ADOPTION AND USE OF ARTIFICIAL INTELLIGENCE TOOLS IN SERVICE DELIVERY IN SELECTED ACADEMIC LIBRARIES IN KENYA

Teclah Jebet.
Department of Computing and Information Science, School of Pure and Applied Sciences, Kenyatta University, Kenya.
Dr. Martin Gichugu.
Department of Computing and Information Science, School of Pure and Applied Sciences, Kenyatta University, Kenya.

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ABSTRACT

Academic libraries are continuously adopting artificial intelligence technologies to improve productivity, accessibility, and the user experience. With the volume and complexity of library information and the user needs continuing to expand exponentially, libraries face a daunting challenge of how to efficiently manage, access, and disseminate information to meet the diverse user needs. Thus, the adoption and utilization of Artificial Intelligence (AI) tools powered by machine learning and big data, have emerged as a transformative trend in libraries which has revolutionized the way libraries collect, curate, and deliver information. However, despite its potential in libraries, artificial intelligence still seems like a grey idea, especially in developing countries such as Kenya. The objective of the study was to assess the adoption and use of artificial intelligence tools on service delivery in selected academic libraries in Kenya. Diffusion of innovation theory served as the study's anchor theory. The research design used was descriptive research design where a total of eighty-seven library staff drawn from USIU, Strathmore, the University of Nairobi and Jomo Kenyatta University of Agriculture and Technology (JKUAT) were considered. A total of seventy-one participants were chosen using stratified random selection technique. The study relied on primary data collected via research questionnaires which was analyzed using descriptive statistics including frequencies, percentages, means scores and standard deviations. Tables were used to display the study findings. Results showed that academic libraries in Kenya are well-informed about the availability of AI resources. Academic libraries' familiarity with AI technologies and their possible uses was nevertheless minimal. The study also found that several university libraries have a high level of AI tools adoption. In order to overcome obstacles and increase the acceptance and usage of AI technologies in academic libraries, the study recommends developing targeted training programs, properly allocating resources, and cultivating a supportive corporate culture.

Key words: Academic Libraries, Adoption, AI Technologies, Artificial Intelligence, Service Delivery

INTRODUCTION

The ever-accelerating digital transformation has placed libraries, especially academic libraries as custodians of knowledge, serving as repositories of information, culture, and heritage (Otike et al, 2021). Artificial intelligence comprises a range of technologies enabling machines to mimic human capabilities. These include sensing, comprehension, action, and a spectrum of functions mirroring human behaviour (Zhang & Lu, 2021). Furthermore, Chowdhary (2020) believed that important elements of this technological environment were machine learning, large data processing, natural language comprehension, decision-making algorithms, data

visualization, and advanced analytics. Notably, AI explores the creation of computer systems that can perform jobs requiring intelligence comparable to that of humans. From deciphering natural language to recognizing patterns and making decisions, AI's advancements have radicalized its application across diverse fields like healthcare, finance, transportation, and even entertainment (Dissanayake, 2021).

With the volume and complexity of library information coupled with increased user needs, libraries have the hill task ahead to retrieve and distribute huge volumes of data which calls for adoption of Artificial Intelligence (AI) (Collins, 2021). Hence, AI is changing the way libraries undertake their day-to-day operations. As a result, the adoption and usage of AI tools have emerged as the transformative trend. Artificial Intelligence technologies powered through machine learning and big data are continuously changing ways of collecting, circulating and delivering information in libraries which increases efficiency, accessibility, and user experience (Yusuf et al., 2022). Common AI tools in the form adopted in academic libraries include chatbots, smart assistants, search functions, IoT, Virtual Reality for immersive learning, Shelf-reading Robots, and MATLAB (Cox, 2023). According to Onyalo (2022) AI is continuously being used as a means of enhancing several core functions of academic libraries such as in referencing services, book processing, information retrieval process and circulation. For example, ask a Librarian chatbot is now an important tool in most library systems to answer common questions about the library services and resources.

For decades, AI has captivated researchers and the practitioners alike, with its applications continuously evolving and expanding across the globe (Chowdhary, 2020). At its core, artificial intelligence is based on the premise that every level of human intellect, from the most fundamental to the most sophisticated, can be modelled by computers. It follows that one of AI's primary aims is to simulate human thought processes. The foundation for developing intelligent robots was built by trailblazers such as Alan Turing and John McCarthy in the 1950s, when artificial intelligence was in its infancy (Zhang & Lu, 2021). Thereafter, artificial intelligence (AI) grew into a complex area that incorporates several subfields, including mathematics, computer science, psychology, linguistics, and neuroscience. AI is advancing at a fast pace and has the potential to revolutionize human labour, entertainment and global interaction in profound ways (Nicole, 2023). Automation of formerly human-intensive tasks is becoming more common as libraries turn to AI for tasks including customer support, lead generation, fraud detection, and quality control (Enholm et al., 2022).

As AI finds wide application in the rest of the world, the situation in replicated in Africa where African countries increasingly embrace digital technologies and connectivity spreads, libraries have a unique opportunity to leverage AI to bridge the information gap. For example, several AI tools are finding their ways into the Nigerian Academic libraries. According to Adejo & Misau (2021), there are increasing use of virtual assistive services in material recommendations, and user support in the libraries. AI is assisting librarians in the management and organization of collection using various tools enabled by machine learning, computer visions and robotics. These AI technologies work through collection and analysis of metadata, content and patterns in the library materials thus effectively organizing them. Bookbot, is an

example of an AI tool that has been used in international university libraries in Africa to sort out materials in shelves. The situation is replicated in Kenya owing to the proactive approach to technology adoption and innovation. As libraries in Kenya adapt to the digital age, they are increasingly incorporating AI technologies to streamline operations, facilitate research, and enhance the learning experience.

Statement of the Problem

Artificial Intelligence has a lot of potential in the libraries including in knowledge discovery which is often the standard of gauging the user experience (Cox, 2023). Academic libraries therefore need to explore how AI can be leveraged to provide personalized and efficient services to users, such as advanced search capabilities, recommendation systems for research materials, and virtual assistants to support information queries (Adejo & Misau, 2021). These tools could also be used to enhance daily repetitive library tasks such as information management process, administrative duties and material security.

However, despite its potential, the concept of artificial intelligence in libraries remains a grey idea, especially in the Kenyan context. This puts the academic libraries in Kenya at a risk of missing the opportunities to enhance library services, thus losing a competitive edge against other resource databases. While some traces of the technology such as chatbots have found their ways into the library management systems, the technology still possess more widespread and long-term solutions to library practices (Onyalo, 2022). With the idea still less explored, there is need for more research on artificial intelligence and its usefulness in the libraries.

Filling such knowledge and application gaps requires a study that would delve into the potential of the technology in improving user experiences and library services in the academic libraries. If the situation continues as it is, libraries would continue with insufficient service delivery which includes missed opportunities in cost-saving, limited personalization of material recommendation which ultimately means inefficiency in information retrieval. Through adoption of AI academic libraries can harness their services, support research and learning, and remain relevant and valuable in the digital age.

Justification of the Study

It is noted that despite the potential of artificial intelligence in enhancing service delivery in university libraries, the level of adoption in Kenya is still wanting. As a result, universities keep losing opportunities associated with use of technology to enhance service delivery in university libraries. If the status quo remains, Kenyan universities become less and less competitive compared to other universities across the world and other digital data bases. Additionally, universities would miss chances to provide efficient services and improve on service cost management. As a result, empirical evidence of adoption of artificial intelligence on service delivery is required urgently thus necessitating the current study.

Objective of the Study

The objective of the study is to assess adoption and use of artificial intelligence tools in service delivery in selected academic libraries in Kenya.

LITERATURE REVIEW

This section presents a review of literature on the theory underpinning the study and empirical literature review aimed at identifying research gaps.

Theoretical Review

The study was anchored on Diffusion of Innovation (DOI) theory credited to Everett Rogers's 1962. According to the theory, adoption of new practices, strategies and concepts occurs via the social system (Faisal & Idris, 2020). The theory states that humans learn new habits and behaviours through exposure. Adopting new technologies, however, is a process that takes time (Vargo et al., 2020). According to Shang et al. (2021), the likelihood that an individual would embrace a new invention varies between individuals based on their unique traits. As a result, knowing the demographics of the intended audience is crucial for successfully marketing an invention or new concept.

The theory argues that there are five types of adopters: innovators, early adopters, early majority, late majority, and laggards (Steiber et al., 2021). Those that are really innovative aren't afraid to explore new things. Typically, they are daring, open to new experiences and ideas, and not afraid to take chances. While the early majority embraces innovations before the typical individual, early adopters are thought leaders who are already aware of the need to change and are hence quite at ease with new technologies (Trischler et al., 2022). In contrast, the late majority is notoriously resistant to change and will wait for the majority to test out an idea before committing to it. Those who are slow to act are very traditionalist and confined by the status quo. Not only are they resistant to change, but they also constitute the most difficult demographic to influence (Chauhan et al., 2023).

With the emerging trends in information technology, AI has emerged as formidable force in how information is processed and disseminated (Shaheen, 2021). Artificial intelligence has gained a lot of popularity in fields such as education, healthcare, business marketing and many other. In the education sector, AI provides critical opportunities in information delivery and librarians have an important role to play as decision-makers on whether the adoption of new technologies like AI would be beneficial. They typically play a leading role in accepting useful technologies. The potential adoption of AI inside libraries may be better understood by delving into librarian viewpoints on the topic, as people tend to accept technology based on their evaluation of its usefulness and lack of damage. Theoretically, this research will try to deduce how certain Kenyan academic libraries' service delivery has changed after they started using AI technologies.

The theory has been used by previous scholars in their studies. For instance, Valenti (2018), Dunleavy and Margetts (2023) and Liu et al. (2024) Qazi et al. (2023) used DOI to look at how technology is integrated into libraries and how it is being adopted. This research intends to extend their findings by looking into how librarians are aligned with these adopter categories and what their views on AI technology are.

Empirical Review

This section provides a review of existing literature on adoption of AI in academic libraries. The study noted that while university libraries in developed countries are well well-equipped with AI and continue to improve services delivery in areas like, circulation management and referencing, in developing nations only few libraries are fully exploiting the potential of AI (Grant et al, 202024; Yusuf et al., 2020). Literature suggests that the low adoption of AI in academic libraries is associated with lack of readiness and preparedness to adopt the technology. For instance, Ajani et al. (2022) delving into the perspectives of librarian's preparedness regarding AI integration in libraries and found sentiments suggesting that they are not fully prepared for its implementation. This aligns with studies such as Okunlaya et al. (2022) which revealed acceptance of AI as a substitute for current services at university libraries. Nonetheless technology does have a presence in libraries. Olayode (2022) emphasizes the utilization of technology, across library functions emphasizing that Nigeria is not lagging behind in this aspect.

in Karnataka, India Manjunatha and Patil (2020) found that although AI is playing an increasingly important role in library operations worldwide and libraries are constantly looking for ways to improve services that their users ever-changing requirements, some academic libraries in India are slow to embrace AI. Similar observations were made by Ogochukwu (2023) who concluded that use and acceptance of AI by librarians in Southern Nigeria have not have not made much use of AI. It was also determined that lack of expertise and the need for training were significant obstacles to the use of AI in libraries.

Aimed at determining how academic and research libraries around the world, especially in developing nations, use AI for various tasks, Olayode (2022) assessed the prevalence and use of AI in modern library services in Nigeria, the study used an expository research strategy. The research examined academic libraries' use of AI to support new library services via a thorough literature review. It was determined that most libraries in developed countries use robots and chatbots to complete certain tasks. However, many libraries rarely used advanced technology other than scanning devices. Elsewhere, in order to find out which AI technologies have been used in libraries across the globe, Nawaz and Saldeen (2020) scrutinised databases including Pubmed, Baidu, Scopus, and Google Scholar to identify AI tools used in libraries. Chatbots, robotics, drone surveillance, drone services, AI alerts, and online courses powered by AI are among the many uses of AI identified by the research. Nevertheless, there is no empirical basis for the study since it was desktop research.

Yusuf et al. (2022) stated that face recognition, chatbots, and self-service are among the AI tools used in smart libraries. According to Ali et al. (2020), university libraries use a variety of AI solutions, such as Google Chat for reference, Google Drive for cloud storage, RFID for access control, and translation services via Google Translate. Al-Aamri and Osman (2022) examined AI's ability to improve operations, including the usage of robots to aid in service delivery. Similarly, Vysakh and Babu (2020) investigate robotic AI deployment in libraries and conclude that many library tasks can be automated. According to Nawaz and Saldeen (2020), common AI applications include user identification systems, AI-driven chatbots for

reference purposes, robot assistants, and AI-powered appointment reminders. Similar findings were obtained by Winkler and Kiszl's (2022), Igbinovia and Okuonghae's (2021), Nguyen, 2020 and Nawaz and Saldeen (2020) that use of chatbots is common in automating the delivery of services in academic libraries.

RESEARCH METHODOLOGY

The study used descriptive research design to assess adoption and use of artificial intelligence tools in service delivery in selected academic libraries in Kenya. The study was conducted among selected educational institutions including USIU, Strathmore, the University of Nairobi and Jomo Kenyatta University of Agriculture and Technology (JKUAT). These universities were selected because they were found to have an elaborate library system, they were big in size in terms of area and huge staff base. Besides, the libraries have implemented AI techniques to varying degrees. The study targeted chief librarians, deputy chief librarians, bibliographic librarians, circulation librarians, digital librarians, system librarians, acquisition librarians, development librarians, and liaison librarians as the key informants forming a total population of 87 key informants. From this population, a sample of 71 respondents was selected using stratified sampling technique.

Primary data was collected using a semi-structured questionnaire which had both open-ended and closed-ended questions. The questionnaire had two main sections. The first part collected the demographic information of the respondents. Background information such as library size, type, and years of experience. The second part collected information on study variables. Questionnaires were used because it was considered a relatively cheaper way of collecting data. Additionally, the questionnaire was used because a large number of respondents could be reached at the same time. Collected data was analysed by use of SPSS software version 25.0. Descriptive statistics comprising of percentages and frequencies were used in analysing quantitative data. Qualitative data derived from the questionnaire's open-ended questions was analysed thematically and presented in prose form. All ethical issues including voluntarily participation, informed consent, participant's right to privacy and anonymity were safeguarded in the study.

RESULTS AND DISCUSSION

This section presents results of analysis and discussion of data obtained from the field. The section outlines the level of awareness of librarians towards artificial intelligence tools, level of uptake of artificial intelligence tools and the contribution of artificial intelligence in core university library functions.

Librarian’s Awareness Towards Artificial Intelligence Tools

The study sought to determine how well-informed librarians in Kenyan university libraries were about AI tools. Results showed that all the selected library staff had heard about the existence of AI tools. When asked how they learnt about AI tools, results summarised in table 1 were obtained.

Results in table 1 showed that majority of respondents 35.4% (23) learnt about AI through workshops, 21.5% (14) got knowledge about usage of AI through professional literature, 18.5%

(12) through conferences, 13.8% (9) learnt about AI while 10.8% (7) learnt about AI through training programs. It was therefore established that most of the library staff learned about AI tools through a workshop which confirms the need to continue holding such workshops periodically in order to share awareness of new technologies and ideas embedded in information science. In addition, the use of professional literature indicates concern with current research in the profession; conference and colleagues as the avenues of professional contact and information exchange. Among the findings, Results also underlines the importance of performing training and skill development programmes within the library profession that earlier was shown to be keen on proactive career growth. Overall, these conclusions highlight a need for various and available resources through which the information can be obtained to contribute to innovative decision making of the academic library. This observation corroborates with what Ganiger et al. (2018) noted, considering that AI chatbots and automation primarily assist organization with improving the delivery of services in the libraries. It is consistent with Ganiger and colleagues' proposal that professional literature, conferences, and workshops represent primary sources through which information about AI is obtained, especially if it is considered that the obtained results indicate a number of forms by which librarians gain knowledge about the AI tools.

Table 1: Respondents Source of Knowledge on Artificial Intelligence Tools

Source of Knowledge	Frequency	Percentage
Training programmes	7	10.8%
Conferences	12	18.5%
Workshops	23	35.4%
Professional literature	14	21.5%
Colleagues	9	13.8%
Total	**65**	**100%**

The study also sought to determine how well how well the respondents were conversant with AI tools. Results showed that 75.4% of the respondents had very high levels of familiarity with artificial intelligence tools, 18.5 % of the respondents showed moderate familiarity with AI tools while 6.2% of the respondents stated that they were not at all familiar with AI tools. Asked about the probable applications of AI technologies in the context of a library 67,7% of respondents stated they were moderately well informed about the possible uses of AI tools in libraries. Also, 24.6% said they were very well informed with regards to application of the AI tools in a library and a paltry 7.7% admitted they were not well informed about the application of AI tuns in a library. The results from this study indicate that most librarians have a positive attitude, in one way or another, towards the adaptability of AI technologies for library applications.

The very high level of very good literacy is indicative of the awareness and appreciation of the potential provided by AI for the library and learning services particular, the potential for improving resource discovery and discovery experience as well as administrative efficiency. However, there is always a possibility that a portion of the population may feel left out of the initial knowledge and needs better training to make proper use of chosen AI tools in their careers as library professionals. It became clear from the study Ajani et al, (2022) on attitudes

of librarians towards AI implementation that there were different opinions on the effectiveness of the AI tools within the library. In their adoption of artificial intelligence in North American context, Yoon, et al (2022 demonstrated that there is higher use and awareness of AI and associated technologies among academic libraries as compared to public libraries. Besides, Ogochukwu (2023) included lack of skills as some of the barriers to adoption of AI in libraries and this therefore requires skills training.

Level of Uptake of Artificial Intelligence Tools

In this section, the study sought to establish the number of academic libraries that had adopted the use of AI tools. To this end, the study sought to determine whether the respondents were aware of applications of AI in their library. Results were presented in Table 2.

The findings suggested that 72.3% (47) of the respondents were aware that their library had adopted AI tools while 27.7% (18) had no knowledge of the existence of AI tools in their library. This assumption alludes to moderate adoption of AI technologies in library services by library professionals. However, there is still a minority of respondents who might not be aware of how AI tools are applied in the context of their libraries. Such findings imply the necessity of continuous promotion and sharing of AI activities across library organizations and within teams, so that all members would be aware of, and participate in, the use of these technologies for augmenting library services and meeting patrons' needs appropriately. The findings support the postulates made by Bawden (2019), stating that libraries should take proactive steps toward assuming AI implementations to serve as assets and tools for delivering more efficiency to operational dynamics as well as better experiences to library users. There is harmony with study findings when Bawden asserts that libraries should not only be consumers but active participants in AI-related activity, it highlights why this study believes that every library professional must possess awareness of the ability of AI tools in the advancement of practice across positions.

Table 2: Awareness on the Uptake of Artificial Intelligence Tools

Uptake	Frequency	Percentage
Yes	47	72.3%
No	18	27.7%
Total	**65**	**100.0%**

The respondents were also asked to specify the level of incorporation of AI into library processes. Respondents were requested to rate the extent of implementation of selected AI tools on a scale from 1 to 5, where 1 was minimal implementation and 5 was extensive implementation. The summary of findings were presented Table 3.

The results highlight the current state of AI usage in various aspects of library operations thus shedding light on the possibilities of introducing the advanced technology into the library operations. About half of the participants stated that their library applied AI in multiple degrees in every division. For example, 38.1 % stated how they use AI to some extent where the extent was for search and information retrieval technologies, while 25.8% in the same extent for cataloguing and metadata technologies. Likewise, user support and interaction and business analysis and decision-making both reached 36.1% and 30.9% respectively. Closely following

it was preservation and conservation which came out as the library function that already has a high extent of AI implementation in 48.14% of the respondents. The current research emphasizes that AI solutions can be useful for various purposes in the library – supporting both the front-end services and back-end operations.

Table 3: Extent of Implementation of AI Tools

Library function	**1**	**2**	**3**	**4**	**5**
Information retrieval and search optimization	10.30% (7)	20.60%(13)	38.10%(25)	18.60%(12)	12.40%(8)
Cataloguing and metadata management	15.50%(10)	22.00%(14)	25.80%(17)	19.50%(13)	17.20%(11)
User support and interaction (e.g., chatbots)	9.60%(6)	21.60%(14)	36.10%(23)	20.20%(13)	12.50%(8)
Data analysis and decision-making	11.50%(7)	15.50%(10)	22.70%(15)	30.90%(20)	19.40%(13)
Preservation and conservation	5.20%(3)	12.20%(8)	15.70%(10)	18.76%(12)	48.14%(31)

They also point to some areas where AI has been particularly suited to take off, indicating possible new areas where investment in AI for the improvement of libraries' services and operations across the board could be fruitful. The best mode of implementing artificial intelligence in a library that the study discovered reflects the literature suggesting the any number of library roles in which AI technologies can be applied. According to Fernandez (2023), AI has transformed the ways of obtaining and providing the information, as well as helping users and making decisions in libraries. Indeed, the results of the study support such conclusions: middle adoption rates were identified for AI solutions in the forms of information search and retrieval, user assistance, and data processing. Also, concerning preservation and conservation, the AI application is described as most actively integrated, which indicates that in the backend, AI can bring improvement to library services across the board (Bawden, 2019). The study also sought to determine the contribution of artificial intelligence on core academic library services. Accordingly, respondents were requested to rate the application of AI in core library services. The overview of the results was as presented in Table 4.

The findings in Table 4 revealed the distribution of AI functions implementation across various library functions. The most applied AI tool in academic libraries was information retrieval and search optimization where majority of 45.6% (30) indicated that there were very high levels of implementation suggesting that there is an overwhelming adoption of AI tools for optimizing search algorithms and resource discovery. A high level of implementation was observed on cataloguing and metadata management where 29.8% (19) of respondents reported a high level of AI implementation. A look into data analysis and decision-making shows quite a balanced spread across all levels of implementation, with a striking 29.3% (19) of the participants showing a high level of integration of AI in these areas. The study also established that there

was a moderate application of user support and interaction such as chatbots as well as preservation and conservation in the academic libraries as shown by 30.1% (20) of the respondents and 30.3% (20) respectively.

Table 4: Specific Contributions of AI in Core Library Functions

Library function	1	2	3	4	5
Information retrieval and search optimization	5.4% (14)	10.9% (17)	16.3% (11)	21.8% (14)	45.6% (30)
Cataloguing and metadata management	14.8% (10)	10.6% (7)	21.2% (14)	29.8% (19)	23.6% (15)
User support and interaction (e.g., chatbots)	10.7% (7)	24.6% (16)	30.1% (20)	25.5% (17)	9.1% (6)
Data analysis and decision-making	9.8% (6)	16.2% (11)	24.7% (16)	29.3% (19)	19.9% (13)
Preservation and conservation	11.2% (7)	19.9% (13)	30.3% (20)	24.7% (16)	14.0% (9)

The findings bring out the multi-dimensional ways in which artificial intelligence technologies are integrated into library operations, with differing degrees of adoption across functions. Such variation speaks to the changing requirements and priorities of libraries in the use of AI in bettering services and effectively serving patrons. Results on the distribution of AI integration among various library functions confirm the existing literature examining varied adoption of AI technologies in library operations (Green & Chawner, 2018). The varying degrees of AI application in distinct functions hint at changed priorities and requirements of libraries in using AI to enhance services and support patrons in an effective manner, which parallels the complex nature of AI incorporation in libraries addressed by Borgman (2018).

Conclusions

The findings showed that librarian's level of knowledge about AI tools was associated with adoption level. Libraries whose librarians had high level of knowledge about AI tools had high levels adoption as depicted by the higher percentage for adoption. This suggests that librarians' awareness of A tools brings about the availability of such technologies in the selected university libraries in Kenya. In fact, introducing the use of AI technologies within academic libraries in Kenya greatly requires exposure of librarians to such tools and their attendant benefits.

The study also revealed that the four commonly used tools including information retrieval, user assistance, data analysis and preservation efforts are highly or moderately applied in academic libraries. This signifies that AI technologies are very crucial to improving the quality of the services rendered in libraries. Overall, AI technologies improve the efficacy and efficiency of library services in the academic environment, hence favourably impacting the performance of core tasks of the libraries.

Recommendations for Policy and Practice

The study recommends that comprehensive training and awareness programs on the existence of AI tools have to be conducted in selected academic libraries in Kenya to improve the level of awareness among librarians. This is important for awareness among librarians on the benefits and several uses of AI in library operations. Workshops, seminars, and online courses can be arranged with a view to bringing librarians in contact with various AI-related tools and also teaching them practical applications of such technologies in information retrieval, cataloguing, user support, and other library functions.

The study recommends that academic libraries should develop clearly defined protocols for implementation of AI tools. Consequently, library directors and senior staff should identify artificial intelligence technologies that fit specific library requirements. Libraries should consider setting up pilot programs to test the feasibility and effectiveness of AI technologies before full deployment. Through collaboration and by sharing knowledge, each library can support the others, while best practices and lessons gained concerning the adoption of AI can be shared.

Contribution of the Study to the Body of Knowledge

This study represents a key addition to the literature based on understanding of the awareness and adoption of AI tools by academic librarians in Kenyan libraries. The aim of this study was to determine the current state of artificial intelligence adoption in Kenyan libraries by analyzing librarians' knowledge about AI technologies prior to their installation, and the percentage of libraries that have actually employed the use of these tools. The results of the study thus give some insight into how the academic libraries are prepared to apply AI technology. The study further provides a framework for future research in the field of AI adoption trends and practices of academic libraries in Kenya, serving as a base against which effectiveness can be checked in promoting integration of AI in operations while monitoring the pace of progress.

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