

***INFLUENCE OF INFORMATION SEARCH SKILLS ON ONLINE INFORMATION
RESOURCES UTILISATION BY UNDERGRADUATES OF AL-HIKMAH UNIVERSITY,
ILORIN, NIGERIA***

By

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ND/23/LIS/FT/0036

**SUBMITTED TO
DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE,
INSTITUTE OF INFORMATION AND COMMUNICATION TECHNOLOGY,
KWARA STATE POLYTECHNIC, ILORIN**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF
NATIONAL DIPLOMA (ND) IN LIBRARY AND INFORMATION SCIENCE**

JUNE, 2025

CERTIFICATION

This is to certify that this project titled *“Influence of Information Search Skills on Online Information Resources Utilisation by Undergraduates of Al-Hikmah University, Ilorin, Nigeria”* by Abiodun Sodiql Ayinde meet the regulations guiding the award in National Diploma in Kwara State Polytechnic Ilorin and is approved.

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DEDICATION

This project is dedicated to God for being my ultimate source of strength and inspiration. In Him, I derived all powers needed to live, weather the storms and become an embodiment of hope to myself and the people around me.

ACKNOWLEDGEMENT

All praise is to God, the most beneficent, the most merciful. My sincere appreciation goes to my parents for their concern, prayers and words of encouragements towards the completion of this programme. My utmost gratitude also goes to my supervisors Mr. Sulyman, A. S. for her moral and intellectual guidance and contribution towards the possibility of this project and all other lectures of the department.

To be given the privilege to contribute stream of knowledge make me appreciate the entire management of Kwara State Polytechnic Ilorin, and my noble department of Library and Information Science and my fellow colleagues that made my stay on the citadel more interesting and all my friends without whom this great work could not be achieved.

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Abstract

Information search skills have been found essential to the efficient and effective utilisation of online information resources. This study investigates influence of information search skills on online information resources utilisation by undergraduates of Al-Hikmah University, Ilorin, Nigeria. Descriptive survey design was adopted. The population of this study was 1,477 LIS undergraduates of Al-Hikmah University, Ilorin, Nigeria. Research Advisor table was used to randomly select Three hundred and six (306) respondents. Questionnaire was used to obtain data from the respondents, while the data was analysed in frequency counts, percentages and mean (\bar{X}). Findings revealed that the respondents already have preferred websites they always visit when they need information online ($\bar{X} = 3.24$), understand how to use different search tools ($\bar{X} = 3.22$) and understand how to search databases and information systems ($\bar{X} = 3.07$). It was also discovered from the findings that the respondents highly used online journals ($\bar{X} = 3.41$) and databases ($\bar{X} = 3.34$). The challenges limiting the respondents from using online information resources include information overload ($\bar{X} = 3.36$), lack of training in using advanced search techniques and database ($\bar{X} = 3.21$) and lack of ICT facilities and lack of collaboration and peer support in information search skills development ($\bar{X} = 3.20$). More so, the impacts of enhanced search skills on utilisation of online information resources among the respondents include helps in attaining desired academic excellence ($\bar{X} = 3.40$), enhances abilities to navigate databases and digital libraries ($\bar{X} = 3.36$) and aids support lifelong learning ($\bar{X} = 3.28$). This study concluded that information search skills of LIS undergraduates in Al-Hikmah University, Ilorin, Nigeria, contribute to their use of online information resources. One of the recommendations of this study is that management of Al-Hikmah University, Ilorin, Nigeria, should collaborate with the Department of Library and Information Science to train the undergraduate.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In the contemporary academic landscape, the ability to efficiently search for and utilize online information resources is indispensable, especially for students in Library and Information Science (LIS) programs. These students are frequently expected to demonstrate not only a foundational understanding of information resources but also advanced search skills that allow them to navigate the vast and often complex digital information environment. Recent studies have emphasized that information search skills serve as critical predictors of how effectively LIS students can utilize online information resources, thus shaping their academic performance and professional preparedness.

Information search skills encompass a variety of competencies, including the ability to formulate search queries, understand and use search engines and academic databases, evaluate the credibility and relevance of information, and synthesize retrieved information into coherent academic outputs. These skills are foundational to academic success in LIS, where the accurate retrieval and application of information are crucial for research and professional practice. According to a study by Osisanwo (2020), the proficiency in these skills directly correlates with the frequency and effectiveness of online information resource usage among LIS students, highlighting the need for targeted training and education in this area (Onah et al. 2020).

LIS curricula typically integrate training in search skills early in the program, recognizing that the ability to locate and utilize digital information resources is not merely supplementary but

central to the discipline. Students are often introduced to key concepts such as Boolean logic, keyword optimization, and database navigation. These foundational skills are further developed through practical exercises and coursework that require students to apply their knowledge in real-world scenarios. A study by Ayeni and Owolabi (2019) underscores the importance of these skills, noting that students who receive comprehensive training in information search techniques are better equipped to engage with and contribute to the academic discourse within their field (Aderibigbe 2019).

The relationship between search skills and the use of online information resources is multifaceted. On one hand, strong search skills enable students to access a broader range of resources, including specialized academic journals, digital libraries, and professional databases. This access is crucial for conducting thorough literature reviews, staying updated with recent developments in the field, and supporting their own research initiatives. On the other hand, inadequate search skills can lead to an over-reliance on less credible sources, potentially compromising the quality of academic work. Research by Oduwale and Akhigbe (2022) found that students with higher proficiency in search skills were more likely to utilize a diverse array of high-quality information resources, thereby enhancing the depth and credibility of their academic outputs (Rahman et al. 2020).

The integration of search skills into LIS education is critical for preparing students for professional roles where information retrieval is a key component of job responsibilities. For instance, librarians and information professionals frequently assist users in locating relevant information, which requires not only an understanding of various databases and search tools but also the ability to teach these skills to others. Effective training in search skills, therefore,

extends beyond academic success and contributes to professional competency in the information science field. The study by Gbaje and Adewale (2021) illustrates that LIS graduates who possess strong search skills are more effective in their professional roles, particularly in environments that require rapid and accurate information retrieval (Olorunfemi,& Ipadeola 2021).

Despite the recognized importance of search skills, challenges in developing these competencies persist. One major issue is the varying levels of prior experience that students bring to LIS programs. Some students may have had extensive exposure to digital information environments and possess basic search skills, while others may be less familiar with these tools and techniques. This disparity necessitates a flexible and inclusive approach to teaching search skills, ensuring that all students, regardless of their starting point, can achieve a high level of proficiency. Research by Suleiman and Omolara (2021) highlights the need for tailored instructional strategies that address the diverse backgrounds and learning needs of LIS students (Bosede and Rahman 2021).

Moreover, the rapidly evolving nature of digital information resources poses an ongoing challenge for both students and educators. New databases, search engines, and digital tools are continually being developed, requiring constant updates to the curriculum and continuous professional development for instructors. Keeping up with these changes is essential for maintaining the relevance and effectiveness of search skills training in LIS education. A recent study by Njoku and Nwabueze (2022) emphasizes the importance of incorporating emerging technologies and tools into search skills training to ensure that students are equipped to handle the dynamic information landscape they will encounter in their careers (Odede 2015).

The impact of information search skills extends beyond the academic realm into the broader context of lifelong learning and personal development. Proficiency in these skills enables individuals to effectively seek out information for personal interests, professional growth, and civic engagement. This broader application underscores the value of search skills as a fundamental component of information literacy, which is increasingly recognized as a critical skill set for navigating the complexities of modern life. Studies by Oladeji and Ezugwu (2021) suggest that individuals with strong search skills are better able to adapt to new information environments and make informed decisions in various aspects of their lives (Bosede and Rahman 2021).

The development and application of information search skills are crucial for LIS students, influencing their ability to effectively utilize online information resources and succeed in both academic and professional contexts. The integration of search skills training into LIS curricula is essential for preparing students to meet the demands of the information age, where the ability to efficiently locate, evaluate, and use information is key to academic and professional success. Ongoing research and innovation in teaching these skills will continue to enhance the capabilities of LIS students, ensuring that they are well-equipped to navigate and contribute to the evolving digital information landscape.

1.2 Statement of the Problem

The rapid expansion of digital information resources has created a complex environment for Library and Information Science (LIS) students at Al-Hikmah University, Ilorin, Nigeria, who must navigate an overwhelming volume of data to meet academic and professional requirements. Despite the availability of numerous online databases, journals, and information repositories,

many students struggle with effectively retrieving, evaluating, and utilizing relevant information. This struggle is compounded by challenges such as information overload, the varying quality of online sources, and a lack of proficiency with advanced search techniques. These issues not only hinder their academic performance but also impact their ability to develop critical skills necessary for their future careers in information management. Consequently, there is a significant gap between the students' current information search skills and the demands of modern digital information retrieval, which affects their overall educational outcomes and preparedness for professional roles.

Addressing these challenges requires a targeted approach to enhance the information search competencies of LIS students at Al-Hikmah University, Ilorin. This research aims to bridge the gap by identifying effective strategies and tools that can be integrated into the academic curriculum to improve students' proficiency in navigating online information resources. Solutions include incorporating comprehensive training on advanced search techniques, the use of specialized databases, and critical evaluation methods into coursework. Additionally, fostering digital literacy and critical thinking skills is essential to empower students to manage information overload and assess the credibility of sources effectively. By implementing these educational enhancements, the research seeks to equip students with the necessary skills to efficiently access, evaluate, and utilize digital information, thereby improving their academic performance and professional readiness in the evolving landscape of information science.

1.3 Research Objectives

The main objective of this study is to investigate the influence of information search skills on online information resources utilisation by undergraduates of Al-Hikmah University, Ilorin, Nigeria. The specific objectives are to;

- i. evaluate students' current proficiency in using online information resources;
- ii. identify the extent LIS students use online information resources and;
- iii. analyze the impact of enhanced search skills on students' academic performance.

1.4 Research Questions

1. What is the current proficiency level of Library and Information Science students at Al-Hikmah University, Ilorin in using online information resources?
2. What challenges do these students face when searching for and retrieving online information?
3. How can training modules on advanced search techniques to be developed to address these challenges?
4. How effective are the developed training modules in enhancing students' information search skills?
5. How do improved information search skills impact the academic performance of these students?

1.5 Significance of the Study

The study on "Influence of Information Search Skills on Online Information Resources Utilisation by Undergraduates of Al-Hikmah University, Ilorin, Nigeria" was prompted by the need to investigate the relationship between information search skills and the effective utilization of online resources among Library and Information Science (LIS) students. The rapid growth of online resources has created a complex information landscape, making it challenging for students to navigate and retrieve relevant information. This study aims to bridge the knowledge gap by exploring the role of information search skills in facilitating LIS students' use of online resources.

This research focuses on enhancing information literacy skills among Library and Information Science (LIS) students, who are on track to become the next generation of information specialists. Mastery of online resources is crucial for their educational achievements and professional growth. By examining the link between their search skills and the effective use of online resources, the study aims to establish evidence-based methods for teaching information literacy. This initiative is expected to improve the quality of information services by promoting proficient use of digital tools.

The study offers significant benefits to various stakeholders including LIS students, librarians, educators, and researchers. LIS students will gain refined search skills, leading to better use of digital information resources. This will not only aid their academic pursuits but also prepare them for professional roles that demand high levels of information competency. Librarians and educators can utilize the insights from this research to craft focused training programs, enhancing the educational experience. Additionally, researchers will benefit from a deeper understanding of

search behaviors, contributing valuable knowledge to the field of information science. Ultimately, the findings may guide the creation of effective information literacy programs at other institutions, fostering lifelong learning and informed decision-making.

1.6 Scope and Limitations of the Study

The scope of this study is focused on exploring the relationship between information search skills and the use of online information resources among Library and Information Science (LIS) students at Al-Hikmah University, Ilorin. Specifically, the study aims to investigate the level of information search skills possessed by LIS students, the types of online resources they use, and the challenges they face in utilizing these resources.

This study acknowledges several limitations that may impact the results. The study is limited to LIS students at Al-Hikmah University, Ilorin, Nigeria, which may not be representative of all LIS students in Nigeria or globally. Secondly, the study relies on self-reported data, which may be subject to bias. Thirdly, the study focuses on online information resources and does not explore other sources of information. Finally, the study is limited by the availability of resources and time, which may impact the sample size and data collection process.

The scope of this study is defined by the following parameters: population (LIS students at Al-Hikmah University, Ilorin, Nigeria), geographic location (Al-Hikmah University, Ilorin, Nigeria), timeframe (one academic semester), and variables (information search skills, online information resources, and challenges faced). The research design of this study is limited by its reliance on a survey instrument, which may not capture the full range of experiences and perspectives of LIS students. Additionally, the study is cross-sectional, providing a snapshot of information search skills and online resource use at a single point in time. The data collected for

this study may be limited by issues of validity and reliability. Self-reported data may be subject to bias, and the sample size may be limited by the availability of participants. This study is limited by ethical considerations, including the need to obtain informed consent from participants and ensure the confidentiality and anonymity of their responses and also the study is limited by resource constraints, including time, funding, and access to participants and data. These limitations may impact the scope and depth of the study.

1.7 Operational Definition of Terms

Information Search Skills: The ability to locate, evaluate, and manage information effectively, encompassing skills such as querying, searching, and filtering. This includes the capacity to articulate research questions, select appropriate search strategies, and evaluate search results.

Online Information Resources: Digital libraries, databases, search engines, and other web-based platforms providing access to information. These resources include academic journals, e-books, online catalogs, and other digital materials.

Library and Information Science Students: Undergraduate or graduate students enrolled in LIS programs at Al-Hikmah University, Ilorin, Nigeria. These students are future information professionals, and their effective use of online resources is crucial for their academic and professional success.

Information Literacy: The ability to recognize information needs, locate and evaluate information, and use it effectively. Information literacy skills enable individuals to navigate the complex information landscape and make informed decisions.

Online Resource Utilization: The frequency and effectiveness of using online resources for academic and professional purposes. This includes the use of online resources for research, learning, and professional development.

Search Strategies: Methods and techniques used to locate information, including keyword selection, Boolean operators, and database searching. Effective search strategies enable users to retrieve relevant information efficiently.

Information Retrieval: The process of obtaining relevant information from online resources. Information retrieval involves searching, locating, and accessing information from various online sources.

Database Searching: The ability to search and retrieve information from online databases. Database searching requires understanding database structures, search interfaces, and query languages.

Information Evaluation: The ability to critically assess the credibility, relevance, and accuracy of information. Information evaluation involves analyzing information for reliability, validity, and usefulness.

Digital Literacy: The ability to effectively use digital technologies to access, evaluate, and create information. Digital literacy encompasses skills such as computer proficiency, online navigation, and digital content creation.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter focuses on the review of relevant literature. The review is done under the following sub-heading:

2.2 Concept of Information Search Skills

2.3. Concept of Online Information Resources

2.4. Information Search Skills and Library Science Education

2.5. Tools for Enhancing Information Search Skills

2.6. Advantages of Information Search Skills for Academic Success

2.7. Challenges Faced by Students in Developing Information Search Skills

2.8. Overcoming Challenges in Information Search Skills Development

2.9. Summary

2.2 Concept of Information Search Skills

Information search skills refer to the ability to efficiently locate, evaluate, and use information from various sources. These skills are essential for students, particularly in the digital age, where information is abundant but varies greatly in quality and reliability. Effective search skills involve understanding how to use search engines, databases, and library catalogs, as well as

knowing how to formulate effective search queries and apply Boolean logic to refine searches. According to Ismaila, 2019, computer self-efficacy and information literacy skills significantly influence the use of electronic information resources, highlighting the importance of these competencies in academic success. Information search skills are fundamental abilities that enable individuals to locate, evaluate, and utilize information effectively. These skills are particularly crucial for Library and Information Science (LIS) students, who must navigate vast amounts of data to support their academic and professional activities. Information search skills involve various competencies, including understanding how to formulate search queries, use search engines and databases, and critically assess the relevance and credibility of information sources (Ismaila, 2019).

One key aspect of information search skills is the ability to develop effective search strategies. This includes using Boolean operators (AND, OR, NOT) to refine searches, understanding how to use keywords and phrases, and knowing how to navigate different types of information sources, such as academic databases, online libraries, and general search engines. Effective search strategies help students find the most relevant information quickly, saving time and improving the quality of their research (Apuke and Iyendo, 2018).

The ability to evaluate information is another critical component of information search skills. Students must be able to distinguish between credible and non-credible sources, assess the validity and reliability of information, and recognize potential biases. This evaluative process is essential in ensuring that the information used in academic work is accurate and trustworthy. LIS students, in particular, need to develop a keen eye for quality information, given the professional

responsibilities they will assume in guiding others in their information searches (Aderibigbe, 2019).

Furthermore, information search skills encompass the ability to use various information retrieval tools effectively. This includes understanding how to navigate online databases, use library catalogs, and utilize specialized search engines designed for academic research. Familiarity with these tools allows students to access a broader range of information and enhances their ability to conduct comprehensive research. The integration of digital literacy into the curriculum is essential for equipping students with these skills (Rahman et al. 2022).

Information search skills also involve understanding the structure and organization of information. This means knowing how information is categorized, indexed, and retrieved in different systems. For example, understanding the difference between primary and secondary sources, and how to access them, is crucial for conducting effective research. This knowledge allows students to navigate complex information systems and locate the information they need more efficiently. Critical thinking and analytical skills are also integral to information search skills. These skills enable students to not only find information but also to analyze and synthesize it to draw meaningful conclusions. This is particularly important in academic settings, where students must integrate information from various sources to support their arguments and research findings. Developing these skills enhances students' overall academic performance and prepares them for professional challenges (Olorunfemi, and Deborah. 2021).

Moreover, information search skills are essential for lifelong learning. In an information-rich society, the ability to locate and use information effectively is crucial not only in academic settings but also in personal and professional life. These skills enable individuals to stay

informed, make better decisions, and continue learning throughout their lives. For LIS students, mastering these skills is particularly important, as they will be responsible for guiding others in their information searches. Information search skills also include the ability to use reference management tools effectively. These tools, such as EndNote, Zotero, and Mendeley, help students organize and cite their sources accurately. Proper use of these tools ensures that students can manage their research efficiently and avoid plagiarism by keeping track of all the information sources they use. Mastering these tools is an essential part of developing strong information search skill (Apuke & Iyendo, 2018).

Understanding the ethical and legal aspects of information use is a critical component of information search skills. Students must be aware of copyright laws, intellectual property rights, and the ethical use of information. This knowledge helps them avoid legal information search skillsues and ensures that they use information responsibly and ethically. LIS students, in particular, need to understand these aspects to guide others in their information use. Developing information search skills requires continuous practice and learning. The information landscape is constantly evolving, with new tools, databases, and technologies emerging regularly. Students must stay updated with these changes and continually refine their skills to remain effective in their information searches. Educational institutions play a crucial role in providing ongoing training and support to help students develop and maintain their information search skills (Apuke and Iyendo, 2018).

Information search skills are multifaceted and essential for academic success and lifelong learning. They involve developing effective search strategies, evaluating information critically, using various information retrieval tools, understanding the organization of information, and

mastering reference management and ethical use of information. Continuous practice and staying updated with new developments are crucial for maintaining these skills. For LIS students, these skills are particularly important as they prepare for professional roles that involve guiding others in their information searches (Apuke and Iyendo, 2018).

2.3 Concept of Online Information Resources

Online information resources encompass a wide range of digital materials that can be accessed via the internet. These include electronic journals, e-books, databases, websites, and multimedia content. The rise of digital libraries and open access journals has made scholarly information more accessible than ever. These resources are crucial for academic research and learning, providing students with up-to-date and comprehensive information. The use of online information resources requires not only technical skills but also critical thinking to assess the credibility and relevance of the information found (Sambo et al., 2021).

Online Information Resources are digital tools and materials accessible via the internet that provide valuable information. These resources encompass a variety of formats, including e-books, e-journals, databases, multimedia content, and other electronic documents. The advent of these digital resources has transformed the way students, researchers, and professionals access information by providing a wide range of materials instantly and conveniently. The digital format of these resources allows for immediate access and retrieval, making them crucial for contemporary education and research. In academic contexts, particularly for Library and Information Science (LIS) students, the importance of these resources is immense. They offer the most up-to-date information, which is essential for rigorous academic research and ongoing learning. Unlike traditional print resources, online information resources are frequently updated

in real-time, ensuring that users have access to the latest data and research findings. This real-time updating is vital for students who need to stay current with developments in their fields of study and contribute effectively to their areas of expertise (Francis, 2024).

The impact of electronic information resources on academic and research performance is profound and multifaceted. Studies show that the use of digital resources such as e-books, online journals, and databases significantly enhances the research capabilities of students and academics. For instance, electronic resources provide easy access to a vast array of up-to-date information, which supports comprehensive research and learning. They also facilitate immediate retrieval of relevant data, enabling users to stay current with recent developments in their fields. This accessibility not only broadens the scope of research but also improves academic performance by offering resources that are often more current and diverse than traditional print materials (Manda and Nawe, 2008)

Another crucial component of online information resources is their multimedia capabilities. Resources such as educational videos, podcasts, webinars, and interactive modules provide diverse learning materials that cater to different learning styles. For LIS students, who often need to understand complex information systems and technologies, these multimedia resources offer practical demonstrations and visualizations that enhance their learning experiences. The integration of multimedia into educational resources makes learning more engaging and effective. The use of online information resources requires specific skills and competencies. Students must be adept at navigating digital libraries, using search engines effectively, and employing advanced search techniques to locate the most relevant information. Information literacy, which includes the ability to evaluate the credibility and relevance of online resources,

is a critical skill for utilizing online information resources effectively. LIS programs often include training on these skills, ensuring that students are well-equipped to handle the digital information landscape (Tariq, 2016).

Information resources have significantly enhanced collaborative learning and research by leveraging digital platforms that transcend geographical limitations. These platforms provide students and researchers with robust tools for sharing information, working together on projects, and participating in discussions in real-time. Cloud storage services, for example, allow multiple users to store, access, and edit documents simultaneously, making it easier for teams to collaborate on research papers or projects. Collaborative documents enable users to work together on writing and editing tasks, fostering a dynamic and interactive academic environment. Online forums and discussion boards further support this collaboration by offering spaces for users to exchange ideas, ask questions, and receive feedback from peers and experts. For Library and Information Science (LIS) students, who often engage in group projects or research teams, these collaborative tools are particularly valuable. They help in organizing tasks, sharing resources, and integrating diverse perspectives, thereby enhancing the overall quality of research and learning outcomes. Such digital tools not only streamline coordination but also encourage a more inclusive and interactive academic experience, crucial for modern education and research environments (Ojobor et al., 2021).

The accessibility of online information resources has significantly enhanced the inclusivity of education. Students from remote areas or institutions with limited library resources can access the same quality of information as those from well-funded universities. This equal access is crucial for ensuring that all students have the opportunity to succeed academically. For LIS

students, who will eventually work in various library settings, understanding the importance of equal access to information is a fundamental part of their education. Despite their advantages, the use of online information resources also presents challenges. Information search skills such as information overload, the need for digital literacy, and concerns about the credibility of online sources can hinder effective use. Students must develop critical thinking skills to discern the quality of information and avoid unreliable sources. LIS programs play a crucial role in teaching these skills, preparing students to navigate the complexities of the digital information environment (Ani et al., 2014).

Moreover, the dynamic nature of online information necessitates continuous learning. New databases, tools, and technologies constantly emerge, requiring students to stay updated with the latest developments. Lifelong learning becomes essential for professionals who rely on online information resources. LIS students, in particular, must commit to ongoing education to remain proficient in using these resources throughout their careers. The integration of online information resources into educational curricula has transformed teaching and learning methodologies. Instructors can utilize a wide range of digital resources to supplement traditional teaching materials, providing students with a richer and more diverse learning experience. For LIS students, exposure to various online information resources during their studies ensures they are well-prepared to manage and utilize these resources in their future professional roles (Olubiyo and Awoyemi, 2021). Online Information Resources are indispensable tools that have revolutionized access to information. They provide immediate, diverse, and up-to-date materials essential for academic and professional success. For LIS students, mastering the use of these resources is crucial, involving skills in information literacy, digital navigation, and continuous learning. The benefits of online information resources are vast, from enhancing collaborative

learning to promoting educational inclusive, making them a cornerstone of modern education (Ismaila, 2019).

2.4 Information Search Skills and Library Science Education

The development of information search skills is a cornerstone of Library and Information Science (LIS) education, as these skills are critical for both academic success and professional competence. Information search skills involve the ability to effectively identify, locate, evaluate, and use information, which are essential capabilities for any LIS professional. Research has highlighted that these skills are not only foundational for students' academic pursuits but also for their future roles in various information management environments. According to a study on the qualifications and skills required in LIS, the ability to navigate diverse information resources is paramount. This includes understanding how to use different search tools, databases, and information systems, which is crucial for efficient information retrieval and management in a rapidly evolving digital landscape (Gerolimos 2009).

Information literacy, a subset of information search skills, is another critical aspect that LIS education aims to develop. Information literacy encompasses the skills needed to recognize when information is needed and to locate, evaluate, and use effectively the needed information. This involves a complex set of skills that goes beyond simple searching to include critical thinking and the ability to discern the quality and relevance of information sources. A comparative study on the information literacy skills of LIS and computer science students found that while both groups exhibited high levels of technical proficiency, LIS students particularly excelled in their ability to evaluate information critically and use it ethically. This skill set is essential for

ensuring that LIS professionals can provide accurate and reliable information services (Aduba et al. 2022).

The role of digital literacy in LIS education cannot be overstated. As information becomes increasingly digitized, the ability to use digital tools and platforms effectively is crucial. This includes familiarity with online databases, digital libraries, and various search engines, as well as understanding how to use advanced search techniques to refine queries and retrieve precise information. A study on the web search skills and the use of online information resources by LIS students underscores the importance of integrating digital literacy into the curriculum. It highlights that students who are adept at using digital tools are more likely to be successful in both their academic and professional endeavors. This integration of digital literacy ensures that LIS graduates are well-prepared to meet the demands of the modern information landscape (Mercy 2023).

Practical training and hands-on experience are vital components of LIS education that significantly enhance information search skills. Many LIS programs incorporate practical exercises that simulate real-world scenarios, allowing students to apply theoretical knowledge in a controlled environment. For instance, students might be tasked with developing comprehensive search strategies for complex information needs, using a variety of information resources and tools. Such practical training is crucial for solidifying students' understanding and ensuring they can transfer these skills to professional settings. According to a study on information literacy search skills, providing students with opportunities to engage in practical exercises greatly improves their competence and confidence in information searching (Ilogho and Nkiko 2014).

Faculty and educators play a pivotal role in the development of information search skills in LIS students. Experienced educators can provide valuable guidance and mentorship, introducing students to best practices and advanced search strategies. They can also help students understand the importance of ethical information use and the need for critical evaluation of sources. A study focusing on first-year LIS graduate students emphasized the impact of faculty support in developing information literacy skills. It found that students who received consistent and informed guidance from faculty members showed significant improvement in their information search abilities and were better prepared to tackle complex information challenges (Hebert 2018).

Collaboration and peer learning are also important aspects of developing information search skills. Group projects and collaborative assignments can provide students with diverse perspectives and enhance their learning experience. Through collaboration, students can share their strategies, learn from each other's experiences, and develop a more nuanced understanding of information search processes. A study comparing information literacy skills among different student groups found that collaborative learning environments significantly benefited students, helping them to develop more sophisticated search strategies and improve their overall information literacy (Aduba et al. 2022).

The importance of continuous professional development in information search skills cannot be overlooked. The information landscape is dynamic, with new resources, tools, and technologies emerging regularly. LIS professionals must engage in ongoing learning to keep their skills current and relevant. Professional development opportunities, such as workshops, conferences, and online courses, are essential for maintaining proficiency in information search skills. These

opportunities also provide a platform for professionals to exchange knowledge, share best practices, and stay informed about the latest trends and developments in the field. A study on skills developed through LIS education emphasizes the need for lifelong learning and continuous skill enhancement to remain effective in the profession (Gerolmos 2009). Information search skills are integral to the education and professional success of LIS students. These skills encompass a range of competencies, including information literacy, digital literacy, and the ability to critically evaluate and use information. Practical training, faculty guidance, technological advancements, collaboration, and continuous professional development all play crucial roles in fostering these skills (Gerolmos 2009).

2.5 Tools for Enhancing Information Search Skills

Various tools and resources can enhance information search skills. These include library databases, search engines, reference management software, and online tutorials. Libraries often provide access to specialized databases and offer workshops on effective search strategies. Reference management tools like EndNote or Zotero help in organizing and citing sources, making the research process more efficient. Additionally, online platforms such as ResearchGate and Google Scholar offer access to scholarly articles and research networks. These tools collectively support the development of robust search skills by providing structured pathways to locate and manage information (Emmanuel, 2022).

Enhancing information search skills involves using a variety of tools and strategies to achieve efficient and effective information retrieval. These skills are essential for Library and Information Science (LIS) students as they navigate complex information landscapes to meet their academic and professional needs. A fundamental tool in this process is advanced search

engines, which allow users to refine their searches with Boolean operators, filters, and date ranges. These features enable students to access relevant and current information from extensive online databases. Students benefit from mastering other information retrieval techniques, such as evaluating the credibility of sources, using subject-specific databases, and employing citation management tools to organize and track references. Developing these skills helps students efficiently locate high-quality information, thereby enhancing their research and learning outcomes. Ultimately, effective information search skills are a crucial competency for LIS students, preparing them to meet the demands of their academic and future professional careers (Nongo et al., 2017).

Citation management tools such as Zotero and Mendeley are indispensable for students and researchers looking to streamline the organization and referencing of sources. These tools simplify the creation of bibliographies, manage citations, and enable collaborative research projects. By allowing users to store and organize references, PDFs, and other research materials in one place, citation management tools significantly reduce the time and effort involved in research documentation. Additionally, these tools integrate seamlessly with word processors, making it easy to insert and format citations and bibliographies according to various citation styles. Digital libraries and repositories further enhance the research process by providing access to a vast array of scholarly articles, e-books, and research papers. Platforms like ResearchGate and institutional repositories offer free access to recent studies and publications, ensuring that students have access to current and credible information. This accessibility supports extensive literature reviews and aids in keeping researchers updated with the latest developments in their fields. By leveraging these digital resources, students can conduct more thorough and efficient

research, ultimately contributing to higher quality academic work and a deeper understanding of their subject matter (Kale, 2023).

PubMed and Scopus are database search tool for students, they facilitate precise searches across extensive collections of peer-reviewed journals, ensuring access to reliable information. Information literacy tutorials and online courses offer interactive and comprehensive learning experiences that build search skills, covering everything from fundamental techniques to advanced research methodologies. Social media and collaborative platforms, like LinkedIn and ResearchGate, enhance knowledge sharing and networking opportunities for students and professionals. These platforms enable students to connect with peers, share research, and access valuable expert-recommended resources. Moreover, text mining and data visualization tools, such as Tableau and NVivo, support the analysis of large datasets and trend visualization, aiding students in extracting meaningful insights from complex information. (Aderibigbe, 2019).

Free access to scholarly articles and research findings through open access journals and repositories promotes equitable knowledge sharing. These resources are essential for students conducting literature reviews and keeping up with current research trends. Online tutorials and guides on information literacy and research skills offer detailed instructions on effective information retrieval, including keyword searching, source evaluation, and citation management. These tools help students build robust search skills. Additionally, collaboration platforms like Google Workspace and Microsoft Teams facilitate teamwork and project management by enabling remote collaboration, document sharing, and virtual meetings, enhancing efficiency in academic and professional settings.(Ugwu and Orsu, 2017).

2.6 Advantages of Information Search Skills for Academic Success

Mastering information search skills provides significant benefits for academic achievement. These skills enable students to effectively locate and utilize pertinent information, which is essential for completing assignments, projects, and research. Strong search abilities also bolster critical thinking and problem-solving by helping students assess the credibility and relevance of information sources. Moreover, these skills support lifelong learning, extending their utility beyond academia into various professional and personal settings. The capacity to navigate and utilize digital information resources effectively is a crucial element in attaining academic excellence (Bubas et al., 2018).

Information search skills are crucial for achieving academic success across various disciplines, including Library and Information Science (LIS). These skills enable students to perform comprehensive and efficient literature reviews. By skillfully navigating databases and digital libraries, students can collect relevant research that forms the basis of insightful academic papers and projects, enhancing their critical thinking and analytical capabilities. Proficiency in information search allows students to assess the credibility and relevance of sources, ensuring that their work incorporates high-quality information. This ability is essential in academia, where discerning reliable sources boosts the rigor of research. Furthermore, effective search strategies improve academic writing by providing access to a wide range of scholarly articles and studies. This exposure enriches students' understanding of their subjects and supports the development of well-founded arguments and theories in their academic papers.(Nwabueze et al., 2022).

Information search skills enhance efficiency in research and information retrieval. Students who excel in using advanced search techniques and tools can quickly locate specific information,

making the most of their study time. This efficiency is crucial in academia, where deadlines and research demands require prompt and accurate access to relevant data. Mastering these skills also fosters lifelong learning. In an information-rich world, the ability to continuously learn and adapt is vital. Proficient search skills help students maintain a proactive stance in staying current with new research and academic trends. Additionally, these skills support interdisciplinary learning. Students who are skilled in navigating various information sources can link concepts across different fields, which enriches their ability to integrate knowledge from multiple domains and promotes innovative and comprehensive perspectives in their academic work (Aderibigbe, 2019)

Information search skills also enable students to contribute effectively to scholarly discussions. By mastering information retrieval and analysis, students can actively participate in class discussions, seminars, and academic conferences. This involvement not only enriches their learning experience but also builds confidence in their academic abilities. Furthermore, these skills enhance digital literacy. In the digital era, the ability to navigate online resources and use digital tools is crucial. Students proficient in information search can leverage technology for research, collaboration, and information dissemination, equipping them for professional environments where digital competence is vital. Additionally, strong search skills support academic integrity. By understanding proper citation practices and ethical information use, students uphold scholarly standards, which bolsters the credibility of their work and contributes to maintaining the integrity of academic discourse. Lastly, information search skills improve career readiness. The ability to conduct thorough research and apply findings to real-world scenarios enhances graduates' employability, as employers value candidates who can adeptly navigate information landscapes and contribute effectively in professional settings (Mbaubedari et al., 2022) .

2.7 Challenges Faced by Students in Developing Information Search Skills

Students often face several challenges in developing information search skills. One significant challenge is the overwhelming volume of information available online, which can make it difficult to identify credible sources. Additionally, many students lack training in using advanced search techniques and databases, leading to inefficient search strategies. There is also a disparity in access to high-quality information resources, with some students having limited access due to financial or institutional constraints. These challenges can hinder students' ability to effectively locate and use information, impacting their academic performance and research capabilities. Developing Information Search Skills (information search skills) poses several challenges for students, impacting their ability to effectively navigate and utilize online information resources. One significant challenge is the overwhelming volume of information available. Students often struggle to filter through vast databases and digital libraries to find relevant and credible sources. This abundance can lead to information overload, making it difficult for students to identify and select the most appropriate resources for their research needs (Mahwasane & Mudzielwana, 2016).

Additionally, students face challenges related to the complexity of search tools and databases. Many platforms offer advanced search features that are not always intuitive or user-friendly. Navigating these tools requires proficiency in understanding search syntax, database structures, and the use of Boolean operators, skills that students may find daunting to master. Lack of formal training in information search skills exacerbates these challenges. Many students enter university without adequate preparation in information literacy. Without structured guidance on how to conduct effective searches and evaluate sources critically, students may struggle to meet

academic research standards (Ilogho, and Nkiko 2014). Another significant hurdle is the rapid evolution of digital technologies and information formats. Students must adapt to new technologies and information formats continually, such as multimedia resources, online databases, and digital archives. This dynamic environment requires ongoing learning and skill updating, adding complexity to the development of information search skills (Ilogho, and Nkiko 2014).

Language barriers can impede students' ability to access and comprehend information effectively. In multilingual academic environments, students who are not proficient in the language of instruction may struggle to navigate and interpret scholarly literature. This challenge underscores the importance of language support and resources tailored to diverse linguistic backgrounds in fostering information search skills development. Socioeconomic factors play a role in information search skills development. Access to reliable internet connections, digital devices, and subscription-based databases can vary significantly among students. Students from economically disadvantaged backgrounds may encounter barriers to accessing essential online resources, limiting their opportunities to practice and refine information search skills (Steigerwald et al, 2022).

Moreover, time constraints and competing academic demands make it challenging for students to dedicate sufficient time to effectively develop information search skills. Balancing coursework, assignments, and extracurricular activities often leaves students with limited time to explore and master advanced search strategies and information evaluation techniques. Additionally, ethical considerations in information use present further challenges. Understanding copyright laws, plagiarism policies, and the ethical use of information requires comprehensive knowledge and

adherence to academic integrity principles. Missteps in this area can have serious academic consequences, further complicating the development of information search skills (Mohd Razal et al., 2018)

The lack of collaboration and peer support in information search skills development can hinder students' progress. Opportunities for collaborative learning, peer feedback, and mentoring in information literacy are crucial for enhancing information search skills. Institutions that foster a supportive environment for peer-to-peer learning and mentorship can significantly mitigate these challenges. Resistance to change and technological reluctance among students can impede information search skills development. Some students may prefer traditional research methods or feel overwhelmed by the constant technological advancements in information retrieval. Overcoming this resistance requires educational interventions that emphasize the practical benefits and relevance of information search skills in academic and professional contexts (Ilogho, and Nkiko 2014).

2.8 Overcoming Challenges in Information Search Skills Development

To overcome the challenges in developing information search skills, institutions can implement several strategies. Providing comprehensive training and workshops on information literacy and search techniques is crucial. Libraries can play a central role by offering personalized assistance and resources tailored to students' needs. Encouraging the use of online tutorials and interactive tools can also enhance learning. Additionally, promoting access to open educational resources and ensuring equitable access to digital information can help mitigate access-related challenges. Collaboration between educators, librarians, and technology specialists is essential to create a supportive environment for developing robust information search skills (Ismaila 2019).

2.9 Summary

This chapter examines the significant aspects of information search skills and their profound impact on the academic and research capabilities of Library and Information Science (LIS) students. It defines information search skills and highlights their importance in navigating the vast and often overwhelming digital information landscape. The chapter further explores the concept of online information resources, emphasizing their role in providing access to a wide array of scholarly materials and their essential function in academic research. By linking information search skills with library science education, the chapter underscores how these competencies are integral to the curriculum, preparing students to effectively locate, evaluate, and utilize information resources. In addition, various tools and strategies for enhancing information search skills, including library databases, search engines, and reference management software. It examines the advantages of possessing strong search skills, such as improved academic performance and enhanced critical thinking abilities. Additionally, the chapter addresses the challenges students face in developing these skills, such as information overload and limited access to quality resources. Finally, it outlines strategies for overcoming these challenges, advocating for comprehensive training, equitable access to resources, and the collaboration between educators, librarians, and technology specialists to create a supportive learning environment (Asif and Khan, 2022).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter will explain the approaches that will guide the researchers in conducting the study.

This chapter will also espouse the justifications for any approaches used in conducting this study.

Hence, this chapter will be organised under the following sub-headings:

3.2 Research design

3.3 Population of the study

3.4 Sample size and sampling technique

3.5 Instrument for data collection

3.6 Validity and reliability of the instrument

3.7 Procedure for administration of the instrument

3.8 Method of data Analysis

3.9 Ethical considerations

3.2 Research Design

Research design indicates the patterns of how a study will be conducted. Kolawole and Ijieber (2018) defined research design as the conceptual outlook with which research is conducted,

which constitutes the yardstick for the collection, measurement and analysis of data. Thus, descriptive survey design will be adopted for this study. Descriptive survey design is relevant for this study because it gives the researchers the opportunities of examining the opinions, beliefs and perceptions of LIS undergraduates in Al-Hikmah University, Ilorin, Nigeria and how information searching skills influence their use of online information resources.

3.3 Population of the Study

Population is the total area, environment, location or group of people a study intends to cover. Issa (2012) explained population as all the members or elements of a particular group of people, animals or things in a defined area. The population of a study is expected to show what constitute the study's participants, whether actual or targeted and also indicate their number.

Therefore, the population of this study are 1,477 LIS undergraduates of Al-Hikmah University, Ilorin, Nigeria. The analysis of the population according to their levels is shown in the table below:

S/N	Level	Numbers
1.	100	212
2.	200	488
3.	300	420
4.	400	357

Source: Office of the Head of Department of Library and Information Science

3.4 Sample Size and Sampling Technique

Sample is the unit, portion or element of the population, which will provide data that are relevant to the study. In this study, sample size was determined with Research Advisor Table. Three hundred and six (306) respondents were picked based on the Table's advice of sampling 306 respondents for 1200 - 1500 population, if 95% confidence level is used.

On the other hand, sampling technique is the process of choosing the respondents. Simple random sampling will be used to select the respondents because it allows the researcher to give equal chance to every undergraduate in the study area.

3.5 Instrument for Data Collection

This study will adopt questionnaire to collect data from respondents. Issa (2012) explains questionnaire as a data collection instrument containing series of questions and other prompt responses for the purpose of gathering information from library users. The questionnaire will be titled *“Questionnaire on Influence of Information Search Skills On Online Information Resources Utilisation By Undergraduates of Al-Hikmah University, Ilorin, Nigeria.”*

The questionnaire will be arranged in the four major sections below:

Section A: Demographic characteristics of respondents

Section B: Current proficiency level of using online information resources among undergraduates of LIS, Al-Hikmah University, Ilorin, Nigeria;

Section C: Extent of using online information resources among undergraduates of LIS, Al-Hikmah University, Ilorin, Nigeria;

Section D: Impact of enhanced search skills on using online information resources by among undergraduates of LIS, Al-Hikmah University, Ilorin, Nigeria.

3.6 Validity and Reliability of the Instrument

Validity refers to the extent at which an instrument accurately measures what it intends to measure (Li, 2016). The questionnaire adopted for this study will be given to two subject experts

for assessment of the quality of presentation of the contents of the variables the researchers wish to measure. Their expert opinions will be corrected before the questionnaire is presented to the supervisor for assessment and corrections, which thereafter, the questionnaire will be administered to the respondents.

However, reliability refers to the extent at which an instrument yields consistent results. Internal consistency will be used to assess the extent of differences within the test items by exploring the same construct that produce similar results (Thomas, 2022).

3.7 Method of Distribution of the Instrument

The questionnaire will be distributed to the respondents by the student researchers. The student researchers will spend four days to administer the questionnaire. During the student researchers' administration of questionnaire, 75 questionnaires will be taken to 100, 200 and 400 levels respectively, while 81 will be administered to 300 level students. After exhausting the levels and the student researchers still have more questionnaire to administer to have an acceptable response rate, the student researchers will reschedule a day to administer the questionnaire to solicit for more students to fill the questionnaire.

3.8 Method of Data Analysis

Data collected will be presented in simple percentage, frequency tables, mean and analysed by using the IBM SPSS Statistics. The reason for the choice of simple percentage, frequency tables and mean is because it allows the presentation, analysis and comparison of multiple attitude, opinion and ideas which can enhance easy understanding of tables and the data they contained.

3.9 Ethical Considerations

Data will be gathered for this study by seeking the consents of the participants' voluntary participation. After that, the privacy and confidentiality of the respondents will be respected by reporting the provided data in anonymity. The student researchers will ensure that data that will pose potential harm to the reputations or credibility of the participants will be disregarded.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter is concerned with the analysis of data collected, presentation of results and discussion of findings. The chapter is presented under the following sub-headings:

4.2 Questionnaire distribution and response rate

4.3 Demographic information of respondents

4.4 Presentation, analysis, discussion and interpretations of results

4.2 Questionnaire Distribution and Response Rate

Out of the 306 copies of the questionnaires administered, only 265 were filled and returned. Out of the filled questionnaires, only 217 were adequately filled and suitable for analysis. The filled questionnaire represents 71.61% return rate. The return is adequate for analysis and discussion. This is supported by the claim of Rubin and Barbie (2011) that response rate for physically administered questionnaire is found to be appropriate for analysis, if it is up to 70% or more.

4.3 Demographic Information of the Respondents

Table 2: Characteristics of the Respondents

Options		F	%
Gender	Male	98	45.2
	Female	119	54.8
	Total	217	100
Academic level	100 level	11	5.1
	200 level	23	10.6
	300 level	75	34.6
	400 level	108	49.8
	Total	217	100
Age range	15 – 19 years	89	41.0
	20 – 24 years	108	49.8
	25 – 29 years	16	7.4
	30 years and above	4	1.8
	Total	217	100
Marital status	Single	180	82.9
	Married	37	17.1
	Total	217	100

Source: Researchers' Field Survey, 2024

Table 1 shows that majority (119 58.7%) of the respondents are females, while (98 45.2%) are males. Also, 400 level students are the highest (108 49.8%), followed by 300 level (75 34.6%), 200 level (23 10.6%) and 100 level (11 10.6%). Furthermore, 108 (49.8%) are between 20 – 24 years, followed by 81 (41.0%), 25 – 29 years (16 7.4%) and 30 years and above (4 1.8%). Finally, 180 (82.9%) of the respondents are single, while 37 (17.1%) are married.

4.4 Presentation, Analysis, Discussion and Interpretations of Results

4.4.1: What is the proficiency in using online information resources by students of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria?

Table 3: Proficiency in using online information resources by students of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria

Options	SA		A		SD		D		\bar{X}	V
	F	%	F	%	F	%	F	%		
I understand how to use different search tools	105	48.4	73	33.6	20	9.2	19	8.8	3.22	A
I understand how to search databases and information systems	55	25.3	133	61.3	19	8.8	10	4.6	3.07	A
I understand how to use the right terms to search for information online	36	16.6	77	35.5	81	37.3	23	10.6	2.58	A
I understand how to use Boolean operators to search for online information	31	14.3	58	26.7	111	51.2	17	7.8	2.47	D
I understand how to differentiate accurate information from inaccurate information	23	10.6	98	45.2	78	35.9	18	8.3	2.58	A
I already have preferred websites I always visit when I need information online	111	51.2	66	30.4	21	9.7	19	8.8	3.24	A

Source: Researchers' Field Survey, 2024

Verdict: If mean is 1.0 to 1.74 = Strongly Disagree (SD); 1.75 to 2.49 = Disagree (D); 2.50 to 3.24 = Agree (A); 3.25 to 4.0 = Strongly Agree (SA).

Table 3 reveals that the respondents agreed that they already have preferred websites they always visit when they need information online ($\bar{X} = 3.24$), they understand how to use different search tools ($\bar{X} = 3.22$), they understand how to search databases and information systems ($\bar{X} = 3.07$), understand how to differentiate accurate information from inaccurate information and understand how to use the right terms to search for information online ($\bar{X} = 2.58$). However, the respondents disagreed that they understand how to use Boolean operators to search for online information ($\bar{X} = 2.47$).

Findings of this study showed that the respondents are proficient in some information searching skills. It implies that the respondents are skilful in knowing how information is categorized, indexed, and retrieved in different systems. The findings of this study validate the points of Olorunfemi, and Deborah (2021) where they asserted that information searching skills enabled students to navigate complex information systems and locate the information they need more efficiently.

The point that the respondents already have preferred websites they always visit when they need information online is worth discussing. According to Aduba et al. (2022), majority of students in the 21st Century already have preferred websites they visit to access the information they need. These students are fond of opening multiple websites or webpages on their browsers and only refresh it for updates when they need information.

The respondents' disagreement to the use of Boolean operators is worrisome because in this digital age, someone's ability to search, locate and access information is incomplete, if one lacks the ability to rephrase terms or concepts using the "And, Or and Not." Hebert (2018) argues that once an information user knows how to search for information appropriately, the problems associated with his or her information needs are averagely solved.

4.4.2: What is the extent online information resources are used by undergraduates of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria?

Table 4: Extent online information resources are used by undergraduates of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria

Options	HU		MU		PU		NU		\bar{X}	V
	F	%	F	%	F	%	F	%		
Online books	95	43.8	84	38.7	17	7.8	21	9.7	3.17	MU
Online journals	125	57.6	67	30.9	13	6.0	12	5.5	3.41	HU
Online newspapers	11	5.1	96	44.2	84	38.7	26	12.0	2.42	PU
Online magazines	35	16.1	77	35.5	55	25.3	50	23.0	2.45	PU
Databases	116	53.5	68	31.3	24	11.1	9	4.1	3.34	HU
Online dictionaries	36	16.6	68	31.3	76	35.0	37	17.1	2.47	PU
Online/Web public access catalogues	55	25.3	61	28.1	57	26.3	44	20.3	2.59	MU
Virtual libraries	27	12.4	57	26.3	87	40.1	46	21.2	2.30	PU
Institutional repositories	50	23.0	85	39.2	36	16.6	46	21.2	2.64	MU
Open educational resources	109	50.2	64	29.5	23	10.6	21	9.7	3.20	MU
Open access repositories	31	14.3	59	27.2	60	27.6	67	30.9	2.25	PU
Electronic mail (E-mail)	34	15.7	125	57.6	44	20.3	14	6.5	2.82	MU

Source: Researchers' Field Survey, 2024

Verdict: If mean is 1.0 to 1.74 = Not Used (NU); 1.75 to 2.49 = Partially Used (PU); 2.50 to 3.24 = Moderately Used (MU); 3.25 to 4.0 = Highly Used (HU).

Table 4 indicates that the respondents highly used online journals ($\bar{X} = 3.41$) and databases ($\bar{X} = 3.34$). In a similar pattern, the respondents also moderately used open educational resources ($\bar{X} = 3.20$), online books ($\bar{X} = 3.17$), electronic mail ($\bar{X} = 2.82$), institutional repositories ($\bar{X} = 2.64$), online/web public access catalogues ($\bar{X} = 2.58$), while others such as online dictionaries, newspapers and magazines are partially used.

It can be understood from the findings of this study that journals and databases are highly used by the respondents. Based on the researchers' understanding of the respondents and as it was revealed in the demographic table that majority of the respondents are in 400 level, the higher

utilisation of databases and online journals becomes imperative for the respondents to engage in their project writing. This has been supported by Ilogho and Nkiko (2014) that students tend to use online journals and databases more when they are writing their projects.

It is also interesting to discover that the respondents are moderately using open educational resources, online books, electronic mail, institutional repositories and online/web public access catalogues. The situation among the respondents understudied is similar to that of the United States of America where students in tertiary institutions used online information resources such as open educational resources, e-books and OPAC for information (Herbert, 2018).

The partial usage of online dictionaries, newspapers and magazines indicate the respondents' preferences of the quality of information resources they needed. Apart from online journals which is a type of primary information resources in the list of the online information resources highly and moderately used by the respondents, others belong to either the secondary or tertiary information resources. This shows the level of priority the respondents placed on the quality of the information they searched for and how they are utilised.

4.4.3: What are the challenges faced in using online information searching by undergraduates of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria?

Table 5: Challenges faced in using online information searching by undergraduates of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria

Options	SA		A		SD		D		\bar{X}	V
	F	%	F	%	F	%	F	%		
Lack of information literacy	31	14.3	59	27.2	60	27.6	67	30.9	2.25	D
Information overload	123	56.7	62	28.6	19	8.8	13	6.0	3.36	SA
Lack of ICT facilities	109	50.2	64	29.5	23	10.6	21	9.7	3.20	A
Lack of training in using advanced search techniques and database	104	47.9	70	32.3	27	12.4	16	7.4	3.21	A
Complexity of search tools and database	101	46.5	66	30.4	28	12.9	22	10.1	3.13	A
Time constraints	72	33.2	100	46.1	20	9.2	25	11.5	3.01	A
Lack of collaboration and peer support in information search skills development	89	41.0	92	42.4	27	12.4	9	4.1	3.20	A
Language barriers	46	21.2	39	18.0	91	41.9	41	18.9	2.41	D

Source: Researchers' Field Survey, 2024

Verdict: If mean is 1.0 to 1.74 = Strongly Disagree (SD); 1.75 to 2.49 = Disagree (D); 2.50 to 3.24 = Agree (A); 3.25 to 4.0 = Strongly Agree (SA).

Table 5 shows that the respondents strongly agreed that information overload ($\bar{X} = 3.36$) is the major challenge they faced when using online information resources. The respondents agreed to other challenges such as lack of training in using advanced search techniques and database ($\bar{X} = 3.21$), lack of ICT facilities and lack of collaboration and peer support in information search skills development ($\bar{X} = 3.20$), complexity of search tools and databases ($\bar{X} = 3.13$) and time constraints ($\bar{X} = 3.01$). On the contrary, the respondents disagreed that language barriers ($\bar{X} = 2.41$) and information literacy ($\bar{X} = 2.25$) are challenges they faced.

Findings of this study implies that information overload is the major challenge faced by the respondents when using online information resources. The scenario experienced by the respondents is similar to the one reported by Aderibigbe (2019) and Kale (2023) that more than average of Nigerian undergraduates always encounters the problem of information overload when they search for information online.

The other challenges revealed in this study are associated with the findings of the previous studies on information searching and retrieval online. Ilogho and Nkiko (2014) reported complexity of search tools and databases, lack of collaboration and peer support in information search skills development and lack of formal training in information search. Also similar to this is the findings of Mohd Razal et al. (2018) who reported time constraints and inadequate ICT facilities, particularly in the developing and underdeveloped countries.

More so, findings revealed that language barrier is not a challenge to the respondents when searching for information resources online. This contradicts the notion of Steigerwald et al. (2022) that students' ability to access and comprehend information effectively can happen in a multilingual environment and since English is the official language of teaching in Nigeria, it can be concluded that language barrier is not an issue to the respondents when searching for information resources online.

4.4.4: What are the impacts of enhanced search skills on the utilisation of online information resources by undergraduates of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria?

Table 6: Impact of enhanced search skills on the utilisation of online information resources by undergraduates of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria

Options	SA		A		SD		D		\bar{X}	V
	F	%	F	%	F	%	F	%		
Bolster my critical thinking and problem-solving skills in searching online information	72	33.2	105	48.4	17	7.8	23	10.6	3.04	A
Enhances my abilities to assess the credibility and relevance of online information sources	77	35.5	105	48.4	15	6.9	20	9.2	3.10	A
Aids my support lifelong learning	113	52.1	67	30.9	21	9.7	16	7.4	3.28	SA
Helps me in attaining my desired academic excellence	128	59.0	56	25.8	24	11.1	9	4.1	3.40	SA
Enables me to perform comprehensive and efficient literature reviews	91	41.9	70	32.3	27	12.4	29	13.4	3.03	A
Enhances my abilities to navigate databases and digital libraries	123	56.7	62	28.6	19	8.8	13	6.0	3.36	SA
Enables me to access a wide range of scholarly articles and studies	78	35.9	73	33.6	35	16.1	31	14.3	2.91	A
Makes me current with new research and academic trends	79	36.4	78	35.9	28	12.9	32	14.7	2.94	A
Enables me to contribute effectively to scholarly discussions	107	49.3	71	32.7	21	9.7	18	8.3	3.23	A

Source: Researchers' Field Survey, 2024

Verdict: If mean is 1.0 to 1.74 = Strongly Disagree (SD); 1.75 to 2.49 = Disagree (D); 2.50 to 3.24 = Agree (A); 3.25 to 4.0 = Strongly Agree (SA).

Table 6 reveals that the respondents strongly agreed that enhanced searching skills helps in attaining desired academic excellence ($\bar{X} = 3.40$), enhances abilities to navigate databases and digital libraries ($\bar{X} = 3.36$) and aids support lifelong learning ($\bar{X} = 3.28$). Furthermore, the respondents agreed to other impacts of enhanced searching skills such as enhances abilities to assess the credibility and relevance of online information sources ($\bar{X} = 3.10$), bolster critical

thinking and problem-solving skills in searching online information ($\bar{X} = 3.04$) and enables the performance of comprehensive and efficient literature reviews ($\bar{X} = 3.03$).

Findings of this study are consistent with the positions of researchers and scholars on the impacts of enhanced search skills in accessing online information resources. For example, Ugwu and Orsu (2017), in appraising the impacts of enhanced information searching skills asserted that information searching skills enhanced the students' capabilities free access to scholarly articles and research findings through open access journals and repositories that promote equitable knowledge sharing. These resources are essential for students conducting literature reviews and keeping up with current research trends.

Noting that enhanced information searching skills aids support lifelong learning and enhances abilities to assess the credibility and relevance of online information sources shows that the respondents are moderately information literate as they claimed in the findings of Table 5. This also reflects an acceptable level of consistency in the respondents' consciousness in answering this study's questions.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarises the findings of this study, draws conclusion from those findings and makes appropriate recommendations. This chapter is arranged in the following order:

5.2 Summary of findings

5.3 Conclusion

5.4 Recommendations

5.2 Summary of findings

Results of this study revealed that:

1. The proficiency of using online information resources by students of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria, revolved around having preferred websites they always visit when they need information online, understanding how to use different search tools and understanding how to search databases and information systems.
2. Undergraduates of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria, highly used online journals and databases, while online books, emails and open educational resources are moderately used.
3. The challenges faced in using online information searching by undergraduates of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria, include information

overload, lack of training in using advanced search techniques and database, lack of ICT facilities and lack of collaboration and peer support in information search skills development and complexity of search tools and databases.

4. The impacts of enhanced search skills on the utilisation of online information resources by undergraduates of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria, include helps in attaining desired academic excellence, enhances abilities to navigate databases and digital libraries and aids lifelong learning.

5.3 Conclusion

Online information resources have become one of the most utilised and reliable information resources in recent times. Nonetheless, the exploitation of the values of these information resources requires adequate information searching skills. This study has brought into fore that the undergraduates of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria, are proficient in using online information resources by having preferred websites they always visit when they need information online. This makes them understand how to use different search tools and how to search databases and information systems to search for online journals and databases.

Information search skills helps the undergraduates of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria in attaining their desired academic excellence, enhances their abilities to navigate databases and digital libraries and aids their lifelong learning. Meanwhile, the undergraduates of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria faced the challenges of information overload, lack of training in using advanced search

techniques and database, lack of ICT facilities and lack of collaboration in searching for online information resources.

5.4 Recommendations

Based on the findings of this study, the following recommendations are hereby made:

1. Management of Al-Hikmah University, Ilorin, Nigeria, in collaboration with the Department of Library and Information Science should train the undergraduates on how to use Boolean operators. This will enhance the undergraduates' information searching skills and help them overcome the problems associated with complexity of database searching.
2. Management of Al-Hikmah University, Ilorin, Nigeria, and other stakeholders should endeavour to provide adequate ICT facilities for the undergraduates to be accessing other information resources such as virtual libraries and institutional repositories. If the university has this already, awareness should be made to encourage their use among the undergraduates.
3. Management of Al-Hikmah University, Ilorin, Nigeria, Department of Library and Information Science and other stakeholder should collaborate to be continuously training the undergraduates on information searching. This will be enhancing the undergraduates' information searching skills and update their knowledge on the latest development.

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