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EDITORIAL

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Prof. Patrick C. Igbojinwaekwu
Editor-in-Chief

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**LIBRARIANS' ARTIFICIAL INTELLIGENCE LITERACY AND ATTITUDE
TOWARDS THE USE OF ARTIFICIAL INTELLIGENCE TOOLS FOR
INFORMATION RESOURCE MANAGEMENT IN THE LIBRARY IN
ANAMBRA STATE, NIGERIA**

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Abstract

The purpose of the study was to ascertain librarians' Artificial intelligence (AI) literacy and attitude towards the use of AI tools for information resource management in the library in Anambra State. Survey research design was used for the study. The population of the study consisted of 56 librarians of public universities in Anambra State. No sampling was done given the manageable population. Librarians' Literacy in the Use of AI Tools for Information Resource Management Questionnaire (LLUAITIRMQ)' and 'Librarians' Attitude towards the Use of AI Tools for Information Resource Management Questionnaire (LAUAITIRMQ) were used for data collection. LLUAITIRMQ and LAUAITIRMQ were face-validated by three experts in the Faculty of Education, Nnamdi Azikiwe University, Awka. The reliabilities of LLUAITIRMQ and LAUAITIRMQ were respectively ascertained using Cronbach Alpha method respectively to yield coefficient values of 0.75 and 0.71. Data were analyzed using mean and standard deviation. The findings of the study revealed that that librarians possessed low level of AI literacy for the use of AI tools for information resource management. Furthermore, librarians had positive attitudes towards the use of AI tools for information resource management. Based on the findings of the study, it was recommended among others that University authorities should organize seminars and workshops for librarians on the need to acquire AI literacy for efficient use of AI tools for information resource management.

Keywords: Librarians, Artificial intelligence, Literacy, Attitude.

Introduction

Information Resources Management (IRM) is a vital task undertaken by librarians in the university libraries. It encompasses organizing, storing, retrieving and disseminating information in a systematic manner. Information management is a comprehensive approach that involves the selection, acquisition, organization, circulation management, provision of reference services, preservation of digital content, licensing resources, engagement of users and evaluation of services (Singh, 2023; Redkina, 2023; Oleksandr & Nadiia, 2023). Deductively, information resource management facilitates collection development. It is critical to optimizing resource utilization, enhancing access via efficient cataloging, classification as well as digital integration (Lawal, 2021). Information resource management ensures the relevance of university libraries to modern day students in contemporary times. Accordingly, Evans and Schonfeld (2020) pointed out that information resource management brings about improvement in user experience with automated systems as well as customized services, provides data analytics for decision-making, preserves cultural heritage through archiving and digitization, promotes staff development through training while ensuring compliance with international standards. Interestingly, information resource management can be undertaken using Artificial Intelligence.

Artificial intelligence (AI) refers to tools or device to undertake the tasks required of human intelligence tools that can be utilized by university librarians to deliver quality service to library patrons who are predominantly digital natives. Artificial intelligence (AI) tools refer to technological tools or devices that possess the capacity to undertake tasks expected of human intelligence. Nigerian libraries are being digitally transformed and the understanding of AI tools can enhance information management nationwide (Owolabi, Abayomi, Aderibigbe, Kemdi, Oluwaseun & Okorie, 2022). These AI tools, according to Tandel (2024), include Research Rabbit, Perplexity, Scite, ChatGPT, Consensus, EndNote, Semantic scholar, Elicit and QuillBot. These tools, in contemporary times, ensures efficient management of library resources. The use of Artificial Intelligence (AI) tools in library operations is deemed expedient and increases the librarians' skill to fully transform the management of information resources (Owolabi, Fauziyah, Olateju, Taiwo, & Adesina, 2020).

Apparently, the place of information resource management in university libraries cannot be over-stressed. However, Madu, Odenigbo and Alawode (2020) observed that librarians in most academic libraries in Nigeria have not prioritized information

resource management. Similarly, a cursory look at public university libraries in Anambra State revealed that information resource is managed with print materials by librarians. This is rather worrisome given that digital tools such as AI tools are available and accessible to librarians for information management. AI tools hold so much promise in the modernization of library services that their successful integration is anchored on librarians' AI literacy who are in the vanguard of information resource management as well as dissemination (Dwivedi, Hughes, Ismagilova, Aarts, Coombs, Crick, Williams 2021; Gill, Xu, Ottaviani, Patros, Bahsoon, Shaghaghi, Uhlig, 2022; Ridley & Pawlick-Potts, 2021).

AI literacy refers to an individual's ability to understand how to use AI while not ignoring the ethics of its usage. Ismail, Hussain and Haseeb (2024) defined AI literacy as the capability to comprehend its application, use and ethical considerations. An AI literate librarian is able to use AI to deliver quality service to library users. AI literacy embodies a person's holistic proficiency regarding AI that facilitates critical use and evaluation of AI and by extension, effective collaboration with AI (Cetindamar, Kitto, Wu, Zhang, Abedin, & Knight, 2022; Long & Magerko, 2020). This is to say that AI literacy enables a librarian evaluate AI information resource prior to its use. Similarly, Hossain (2023) argued that AI-literate librarians are well-equipped to critically evaluate and use AI tools, while Ali and Richardson (2025) cautioned that lack of AI literacy leaves library professionals ill-equipped to meet ever-evolving library user expectations.

Attitude refers to an individual's feeling, thinking or opinion of something. It embodies patterns of belief, thought to be predictive of behavior indicating people's biases, inclination or tendencies that influence their response to activities, situation, and people or programme goals (Akpena, 2019). Thus, positive librarians' attitude towards the use of AI tools for information resource management in the university could either be positive or negative. If positive, there will be a high tendency to manage information resource using AI tools while the obvers is the case if negative.

There are contradictions on the findings of researchers regarding AI literacy, attitudes and use of AI (technology). For instance, while Sule (2025) found that academic librarians possess a moderate level of AI literacy. Hossain and Hertel (2025) many librarians rated themselves at an intermediate level of AI literacy. In contrast, Ismail *et al.* (2024) revealed a high AI literacy among library professionals towards artificial intelligence and its use in libraries. For attitude and AI usage, Asim, Arif, Rafiq and Ahmad (2023); Shaheen and Khurshid (2023) found that library professionals have a

positive attitude towards AI application in libraries. On the contrary, Madu, Odenigbo and Alawode (2020) found that attitude failed to pose significant impact on information technology adoption. The afore-mentioned inconsistencies gave the researcher the impetus to embark on the study on librarians' AI literacy and attitude towards the use of AI tools for information resource management in the library in Anambra State.

Purpose of the Study

The purpose of the study was to ascertain librarians' AI literacy and attitude towards the use of AI tools for information resource management in the library in Anambra State. Specifically, this study determined;

1. librarians' AI literacy in the use of AI tools for information resource management in the library in Anambra State.
2. librarians' attitude towards the use of AI tools for information resource management in the library in Anambra State.

Research Questions

The study was guided by the following research questions;

1. What is level of librarians' AI literacy in the use of AI tools for information resource management in the library in Anambra State?
2. What is librarians' attitude towards the use of AI tools for information resource management in the library in Anambra State?

Methods

Research Design: The present study adopted survey research design. According to Nworgu (2015), survey research design embodies the collection of opinions, attitudes or feelings of a population or its representative sample using questionnaire or interview to delineate existing phenomenon. The justification for the foregoing design is premised on the fact that the researcher sought to collect opinions of librarians on their AI literacy and attitude towards the use of AI tools for information resource management in the library in Anambra State.

Population and Sample: The population of the study was made up of 56 librarians in the public university libraries in Anambra State, Nigeria. No sampling was done as the population is of manageable size.

Procedure: Data for the study were collected using two sets of questionnaire titled “‘Librarians’ Literacy in the Use of AI Tools for Information Resource Management Questionnaire (LLUAITIRMQ)’” and ‘Librarians’ Attitude towards the Use of AI Tools for Information Resource Management Questionnaire (LAUAITIRMQ)’’. LLUAITIRMQ was adapted from School librarians' conceptual and pedagogical AI competency by Hossain and Hertel (2025) and contains eight items. It was adapted in such a manner that the respondents gave their response by opting for one of four response categories of Very High Level (VHL), High Level (HL), Low Level (LL) and Very Low Level (VLL) with numerical indices of 4, 3, 2 and 1. For LAUAITIRMQ, it is an eight-item questionnaire developed by the researcher in a way that the respondents gave their response by opting for one of four response categories of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) with numerical indices of 4, 3, 2 and 1 for positively worded items while negatively worded items were reversely scored. Face validation of LLUAITIRMQ and LAUAITIRMQ was done by three experts in Faculty of Education, Nnamdi Azikiwe University, Awka. The reliabilities of LLUAITIRMQ and LAUAITIRMQ were ascertained with Cronbach alpha method. This was undertaken by administering the LLUAITIRMQ and LAUAITIRMQ to 10 librarians with similar characteristics in Enugu State, Nigeria which is outside the study area. The internal consistencies of the items in LLUAITIRMQ and LAUAITIRMQ were determined using Cronbach statistics. The alpha coefficients obtained were 0.75 and 0.71. These were in consonance with the suggestion of Shrestha (2021) that the adequate threshold value for Cronbach alpha should be >0.70 . Data collection was undertaken with the aid of three research assistants who were co-postgraduate students. Out of 56 copies of LLUAITIRMQ and LAUAITIRMQ administered, 52 were recovered, indicating 92.9% return.

Data Analysis. Mean and standard deviation were used for data analysis and to determine the homogeneity or otherwise of the respondents' views. The decision on the questionnaire items was based on item and cluster means relative to real limits of numbers as shown;

Response	Rating Scale	Real Limit of Numbers
SA/ VHL	4	3.50 – 4.00
A/HL	3	2.50 – 3.49
D/LL	2	1.50 – 2.49
SD/VLL	1	1.00 – 1.49

Results

Research Question 1: What is level of librarians’ AI literacy in the use of AI tools for information resource management in the library in Anambra State

Table 1: Mean Ratings of Librarians on their AI Literacy in the Use of AI Tools for Information Resource Management

S/N	As a librarian, I can:	SA	A	D	SD	Mean	SD	Remark
1.	explain how AI is used in cataloging.	22	08	10	12	2.76	.64	HL
2.	discuss the ethical considerations related to AI in information classification.	11	16	15	10	2.53	.73	HL
3.	use relevant AI tools for collection development.	07	09	11	25	1.96	.48	LL
4.	identify AI-related biases.	09	20	20	03	2.67	.61	HL
5.	use AI tools in providing support to library users in locating information.	10	09	15	18	2.21	.37	LL
6.	identify if a software or digital tool uses AI technology.	08	24	10	10	2.57	.70	HL
7.	evaluate AI-powered tools for their effectiveness in information preservation.	15	12	09	16	2.50	.75	HL
8.	use AI tools for information retrieval.	12	14	16	10	2.54	.56	HL
Grand Mean						2.47	.61	LL

Data in Table 1 show the item by item analysis of level of librarians’ AI literacy in the use of AI tools for information resource management in the library in Anambra State. From the analysis, librarians agree on items 1, 2, 4, 6, 7 and 8 while disagreeing with items 3 and 5. The grand mean of 2.47 shows that librarians have a low level of AI literacy in the use of AI tools for information resource management in the library. The

standard deviation score ranging from 0.37 – 0.75 means that librarians do vary much in their ratings on their AI literacy in the use of AI tools for information resource management in the library in Anambra State.

Research Question 2: What is librarians’ attitude towards the use of AI tools for information resource management in the library in Anambra State

Table 2: Mean Ratings of Librarians on their Attitude towards the Use of AI Tools for Information Resource Management

S/N	As a librarian, I can:	SA	A	D	SD	Mean	SD	Remark
1.	explain how AI is used in cataloging.	17	18	07	10	2.81	.97	A
2.	discuss the ethical considerations related to AI in information classification.	20	10	12	10	2.77	.81	A
3.	use relevant AI tools for collection development.	19	16	10	07	2.90	.93	A
4.	identify AI-related biases.	16	22	12	02	3.00	.68	A
5.	use AI tools in providing support to library users in locating information.	11	17	16	08	2.59	.72	A
6.	identify if a software or digital tool uses AI technology.	28	04	10	10	2.96	.95	A
7.	evaluate AI-powered tools for their effectiveness in information preservation.	25	02	19	06	2.88	.84	A
8.	use AI tools for information retrieval.	14	16	13	09	2.67	.97	A
Grand Mean						2.82	.84	A

Data in Table 2 show the item by item analysis of librarians’ attitude towards the use of AI tools for information resource management in the library in Anambra State. From the analysis, librarians agree on all the items. The grand mean of 2.84 shows that librarians have a positive attitude towards the use of AI tools for information resource management in the library. The standard deviation score ranging from 0.68 – 0.97 means that librarians do not vary much in their ratings on their attitudes towards the use of AI tools for information resource management in the library in Anambra State.

Discussion

Librarians' AI literacy in the use of AI tools for information resource management in the library

The finding of this study is that librarians had a low level of AI literacy in the use of AI tools for information resource management in the library. This shows that librarians are yet to fully acquire the requisite literacy skills for information resource management. This could be attributed to the fact that they have not been vastly exposed to seminars and workshops on the need to acquire AI literacy skills for information resource management in line with global trend of librarianship. Going further, this is in a bid to deliver quality services to modern day library users who have become accustomed to the use of technology for learning and research. In slight consonance to the finding of the present study, Sule (2025) found that academic librarians possess a moderate level of AI literacy. In other words, librarians were not considerably literate in the use of AI tools for information resource management. Similarly, Hossain and Hertel (2025) found that many librarians rated themselves at an intermediate level of AI literacy. This may be traceable to poor in-service training of librarians on the use of AI tools for information resource management. In sharp contrast to the finding of the present study, Ismail *et al.* (2024) found a high AI literacy among library professionals towards artificial intelligence and its use in libraries. The afore-mentioned contradiction may be associated with sample characteristics in the different areas of the study.

Librarians' attitude towards the use of AI tools for information resource management in the library

The finding of this study is that librarians had a positive attitude towards the use of AI tools for information resource management in the library. This goes to show that librarians possess favourable disposition towards the use of AI tools for information resource management in the library. Put differently, librarians have come to the understanding that the use of AI tools for information resource management is in line with global practice; hence the need to align. In tandem with the finding of the present study, Asim *et al.* (2023); Shaheen and Khurshid (2023) found that library professionals had a positive attitude towards AI application in libraries. This positive attitude towards AI tools could be linked to the far reaching benefits of AI tools to the librarian. In line with the afore-mentioned Owolabi *et al.* (2022) noted that university libraries in Nigeria have undergone digital transformation and the understanding of AI

tools can enhance information management nationwide. Contradicting the finding of the present study, Madu *et al.* (2020) found that attitude failed to pose significant impact on information technology adoption. This contradiction may not be unconnected to the peculiarities of the respondents in the disparate areas of study.

Conclusion

The use of AI tools for information resource management in contemporary times is hugely a function of librarians' AI literacy and their attitude towards their use. Consequent upon the findings of the study, it was concluded that while librarians possessed low level of AI literacy for the use of AI tools for information resource management, their attitudes towards the use of AI tools for information resource management were positive.

Recommendations

In line with the findings, the following recommendations were made;

1. University authorities should organize seminars and workshops for librarians on the need to acquire AI literacy for efficient use of AI tools for information resource management.
2. University librarians should improve their attitude towards the use of AI tools for information resource management. That way, quality of service delivery to library patrons will be enhanced.

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