sig.
EIR Use	1.02	1.86				

Correlation is significant at 0.05.

Sources: Field survey, 2023

The Pearson Product Moment Correlation was employed to determine whether a relationship exists between digital literacy and the utilization of electronic information resources among undergraduate students at Gombe State University. The findings indicated that there is no significant relationship between digital literacy and the use of electronic information resources among undergraduate students at Gombe State University (r = -.05, p > .05). As a result, the

null hypothesis was accepted. This implies that despite having a high level of digital literacy, it does not translate to a high level of utilization of electronic information resources.

Discussion of Findings

On the level of digital literacy of undergraduate students in Gombe State. The level of digital literacy is high. This discovery aligns with the outcomes of the research conducted by Nilgun Ozdamar-Kesin, Fatma Zeynep Ozata, and Kerim Banar (2015) they investigated the digital literacy competences and learning behaviors of students enrolled in the open and distance education system at Anadolu University in Turkey. The finding reveals that the level of digital literacy of learners enrolled in distance learning is high. Scholastic Ukwoma et.al (2016) assess the digital literacy skills of students at the University of Nigeria, Nsukka. The findings revealed that a significant number of students acknowledged the impact of digital literacy on their academic performance. The study also discussed the challenges encountered by students in this regard. Essam Mansour (2016) carried out a survey of digital information literacy among library and information professionals. While the finding of this study negates the findings of the study by Parvathamma and Danappa Pattar (2013) who examined the digital literacy proficiency among the student community of management institutes in Davanagere district, Karnataka. The findings indicated that the respondents exhibited a low level of digital literacy. On the extent of electronic information resources use of undergraduate students in Gombe State University. The result revealed low extent of EIRs use among undergraduate students. The result of this study is similar to Sola, Oluwafemi, Foluke and Atinuke, (2016) who examined the utilization of electronic information resources by undergraduate students enrolled at the University of Ibadan. The study result has shown that the use of electronic information resources by undergraduate students in University of Ibadan is a bit low.

Conclusion and Recommendations

The study found that the level of digital literacy of undergraduate students in Gombe State University is high. It was discovered also that the extent of electronic information resources utilization among undergraduate students of Gombe State University is low. The study finally found that there is no significant relationship between digital literacy and electronic information resource use among undergraduate students in Gombe State University. This implies that despite the high level of digital literacy exhibited by the students, the result shows that the students have not been able to inculcate it into the use of electronic information.

Based the findings of this study the following recommendations were made:

1. Undergraduate students should sustain their digital literacy skills in order to reach the highest level of digital literacy.

2. Undergraduate students should integrate their digital literacy skills into electronic information resources use.

3. Undergraduate students should be encouraged to use electronic information resources to improve their extent of electronic information resources use.

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