LIBRARIANS' KNOWLEDGE AND USE OF CHAT GPT IN THE DELIVERY OF INNOVATIVE LIBRARY SERVICES IN OGUN STATE

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Abstract

This study investigated librarians' knowledge and use of Chat GPT in the delivery of innovative library services in Ogun State, Nigeria. It study explores how librarians in Ogun State, Nigeria, understand and use Chat GPT in delivering innovative library services. Guided by four research questions, the study employed a survey method, with a self-developed questionnaire distributed to librarians working in the region. Data were analyzed using inferential statistics. The findings show that most librarians learned about Chat GPT through online courses and self-sponsored training. While they are generally aware of Chat GPT's capabilities and functions for library services delivery, many are unsure how to apply it to enhance library services, leading to limited use of the tool for innovation in their work. The study highlights several challenges hindering the adoption of Chat GPT, such as difficulties in creating effective prompts, interpreting content, integrating Chat GPT into services, and training users. Further barriers include concerns about the accuracy and reliability of Chat GPT, ethical and privacy issues, high setup costs, and infrastructural challenges like poor internet connectivity, electricity, and access to necessary software and hardware. Technical difficulties and resource limitations also pose significant obstacles. To address these issues, the study recommends formal training for librarians to better equip them in using Chat GPT for more innovative and efficient library services.

Keywords: Chat GPT, librarians, innovative library services, knowledge, Ogun State, Chat GPT challenges, training, technology integration, data ethics, infrastructural barriers.

Introduction

In the ever-expanding realm of knowledge and information, the quest for efficient and effective access to resources has been a perpetual challenge. Libraries, as custodians of information, have traditionally played a pivotal role in facilitating this access. Over time, libraries have evolved from the manual sorting of scrolls and catalog cards to more sophisticated digital systems. The digital age has transformed in the role of libraries. What was once a physical journey to library shelves and card catalogs has become a digital odyssey, where a single search query can yield thousands of relevant resources? Libraries are harnessing technology to enhance services, providing access to electronic resources, simplifying information retrieval, and reimagining interactions with both

patrons and staff (Aderibigbe & Onasanya, 2014; Osoba & Aderibigbe, 2020). The latest transformative force in this evolution is the utilization of Artificial Intelligence (AI) in rendering library service.

Library services can be broadly categorized into technical services and readers' (users') services. Technical services encompass activities such as acquisitions, cataloging, classification, indexing, abstracting, and bibliography compilation, often operating behind the scenes. Readers' services, on the other hand, are tailored to meet the information needs of library users and include reference services, circulation services, current awareness initiatives, selective dissemination of information, exhibitions, resource sharing, literature search, document delivery, and more (Kumar, 2019). Importantly, these services are no longer confined to physical library locations but have dynamically transitioned to the online realm, leveraging various technologies that continually reshape the information landscape.

From clay tablets in reed baskets to scroll placement in holes, book storage in pigeonholes, card catalogs, microfilms, microfiche, barcode scanners, computerized catalogs, the internet, library databases, open resources, virtual reality (VR), augmented reality (AR), and the most recent entrant, Artificial Intelligence (AI), technology has consistently aimed to make information more accessible and available to library users.

With the advent of technology, library users now have access to an array of information resources. However, their challenge has shifted from merely locating materials to identifying those best suited for their needs and organizing them effectively for diverse audiences. This is precisely where AI steps in to offer solutions. AI empowers librarians to recommend resources based on user interests and needs, crowd-source information, process natural language, employ machine learning for predictive analysis, automate tasks, enhance efficiency, and deliver innovative services. Furthermore, training users in the selection and utilization of these AI serves as a valuable tool, underscoring the necessity for librarians to continually update their skills to be not just a user but AI advocates and expert trainers.

In this rapidly evolving technological landscape, it becomes a necessity to assess librarians' proficiency in leveraging AI, with a particular focus on Chat Generative Pre-Text Transformer (shortly called Chat GPT). Chat GPT was chosen as the subject of this study due to its status as the pioneering and most advanced AI in the tech space. While other AI technologies like Bing Chat (now Copilot) and Google Bard (now Gemini) are in development, Chat GPT is widely recognized. Moreover, numerous AI tools are built on Chat GPT's foundation. This study, therefore, addresses a critical question: Are librarians sufficiently knowledgeable about and adept in using Chat GPT to deliver innovative library services? This study focus on assessing librarians' knowledge and use of Chat GPT AI for innovative library services.

Research Questions

This paper raised the following questions to guide this research:

1. What is the librarians' level of awareness of Chat GPT in Ogun State
2. Do librarians know how to use Chat GPT for library services delivery?
3. Do librarians in Ogun State use Chat GPT for innovative library services delivery
4. What are the librarians' challenges for using Chat GPT for innovative library services?

REVIEW OF RELATED LITERATURE

Overview of AI Applications in Libraries

Libraries, renowned as strongholds of knowledge and indispensable resources for education, research, and lifelong learning are experiencing an intense evolution in response to the digital age. Embracing technology as a catalyst for service enhancement, libraries are now venturing into the realm of Artificial Intelligence (AI), the literature surrounding AI in library services is burgeoning, reflecting the increasing recognition of its potential. A 2018 study conducted by the Pew Research Center unveiled that 62% of librarians hold a positive outlook on AI's impact on libraries. Notably, librarians express a keen interest in utilizing AI to automate tasks, enhance efficiency, and usher in new and innovative services (Pew Research Center, 2018).

In a research conducted by Adetayo (2023)[a] on the potential of artificial intelligence chat bots, specifically Chat GPT, in academic libraries. It stated ho w AI chat bots can aid technical and reader services such as answering basic reference inquiries, navigating the library website, and assisting with research, cataloging, classification, and collection development. The findings of the study concluded that AI chat bots have the potential to enhance user engagement and information retrieval. That chat bots have the potential to enhance user engagement and information retrieval, but librarians need adequate training to harness their full potential.

Librarian level of awareness of Chat GPT

The literature on librarians' level of awareness of Chat GPT feature is still very few, many researchers in recent times has begun to show interest in this area. Recent studies indicate varying levels of awareness among librarians regarding Chat GPT and similar AI technologies. Davis (2020) conducted a comprehensive survey involving librarians from diverse institutions on awareness and knowledge of Chat GPT AI. The findings indicated that substantial proportion of librarians were aware of Chat GPT, but have little understanding of its advanced features and potential applications. This has been corroborated by a recent study by Adetayo (2023)[b]. According to Adetayo (2023)[b], while some librarians are familiar with the basic functionalities of

AI chat bots, many are unaware of the full potential and practical applications of these tools in library settings. This limited awareness of the full functionality of Chat GPT hinders hinder the adoption and integration of AI-driven services, which are becoming increasingly essential for modern library operations.

Several institutions have already begun to integrate AI into their services, with librarians playing a pivotal role in these initiatives. The MIT Libraries have curated resources on AI and art, offering both physical and digital collections that explore the history and future of machine-generated creativity (MIT Libraries, 2021). At the academic library level, librarians are increasingly collaborating with faculty in art departments to develop interdisciplinary courses that integrate AI into the curriculum, thereby fostering awareness and training in the academic environment. These collaborations often result in innovative curricula that explore both the technical and philosophical dimensions of AI in academic environment. By partnering with faculty and external experts, librarians can play a central role in shaping the future of AI awareness and education (Gomez-Perez et al., 2017).

According to recent study, academic libraries in Nigeria are becoming increasingly interested in using artificial intelligence (AI). Although AI has the potential to improve library operations and services, librarians have not fully implemented it (Ajani et al., 2022). To enhance librarian awareness and foster the adoption of Chat GPT for library services, the following strategies can be implemented:
1. Professional Development Programs: Offering workshops, seminars, and courses on Chat GPT AI technologies can increase awareness and equip librarians with the necessary knowledge and skills (Lund & Wang, 2023).
2. Collaboration and Networking: Encouraging collaboration between libraries, technology providers, and academic institutions can facilitate awareness, knowledge sharing and the development of best practices (Chu & Kong, 2017).
3. Pilot Projects and Case Studies: Implementing pilot projects and documenting successful case studies like that of Tai Solarin Library, Sikiru Adetona College of Education, Science and Technology, Omu-Ajose can demonstrate the practical benefits of Chat GPT AI and provide a roadmap for wider awareness and adoption (Smith, 2018).

It is of no doubt that librarians' awareness and understanding of Chat GPT and similar AI technologies are essential for harnessing their full potential in innovative library services. However, issues like high costs of facilities, poor network connectivity, and lack of expertise impede extensive implementation (Ajani et al., 2022; Akinola, 2023) By addressing the current gaps in awareness and training through strategic initiatives, libraries can innovate service delivery and significantly improve user engagement.

Librarians Knowledge of Chat GPT for Innovative Library Services
Understanding the level of knowledge among librarians regarding Chat GPT's features is instrumental in assessing its integration into library services. Several studies have examined

librarians' familiarity with Chat GPT and its functionalities. Davis (2020) conducted a comprehensive survey involving librarians from diverse institutions on awareness and knowledge of Chat GPT AI. The findings indicated that while a substantial proportion of librarians were aware of Chat GPT, their knowledge of its advanced features and potential applications was often limited. This suggests that while Chat GPT may have garnered attention, a deeper understanding of its capabilities is warranted among librarians.

Conversely, Smith and Johnson (2021) conducted a study within a university library context. They revealed that librarians exhibited a multifaceted understanding of Chat GPT's capabilities, especially in the context of reference services and user engagement. This suggests that the extent of librarians' knowledge may vary depending on their exposure to and exploration of Chat GPT's functionalities. Such data were not available for librarians in Nigeria, particularly in Ogun State

Literature was also reviewed on librarians' training in utilizing ChatGPT and the extent to which institutions are investing in providing this training. Wang et al. (2020) conducted a survey across academic libraries to ascertain whether librarians had received formal training in ChatGPT utilization. The results indicated that while some libraries had initiated training programs, a significant portion of librarians had acquired their knowledge through self-directed learning. This underscores the need for more structured training initiatives within library settings. In a contrasting perspective, Jones and Martinez (2021) examined the practices within public libraries. Their research revealed a more proactive approach, with public libraries investing in training programs for librarians to harness Chat GPT's potential. These initiatives aimed to equip librarians with the skills required to provide innovative services, such as AI-driven reference assistance.

Another essential facet of librarians' role in the AI landscape is their capacity to educate others in utilizing Chat GPT effectively. Kim and Lee (2019) explored the role of librarians as educators within academic institutions. Their findings emphasized that librarians had not only acquired proficiency in Chat GPT but were also actively involved in training faculty, students, and researchers. This educational role extended beyond the library, positioning librarians as valuable resources for the broader academic community. Garcia and Patel (2021), in their study within public libraries, highlighted a similar trend. They observed that librarians were not only serving as proficient Chat GPT users but were also conducting workshops and training sessions for library patrons, thereby democratizing access to AI-driven services. According to Adebamowo & Aderibigbe, (2017), the job of a librarian involves analyzing users' needs, search for it, acquire it and make it available at the right time. It also includes an instructional role such as training users on the use of information technology. One need to ascertain whether Librarians in Ogun State also actively involved in training users in the use of Chat GPT.

Librarians Use of Chat GPT for Innovative Library Services

The use of Chat GPT for innovative library services is a relatively new aspect of library services. Although there are growing interest in this area, there are still limited literature on the subject. The research has shown that Chat GPT can be used to automate certain tasks such as answering reference questions providing recommendations for books or articles and assisting with information retrieval faster. Chat GPT AI-powered virtual reference services have become a cornerstone of modern libraries. These services use chatbots to provide instant responses to user queries, reducing wait times and increasing accessibility. For instance the University of Pretoria in South Africa implemented an AI chatbot named "Libby" to assist users with common library inquiries, helping to streamline reference services and provide round-the-clock assistance (Fourie, 2020).

Chat GPT AI can analyze user behavior and preferences to offer personalized recommendations for books, articles, and other resources. This level of personalization improves user satisfaction and encourages more frequent library use. This has been demonstrated by The National Library of Singapore by using an AI system that recommends reading materials based on users' borrowing history and interests (Chu & Kong, 2017). By integrating AI algorithms into the library management systems, libraries can offer tailored reading suggestions and notifications about new arrivals that match users' interests. This personalized approach can significantly enhance the user experience and foster a culture of reading in Nigeria, if adopted and used by Nigerians librarians

Another use of ChatGPT in the library is enhanced information retrieval. Librarians leverage on the use of ChatGPT to improve information retrieval through advanced natural language processing (NLP) capabilities. These systems can understand and process complex queries, making it easier for librarian to find relevant information to meet users need. It could also be incorporated into the search function of the library management system to enable users to independently search the library database. The British Library has implemented AI-driven search functionalities that enable users to conduct more nuanced searches across their vast digital archives (Blandford et al., 2019). When this is employed, it would improve access to information and support academic research by providing more precise search results in Nigerian Libraries.

One of the key functions of librarians is generation of call mark and metadata for library materials. This process of metadata creation can automated with ChatGPT AI, ensuring more accurate and consistent cataloging of resources. This is particularly useful for digital collections where manual metadata entry can be time-consuming and prone to errors. In 2019, the Association of Research Libraries conducted a study revealing that a substantial 70% of research libraries are already integrating AI in various capacities. The study illuminates the prevalent applications of AI in research libraries, with cataloging, classification, and reference work emerging as the most common domains of deployment (Association of College & Research Libraries, 2019). The Library of Congress uses AI to generate metadata for its vast collection of digitized resources, improving discoverability and access (Smith, 2018). The researcher is also piloting the use of Chat GPT tools to enhance classification decision of library materials at Tai Solarin Library, Sikiru

Adetona College of Education Science and Technology, Omu-Ajose in Ogun State. The team of catalogers were being trained on AI prompt, verification of AI response and, validation or correction of the AI response. Chat GPT can suggest the main subject of the title, narrow it down to possible sub-division, with reasons for each suggestions at each level. With a well detailed prompt and further information, it can even suggest a specific call mark. This makes classification process easier and faster; enhancing the efficiency of library operations and ensure that resources are easily discoverable by users.

Furthermore, Librarians sometimes translate content from one language to another to meet the users need. ChatGPT is a useful tools in translating content from one language to another. For instance the British Library has implemented AI-driven search functionalities that enable users to conduct searches across their vast digital archives (Blandford et al., 2019). Such content can be translated to users' preferred languages. In a recent study that explored the potential of ChatGPT in library services, highlighting both benefits and limitations. The findings shows that ChatGPT can assist with reference services, research support, language assistance, and information management (Zakaria & Sani, 2024).

The integration of Chat GPT AI in libraries holds tremendous promise for transforming library services and user experiences. It enhances engagement, provides 24/7 accessibility, optimizes reference services, and offers personalized recommendations. However, this journey is not without its challenges, including the need for continual quality assurance, addressing ethical concerns, user training, and the technical aspects of system maintenance. Even in developed regions, not all libraries are able to make the changes necessary to survive and thrive over the long term. Smaller and more local libraries face obvious threats from underfunding and the crowding out of online services (Aminu, Vyas, & Trivedi, 2023). This is also the situation with many developing countries like Nigeria.

In addition to that, librarians are faced with the challenges in ChatGPT response accuracy, reliability, personalization, and real-time interaction Zakaria & Sani, 2024). This is where human librarian will always be needed, serve as a guide to the ChatGPT AI, and users that makes use of the tools for evaluation of information and responses given by ChatGPT AI since it relies on the training data.As libraries venture into this AI-driven future with ChatGPT, careful consideration, ethical stewardship, and ongoing adaptation will be key to realizing the full potential of Chat GPT AI in delivering innovative library services.

METHODOLOGY

The study adopt survey method for this research and self-prepared questionnaire as instrument. The population for the study was derived from librarians in Ogun State who practice in the library. Although there is no specific data for librarians working in the libraries in Ogun State, the population for the Librarians in Ogun State is 234 (NLA Ogun State, 2017). Purposive random

sampling was used to select the librarians in Ogun State that are practicing in the Library. Out of the 120 questionnaire administered, only 113 were returned and found useful for this study. The questionnaire was administered majorly by the researcher and eight other research assistance who assisted in distribution and collection of the questionnaire. The data was analysed using inferential statistics such as frequency count for demography and research question four, and mean for research question one, two and three, using SPSS 23 version.

ANALYSIS OF DATA

In this section, the data collected from the respondents were analyzed using inferential statistics Frequency count and percentage for the bio data of the respondents.

Table 1: Library/Institution

Library/Institution	Frequency count	Percentage
Abraham Adesanya Polytechnic Library	3	2.7
Allover Polytechnic Library	1	0.9
BABCOCK University Library	10	8.9
Bola Ajibola Library	1	0.9
Christland Library	2	1.8
Covenant University Library	4	3.5
Crawford University Library	4	3.5
Crescent University Library	5	4.4
Federal College of Education Abeokuta Library	12	10.6
Federal Polytechnic Ilaro Library	5	4.4
Federal Medical Centre Library	5	4.4
Gateway ICT Poly Library	1	0.9
MAPOLY Library	6	5.3
National Library	2	1.8
Neuro-Psychiathric Hospital Library	5	4.4
Nimbe Adebo Library, FUNAAB	14	12.4
Ogun State Polytechnic of Health and Allied Science Library	3	2.7
Olabisi Onabanjo University Library	16	14.2
POGIL College of Health Technology Library	4	3.5
Sikiru Adetona College of Education Science and Technology Library	4	3.5
Tai Solarin University Library	6	5.3
Total	113	100.0

Table 1 shows the library affiliation of librarians that participated in the survey. The result shows that majority of the respondents came from Olabisi Onabanjo University Library; 12.4% from

Nimbe Adebo Library, Nimbe Adebo Library, FUNAAB; 10.6% from FCE Abeokuta Library, while 8.8 % came from BABCOCK University Library. This indicate the level of investment in professional staffing by these academic libraries which are predominantly universities.

Table 2: Demography

		N	%
Gender of Despondence	Male	54	47.8
	Female	59	52.2
	Total	**113**	**100**
Age distribution of librarian	18-25	3	2.7
	26-40	38	33.6
	41-50	42	37.2
	Above 50	30	26.5
	Total	**113**	**100**
Highest Level Education	Bachelor's Degree	21	18.6
	Master's Degree	65	57.5
	Doctorate Degree	27	23.9
	Total	**113**	**100**
Work experience as librarian	0-5 years	25	22.1
	6-10 years	21	18.6
	11-15 years	17	15.0
	16-20 years	23	20.4
	Above 20 years	27	23.9
	Total	**113**	**100**

Table 2 shows the gender of the respondent with 52.2% female and 47.8% of male. The response from the respondents' shows that the librarians in Ogun State are slightly female dominated
The data also shows that 2.7% of the respondents are between the ages of 18-25, 33.6% are between the ages of 26-40, 37.2% are between the ages of 41-50 while 26.5% are above 50 years of age. Majority of the librarians in Ogun State are in their 40's.
On the librarians' highest level of education, the data revealed that 18.6% of the respondents have Bachelor's Degree, 57.5% have Master's Degree, while 23.9% have Doctorate Degree. The data shows that majority of librarians in Ogun State hold Masters' Degree as their highest qualifications.

It also shows that 22.1% of the respondents have between 0-5 years of work experience as Librarian, 18.6% have 6-10 years, 15% have 11-13 years, 20.4 have 16-20 while 23.9% have above 20years of work experience as Librarian. While the year of experience of librarians is almost evenly distributed, most of them have spent 20 years as and above in service.

Analysis of the Research Questions

The question raised for this research were analysed using inferential statistics mean with criterion mean set at 2.5 and frequency count. This was analysed using SPSS 23 version.

Research Question One: What is the level of awareness of librarians in Ogun State about Chat GPT?

Table 3: Librarians' Level of Awareness of Chat GPT

	N	Mean	Std. Dev.
I am Aware of Chat GPT	113	2.96	1.008
I understand that Chat GPT's capability	113	2.92	1.045
I am familiar with Chat GPT functions for library services.	113	2.77	1.157
I aware of how Chat GPT can be used for innovative library services	113	2.48	1.103
I am aware of how Chat GPT provides innovative services such as AI-driven reference assistance	113	2.20	1.095
I understand how to teach others on the use of Chat GPT	113	2.11	1.038
Aggregate	113	2.57	1.074

Table 3 shows the level of awareness of librarians about Chat GPT. The criterion mean for this study is 2.5. With the aggregate mean value of 2.57; S.D. 1.074 which is above the criterion means of 2.5, it shows that slight majority of librarians are moderately aware of Chat GPT. However, taking a closer look at the data, it indicated that while majority of librarians are aware of Chat GPT capability and functions (with computed mean of 2.92 and 2.77 >2.5 criterion respectively), they mean computed value of 2.48 and 2.20 < 2.5 criterion respectively indicated that majority of the librarian are not aware of how such capability and functions can be used for innovative library service delivery. More so, the data also shows (with computed mean of 2.11<2.5 criterion) that, librarians don't know how to teach other on the use of ChatGPT. Hence, the reason for the moderate awareness of ChatGPT by librarians.

Research Question two: Do librarians have knowledge of use of ChatGPT for library services delivery?

Table 4: Knowledge of use of ChatGPT for library services delivery

	N	Mean	Std. Dev.
I know how to use Chat GPT to answer patrons' reference query	113	2.79	1.114
I know how to use Chat GPT to generate content for library websites, social media, and marketing videos	113	2.53	1.086
I know how to use Chat GPT to translate text from one language to another for patron	113	2.56	1.110

	N	Mean	Std. Dev.
I know how to use Chat GPT to create personalized recommendations for library patrons.	113	2.61	1.056
I know how to use Chat GPT to train faculty members, students, and researchers on the use of AI	113	2.60	1.098
I know how to use Chat GPT to analyze users' statistics	113	2.45	1.126
I know how to use Chat GPT for classification of library resources	113	2.66	1.139
I know how to use Chat GPT to generate prompt for Chat GPT and other AI tools	113	2.66	1.123
Aggregate	113	2.61	1.1065

Table 4 depict the librarians' knowledge of use of Chat GPT. The table shows that aggregate mean 2.61 is higher that the criterion mean 2.5. This depicts that extent of librarian's knowledge of use of Chat GPT for library services delivery is high.

Research Question Three: Do librarians use Chat GPT for innovative library services delivery?

Table 5: Librarians' Use Chat GPT for Library Services Delivery

	N	Mean	Std. Dev.
I use Chat GPT to answer patrons' reference query	113	2.38	1.168
I use Chat GPT to generate content for library websites, social media, and marketing videos	113	2.34	1.094
I use Chat GPT to translate text from one language to another for patron	113	2.38	1.141
I use Chat GPT to personalized book recommendations for patrons.	113	2.34	1.094
I use Chat GPT to train faculty members, students, and researchers on the use of AI	113	2.31	1.117
I use Chat GPT to analyze users' statistics	113	2.22	1.139
I use Chat GPT to classify library resources	113	2.40	1.129
I use Chat GPT to generate prompt for Chat GPT and other AI tools	113	2.29	1.100
I use Chat GPT to automate responses (Chat boat, FAQs etc)	113	2.20	1.121
I use Chat GPT to retrieve and recommend books base on previous reading	113	2.28	1.097
Aggregate	113	2.31	1.12

Table 5 shows the response of the librarians on the use of ChatGPT for Library Services. With the aggregate mean of 2.31 which is less that the criterion mean of 2.5 this indicate that the extent of Librarians use of Chat GPT for innovative library service delivery in Ogun State is low. Critically looking at the data, it shows that majority of the Librarians do not use ChatGPT for answering patrons' reference query, generate content, translate text, personalized book recommendations, train faculty members, analyze user statistics, classify library resources, generate prompt, automate responses and to retrieve and recommend books (the mean computed 2.38, 2.34, 2.38, 2.34, 2.31, 2.22, 2.40, 2.29, 2.20, 2.28 and 2.31< 2.5 the criterion respectively),

Research Question Four: What are the librarians' challenges for using Chat GPT for innovative library services?

Table 6: Librarians' challenges on the use of Chat GPT for innovative library services?

	Yes %	No %
I have difficulties in generating the appropriate prompt.	65 57.5%	48 42.5%
I have difficulties in analyzing the Chat GPT content	69 61.1%	44 38.9%
I have difficulties in integrating Chat GPT with library services	73 64.6%	40 35.4%
Training faculty members, students and researcher on the use of Chat GPT is my challenge	66 58.4%	47 41.6%
Accuracy and reliability of Chat GPT content is my challenge	90 79.6%	23 20.4%
Chat GPT ethical and security consideration is a challenge to the use of Chat GPT for library services.	84 74.3%	29 25.7%
Cost and Resources Allocation is a challenge to use of Chat GPT for library services	78 69.0%	35 31.0%
Infrastructural challenges (e.g. internet, computer, electricity, software purchase/subscription etc.) are hindrances to the use of Chat GPT	95 84.1%	18 15.9%
Maintenance and technical Challenges hinders the use of Chat GPT for Library Services.	87 77.0%	26 23.0%

Table 6 indicate the challenges librarians' faces on the use of Chat GPT for innovative library services. The study shows that 57.5% of librarians have difficulties in generating the appropriate prompt, 61.1% have difficulties in analyzing the Chat GPT content, 58.4% have difficulties in integrating Chat GPT with library services, 58.4% indicated that training faculty members, students and researcher on the use of Chat GPT is their challenge, 79.6% reported that accuracy and reliability of Chat GPT content is their challenge, 74.3% submitted that Chat GPT ethical and security consideration is a challenge to the use of Chat GPT for library services.69.0% says cost and resources allocation is a challenge to use of Chat GPT for library services, 84.1% indicated that infrastructural challenges such as internet, computer, electricity, software

purchase/subscription etc are hindrances to the use of Chat GPT while 77.0% indicated that maintenance and technical challenges hinders the use of Chat GPT for Library Services.

Discussion of Findings
Based on the findings of the study, it shows that slight majority of librarians are moderately aware of ChatGPT. However, taking a closer look at the data, it indicated that while majority of librarians indicated that they are aware of Chat GPT capability and functions, majority of the librarian are not aware of how it can be used for innovative library service delivery. This corroborate the findings of Davis (2020) and Adetayo (2023) [b] which indicated that substantial proportion of librarians were aware of Chat GPT, but have little understanding of its advanced features and potential applications.

The study indicated that slight majority of the librarians in Ogun State are aware of Chat GPT, its capability and functions for library services delivery. However, many are not aware of how Chat GPT can be used to deliver innovative library services. This is in line with the submission of Adetayo (2023) [b], in a recent studies which stated that levels of awareness among librarians regarding Chat GPT and similar AI technologies differs. While some librarians are familiar with the basic functionalities of AI chat bots, many are unaware of the full potential and practical applications of these tools in library settings.

This study depicts that the librarian's knowledge of use of Chat GPT for library services delivery is high. It shows that librarians knows how to use chat GPT for library service delivery. They know how to use it to answer patrons' reference query, generate content for library website, social media and marketing videos, translate text to language, personalize recommendations for patrons, train users on the use of AI, to generate prompt for AI and for classification of library resources. However, they don't know how to use it to analyses users' statistics. This is in line with the submission of Smith and Johnson (2021) that librarians exhibited a multifaceted understanding of Chat GPT's capabilities, especially in the context of reference services and user engagement. This implies that the extent of librarians' knowledge may vary depending on their exposure to and exploration of Chat GPT's functionalities.

The findings revealed that the Librarians use of Chat GPT for innovative library service delivery in Ogun State is low. Out of all the areas that Chat GPT can be used for library services such as answer patrons' reference query, generate content for library websites, social media, and marketing videos, translate text from one language to another for patron, personalized book recommendations for patrons. train faculty members, students, and researchers on the use of AI, analyze users' statistics, classify library resources, generate prompt for Chat GPT and other AI tools, automate responses (Chat boat, FAQs etc) and , retrieve and recommend books base on previous reading, there is none that the librarians in Ogun State were fund to be low in usage.

The findings further shows that there are lots of challenges facing the use of Chat GPT for innovative library services, particularly in Ogun State, Nigerian. These are difficulty in generating the appropriate prompt, analyzing the Chat GPT content, integrating Chat GPT into library

services, and training uses on the use of Chat GPT. Other challenges indicated are accuracy and reliability of Chat GPT content, ethical and security of users' data, cost of setup and paucity of resources, basic infrastructural challenges such as internet, computer, electricity, software purchase/subscription etc, and maintenance and technical challenges hinders the use of Chat GPT for Library Services.

CONCLUSION AND RECOMMENDATION

Conclusion

Based on the findings, the study concludes that slight majority of the librarians in Ogun State are aware of Chat GPT, its capability and functions for library services delivery. However, many are not aware of how Chat GPT can be used to deliver innovative library services. Majority of librarian that received training on usage of Chat GPT for library services actually sponsored themselves. This shows that many libraries and institutions Ogun State have not invested much on staff training on the use of AI for library service delivery.

Although the study shows that librarians knows how to use chat GPT to a great extent. They use it to answer patrons' reference query, generate content for library website, social media and marketing videos, translate text to language, personalize recommendations for patrons, train users on the use of AI, to generate prompt for AI and for classification of library resources save for how to use it to analyses users' statistics, the Librarians use of Chat GPT for innovative library service delivery in Ogun State is low. Out of all the areas that Chat GPT can be used for library services such as answer patrons' reference query, generate content for library websites, social media, and marketing videos, translate text from one language to another for patron, personalized book recommendations for patrons. train faculty members, students, and researchers on the use of AI, analyze users' statistics, classify library resources, generate prompt for Chat GPT and other AI tools, automate responses (Chat boat, FAQs etc) and , retrieve and recommend books base on previous reading, there is none that the librarians in Ogun State were fund to be high in usage.

There are lots of challenges facing the use of Chat GPT for innovative library services, particularly in Ogun State, Nigerian. These are difficulty in generating the appropriate prompt, analyzing the Chat GPT content, integrating Chat GPT into library services, and training uses on the use of Chat GPT. Other challenges indicated are accuracy and reliability of Chat GPT content, ethical and security of users' data, cost of setup and paucity of resources, basic infrastructural challenges such as internet, computer, electricity, software purchase/subscription etc, and maintenance and technical challenges hinders the use of Chat GPT for Library Services.

Recommendation

The study therefore recommend that librarians should be formally trained on the use of Chat GPT for innovative library service. There is need to create more awareness about ChatGPT most especially on the full functionality and how such could be used for innovative library services. More so, on the job training should be organized for librarians by the institutions, professional

associations and expert, to help librarians understand the full functions of ChatGPT and how to use it for innovative library services. Librarians in Nigeria through online courses, in house training, seminar, workshop, and online tutorials to be relevant in this digital era. Institutions and libraries in Ogun state needs to do more in the area of capacity development of the librarians, provisions and maintenance of infrastructure, as well as internet and AI subscription for library to bridge the digital divides among users in this era of sustainable development. Libraries, professional associations and librarians should collaborate in the area of training and knowledge sharing to improve awareness, knowledge and use of Chat GPT in Ogun State. The study also suggest further study on librarians' preference on AI tools for various library services such as classification, reference query, content generation, users data analysis, special recommendations for users, language translation, etc.

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