Full Length Research

Internet proficiency skills need of LIS lecturers for their productivity in universities in South-East Nigeria

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In the dynamic landscape of higher education, the integration of information and communication technology (ICT) is crucial for enhancing the productivity of Library and Information Science (LIS) lecturers. This study explores the specific internet proficiency skills required by LIS lecturers in universities within South-East Nigeria and assesses their impact on academic productivity. Given the rapid advancements in digital technology and the recent shift towards online and hybrid learning models accelerated by the COVID-19 pandemic, it is essential to understand how well-equipped LIS lecturers are in navigating the digital realm. Using a descriptive survey design, the study involved a sample of 140 LIS lecturers from public universities across the South-East region, encompassing Abia, Anambra, Ebonyi, Enugu, and Imo states. Data were collected through a researcher-developed and validated questionnaire, achieving a 100% response rate. The analysis included calculating means and standard deviations to address research questions and employing a dependent t-test to test hypotheses at a 0.05 significance level. The findings reveal significant gaps in certain internet proficiency skills among LIS lecturers, particularly in areas such as uploading lecture notes, creating web pages, and utilizing advanced internet tools. The study highlights the urgent need for targeted professional development programs to address these deficiencies. Effective internet skills are vital for conducting online research, managing digital communications, and engaging in remote teaching, thereby enhancing overall academic productivity. The research underscores the necessity of equipping LIS lecturers with robust digital competencies to meet the evolving demands of contemporary academic environments and improve their instructional and research capabilities.

Keywords: information and communication technology, Library and Information Science, digital communications

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INTRODUCTION

In the rapidly evolving landscape of higher education, the role of Library and Information Science (LIS) lecturers in Nigerian universities is becoming increasingly intertwined with digital technology. The integration of internet proficiency into academic tasks is no longer optional but essential for enhancing the productivity and effectiveness of lecturers. The South-East region of Nigeria, home to several prestigious universities, has witnessed significant transformations in its educational sector, driven by advancements in information and communication technology (ICT). These changes

necessitate that LIS lecturers possess a robust set of internet proficiency skills to meet the demands of contemporary academic environments.

The importance of internet proficiency for LIS lecturers extends beyond mere familiarity with digital tools; it encompasses a comprehensive ability to navigate, utilize, and innovate within the digital information landscape. According to Afolabi and Aboyade (2019), the digital era has revolutionized the way academic information is accessed, processed, and disseminated, placing new demands on educators to remain proficient in online research, communication, and data management. For LIS lecturers, whose primary role involves the curation and dissemination of information, these skills are particularly critical. The ability to effectively use online databases, manage digital communications, and employ internet-based teaching tools directly impacts their teaching quality, research output, and overall academic productivity.

Furthermore, the transition to online and hybrid learning models, accelerated by the COVID-19 pandemic, has highlighted the urgent need for internet proficiency among educators. As Adomi and Anie (2020) note, the shift to digital platforms for teaching and learning has exposed gaps in the digital competencies of many educators, including LIS lecturers, who must now adapt to new pedagogical methods and tools. The ability to conduct online classes, manage digital course materials, and engage with students remotely has become a critical component of the academic process. This shift underscores the importance of equipping LIS lecturers with the necessary internet proficiency skills to navigate the challenges and opportunities presented by the digital age.Moreover, the ability to engage in effective online research is vital for LIS lecturers who are expected to contribute to academic knowledge through publications and scholarly discourse. As emphasized by Omotayo and Haliru (2021), the academic community increasingly relies on digital platforms for accessing and sharing research findings, making it imperative for lecturers to be proficient in using online research tools and databases. This proficiency not only enhances their research capabilities but also ensures that they remain competitive in the global academic arena, where digital literacy is a key determinant of success.

In addition to research and teaching, internet proficiency also plays a crucial role in the professional development of LIS lecturers. Continuous learning through online platforms, participation in virtual conferences, and engagement with global academic networks are all facilitated by internet skills. According to Ezeani and Igwesi (2022), the ability to leverage online resources for professional growth is essential for lecturers who must stay abreast of the latest developments in their field. This ongoing development is critical in ensuring that LIS lecturers in South-East Nigeria can meet the evolving needs of their students and institutions. Hence, the need for internet proficiency skills among LIS lecturers in universities in South-East Nigeria is driven by the demands of the digital age. These skills are essential for enhancing productivity in research, teaching, and professional development, ensuring that lecturers can effectively fulfill their roles in an increasingly digital academic environment. The paper will explore the specific internet proficiency skills required by LIS lecturers and their impact on academic productivity, drawing on relevant literature and empirical evidence from the South-East Nigerian context.

Statement of the problem

The rapid integration of information and communication technology (ICT) into higher education has placed significant demands on Library and Information Science (LIS) lecturers, particularly in the South-East region of Nigeria. Despite the recognized importance of internet proficiency for enhancing academic productivity, many LIS lecturers in this region struggle with inadequate digital skills. This deficiency impacts their ability to conduct online research, utilize digital teaching tools, and engage in global academic networks. The resulting challenges not only limit their research output and teaching effectiveness but also hinder the overall quality of education provided to students.

Moreover, the recent shift towards online and hybrid learning models, accelerated by the COVID-19 pandemic, has further highlighted the critical need for internet proficiency among LIS lecturers. However, the lack of targeted professional development opportunities and training programs tailored to their specific needs has exacerbated the skill gap. Without these essential skills, lecturers face difficulties adapting to new digital platforms and methodologies, potentially diminishing the quality of their instruction and the academic experience of their students. This study, therefore, seeks to explore the specific internet proficiency skills required by LIS lecturers in South-East Nigeria, the current level of these skills, and the factors contributing to the existing gaps, with the aim of proposing solutions to enhance their productivity and effectiveness.

Therefore, this study seeks to address the following questions:

1. What is the Internet proficiency skills need of LIS lecturers for their productivity in universities in South- East Nigeria?

Purpose of the Study

The main purpose of the study was to determine the Internet proficiency skills need of LIS lecturers for their productivity in universities in South-East Nigeria.

Research Hypotheses

The following hypotheses were formulated to guide the study at 0.05 level of significance.

There is no significant difference in the mean responses of professorial cadre and other LIS lecturers on H0₁: presentation skills need of LIS lecturers for productivity in universities South- East Nigeria.

Scope of the study

This study examines the internet proficiency skills required by Library and Information Science (LIS) lecturers in universities across South-East Nigeria and their impact on academic productivity. It focuses on online research, digital communication, teaching platforms, and professional development, specifically within universities in Abia, Anambra, Ebonyi, Enugu, and Imo states. The study aims to identify skill levels, challenges, and the effectiveness of training programs to inform strategies for enhancing the digital competencies of LIS lecturers in the region.

Literature review

Information and Communication Technology (ICT) Skills Needs

Information and communication technology (ICT) skills have become an integral part of modern life, influencing how individuals work, communicate, learn, and access information. These skills encompass a range of abilities that enable lecturers to effectively navigate, utilize, and leverage technology for various purposes such as teaching, learning, and research. Proficiency in ICT involves a fundamental understanding of hardware, software, and digital tools. This includes the ability to navigate operating systems, use productivity software (like word processors, spreadsheets, and presentation tools), and manage files and data, forming the foundational layer that empowers individuals to perform dayto-day tasks effectively (Ratheeswari, 2018). Beyond basic technical abilities, ICT skills also encompass digital literacy, which enables LIS lecturers to evaluate information critically, discern credible sources from unreliable ones, and understand concepts such as online privacy, cybersecurity, and digital etiquette. In a world inundated with information, being digitally literate is essential for LIS lecturers in making informed decisions and safeguarding personal data.

Communication lies at the heart of ICT skills. Proficient lecturers can use email, instant messaging, and social media platforms effectively for both personal and professional communication. They are adept at crafting clear and concise messages, sharing information in appropriate formats, and collaborating with others using various digital communication tools. With the introduction and implementation of ICT in various library schools, most transactional and important services, such as teaching, learning, and research, are now done digitally or electronically by LIS lecturers. Hence, LIS lecturers must learn and adjust themselves to this rapidly changing environment by acquiring various ICT skills to become valuable assets for their institutions.

ICT, as described by various authors, encompasses a range of technologies for gathering, storing, retrieving, processing, analyzing, and transmitting information. According to Nwabueze and Ukaigwe (2015), ICTs are tools of micro-electronics and telecommunications used in the automatic acquisition, analysis, storage, retrieval, manipulation, management, control, movement, display, transmission, reception, and interchange of quantitative and qualitative data. Esu (2018) refers to ICT as the creation, processing, storage, retrieval, and transmission of data and information. Similarly, Igwe (2018) posits that ICT involves the application of technologies consisting of hardware, software, networks, and media for collecting, storing, processing, transmitting, and presenting information in textual, pictorial, and multimedia formats.

In educational institutions, ICT serves as a medium through which educational activities, including teaching, administration, research, and learning, are carried out. ICT skills are essential for enhancing the productivity of lecturers in library and information science, particularly in the areas of teaching, research, and development. Skills are defined as the quality or state of having sufficient knowledge, judgment, or strength in a particular job or duty. According to Makara (2017), skills are knowledge of how a particular piece of work ought to be done, while competencies are the abilities a person possesses to carry out a specific task. The United Nations Development Programme (UNDP) (2011) emphasizes that ICT skills involve equipping individuals with the understanding and training necessary to perform better, thereby

improving their knowledge, skills, and attitudes for proficiency and productivity.

ICT skills are closely tied to problem-solving and creativity. Proficient users can adapt to new software and technology, troubleshoot technical issues, and find innovative solutions to challenges. They can also harness digital tools to express creativity through content creation, graphic design, multimedia production, and more. In the professional world, ICT skills are highly sought after, enabling employees to work remotely, collaborate across geographical boundaries, and access information quickly. Proficiency in project management tools, online collaboration platforms, and data analysis software further enhances one's value in the job market. The rapid evolution of technology requires continuous learning and adaptation. Individuals with strong ICT skills exhibit a growth mindset, actively seeking opportunities to learn about new tools and trends, making lifelong learning in this realm vital to remaining relevant in an ever-changing digital landscape. In essence, ICT skills encompass technical proficiency, digital literacy, effective communication, problem-solving, creativity, and adaptability, empowering lecturers to navigate the digital age with confidence and contribute to personal, educational, and professional success.

Internet Proficiency skills and lecturers Productivity

Internet proficiency skills refer to the ability to effectively and efficiently use the internet as a tool for information retrieval, communication, collaboration, research, and other purposes. With the widespread availability of the internet, being proficient in using it is crucial for many professionals, including educators' researchers, and information specialists, as it offer a vast repository of information and resources that can be accessed for various purposes (William, 2018). Internet proficiency skills involve the ability to effectively use search for, locate, and receive information from the internet. Proficient users can effectively use search engines, such as Google, Bing, or other specialize search engines, to find relevant information quickly and accurately. They can effectively use search operators, filters, and advanced search techniques to refine search results and obtain reliable and credible information from reputable sources. Proficient users are also aware of evaluating the credibility, reliability, and relevance of information obtained from the internet to ensure accurate and trustworthy information retrieval (Winsted, 2016).

In addition to this Carneiro et al (2015) disclosed that Internet proficiency skills involve ability to effectively communicate and collaborate online. Lecturers can effectively use email, instant messaging, video conferencing, and other online communication tools to connect with students and colleagues for exchange information, and collaborate on projects. They are familiar with online communication etiquette, privacy, and security practices to ensure professional and secure online interactions. Proficient users can also effectively use online collaboration tools, such as cloud storage, project management, and document sharing platforms, to collaborate on documents, share resources, and manage projects with others. This is a worldwide collection of computer networks, made up of networks linked together by the international telephone system. These skills encompass a range of abilities that empower lecturers to effectively browse, communicate, collaborate, and stay safe in the ever- evolving online landscape. The ability to search efficiently, discern credible sources, and find relevant information is very essential for LIS lecturers. This involves understanding search engines, utilizing keywords, and critically evaluating the reliability and credibility of online content. Internet proficiency skills facilitate understanding on how to convey ideas, engage in meaningful discussions, and build relationships through written and multimedia channels is a vital aspect. Hirsh (2022) suggests that collaboration in the digital realm is another facet of internet proficiency. Platform like cloud-based document sharing, project management tools, and online collaboration platforms enable individuals lecturers and teams to work together seamlessly across distances. Proficient users can edit documents in real-time, share resources, and contribute to projects, promoting efficiency and teamwork.

Drisu (2015) described internet as accompany-wide network run along the line of the Word Wide Web, making it possible to share documents, database and application. They are mainly run by cooperation, government and academic institutions. This high level of connectivity fosters an unparalleled degree of communication, collaboration, resources sharing and information access within the universities. Internet connects universities, colleges, school and other educational institutions for information sharing and exchange .Access to information through internet has changed the total scenario of teaching and learning of library and information science lecturers which in turn elaborate their research capacity. Also, in the word of Bakpo (2010) viewed Internet as a collection of computer networks that connect millions of computer around the world.

In the opinion of Bassey (2012), the Internet is an international computer network of information available to the public through modem. The internet remains the source of Information that is constantly changing, expanding and used by millions of people involved in several activities ranging from commerce to education all over the globe. Online tools and applications are integral to internet proficiency. Understanding how to use productivity tools, like Google Workspace or Microsoft 365, as well as leveraging specialized applications for various tasks, enhances efficiency. Skills in using cloud storage, project management apps, and collaborative software streamline work and communication as far as teaching, learning and research work is concern. Lastly, internet proficiency skill encompass effective wed navigation,

communication. Collaboration, security awareness, tool utilization, and critical thinking. Cultivating these skills empowers individual lecturers to navigate the digital landscape with confidence, capitalizing on its potential while safeguarding themselves and others in an increasingly interconnected world.

METHODOLOGY

This study employed a descriptive survey design to assess the internet proficiency skills required to enhance the productivity of Library and Information Science (LIS) lecturers in public universities across South-East Nigeria. The design was selected based on Uzoagulu's (2011) assertion that it effectively describes the current state of a phenomenon without interference, and Neeru's (2012) support for its capacity to gather and analyze qualitative data in a meaningful way. The research focused on the South-East region of Nigeria, which includes the states of Abia, Anambra, Ebonyi, Enugu, and Imo-home to 17 universities, eight of which offer LIS programs. This region was chosen because of its active research environment, underscoring the importance of understanding the internet proficiency skills of LIS academic staff.

The study involved a sample of 140 LIS lecturers from these universities, providing a comprehensive overview of their internet proficiency skills. Data were collected using a researcher-developed and validated questionnaire, which achieved a 100% response rate. The data analysis included calculating mean and standard deviation to address the research questions, and testing hypotheses using a dependent t-test at a 0.05 significance level. Ethical considerations were thoroughly addressed by ensuring confidentiality and voluntary participation, resulting in a detailed investigation into the internet proficiency skills necessary to boost the productivity of LIS lecturers in the region.

Data presentation and analysis

Research Question 1: What is the internet proficiency skills need of LIS lecturers for their productivity in universities in South East Nigeria?

S/N	Internet proficiency skills need of LIS lecturers	Lecturers'	Expert	Skills	Remarks
		XP	XN	Xn -Xp	
1	Skills to create web page for teaching	2.9	2.5	0.4	*SNN
2	General understanding of web structure addresses	3.03	2.5	0.53	SNN
3	Ability to upload lecture notes on the web	1.91	2.5	-0.59	**SN
4	Effectively download information from the web	3.04	2.5	0.54	SNN
5	Skills to retrieve email	3.77	2.5	1.27	SNN
6	Effectively display multiple browser skills	3.02	2.5	0.52	SNN
	Ability to use internet service like Telnet,				
7	(Newsgroup and file transfer protocol)	3.04	2.5	0.54	SNN
8	Skill to display teleconferencing for meetings	2.96	2.5	0.46	SNN
9	Ability to practice the use of facsimile	2.9	2.5	0.4	SNN
	Internet is essential because of its connectivity to				
	other form of technology needed in teaching and				
10	learning	3.06	2.5	0.56	SNN
	Lecturers needs to acquire skills in the usage of				
11	internet to improve their productivity.	3.66	2.5	1.16	SNN
12	Skills to reply an email	3.67	2.5	1.17	SNN
13	Ability to use file transfer protocol	3.14	2.5	0.64	SNN
	Ability to upload other educational materials on the				
14	web	3.14	2.5	0.64	SNN
	Cumulative Mean	3.09	2.5	0.59	SNN

Table 1: Summary of mean of lecturers on internet proficiency skills need of LIS lecturers for their productivity in universities

**SN- Skills needed *SNN- Skills Not Needed

Source: Researcher's field computation

Table 1 gives the summary of the mean and item analysis of internet proficiency skills need of LIS lecturers for their productivity in universities in South East Nigeria. The result shows that the mean range for lecturers is 1.91- 3.67. The result shows that item 3 (Ability to upload lecture notes on the web) has a mean of 1.91. This indicates that lectures lack skills in ability to upload lecture notes on the web, therefore, need training in this area. The result also shows a negative mean difference of -0.59 for item 3 between skills possessed and skills required, indicating that lecturers have skills need in ability to upload lecture notes on the web. The cumulative mean is 3.09 with a mean difference of 0.59. This indicates that lecturers have acquired skills in internet proficiency generally.

 H_{01} : There is no significant difference in the mean responses of professors and lecturers on internet proficiency skills need of LIS lecturers for productivity in universities South East Nigeria.

S/N	Presentation Skills	Rank	Ň	Mean	Std.	t- cal	Р	Decision
					Dev		value	
1	Skills to create web page for teaching	Professors	36	1.33	0.96	-16.269	.001	S
		LIS lecturers	104	3.44	0.85			
2	General understanding of web structure addresses	Professors	36	1.25	0.84	-10.863	.001	S
		LIS lecturers	104	3.64	0.77			
3	Ability to upload lecture notes on the web	Professors	36	1.93	1.21	-9.883	.001	S
		LIS lecturers	104	1.93	1.22			
4	Effectively download information from the web	Professors	36	1.17	0.56	-8.097	.001	S
		LIS lecturers	104	3.68	0.53			
5	Skills to retrieve an email	Professors	36	3.47	0.77	-10.995	.001	S
		LIS lecturers	104	3.88	0.53			-
6	Effectively display multiple browser skills	Professors	36	1.25	0.84	-13.395	.001	S
		LIS lecturers	104	3.63	0.64			
7	Ability to use internet service like Telnet, (Newsgroup and file transfer protocol)	Professors	36	1.25	0.84	-11.963	.001	S
		LIS lecturers	104	3.65	0.54			
8	Skill to display teleconferencing for meetings	Professors	36	1.25	0.84	-10.565	.001	S
		LIS lecturers	104	3.55	0.65			
9	Ability to practice the use of facsimile	Professors	36	1.25	0.84	-16.162	.001	S
		LIS lecturers	104	3.47	0.82			
10	Internet is essential because of its connectivity to other form of technology needed in teaching and learning	Professors	36	1.25	0.84	-8.653	.001	S
		LIS lecturers	104	3.69	0.62			
11	Lecturers needs to acquire skills in the usage of internet to improve their productivity.	Professors	36	3.31	0.95	-13.457	.001	S
		LIS lecturers	104	3.78	0.67			
12	Skills to reply an email	Professors	36	3.53	.651	-10.205	.001	S
		LIS lecturers	104	3.72	.78			
13	Ability to use file transfer protocol	Professors	36	2.25	1.50	-6.009	.001	S
		LIS lecturers	104	3.45	1.17			

Table 2: Summary of t-test analysis of significant difference in the mean responses of professors and lecturers on Internet proficiency skills need of LIS lecturers for productivity

		Professors LIS lecturers	104	3.50	1.90 0.91 3.50 0.77	-11.306			
	Cumulative		36	1.90			.001	S	
	web.	LIS lecturers	104	3.48	0.99				
14	Ability to upload other educational materials on the	Professors	36	2.17	1.13	-7.019	.001	S	
Table	2 continuation								

*Sig; Significant at p<.05.001

Source: Researcher's field computation

Table 2 shows the summary of the item by item t-Test analysis and the cumulative scores as well. The result shows that all the items have probability values (p-Values) less than .05, the alpha level. The cumulative p-value is .001. Since the p-value is less than the alpha level, the result is statistically significant. Thus, there is a significant difference in the mean responses of professors and lecturers on internet proficiency skills need of LIS lecturers for productivity in universities South East Nigeria, with the professors needing skills in internet proficiency than the lecturers.

Discussion of findings

The result of analysis on the internet proficiency skills need of LIS lecturers for ICT skills need for enhanced productivity in universities in South East Nigeria revealed that internet serve as a tool for information retriever, communication, collaboration, research and other purpose. The reasons for this result is due to the fact that LIS lectures have ability to effectively communicate and collaborate online. They can effectively use email, internet messaging, and other online communication tools to connect with students and colleagues for exchange information, and collaboration on projects. The finding of this study further is reinforced by the work of Hirsh (2022) who opined that collaboration in the digital realm is another facet of internet proficiency. Platform like cloud-based document sharing, project management tools, and online collaboration platform enable individuals lecturers and teams to work together seamlessly across distance. The hypothesis test confirms that there is a significant difference in the mean responses of professorial carder and lecturers LIS lecturers on internet proficiency skills need of LIS lecturers for productivity in universities South East Nigeria, with the professors needing skills in internet proficiency than the lecturers. In agreement with this finding Drisu, (2015) describe internet as accompany-wide network run along the line of the word web, making it possible to share documents, database and application. They are mainly run by cooperation, government and academic institutions. The high level of connectivity fosters an unparalleled degree of communication, collaboration, resources sharing and information access within the universities, internet connects universities, colleges, and other educational institution for sharing and exchange are some of the benefit associated with internet. The internet age has got young people developing skills even before their teachers. Their proficiency in the use of internet is related to the information age and society in which they find themselves. This finding is supported byLewis (2021) who carried out a Study on exploring internet proficiency skills among library and information science lecturers. The findings reveal significant variations in internet proficiency skills among library and information science lecturers across different educational institutions.

CONCLUSION

The study underscores the critical importance of internet proficiency for Library and Information Science (LIS) lecturers in universities across South-East Nigeria. As the educational landscape increasingly relies on digital tools and platforms, the ability of LIS lecturers to effectively utilize the internet directly impacts their productivity and teaching efficacy. The findings highlight several key areas where internet proficiency is essential, including online research, digital communication, and the management of digital course materials. Despite the general proficiency observed, significant gaps remain, particularly in areas such as uploading lecture notes and utilizing advanced internet tools. Addressing these gaps through targeted training and professional development initiatives is crucial for enhancing the overall academic performance and research output of LIS lecturers.

Moreover, the study reveals a notable difference in internet proficiency needs between different levels of LIS lecturers, with professorial staff generally demonstrating higher proficiency compared to their junior counterparts. This disparity suggests a need for tailored training programs that cater to varying levels of expertise and experience. By focusing on these specific needs, universities can better equip their LIS staff to navigate the evolving digital environment effectively. Ensuring that all LIS lecturers, regardless of their rank, acquire the necessary internet skills will foster a more robust academic environment and contribute to the advancement of research and teaching practices within the South-East Nigerian universities.

RECOMMENDATION

There is need for government at various level to implement specialized internet proficiency training programs for LIS lecturers, with modules tailored to different levels of expertise. These programs should address specific skills gaps identified in the study, such as advanced internet tools and digital content management.

There is Establish continuous professional development opportunities that include workshops, seminars, and online courses focused on emerging digital technologies and internet applications relevant to LIS. This will help lecturers stay current with technological advancements and enhance their digital competencies.

Government should invest in technological resources and infrastructure to support internet-based teaching and research activities. Providing adequate access to high-speed internet, modern computers, and relevant software will enable LIS lecturers to effectively apply their internet skills and improve their overall productivity.

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