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AWARENESS AND USE OF EMERGING TECHNOLOGIES BY LECTURERS IN SELECTED LIBRARY SCHOOLS IN SOUTH-WEST NIGERIA

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Abstract

This study examines how lecturers at a few library schools in South-West Nigeria are aware of and are utilising current technology. The goals were to assess lecturers' knowledge, determine the degree of technological use, identify obstacles, and suggest ways to improve uptake. A self-structured questionnaire was used to gather data from 100 lecturers randomly chosen from ten institutions that offered library and information science programmes. The study used a descriptive survey research methodology. The study's 100% response rate improved the credibility of the results. Chi-square (χ^2) statistical techniques and basic percentages were used to assess the data. According to the findings, most lecturers are aware of and actively use emerging technologies in their research and teaching. The emerging technologies are mobile learning, digital libraries, artificial intelligence, and immersive classrooms. However, significant obstacles still exist, such as poor professional development, small budgetary allotments, and inadequate infrastructure. The respondents cited social media, workshops, and professional magazines as their primary sources of technology updates. The study found out that although instructors are motivated and have a good attitude toward using emerging technology, institutional support is still essential. Among the suggestions are the establishment of ongoing training initiatives, enhanced facilities, and more financing to facilitate the use of cutting-edge technologies in library instruction. These results offer important current information about the development of ICT in higher education.

***Keywords*:** Emerging technologies, LIS lecturers, technology adoption, digital literacy, Nigeria

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Introduction

Human history suggests that successful information storage, display, and transmission technologies have long played a crucial role in communication. Various tools and techniques have been utilised for preserving and transferring knowledge across generations, including rocks, stones, papyrus, palm leaves, animal leather, and illuminated manuscripts (Bentley & O'Brien, 2012). The invention of printing revolutionised the dissemination of information, enhancing equitable access to knowledge on a global scale. Today, knowledge equates to power, and information technology is an essential component of modern education. The development of emerging technologies has the potential to push knowledge acquisition beyond existing limitations, ensuring the provision of relevant information when required.

The explosion of information, driven by advancements in computer technology, has significantly expanded cognitive capabilities (Adebayo & Ogunmodede, 2019). Emerging technologies, including artificial intelligence, virtual reality, multimedia applications, wireless communications, and personal digital assistants, are gradually integrating into educational systems (Anyaoku, 2019). Additionally, interactive video, CD-ROM, Internet, World Wide Web (WWW), teleconferencing, and satellite communications are transforming teaching and learning processes (Eirirmiokhale, 2019). However, before a technology becomes widely adopted, it undergoes several developmental phases. The greater the potential of a technology, the more likely it is to be embraced and institutionalised as standard practice.

Emerging technologies are not necessarily new inventions but may include existing technologies that have yet to be fully exploited within educational systems (Anyaoku, 2019). Two categories of emerging technologies exist: (1) those that are extremely new and underutilised by educational institutions, such as artificial intelligence and virtual reality, and (2) established technologies that are not being used to their full potential, such as multimedia applications. These technologies are deemed emerging because their full impact remains unrealised in education (Hussain, Qureshi, & Malik, 2024). Their integration into library schools varies based on available resources and institutional needs. Consequently, not all institutions can adopt these technologies simultaneously, and their widespread implementation takes time.

Rotolo, Hicks, & Martin (2015) define emerging technology as one that is well established yet remains underutilised by the educational system. In developing nations like Nigeria, many computer-based technologies are still considered emerging due to inadequate implementation. These include computers, the Internet, teleconferencing, and educational television. Emerging

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technologies have the potential to transform educational methodologies, making library science lecturers more creative and effective in their teaching (Samala et al., 2024).

Since they improve lecturers' access to material and enable remote learning, the use of developing technologies in lecture-based learning is becoming more popular. However, how well lecturers integrate this technology into their lesson plans determines how effective they are. Because instructors are not aware of, understand, or use many new technology tools, they continue to be underused. Library and information science (LIS) instructors need to be up to date on developing technologies and their uses to provide students the skills they need (Basiru & Okwilagwe, 2018). Western countries use training programmes, workshops, and public awareness efforts to enlighten lecturers about these technologies so they can decide whether to integrate and accept them.

The capacity of lecturers to mentor students and promote the purchase of pertinent resources for library schools is strongly impacted by their level of expertise with developing technologies. However, the efficient use of technology in Nigerian library schools is sometimes hampered by antiquated equipment and restricted access to resources. Furthermore, to successfully incorporate developing technology into their instruction, lecturers need specific training. Lecturer preparation programmes in industrialised nations include training in developing technologies, which gives them operational, functional, and strategic abilities (Falola, Owolabi. & Ogunnaike, 2020). Basic technical abilities are part of operational competence, functional competence is knowing how technology is used, and strategic competence is choosing the right technology for a given task.

Location and institutional resources are two other elements that affect the availability and use of innovative technologies in Nigerian library schools. Compared to schools in rural regions, metropolitan schools frequently have superior access to technology infrastructure. Additionally, as exposure to technological breakthroughs differs among academic institutions, lecturers' qualifications may also have an impact on how conversant they are with developing technology. Employing highly skilled individuals is a top priority for universities, and most of the library school lecuters have master's or doctorate degrees. Research hasn't yet shown if having more education equates to being more adept with recent technology.

In Nigerian higher education, gender-related differences in the adoption of developing technologies have also been noted. Because they believe men are more equipped to manage sophisticated technical instruments, several institutions prefer to hire male instructors. On the other hand, people view female lecturers as more committed and sympathetic. Claims that one

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gender is more adept at recent technology than the other, however, are not supported by any actual data.

Modern teaching and research in LIS require the use of developing technology. In the digital era, these tools guarantee relevant education by improving research efficiency and student learning. Rapid advances in technology are changing how information is accessed, arranged, and shared. In LIS education, emerging technologies like blockchain, augmented reality, machine learning, and artificial intelligence are becoming increasingly important. Therefore, evaluating how LIS instructors are integrating new tools into their research and teaching is essential (Anyaoku, 2019). Scholarly communication and research methods are likewise impacted by emerging technology. Academic discourse is changing because of advanced technologies for data visualisation, digital curation, and collaborative research. Nonetheless, there are gaps in the research about the use of these tools by LIS instructors. Filling in these gaps can yield important information on professional training programmes, curriculum development, and methods for incorporating recent technology into LIS instruction.

The purpose of this study is to assess LIS teachers' knowledge of and use of innovative technologies in a few South-West Nigerian library schools. In addition to determining the variables influencing their acceptance, the study will look at how often lecturers use these devices in their instruction. Through this study, the research aims to improve LIS education by encouraging efficient technology integration and giving instructors the tools they need to get students ready for the digital age.

Statement of the Problem

The rapid advancement of technology is reshaping educational landscapes globally, compelling educators to adapt and integrate innovative tools into their teaching and research practices. In this era of digital transformation, emerging technologies such as artificial intelligence, virtual reality, machine learning, and blockchain offer immense potential to enhance learning experiences, improve research outcomes, and bridge educational gaps. However, despite these benefits, the level of awareness and effective utilisation of such technologies among library and information science (LIS) lecturers in South-West Nigeria remains uncertain and underexplored.

Many library schools in this region face critical challenges related to infrastructure, training, and access to up-to-date technological tools (Aina, 2014; Issa, Igwe, & Uzuegbu, 2015). While the Nigerian government and educational institutions have made efforts to introduce and promote the use of digital technologies in education, evidence suggests that a considerable number of LIS lecturers are either unaware of or inadequately equipped to leverage these tools

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in their instructional practices. The lack of awareness, skills, and motivation among lecturers to adopt emerging technologies may hinder the realisation of innovative, student-centred teaching strategies and limit learners' exposure to modern information systems and tools that are essential for the 21st-century workplace.

Moreover, some lecturers may exhibit resistance to change, holding on to traditional teaching methods due to a lack of training, institutional support, or confidence in their ability to use recent technologies. These gaps pose a significant threat to the quality of LIS education and the capacity of graduates to thrive in a digitally driven information society.

Objectives of the Study

i. To assess the level of awareness among lecturers in selected library schools in South-West Nigeria regarding emerging technologies.
ii. To investigate the extent to which lecturers in library schools in South-West Nigeria are utilising emerging technologies in teaching and research.
iii. To identify the barriers and challenges faced by lecturers in integrating emerging technologies into their teaching methods.
iv. To develop recommendations to enhance the use of emerging technologies in teaching and research. Use this to write.

Research Questions

i. What is the level of awareness among lecturers in selected library schools in South-West Nigeria regarding emerging technologies?
ii. To what extent are lecturers in library schools in South-West Nigeria utilising emerging technologies in their teaching and research activities?
iii. What are the barriers and challenges lecturers face in integrating emerging technologies into their teaching methods?
iv. What strategies or recommendations can be developed to enhance the use of emerging technologies in teaching and research among lecturers in library schools?

Literature Review

Technology now plays a crucial role in education, impacting research, teaching, and learning. Higher education is rapidly being shaped by emerging technologies, which UNESCO (2015) defines as breakthroughs having a substantial societal impact. These technologies, which include robots, nanotechnology, artificial intelligence (AI), and instructional technologies, are transforming several academic disciplines, including library and information science (LIS). Immersion learning experiences and increased engagement are fostered by the use of new technologies within LIS education (Dede, 2019). In addition to changing how instructors

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instruct, these technologies are also changing how students interact with course materials, obtain information, and acquire vital skills for the modern workforce.

Radical originality, quick development, wide applicability, and transformative potential are characteristics of emergent technologies (Doudna, 2023). These technologies provide cross-domain convergence, resulting in novel information management and access efficiency (Aline et al., 2021). Emerging technologies in the LIS field provide enhanced information retrieval, virtual collaboration, and digital learning, highlighting their significance in contemporary education. Examples of how technological developments are impacting LIS education include the rise of AI-driven technologies, blockchain for information security, and cloud computing for digital archives. By transforming cataloguing, categorisation, and information retrieval, these technologies are improving the effectiveness and accessibility of library services.

For lecturers to effectively use developing technologies in the classroom, they must be aware of them. Being aware entails being aware of, accepting, and comprehending the presence, uses, and advantages of this technology. While Abba and Adamu (2019) stress the importance of awareness in using Internet services and technology tools for academic activities, Akpojotor (2016) defines awareness as knowledge, perception, and acknowledgement of facts. The acceptance and use of technology in education by lecturers is influenced by their level of awareness. Students' digital literacy may suffer as a result of lecturers' inability to successfully integrate developing technology into their lessons if they lack sufficient understanding. On the other hand, instructors who are knowledgeable about and adept at utilising new technologies may successfully incorporate them into their lesson plans, improving student learning outcomes and equipping them for the challenges of the digital age.

Lecturers' understanding of developing technologies is greatly impacted by professional development (Ertmer, 2005). Good training promotes technology integration in the classroom by improving knowledge and skill acquisition. Awareness is also influenced by perceived advantages, such as increased student involvement and teacher efficacy (Davis, 2022). Collaborative professional groups facilitate peer influence and experience exchange, which raises awareness even further. Additionally, lecturers' knowledge and uptake of technology are influenced by elements including technological skill, flexibility, and compatibility with pedagogical approaches. The smooth adoption of developing technologies and the closing of the technical knowledge gap are made possible by institutions that fund ongoing professional development programmes for lecturers.

Enhanced student engagement, the growth of digital literacy, and better instructional delivery are just a few advantages of lecturers being aware of developing technology. Dynamic and

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captivating learning experiences are made possible by interactive tools like educational applications and virtual reality (VR) (Hew & Brush, 2017). Additionally, understanding aids in the creation of curricula, allowing LIS teachers to include subjects like information retrieval systems and digital libraries. Technological awareness also encourages scholarship and research, which propels innovation in LIS education. By implementing technology-enhanced teaching techniques, instructors may make use of gamification techniques, simulations, and multimedia materials to create more dynamic and captivating learning environments. Furthermore, instructors who are knowledgeable about new technologies may better educate their students for the changing needs of the information industry.

In LIS education, the use of developing technologies improves the quality of teaching and learning. While digital collaboration tools allow instructors to network globally, AI-driven adaptive learning systems customise education (Aljemely, 2024). New technologies that enhance student engagement and promote experiential learning include artificial intelligence (AI) and augmented reality (AR). Additionally, mobile learning (m-learning) and machine learning (ML) improve teaching methods, making education more accessible and individualised (Chaudhry & Kazim, 2022). Students' academic performance is improved by these technologies' ability to provide competency-based learning, adaptive tests, and real-time feedback. Additionally, cloud computing is essential because it makes educational resources and digital archives accessible, facilitating easy collaboration and distance learning.

The use of developing technologies in LIS education is hampered by several issues, notwithstanding the advantages. Significant obstacles include instructors' low level of digital literacy, poor infrastructure, and budgetary limitations (Bawden & Robinson, 2016). Technology integration is further hampered by institutional opposition to change and a lack of expert assistance (Grainger & Bolitho, 2004). Strategic investments in infrastructure development, legislative support, and professional training are needed to address these issues. Funding for technology improvements must be given top priority at educational institutions in order to give lecturers the assistance and training they need to successfully integrate new technologies. Government policy should also fund the use of technology in educational institutions and encourage digital literacy programmes.

To improve teaching strategies, encourage student participation, and further research, lecturers in LIS education must be aware of and use current technology. Although awareness affects adoption, lecturers' use of technology is influenced by several factors, such as institutional support, professional growth, and technological ability. The efficacy of new technologies in LIS education may be increased by overcoming adoption barriers through legislative efforts,

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infrastructure investment, and training, which will eventually improve professional practice and learning outcomes. To develop more inventive, effective, and inclusive LIS education models, future studies should examine how cutting-edge technology might be further improved. For lecturers to stay at the forefront of the digital transformation in education, the ongoing advancement of technology emphasises the value of lifelong learning.

Although several studies have explored the integration of technology in LIS education, important gaps remain. Most research focuses on student outcomes, with little attention given to how lecturers develop and sustain the digital skills needed for ongoing technological changes (Smith & Greene, 2020; Musa & Hamid, 2023). Additionally, while technologies like Virtual Reality and Learning Management Systems have been examined, there is limited emphasis on inclusive practices, particularly how these tools support students with disabilities or those from disadvantaged backgrounds (Chen et al., 2021). Moreover, much of the existing literature is based on high-resource environments, with few empirical studies reflecting the realities of low-resource contexts like Nigeria (Obi & Adeyemi, 2022).

This study seeks to fill these gaps by examining how LIS lecturers in Nigerian universities engage in lifelong learning to remain digitally competent and how they adapt emerging technologies to ensure inclusive and effective teaching. It offers a context-specific understanding that can inform more equitable and practical models for LIS education in developing regions.

Research Methods

In this study, a survey research design was used. With the help of the design, the researcher was able to get information from respondents on the awareness and use of emerging technologies by lecturers in selected library schools in the Southwest. Nigeria 100 lecturers overall in the library schools in Southwest Nigeria made up the study's population; lecturers in other library schools were not given access to administer the questionnaire. The method employed was complete enumeration sampling. 100 copies of the questionnaire were administered to lecturers in the Library and Information Science department in the Southwest, Nigeria. With a 100% response rate, all the administered questionnaires were returned and determined to be legitimate for the study, improving the validity and reliability of the data gathered. The Chi-square (χ^2) statistical approach and basic percentages were used to examine the acquired data. Descriptive data were presented using percentages, and the significance of the connections between factors, including awareness levels, usage frequency, and perceived efficacy of developing technologies, was assessed using the Chi-square test. The study ensured ethical compliance by informing participants about the purpose of the research, assuring them of the confidentiality of their responses, and obtaining their informed consent.

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Results

Table 1: Demographic Information of Respondents

Age	**Frequency**
Below 35years	29
Between 35 and 50 years	52
Above 50 years	19
Total	100
Sex	**Frequency**
Male	43
Female	57
Total	100
Marital Status	**Frequency**
Single	19
Married	81
Total	100
Highest Educational Qualification	**Frequency**
Ph.D	41
Masters	53
B.Sc	6
Total	100
Academic Rank	**Frequency**
Professor	8
Associate Professor/Reader	4
Senior Lecturer	29
Lecturer 1	11
Lecturer 11	27
Assistant Lecturer	15
Graduate Assistant	6
Total	100
Level of Teaching Experience	**Frequency**
0 - 5 Years	23
6 - 10 Years	31
11 - 15 Years	18
16 - 25 Years	15
26 - 40 Years	10
40 Years and Above	3
TOTAL	100

From the table above, the majority (52%) of the respondents were within the 35–50 years age bracket, indicating a predominantly middle-aged academic workforce. A significant proportion (29%) are below 35, suggesting a good number of early-career academics, while 19% are above 50, representing more experienced or nearing-retirement staff. The table shows that there are more female academic staff (57%) compared to their male counterparts (43%). This may reflect increasing female participation in academia and efforts toward gender balance in the workforce. The table shows that most academic staff members hold postgraduate degrees: 53% have master's degrees and 41% possess PhDs. Only a small fraction (6%) hold a bachelor's degree, likely those in entry-level academic positions. The high proportion of advanced degrees reflects a well-qualified academic population. Senior Lecturers constitute the largest group (29%), followed by Lecturer II (27%) and Assistant Lecturers (15%).

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Professors and associate professors combined account for only 12%, suggesting a smaller pool of senior academic leaders, possibly due to retirement, promotion delays, or institutional youthfulness. The significant number of junior lecturers and assistants indicates a workforce with growth potential and ongoing capacity building. A combined 54% of the respondents have 10 years or less of teaching experience, highlighting a relatively young or recently employed academic staff base. Those with more than 15 years of experience make up 28%, with only 3% having over 40 years, indicating a smaller number of veteran academics who may serve as mentors or leaders.

Table 2: Distribution of the sample of the study.

Name of School	Frequency	Percentage
University of Ibadan	20	20.0
Lead City University	10	10.0
Tai Solarin University of Education	6	6.0
Federal Polytechnic Ilaro	10	10.0
Lagos State University of Education, Ijanikin	10	10.0
Lagos State University	10	10.0
National Open University of Nigeria	10	10.0
Osun State University	10	10.0
Ekiti State University	7	7.0
Adekunle Ajasin University, Ondo	7	7.0
Total	100	100%

The table indicates that each of the school selected were administered variably. Out of the ten (10) Schools Selected for the study, the University of Ibadan is the most populated with 20 lecturers. The least populated school is Tai Solarin University of Education, with 6 lecturers administered to all the questionnaire administered were certified fit for the study, which makes a response rate of 100%. The response rate makes the analysis, to some extent, valid.

Table 3: Level of Awareness of Emerging Technologies among Lecturers

S/N	Not Aware	Fairly Aware	Aware	Very Aware
Artificial Intelligence	1	4	39	56
Machine Learning	12	53	21	14
Data Analytics	9	28	45	15
Virtual Reality	16	42	32	10
Augmented Reality	11	49	25	15
Blockchain Technology	8	52	26	14
Internet of Things	8	32	42	18
Gamification	10	49	28	13
Cloud Computing	4	31	51	14
Mobile Learning	2	30	48	22
Robotics	1	18	51	30
Wearable Technology	19	38	32	11
Simulation	15	41	40	4
Digital Libraries	-	1	37	62
3D Printing	18	29	42	11
Adaptive Learning	7	31	50	12
Live Streaming	4	12	53	31

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Immersive Classroom	15	32	42	11
Mean%	9.2	30.5	40.3	20.1

The table shows that the highest proportion of respondents (40.3%) reported being aware of emerging technologies, indicating a moderate level of technological familiarity among LIS educators. In contrast, a small percentage (9.2%) admitted to having no awareness of emerging technologies, highlighting a significant gap that could hinder the adoption of innovative teaching tools. Interestingly, despite the varied levels of general awareness, a higher percentage of respondents demonstrated strong familiarity with specific technologies: 62% and 56% reported being very aware of digital libraries and artificial intelligence, respectively. This suggests that while overall awareness may vary, exposure to certain widely adopted technologies is relatively high, pointing to potential entry points for broader digital integration in LIS education.

Table 4: How do you typically stay informed about new technologies relevant to your field?

S/N	**Frequency**	**Mean%**
Professional journals	92	30.3
Online courses	30	9.9
Social media	75	24.8
Conference and workshops	78	25.7
Webinars	28	9.2
Total	100	100%

The research shows that the majority of the respondents typically stay informed about new technologies through professional journals, with a simple majority of 30.3%, closely followed by conferences and workshops with about 25.7% and social media with about 24.8%. 9.9% stay informed of emerging technologies through online courses, and 9.2% stay informed through webinars.

Table 5: The use of Emerging Technologies (Emerging Technologies used Currently in Teaching?).

S/N	**Frequency**	**Mean%**
Artificial Intelligence	88	16.5
Machine Learning	12	2.2
Data Analytics	31	5.7
Virtual Reality	34	6.2
Augmented Reality	4	0.7
Blockchain Technology	5	0.9
Internet of Things	32	5.8
Gamification	3	0.5
Cloud Computing	15	2.7
Mobile Learning	51	9.5
Robotics	1	0.2
Wearable Technology	34	6.2
Simulation	2	0.4
Digital Libraries	97	17.7
3D Printing	11	2.0
Adaptive Learning	37	6.8

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Live Streaming	51	9.3
Immersive Classroom	39	7.1
Total	100	100%

The research shows that digital libraries with 17.7% and artificial intelligence with 16.5% are the emerging technologies that are currently used by lecturers in library and information science in their teaching. Closely followed are mobile learning with 9.5%, live streaming with 9.3% and Immersive classroom with 7.1%. Some are adaptive learning with 6.8%, wearable technology with 6.2%, virtual reality with 6.2% and Internet of things with 5.8% of use.

Table 6: Effectiveness and Level of Use of Emerging Technologies in Teaching, Learning and Research.

Utilization	**SD**	**D**	**A**	**SA**
Have emerging technologies impacted your assessment methods?	6	22	45	27
Have emerging technologies impacted your teaching effectiveness	9	21	32	38
Do you enjoy using emerging technologies in your research?	10	32	36	22
There are measurable benefits in using emerging technologies in research	14	15	41	31
Do you enjoy using emerging technologies in your teaching?	4	10	42	44
With emerging technologies, learning outcome are enhanced	5	28	45	22
I often use emerging technologies in teaching and research	8	5	49	38
Emerging technologies enhances students' engagement in classes	10	11	43	36
Emerging technologies can be integrated into course design and delivery	4	12	45	39
I have a positive attitude in adopting emerging technologies in teaching and research.	1	8	32	59
Do you feel motivated to adopt new emerging technologies?	2	4	38	56
I have a formal training of using emerging technology	9	31	36	24
My Institution supports the use of emerging technologies	12	29	39	22
My Institution is well equipped with new emerging technologies	22	36	31	11
Emerging technologies makes me lazy in teaching and research	34	30	22	14
Mean%	10%	19%	38%	32.9%

This research shows that the majority of respondents find emerging technologies highly effective and useful in teaching, in learning and research, with about 38% agreeing and 32.9% strongly agreeing to the effectiveness of emerging technologies, respectively. 45% and 27% agree and strongly agree, respectively, that emerging technologies have impacted their assessment methods. Also, 49% and 38% agree and strongly agree, respectively, that they often use emerging technologies in teaching and research. 45% and 39% of the respondents agree and strongly agree that emerging technologies can be integrated into course design and delivery. This research also shows that 34% and 30% of respondents strongly disagree and disagree that emerging technologies make them lazy in teaching and research. 59% also strongly agree that they have a positive attitude toward adopting emerging technologies, while 56% strongly agree that they are motivated to adopt new emerging technologies.

Table 7: Challenges Facing the Use of Emerging Technologies

Challenges	**Frequency**	**Mean%**

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Inadequate Infrastructure	97	11.2
Lack of literacy skills	32	3.7
Limited Internet bandwidth	24	2.8
Insufficient technical support	31	3.6
Uneven access to technology among student	52	6.0
Hardware and software upgrades	19	2.2
Limited budget allocations	86	10.0
Resistance to change	62	7.2
Skepticism	41	4.8
Troubleshooting technical issues	72	8.4
Epileptic power supply	64	7.4
Poor internet connectivity	76	8.8
Lack of funding	82	9.9
Inadequate professional development	71	8.2
Availability and accessibility issues	49	5.7
Total		100%

The research shows that there are lots of challenges associated with the awareness and use of emerging technologies, some among which are limited budget allocations, Inadequate Infrastructure, and Inadequate professional development. The respondents believe that Inadequate Infrastructure is the chief challenge facing the awareness and use of emerging technologies by lecturers in library and information science in the southwestern part of Nigeria.

Discussion

The findings of this study reveal that lecturers in library schools across South-West Nigeria possess a considerable level of awareness of emerging technologies relevant to teaching, learning, and research. This aligns with previous studies that highlight the growing familiarity of academic staff with digital tools and platforms in higher education (Adeleke & Olorunsola, 2020). Additionally, many lecturers are actively using these technologies in their research and teaching activities in addition to being aware of them, which improves academic productivity and the quality of education delivered (Ogunniyi & Ojo, 2021).

But despite this encouraging trend, the study also found a few enduring obstacles that prevent innovative technologies from being widely adopted and used. These include restricted financial allocations, a lack of professional development programmes, and poor infrastructure—a reality that has been confirmed by other researchers looking at ICT adoption in Nigerian higher education (Okiki, 2019; Eke & Igwesi, 2022). The successful implementation of technology-enhanced education and research is still hampered by these issues.

Library schools and their parent institutions must provide continuous training and capacity-building programmes for instructors to overcome these obstacles. To promote innovation and technology integration in academia, it is equally critical to have institutional support in the form of specialised financing, contemporary infrastructure, and well-thought-out policies

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(Abubakar & Idris, 2020). South-West Nigerian library schools may enhance their technical prowess and, in turn, raise the standard of instruction and research in library and information science by tackling these problems.

Conclusion

This study assessed the level of awareness and utilisation of emerging technologies among lecturers in selected library schools in South-West Nigeria. The findings revealed that:

1. Lecturers are generally aware of various emerging technologies applicable to teaching, learning, and research in library and information science education.
2. Beyond awareness, many lecturers are already utilising these technologies effectively to enhance pedagogical practices and academic productivity.
3. However, the adoption and sustained use of emerging technologies face significant challenges, including inadequate infrastructure, insufficient professional development opportunities, limited access to modern tools, and constrained budget allocations.
4. To address these challenges, the study emphasises the need for ongoing training and professional development programmes, strategic institutional investment in technological infrastructure, and dedicated budgetary support. These measures will ensure that lecturers in library schools are well-equipped to harness the full potential of emerging technologies in their academic roles.

Recommendations

The following are the recommendations.

1. Library schools should revise their curricula to include hands-on courses and modules specifically focused on emerging technologies, ensuring that lecturers are involved in designing and delivering these components.

2. Cooperation and Partnerships: Form alliances with other academic institutions, industry professionals, and technology suppliers. Working together may provide you with access to resources, knowledge, and modern technologies.

3. Professional Development Programs: To keep lecturers and educators up to date on technical changes, implement continuing training and professional development programs. Promote attendance at conferences, seminars, and online courses.

4. Resource Allocation: Promote more financing and resources to help educational institutions buy and maintain cutting-edge technology. This will guarantee that instructors and students have access to the resources they need while also assisting in overcoming financial limitations.

5. Lecturers and LIS educators may more effectively incorporate cutting-edge technology, like artificial intelligence (AI), into their lesson plans, improving student learning and equipping them for a quickly changing future.

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