Role of Artificial Intelligence in Enhancing Library Services

Farha Khan
Librarian, Dr. C. V. Raman University, Vaishali, Bihar, India

Abstract

AI technology has greatly revolutionized today's information systems and library services. AI-powered tools such as intelligent search systems, automated cataloging, chatbots, and recommendation systems are some of the ways libraries are increasingly using AI to become more efficient and user-friendly. This research is based on the possibility of using Artificial Intelligence in the improvement of library services in some selected libraries of the city of Delhi. It was a descriptive research design where primary data is collected through offline questionnaire survey to 180 respondents comprising librarians and library staffs and external users. Descriptive statistics, correlation, regression and ANOVA were used to examine the data. The results show that the level of awareness about the AI technology among the respondents is relatively high, with 41.11% having moderate awareness and 28.89% having high awareness. AI-powered search systems (33.33%) were identified as the major AI technology in libraries, followed by the automated cataloging (24.44%) and the chatbot systems (17.78%). The results of the mean score analysis revealed positive attitudes towards the AI technologies, with scores ranging from 4.02 to 4.18, reflecting high levels of consensus regarding the value of AI for improving library services. Evidence from correlation studies shows that the use of AI is strongly correlated with service efficiency ($r = 0.68$). Through regression analysis, it is found that the use of AI also improves information retrieval ($R^2 = 0.435$; $p < 0.05$) and users' satisfaction ($\beta = 0.61$; $p < 0.05$) besides assisting with the automation of library operations ($\beta = 0.63$; $p < 0.05$). Based on the results of the ANOVA test, there is a statistically significant difference in the perception of the use of AI services between the librarians, personnel, and readers ($p = 0.006$).

Keywords: Artificial Intelligence, Library Services, Library Automation, Digital Libraries, AI Applications in Libraries, Library Service Efficiency.

1. Introduction

Digital technology has undergone a dramatic change over the past few decades, that has dramatically changed the manner in which information is created, consumed, organized and distributed in today's knowledge system. In recent years, libraries have been seen as a place where information is preserved and disseminated, and are embracing new technologies to improve their services to users. Artificial Intelligence (AI) is one of the game-changers in the library and information sector. AI is a computational system that can perform tasks that would

*Corresponding Author Email: khan.farha9631@gmail.com
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typically require human intelligence, including learning, reasoning and decision making. The ability to integrate it into libraries means that the repetitive tasks can be automated, information searching improved and personalized services provided.

In the last few years, academic and research libraries have found it necessary to abandon manual activities and adopt digital and intelligent information systems. Technologies that have become more popular in library management systems to improve cataloging and automate classification, better search capabilities, and library staff assistance include machine learning, natural language processing, recommendation systems and intelligent chatbots. AI technology can support libraries in handling vast amounts of digital information and in enhancing their efficiency and service quality.AI technology can help libraries process large volumes of digital information and optimize their services and operations.

Technical services like cataloguing, creation of metadata, and classification are also widely automated by AI. Bibliographic data can be analyzed using machine learning algorithms and metadata created automatically, which can significantly decrease the burden of librarians and enhance information organization consistency. Similarly, the semantic search process will also be enhanced and users will be able to get the information sought more effectively through the use of natural language processing. The recommender systems powered by AI can also improve the user experience as it provides the search patterns and preferences of users with recommendations of the resources.

Besides technical aspects, reference and user support services are also being changed by AI technologies. Chatbot systems and virtual assistants help libraries respond to library users' inquiries in real-time and access online resources. It is possible to use these systems day and night, and this is what a library can do: provide 24 hour service (as well as individual information services) by understanding the behaviour of users in this manner.

Regardless of these developments, issues like poor technological infrastructure, financial limitations, data privacy issues, and the lack of qualified specialists still impose an imprint on the successful practice of AI in library settings. Furthermore, most of the studies available are focused on reviewing the current trends in the use of AI and lack specific models for how library services can be enhanced.

Hence, the purpose of the Artificial Intelligence that enhances the services in the Library and the capacity of the technologies based on Artificial Intelligence to make the information services more efficient, accessible and of high quality, would be analyzed in this work. The research is also directed towards identifying the main applications of AI in the library activity and formulating a conceptual model of library service improvement through AI.

Research Objectives

The main goal of this research is to explore the role of Artificial Intelligence (AI) in enhancing Library Services Effectiveness and Quality. The study's particular aims are as follows:

- To evaluate the awareness of Artificial Intelligence technology among the library users and the library professionals.

- To understand the various applications of Artificial Intelligence in library services such as Automated cataloging, Chatbots, Recommendation systems, Information retrieval tools etc.
- To assess how Artificial Intelligence is impacting the effectiveness of library services including speedy information retrieval, better resource management, automation, etc.
- To evaluate the satisfaction of users with AI enhanced library facilities.
- To find out the challenges and barriers in the application of Artificial Intelligence in libraries.
- To give techniques for effective integration of the technologies of Artificial Intelligence in modern library system.

2. Literature Review

2.1 AI Adoption in Academic Libraries

The use of Artificial Intelligence (AI) in academic libraries has grown in number, and libraries are looking for ways to become more efficient in providing services and making them more useful to the present-day research experience. Research has shown that academic libraries are increasingly adopting AI tools to improve their operations and services. Ayinde et al. (2026) conducted a synthesis of research regarding the use of AI in University libraries, and found that AI applications are becoming more prevalent in reference, technical, circulation and information literacy programs. The report highlighted the role of AI in assisting libraries to deliver better services and make informed decisions based on data.

Similarly, Begum and Elahi (2025) have explored the preparedness of information professionals in using AI technology in Library Management. Overall, they were positive about using AI and they know how it can be advantageous for the library. Similarly, Shahzad et al. (2024) found that the use of AI in the university library helps in creating an environment of creativity for learning and library services.

However, there are regional and institutional differences in adoption. While academic libraries are eager to improve their awareness of AI and policy, there is a significant gap in the institution's policy or procedures for AI use, particularly for advanced AI tools like chatbots and robotics, as revealed by Bangani (2025). Similarly, Jabeen (2025) pointed out that the preparation of the policies, technological infrastructure, and professional knowledge were significant impediments to the implementation of AI in academic libraries. The results of this study suggest that the adoption of AI is increasing globally, and many libraries are still in the early stages of its implementation.

2.2 AI Applications in Library Services

The artificial intelligence technologies are increasingly being used in various library services to enhance the delivery of services and user experience. It was proven that AI can enhance some of the most fundamental library activities, such as information retrieval, reference services, and management of digital resources. Guo et al. (2025) note that AI technologies are

mainly applicable to the libraries of universities to offer smart retrieval services, recommendation systems, intelligent reference services, guided tour services, and identity recognition systems. The analysis of the 100 most successful university libraries based on the United States showed that intelligent retrieval and recommendation technologies belong to the most commonly used AI-based applications.

Another area of use of AI is the reference and user support services. Adewojo et al. (2025) noted that reference service efficiency may be improved by using applications that employ Artificial Intelligence (AI), such as Chatbots and Machine Learning, to automate the handling of frequently asked queries and guide the user to access library resources. These tools will alleviate the burden on the librarians along with enhancing the user experience.

Also, AI technologies are used to enhance access to digital resources and knowledge management. Chen and Chang (2025) have shown that AI-enriched reference systems are capable of giving the user more reliable and efficient answers to their queries, especially when it comes to the specialized library setting. On the same note, Idhalama and Nwachukwu (2025) emphasized that AI and machine learning technologies can lead to better information retrieval, better operational efficiency, and better user experience in the library services. These results indicate that AI can greatly revolutionize the service provision in libraries.

2.3 AI Tools Used in Information Management

Various AI tools and technologies are used in libraries to manage and organize information, including digital resources. The typical use of machine learning, natural language processing systems and intelligent recommendation systems in library systems is mostly for cataloguing, indexing, and resource discovery.

To illustrate, Li (2025) proposed an AI-based personalized recommendation system that analyzes users' borrowing records and behavior to recommend the appropriate library resources to them. The research proved that the use of AI algorithms can enhance the utilization of library resources and enhance user satisfaction.

Similarly, Adewojo et al (2025) mentioned the different kinds of AI tools that are used in academic libraries, including plagiarism detection tools like ‘Turnitin’, writing tools such as ‘Grammarly', and chatbots used for ‘real-time communication with the users'. Such tools automatize the routine activities and help librarians render more effective services.

Digital preservation and document processing are also based on AI technologies. According to Sara et al. (2025), libraries are digitizing historical documents and enhance access to archival collections using the Optical Character Recognition (OCR) and Handwritten Text Recognition (HTR) technologies. The AI tools help to extract metadata, transcribe documents and identify keywords from digital library information management.

2.4 Limitations of Existing Studies

The study of introducing AI into Library Systems has started to grow but there are still some limitations in the current study. Many studies are theoretical or investigation based rather than application-focused in the field of AI technologies. While Bangani (2025) observed that

libraries are striving to create awareness and policy on AI, they did not find strong evidence of the use of advanced technologies of AI that have already been implemented in the activities of Academic libraries.

Furthermore, there are also infrastructural and organizational obstacles that still have an impact on the adoption of AI. Atikuzzaman (2025) suggests ethical concerns with AI systems, technological infrastructure, financial resources, and a lack of training as key challenges identified. On the same note, Idhalama and Nwachukwu (2025) also claimed that a significant number of libraries, especially in the developing world, are at the introductory phase of AI implementation because of a lack of digital infrastructure and technological preparedness.

The second identified weakness from the literature is the lack of skilled staff to manage AI in libraries. Jabeen (2025) identified lack of technical skills and training of librarians as a significant challenge for the effective implementation of AI systems. The constraints suggest that further research is needed in practical frameworks, implementation plans, and capacity building needs to support successful adoption of AI technologies in library service provision.

3. Research Gap

The recent publications of research work have focussed on how Artificial Intelligence (AI) is increasingly playing an important role in changing the way libraries and information services operate. However, the existing relevant literature has some drawbacks regarding the in-depth contribution of AI in improving library service.

In the systematic review of Ayinde, Ebiefung and Oladokun (2026), the authors identified some AI applications in university libraries including cataloging, information retrieval, reference services, administration among others. The investigation revealed that they faced problems related to the institutions with regard to finance, infrastructure and training of librarians. However, the research was mainly based on a literature review and failed to comprehensively assess the benefits of AI for enhancing library services and user satisfaction in real-world applications.

Likewise, Li (2025) suggested an AI-based personalized recommendation system for library resources. The paper focused on how to use user behavior analysis, borrowing history, and machine learning methods to make suggestions to users of the library. Although the model is effective in improving the accuracy of resource discovery and recommendation, the study does not discuss the impact of the AI technology on the overall quality of library services and the efficiency of library operations.

Edam-Agbor, Orim, Ofem and colleagues (2025) employed structural equation modelling to examine the awareness, acceptability and usefulness of AI among academic research librarians. Their results revealed that the awareness and acceptance of AI are key factors in promoting its use in library services. However, the main focus of the study is on the perception of librarians and the diversities of their demographics, not on the actual effect of the AI technology on the improvement of the library services, such as users' experiences, information access and efficiency in service.

Sara, Bartolucci, Cilione, Florio, Migliorelli, Ranchino and Tiberi (2025) explored the use of

Artificial Intelligence (AI) technologies in the digitisation and organisation of historical manuscripts in libraries. The research shows that AI can help with archival preservation and designing databases but mostly it does not consider the overall use of AI in improving users' life in the library.

Although AI and its use in recommendation systems, in digitisation processes and librarians' awareness of AI technologies have been explored, a lack of empirical studies is found that thoroughly examines the impact of AI on library services. The role of AI in enhancing library services' efficiency, user satisfaction, information retrieval effectiveness, and modern library management is still poorly understood.

The research plan aims to fill this void by exploring the applications of Artificial Intelligence in improving library services and the potential of AI technologies to enhance the efficiency and effectiveness of contemporary library systems.

3. Research Methodology

3.1 Research Design

The present study initiative adopts descriptive quantitative research models to determine the effect of Artificial Intelligence (AI) in improving Library services. In this context, the descriptive research approach is appropriate, since it will focus on assessing the extent to which the use of AI is perceived to be effective in enhancing library services and whether it is being used. The project aims to explore the significance of AI-based technologies for information retrieval, resource management, user support, and the overall enhancement of library services.

3.2 Study Area

The study was conducted in the different types of library of the Delhi such as academic, public and institutional library. The libraries cater to a wide range of users, such as students, researchers, and faculty and the general public. Delhi was chosen as the study area because it has a significant number of libraries, which have various service models and user groups with a good understanding of how Artificial Intelligence can be used to improve library service delivery.

3.3 Population of the Study

The respondents were the library users as well as library professionals visiting the library frequently in Delhi. The intended audience was:

- Librarians
- Library staff members
- External readers and visitors who come to libraries for book reading and information access

The respondents were chosen as those who have first-hand contact with library services and can give their perspectives on the impact of AI technologies on the library.

3.4 Sampling Technique and Sample Size

The respondents were selected using the convenience sampling technique by the researcher and only respondents who were available and willing to participate in the study were selected during the survey. One hundred and eighty respondents (180) were involved in the survey carried out in various libraries in Delhi. The distribution of respondents will be the following:

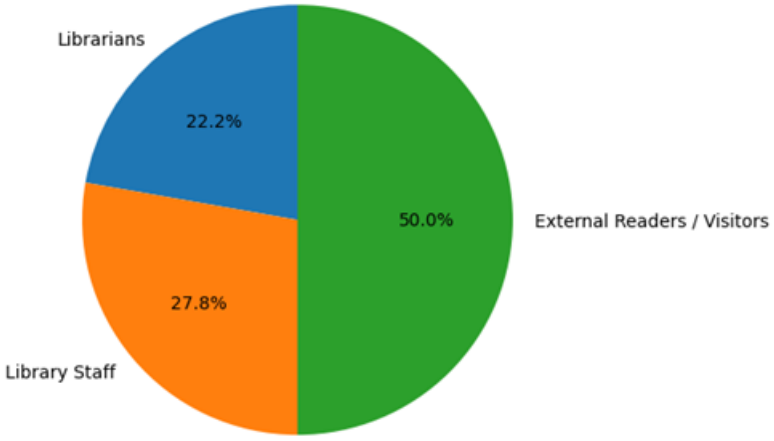

Figure 1: Pie chart showing the distribution of respondents by category (N = 180), including librarians (22.2%), library staff (27.8%), and external readers/visitors (50%).

This distribution ensures that the study captures perspectives from both library professionals and library users.

3.6 Data Collection Procedure

This research was carried out using offline survey. Questionnaires were circulated and had to be completed and returned to the researcher from respondents in selected libraries of Delhi. The respondents were contacted at the library premises, and asked to fill out the survey. They were well informed by informing them the purpose of the study before they were given the questionnaire. Respondents were free to take part and to do the questionnaires in anonymity so as to provide unbiased answers. There were 180 valid responses and these would be used in the final data analysis.

3.7 Data Analysis Techniques

Data collected were processed on descriptive statistical methods. The analysis included:

- Frequency distribution to describe demographic characteristics
- Adjustment of the ratings for each question
- The mean score analysis is used to assess the perception of the respondents in relation to the AI based library services provided.

The results were presented in a clear and effective manner – tables and graphical displays (bar charts and pie charts). SPSS was used to carry out the statistical analysis.

3.8 Ethical Considerations

There were principles of ethics upheld during the research. Respondents were given the free will to participate in the survey and they were assured that the survey was confidential. The data that was gathered was employed in the field of academic research.

4. RESULTS AND DISCUSSION

The results of the research conducted on 180 respondents in libraries, Delhi are presented in this section. The investigation will be directed towards the knowledge level, availability and effect of Artificial Intelligence (AI) in improving library services.

4.1 Demographic Profile of Respondents

Table 1 shows a demographic breakdown of the respondents. The results show that out of the 180 respondents 40 (22.22%) were librarians, 50 (27.78%) were library employees and 90 (50%) were non-librarians and readers/visitors. The fact that the external readers are higher is a pointer that the library user constitutes a large population that comes into contact with the services offered by the library. The presence of professionals and users will ensure the research will have different perspectives regarding the possible implementation of AI technologies in the library context.

The following distribution also reinforces the notion of the libraries serving a large number of stakeholders, and that the implementation of AI technologies needs to consider the needs of both the AI creators and users.

Table 1. Demographic Distribution of Respondents

Respondent Category	Frequency (f)	Percentage (%)
Librarians	40	22.22
Library Staff	50	27.78
External Readers / Visitors	90	50.00
Total	**180**	**100**

Formula used:

$$Percentage = \frac{Frequency}{Total} \times 100$$

Example:

$$\frac{40}{180} \times 100 = 22.22\%$$

4.2 Awareness of Artificial Intelligence in Libraries

Table 2 illustrates the extent of awareness of Artificial Intelligence in libraries. The results

indicated that 74 respondents (41.11%) had moderate awareness of AI technologies, whereas 52 respondents (28.89%) exhibited high awareness. Conversely, 36 respondents (20%) possessed a moderate understanding, while 18 respondents (10%) lacked any information regarding AI technologies in library services. These results indicate that library stakeholders are increasingly recognizing the concept of AI in libraries. However, the limited awareness exhibited by certain respondents indicates the necessity of training programs, workshops, and awareness initiatives to enhance understanding of AI-based technology in libraries.

Table 2. Awareness of Artificial Intelligence in Libraries

Awareness Level	Frequency	Percentage (%)
Highly Aware	52	28.89
Moderately Aware	74	41.11
Slightly Aware	36	20.00
Not Aware	18	10.00
Total	**180**	**100**

This table is used for descriptive statistics.

4.3 Availability of Artificial Intelligence Tools in Libraries

Table 3 presents a summary of the accessibility of AI technology in libraries. AI-based search systems emerged as the most prevalent form of AI technology in libraries, utilized by 60 respondents (33.33%). Forty-four respondents (24.44%) identified automated cataloguing systems, whereas 32 respondents (17.78%) recognized chatbots or virtual assistants. Additionally, 28 respondents (15.56%) indicated the presence of recommendation systems, while 16 respondents (8.89%) reported the absence of AI tools in their libraries. The results indicate that the integration of AI technologies is progressively becoming integral to library operations. The presence of AI-driven search systems and automated cataloging indicates efforts to improve information retrieval and resource management in modern libraries.

Table 3. Availability of AI Tools in Libraries

AI Technology	Frequency	Percentage (%)
AI-based search systems	60	33.33
Chatbots / Virtual assistants	32	17.78
Automated cataloguing	44	24.44
Recommendation systems	28	15.56
No AI tools	16	8.89
Total	**180**	**100**

4.4 Perceived Impact of Artificial Intelligence on Library Services

Table 4 illustrates the respondents' perceptions regarding the impact of AI on library services. The mean scores of all items ranged from 4.02 to 4.18, indicating a favorable disposition towards AI technologies. The highest score was recorded for the statement, "AI improves information retrieval" (Mean = 4.18), followed by "AI enhances operational efficiency" (Mean

= 4.15) and "AI enhances overall library service quality" (Mean = 4.12). The data suggest that the majority of respondents are inclined to concur that Artificial Intelligence may significantly enhance library services, particularly in information retrieval, operational efficiency, and service quality.

Table 4. Mean Score Analysis of AI Impact on Library Services

Likert Scale
1 = Strongly Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly Agree

Statement	Mean	Std. Deviation
AI improves information retrieval	4.18	0.76
AI enhances user assistance services	4.02	0.81
AI improves cataloguing and indexing	4.10	0.72
AI increases operational efficiency	4.15	0.79
AI improves overall library service quality	4.12	0.75

Mean formula:

$$Mean = \frac{\sum(f \times score)}{N}$$

Where
N = 180 respondents.

4.5 Relationship between AI Usage and Service Efficiency

Table 5 represents the correlation analysis between the use of AI and service efficiency. The correlation coefficient of AI use and service efficiency is r = 0.68 which denotes that the two variables have a strong positive correlation. This finding implies that the higher the AI technologies are used in libraries, the better library services are efficient. This observation explains why AI technologies can improve the library operations by making information retrieving fast, automating processes, and improving service delivery.

Table 5. Correlation Analysis

Relationship between AI Usage and Service Efficiency

Variables	AI Usage	Service Efficiency
AI Usage	1	0.68
Service Efficiency	0.68	1

Interpretation: r = 0.68; This indicates strong positive correlation.

4.6 Impact of AI on Information Retrieval

Table 6 presents the regression study investigating the impact of AI utilization on information retrieval efficiency. The regression analysis reveals that AI utilization accounts for 43.5% of the variance in information retrieval efficiency ($R^2 = 0.435$). The significance value ($p = 0.000$) denotes that the link is statistically significant. This discovery validates that AI technologies are essential for enhancing the efficiency and rapidity of information retrieval systems in libraries.

Table 6. Regression Analysis (AI → Information Retrieval)

Model	R	R^2	Adjusted R^2	Std Error	Sig
AI Usage → Information Retrieval	0.66	0.435	0.431	0.62	0.000

Interpretation: AI explains 43.5% of variance in information retrieval efficiency.

4.7 Influence of AI on User Satisfaction

Table 7 displays the findings of the regression study investigating the impact of AI utilization on customer happiness. The results demonstrate that the utilization of AI substantially enhances user happiness ($\beta = 0.61$, $p < 0.05$). This indicates that patrons view AI-enabled services as beneficial for enhancing their entire library experience. AI-driven services, such intelligent search systems, automated suggestions, and virtual support, enhance customer engagement and pleasure.

Table 7. Regression (AI → User Satisfaction)

Predictor	Beta	t-value	Sig
AI Usage	0.61	10.02	0.000

Interpretation: AI significantly improves user satisfaction.

4.8 Impact of AI on Library Automation

The regression results presented in Table 8 show that AI adoption significantly contributes to the automation of library services ($\beta = 0.63$, $p < 0.05$). This indicates that AI technologies help automate several routine library tasks such as cataloguing, indexing, and information retrieval, thereby improving operational efficiency and reducing manual workload for library staff.

Table 8. Regression (AI → Library Automation)

Predictor	Beta	t-value	Sig
AI Adoption	0.63	10.85	0.000

Interpretation: AI significantly contributes to library automation.

4.9 Differences in Perception among Respondent Groups

Table 9 presents the results of the ANOVA test that investigates the differences in perceptions of AI between librarians, the employees of a library and external readers. The findings reveal that the significance value ($p = 0.006$) is below 0.05, which means that there is a statistically

significant difference in the perception of the three groups of respondents. This indicates that there could be varying opinions among the librarians, members of staff, and patrons with regard to the implementation and effects of AI technologies in libraries service provision.

Table 9. ANOVA Test (Group Differences)

Source	Sum of Squares	df	Mean Square	F	Sig
Between Groups	6.32	2	3.16	5.21	0.006
Within Groups	107.42	177	0.61		
Total	113.74	179			

Interpretation: $p = 0.006 < 0.05$; Therefore, significant difference exists between librarians, staff and readers.

4.10 Hypothesis Testing Summary

Table 10 presents the hypothesis testing results showing that all the hypotheses proposed were statistically significant. The results establish that Artificial Intelligence plays a major role in shaping different areas of library services that encompass efficiency in services offered, retrieval of information, feedback by users, and automation of libraries. These findings underscore the significance of AI technologies in the process of upgrading the conventional library systems to more efficient and user-friendly information space.

Table 10. Hypothesis Testing Summary

Hypothesis	Test Used	Result	Decision
H1 AI impacts library services	Regression	$p < 0.05$	Accepted
H2 AI vs service efficiency	Correlation	$r = 0.68$	Accepted
H3 AI improves information retrieval	Regression	$p < 0.05$	Accepted
H4 AI vs user satisfaction	Regression	$p < 0.05$	Accepted
H5 AI vs automation	Regression	$p < 0.05$	Accepted
H6 Group perception difference	ANOVA	$p = 0.006$	Accepted
H7 AI improves service quality	Mean analysis	Mean > 4	Accepted

Conclusion

This article examines the application of Artificial Intelligence to enhance library services in Delhi, based on data collected from 180 respondents, including librarians, library personnel, and external patrons. The findings indicate that Artificial Intelligence can substantially enhance current library services.

The findings indicate that understanding regarding the utilization of AI technology among library stakeholders is increasing; however, further training and awareness initiatives are necessary to enhance effective usage. AI-driven search engines and automated cataloging tools emerged as the predominant AI technologies utilized in libraries, indicating a transition towards intelligent information management systems.

Statistical analysis substantiates the substantial impact of AI on enhancing library service

efficacy. The correlation analysis indicated a robust positive association between AI utilization and service efficiency ($r = 0.68$). Regression analysis indicated that AI utilization markedly improves information retrieval efficiency ($R^2 = 0.435$), enhances user satisfaction ($\beta = 0.61$), and facilitates the automation of library operations ($\beta = 0.63$). The ANOVA results reveal substantial differences in perceptions of AI technologies among librarians, library workers, and external readers ($p = 0.006$), indicating that various stakeholder groups may experience AI-driven services differently.

The results confirm that Artificial Intelligence may transform traditional libraries into more efficient, automated, and user-friendly information systems. AI technology will boost information retrieval, reduce manual labor, facilitate user contact, and assist in delivering personal information services. However, effective adoption requires enough technological infrastructure, skilled professionals, and ongoing training for library staff.

References

Adewojo, A. A., Olatunji, O. M., & Olalere, P. M. O. (2025). Effects of AI-driven tools on reference services and staff roles in academic libraries. *Reference Services Review, 54*(1), 15–30. https://doi.org/10.1108/RSR-02-2025-0008

Atikuzzaman, M. (2025). Opportunities and challenges of implementing artificial intelligence in academic library services: Perspectives from LIS practitioners of Bangladesh. *Library Hi Tech News, 43*(2), 9–12. https://doi.org/10.1108/LHTN-02-2025-0033

Ayinde, L., Ebiefung, R., & Oladokun, B. D. (2026). Adoption of artificial intelligence in academic libraries: A systematic review of current practices, challenges, and research opportunities. *The Journal of Academic Librarianship, 52*(1), 103185. https://doi.org/10.1016/j.acalib.2025.103185

Bangani, S. (2025). Artificial intelligence integration in academic libraries in South Africa: A web analysis. *Digital Library Perspectives, 41*(4), 694–707. https://doi.org/10.1108/DLP-03-2025-0042

Begum, D., & Elahi, M. H. (2025). Readiness to adopt artificial intelligence (AI) in libraries: A study from the lens of information professionals of Bangladesh. *Digital Library Perspectives, 41*(4), 666–682. https://doi.org/10.1108/DLP-10-2024-0150

Chen, C.-C., & Chang, C.-C. (2025). AI-enhanced reference services in special libraries: A case study of the Hakka Literary Museum. *The Electronic Library, 43*(5), 715–732. https://doi.org/10.1108/EL-05-2025-0168

Danquah, M. M., Dadzie, P. S., Gyesi, K., Yeboah, F., & Nyarko, C. Y. (2024). Artificial intelligence implementation strategies for Ghanaian academic libraries: A scoping review. *The Journal of Academic Librarianship, 50*(6), 102975. https://doi.org/10.1016/j.acalib.2024.102975

Gmiterek, G., & Kotuła, S. D. (2025). Generative artificial intelligence in the activities of academic libraries of public universities in Poland. *The Journal of Academic Librarianship, 51*(3), 103043. https://doi.org/10.1016/j.acalib.2025.103043

Guo, R., Pang, Y., Xu, Y., Liu, Z., Chen, Y., & Guo, Y. (2025). Application of artificial intelligence technologies in library services at the top 100 US universities. *The Electronic Library, 43*(4), 619–648. https://doi.org/10.1108/EL-12-2024-0386

Hazarika, H. J. (2025). Leveraging artificial intelligence in library systems: Insights from ICTIS. *Library Hi Tech News, 43*(1), 21–25. https://doi.org/10.1108/LHTN-06-2025-0093

Idhalama, O. U., & Nwachukwu, P. I. (2025). Assessing the application of artificial intelligence and machine learning technologies in library services in Africa. *Library Management, 46*(5), 386–400. https://doi.org/10.1108/LM-07-2024-0078

Jabeen, M. (2025). Assessing the readiness for the adoption of artificial intelligence and related technologies in academic libraries of Pakistan. *The Journal of Academic Librarianship, 51*(6), 103161. https://doi.org/10.1016/j.acalib.2025.103161

Kavak, A. (2025). Integration of artificial intelligence (AI) technologies into academic library services: User opinions in Türkiye. *Reference Services Review, 53*(2), 95–109. https://doi.org/10.1108/RSR-09-2024-0054

Kisilowska-Szurmińska, M. (2025). Artificial intelligence in academic libraries – A tool, a collaborator, an adversary? A Delphi study of university librarians in Poland. *The Journal of Academic Librarianship, 51*(5), 103114. https://doi.org/10.1016/j.acalib.2025.103114

Li, S. (2025). Personalized recommendation of intelligent library resources based on artificial intelligence algorithm. *Procedia Computer Science, 261*, 1012–1018. https://doi.org/10.1016/j.procs.2025.04.494

Edam-Agbor, I. B., Orim, F. S., Ofem, U. J., Ekpang, P., Echu, A., Okim, T. O., Undie, M. A., Ogunjimi, B., Egbe, I. M., Akin-Fakorede, O. O., Gombe, A. B., Angrey, C. U., Abua, D., & Enidiok, M. S. (2025). Librarians' awareness, acceptability, and application of artificial intelligence in academic research libraries: Multigroup analysis via PLS-SEM. *Social Sciences & Humanities Open, 11*, 101333. https://doi.org/10.1016/j.ssaho.2025.101333

Keikha, L., Shahraki-Mohammadi, A., & Nabiolahi, A. (2025). New trends in virtual reference library services: An overview of technology-based interventions, challenges and strategies. *Reference Services Review, 54*(1), 1–14. https://doi.org/10.1108/RSR-06-2025-0037

Sara, S., Bartolucci, M., Cilione, E., Florio, I., Migliorelli, G., Ranchino, M. A., & Tiberi, L. (2025). From manuscript inventories to data: Artificial intelligence and databases, a new chapter for the history of science at "G. Marconi" Central Library of the CNR. *Digital Applications in Archaeology and Cultural Heritage, 39*, e00459. https://doi.org/10.1016/j.daach.2025.e00459

Shahzad, K., Khan, S. A., Iqbal, A., & Javeed, A. M. D. (2024). Identifying university librarians' readiness to adopt artificial intelligence (AI) for innovative learning

experiences and smart library services: An empirical investigation. *Global Knowledge, Memory and Communication, 75*(1–2), 646–668. https://doi.org/10.1108/GKMC-12-2023-0496

Wang, D., Guo, J., Zheng, K., & Deng, X. (2025). AI or human? A study of university students' awareness of library reference service agents. *The Electronic Library, 44*(1), 136–154. https://doi.org/10.1108/EL-06-2025-0230

Yeung, R. S. K., Tian, R., Chiu, D. K. W., & Choi, S. P. M. (2025). University students' perceptions on how generative artificial intelligence shapes learning and research practices: A case study in Hong Kong. *The Journal of Academic Librarianship, 51*(5), 103082. https://doi.org/10.1016/j.acalib.2025.103082

Al-Qadri, A. H., & Al-Khresheh, M. H. (2025). Dimensions of artificial intelligence acceptance among pre-service EFL teachers: Exploring usability, usefulness, social norms, ethics and intentions using ChatGPT. *The Electronic Library, 43*(4), 669–690. https://doi.org/10.1108/EL-12-2024-0391