



Utilisation of Innovative Technologies for Library Orientation in University Libraries in Rivers State

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Abstract

The study investigated the utilization of innovative technologies for library orientation in university libraries in Rivers State. The study adopted a descriptive research survey design. The population of the study was 42 librarians in university libraries in Rivers State. Total enumeration sampling technique was used to select all the respondents. Questionnaire was used to gather the data. 38 copies of the questionnaire were found valid for analysis. The study was analyzed using mean and standard deviation. The study revealed that library orientation adopted were face to face orientation, use of library guide handbook, use of library course, guided tours and in person presentation/lectures but virtual tour was poorly adopted. Furthermore, OPAC, mobile technologies and social media were used for library orientation but YouTube, zoom, Ask a Librarians, chatbots, gamified tours, and augmented reality were not used for library orientation implying low utilization of innovative technologies in library orientation. The study also noted that although digital divide limits participation, it was perceived that innovative technologies could motivate participation, bridge distance barrier, facilitate interaction with students, enhance the use of library and promotes library orientation. Thus, there is a positive perception of the use of innovative technologies for library orientation. It was therefore, recommended that libraries should create interactive tutorials, live sessions, and real-time support through social media and mobile apps to enhance user learning and access.

Keywords: Innovative technologies, university library, library orientation, library instruction, user education.

Introduction

The university library is primarily responsible for a range of essential functions, including the acquisition, organization, preservation, retrieval, and dissemination of information to its users. It serves as a vital component of the academic environment, playing a central and indispensable role in the educational success of students (Daniels et al., 2023). As such, it cannot be overlooked. To ensure that newly admitted students can effectively utilize the library's resources and services,



they are introduced to its operations and facilities through a structured library orientation program, which equips them with the foundational skills needed for effective library use.

Library orientation programmes are programmes designed to guide and instruct existing or potential library users on how to make effective and efficient use of the library and its resources through the acquisition of knowledge and skills in identifying, locating, retrieving and utilizing information materials in the library (Obuah, 2020). Library orientation plays a crucial role in familiarizing students with the resources, services, and facilities available in academic libraries. Traditionally, libraries have relied on methods such as face-to-face orientation, library guide handbooks, guided tours, and in-person lectures or presentations to conduct orientation programs. While these approaches have their merits, the evolving landscape of information and communication technology demands a shift towards more innovative and engaging techniques to meet the expectations and learning styles of 21st-century students.

Despite the increasing integration of technology in education, findings from recent studies reveal that the adoption of innovative technologies in library orientation remains limited Ogbonna & Nsirim, (2023). For instance, while some libraries have embraced tools such as Online Public Access Catalogue (OPAC), mobile technologies, and social media for library instruction, others such as virtual tours, YouTube, Zoom, Ask a Librarian services, chatbots, gamified tours, and augmented reality have seen very little or no utilization in library orientation programs. This underutilization suggests a gap in the full exploitation of available digital tools for enhancing user engagement and improving library literacy.

Interestingly, the library orientation could be enhanced by the use innovative technologies.

Innovative technologies according to Friedman (2018) are new media technologies or Web 2.0 that encompasses a host of web-related communication tool such as online social networking, blogs, wikis and other social media forms. They identified five characteristics of innovative technologies as communication, collaboration, community, creativity, and convergence. Similarly, Oyero (2019) described innovative technologies as a generic term used to describe all forms of computer-based or web-related communication technology characterized by creative participation and user interactive interfaces including mobile technologies, video games, blogs, wikis, social networking sites and virtual worlds. Innovative technologies involve the use of computer hardware and software to communicate and deliver services. It does not necessarily need to be



recent or new innovation. They could be communication technologies, electronic information resources or storage technologies that can be used in services delivery. Such technologies that can be used in library instruction includes ask a librarian, social media, YouTube, library website, Video conferencing such as Zoom, Audio Visual Materials (AVM) such as animation, Power Point presentation, motion pictures with sound, video cassettes, CD-ROMs, 3-D imaging, DVDs, cinematographic films; sound recordings audio tapes.

These technologies are seen as tools that can motivate user participation, bridge the digital and distance divide, facilitate greater interaction between librarians and students, and ultimately improve the use and perception of the library. However, the digital divide still poses a significant challenge to full participation and inclusivity, particularly in institutions with limited technological infrastructure or in regions with poor internet connectivity. Given the potential benefits and positive perception of technology integration in library services, it becomes imperative for libraries to rethink and redesign their orientation programs by leveraging innovative technologies. Doing so not only enhances library instruction but also improves overall service delivery and user experience. It is therefore, imperative to examine the current use of innovative technologies in library orientation in university libraries.

Statement of the Problem

In today's digital era, academic libraries are expected to adopt innovative methods that align with the technological preferences and learning styles of modern students. Library orientation serves as a foundational activity for introducing users to library resources, services, and facilities. However, many academic libraries still rely heavily on traditional methods such as face-to-face sessions, printed handbooks, and guided tours, which may not fully engage digital-native students or address the needs of distance learners. Although technologies like OPAC, mobile platforms, and social media have been adopted to some extent, the minimal use of more immersive and interactive tools such as virtual tours, video platforms, chatbots, and augmented reality suggests a missed opportunity to enhance library orientation experiences. There is need for the adoption of innovative technologies to motivate participation, overcome distance and accessibility barriers, and foster a more interactive learning environment. This presents a compelling reason to explore the current state of technology integration in library orientation. Although studies have been carried out on library orientation but empirical evidence is lacking on the utilisation of innovative



technologies on library orientation. Therefore, this study is necessary to assess the utilisation of innovative technologies for library orientation and suggest ways it can be improved.

Objectives of the Study

The main objective of the study is to investigate innovative technologies and library orientation in university libraries in Rivers State. The specific objectives are to:

1. Identify library orientation method carried out in university libraries in Rivers State
2. Determine the innovative technologies used for library orientation in university libraries in Rivers State
3. Investigate the perceptions of librarians on the use of innovative technologies in library orientation?

Research Questions

1. what are library orientation method carried out in university libraries in Rivers State
2. What are the innovative technologies used in library orientation
3. What are the perceptions of librarians on the use of innovative technologies in library orientation?

Review of Related Literature

According to IGI Global (2022), innovative technologies are technologies that are either newly invented or are being utilized in new ways. Omehia et al, (2021) noted that although they are usually referred to as emerging technologies, they may have been in existence for a long time but are just being realized and utilized as new innovation in a particular field. Innovative technologies can be defined as the technologies that enables one to access, collect, process, explore, evaluate, explain, document, archive, disseminate, share and or communicate contents. It is from the concept of a new technology that is currently being developed. Several authors have represented innovative ideas in different ways in literature. The study of Corral and Jolly (2019) emphasizes a technologically-driven innovation including the use of tools that are relevant in the delivery of impactful instruction. They noted that the kind of innovation that is needed in the library of today is such as rethinking the instructional roles of librarians, collaborating with other



professionals' services, and contributing to changes in teaching and learning on their campus and beyond. According to Andrew et al, (2016) innovative technologies allow students to take responsibility and control over their own learning, bridges the in-class experience of students and promotes integration of e-literacy leaning. The innovative technologies that can be used in library orientation include zoom and library orientation, multimedia and library orientation, frequently ask question and library orientation, online public access catalogue and library orientation, ask a librarian and library orientation and social media and library orientation. Oname and Alex-Nmecha (2020) added artificial intelligence as one of the innovative technologies that could be used in library orientation by directing users to different units of the library. Omeluzor et al (2020) indicated that inadequate use of innovative tools would affect patronage and adequate delivery of library instruction and services to the library patrons who are in different geo-political locations. The researchers recommended the need for library management in federal universities in the South-South zone of Nigeria to explore viable innovative tools for library instruction and service

Methodology

The study adopted a descriptive research survey design. The population of the study was 42 librarians in university libraries in Rivers State. Total enumeration sampling technique was used to select all the respondents. A structured questionnaire titled "Innovative Technologies and Library orientation Questionnaire (ITLOQ)" was used to gather the data. A four (4) Likert scale was used which ranged from Strongly Agree (SA) = 4 points, Agree (A) = 3 points, Disagree (D) = 2 points and Strongly Disagree (SD) = 1 point. Thirty-Eight (38) copies of the questionnaire were found valid for analysis. The study was analyzed using mean scores and standard deviation. The decisions to accept or reject was based on a criterion mean of 2.5. This implies that any item with a mean score of 2.5 and above was accepted and rejected if otherwise.



Results and Discussion

Research Question 1: what are library orientation method carried out in university libraries in Rivers State?

Tabel 1: Summary of Mean and Standard Deviation on the library orientation method carried out in university libraries in Rivers State

Items	$\bar{x}$	$\pm$	Decision
Virtual library tours	2.4	2.3	Disagree
In person presentation/lectures	2.7	2.9	Agree
Guided tours	3.4	3.5	Agree
Face to face orientation	3.5	3.5	Agree
Use of library guide handbook	3.5	3.4	Agree
Use of library course	3.5	1.2	Agree
Weighted Mean	3.1	2.8	Agree

The result from table.1 shows that the library orientation adopted face to face orientation, use of library guide handbook, use of library course, guided tours and in person presentation/lectures. On the other hand, virtual tour was poorly adopted for library orientation. This study is in line with Obuah (2020) on bibliographic instructions and students' utilization of library materials in Ignatius Ajuru University of Education Port Harcourt and revealed that library tour, one-on-one instruction, library guided and use of library course were the bibliographic instruction method in university libraries in Rivers State



Research Question 2: What are the innovative technologies used in library orientation in university libraries in Rivers State?

Table 2: Summary of Mean and Standard deviation on the innovative technologies used in library orientation in university libraries in Rivers State

Items	$\bar{x}$	$\pm$	Decision
YouTube	2.4	2.3	Disagree
Zoom	2.2	2.3	Disagree
Ask a Librarian	2.2	2.2	Disagree
Chatbots	2.1	2.3	Disagree
Robots	1.0	1.1	Disagree
Gamified tours	1.0	1.2	Disagree
OPAC	3.1	2.8	Disagree
Social media	2.8	2.7	Agree
Mobile technology	3.0	3.1	Agree
Augmented reality	1.5	1.8	Agree
Weighted Mean	2.1	2.1	Disagree

The result from the table 2 indicates OPAC, mobile technologies and social media were used for library orientation. On the other hand, YouTube, zoom, Ask a Librarians, chatbots, gamified tours, and augmented reality were not used for library orientation. The weighted mean of 2.1 indicates low utilization of innovative technologies in library orientation. This study is consistent with that of Omeluzor et al (2020) who investigated the adoption of innovative tools for library orientation and services in Federal University libraries in South-South zone of Nigeria and revealed majority of the respondents were yet to use innovative tools for instruction and service delivery.

Research Question 3: What are the perceptions of librarians on the use of innovative technologies in library orientations?



Table 3: Summary of Mean and Standard deviation on the perceptions of librarians on the use of innovative technologies in library orientation?

Item	$\bar{x}$	$\pm$	Decision
promotes library orientation	2.8	2.6	Agree
Facilitate interaction with students	3.0	2.9	Agree
Bridge distance barrier	3.2	3.1	Agree
Digital divide limits participation	3.5	3.4	Agree
motivate participation	3.5	3.4	Agree
Enhances the use of library	2.9	3.0	Agree
Weighted Mean	3.1	3.0	Agree

The result from table 3 shows the perceptions of librarians towards the use of innovative technology for library orientation as noted that although digital divide limits participation, innovative technologies, motivate participation, bridge distance barrier, facilitate interaction with students, enhance the use of library and promotes library orientation. The weighted mean of 3.1 indicates that there is a positive perception of the use of innovative technologies for library orientation. This study agrees with the study of Ibacache et al (2021) on the emergency remote library orientation and tech tools during a pandemic and revealed that interactive/collaborative and flexibility were important considerations for the use innovative technologies in library orientation.

Conclusion

Library orientation programs are organized by the library to equip users with enough knowledge on the use of library so as to enable them use the library resources effectively. Consequently, University Libraries have adopted different methods of instructing users on the use of library resources. However, with the wide reception of technologies methods in library services delivery, university libraries are beginning to exploit innovative technologies in library orientation.

This study investigated the use of innovative technologies in library orientation discovered that library orientation adopted face to face orientation, use of library guide handbook, use of library



course, guided tours and in person presentation/lectures but virtual tour was poorly adopted for library orientation. Furthermore, OPAC, mobile technologies and social media were used for library orientation. On the other hand, YouTube, zoom, Ask a Librarians, chatbots, gamified tours, and augmented reality were not used for library orientation implying low utilization of innovative technologies in library orientation. The study also noted that although digital divide limits participation, it was perceived that innovative technologies could motivate participation, bridge distance barrier, facilitate interaction with students, enhance the use of library and promotes library orientation. Thus, there is a positive perception of the use of innovative technologies for library orientation. Librarians should therefore, leverage innovative technologies in library orientation as it facilitate and enhances library orientation and service delivery.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Since the study found that tools such as virtual tours, YouTube, Zoom, chatbots, gamified tours, and augmented reality were not utilized, university libraries should actively adopt and integrate these innovative technologies into their orientation programs. These tools can provide engaging, interactive, and flexible learning experiences that cater to the needs of modern students, especially those in remote or online learning environments.
2. Given that OPAC, mobile technologies, and social media were already in use, libraries should build on these platforms by expanding their instructional content and improving user engagement. For example, libraries can create interactive tutorials, live sessions, and real-time support through social media and mobile apps to enhance user learning and access.
3. Since the digital divide was identified as a limitation to participation, universities should invest in improving digital infrastructure and provide support for students with limited access to technology. This may include offering orientation materials in multiple formats, providing access to devices or data support, and conducting blended orientation sessions to ensure inclusivity and equal access for all students.



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