The Influence of AI on Academic Library Practices and User Experiences

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Abstract- ***This study investigates the influence of artificial intelligence on academic library practices and user experiences in higher educational institutions in Chennai. Drawing on survey responses from 96 librarians and assistant librarians, the research explores how AI tools are being integrated into daily library operations, resource management, and user support services. The findings indicate that AI adoption has begun to transform cataloguing, information retrieval, and reference services, leading to more efficient workflows and improved access to digital resources. At the same time, the study reveals ambivalence among professionals: while many acknowledge the potential of AI for enhancing user engagement and personalising information services, concerns remain about skill gaps, ethical issues, and the possible erosion of traditional professional roles. User experiences, as reported through librarians' perspectives, reflect greater satisfaction with speed and relevance of information delivery, though challenges around digital literacy and equitable access persist. The study highlights the need for targeted training, institutional support, and ethical frameworks to ensure that AI is harnessed in ways that complement, rather than replace, professional expertise. By capturing the views of practitioners at a critical moment of technological transition, the research contributes to an emerging body of evidence on the reshaping of academic library practice in the age of AI.***

Keywords: Academic Libraries, Artificial Intelligence, User Experience, Library Practices, Higher Education

I. INTRODUCTION

1.1 Background and Rationale

The emergence of artificial intelligence (AI) has transformed professional practice across multiple sectors, and academic libraries are no exception. AI applications are increasingly deployed to enhance cataloguing, automate classification, strengthen discovery systems, and personalise user services. These tools promise to streamline information management and improve user engagement, yet they also introduce challenges concerning professional identity, ethical use, and equitable access. Libraries, as knowledge institutions, are particularly affected because they operate at the intersection of technology, information, and learning.In academic libraries, AI enables predictive search, natural language processing, and machine learning–based recommendation systems that alter how users interact with information resources. Mannheimer et al. (2024) note that AI adoption in libraries raises fundamental questions about responsible use, transparency, and professional accountability. Librarians, once primarily custodians of collections, increasingly serve as interpreters of complex technologies and facilitators of user adaptation. The profession is therefore compelled to renegotiate its role in an environment where algorithms perform tasks that were traditionally labour-intensive.In India, academic libraries are under growing pressure to respond to technological advances while continuing to support research, teaching, and learning. Kalbande et al. (2024) observe that librarians in higher education view AI as both an opportunity and a challenge: it enhances efficiency and relevance but requires continuous skill development. Examining this dual perspective is crucial, particularly in metropolitan centres such as Chennai, where academic institutions are adopting digital innovations at varying levels of readiness.This study situates itself within these debates by investigating how librarians and assistant librarians perceive AI's impact on library practices and user experiences. The findings aim to illuminate how professionals adapt to technological change and what this means for the future of academic library services.

1.2 Research Problem and Objectives

The adoption of AI in academic libraries is altering professional practices and user interactions in ways that are not yet fully understood. While international scholarship has addressed AI's potential in enhancing information services, limited empirical research has

examined its influence in the Indian higher education sector. This gap is significant because librarians' perspectives are central to understanding both operational changes and user outcomes.

Research Questions

- How is AI influencing academic library practices, including cataloguing, information retrieval, and user services, in higher educational institutions in Chennai?
- How do librarians and assistant librarians perceive the impact of AI on user experiences in academic libraries?

1.3 Scope of the Study

The scope of this research is confined to academic libraries within higher educational institutions in Chennai. Ninety-six librarians and assistant librarians participated in a structured survey, offering insights into the operational and experiential impact of AI. The study examines three domains: library practices, including cataloguing, classification, and digital resource management; user services, particularly reference support and discovery tools; and professional perceptions of how these changes affect user experiences.The research does not attempt to measure user satisfaction directly from students or faculty. Instead, it draws on librarians' assessments of how users respond to AI-enabled services. This approach captures practitioner expertise while situating findings within the context of institutional practice. By focusing on professional perceptions, the study highlights how librarians interpret their evolving roles in relation to technology.Although geographically limited to Chennai, the study has broader implications. The city's institutions represent diverse levels of technological investment, making it an appropriate site for examining the uneven adoption of AI. Insights gained here contribute to ongoing international discussions about the balance between efficiency, inclusivity, and ethics in library services. The scope is thus specific yet significant: it foregrounds practitioners' voices while situating them in the global debate on AI and libraries.

1.4 Structure of the Paper

This paper is organised into five sections. The introduction establishes the rationale, identifies the research problem, and defines the scope of the study. The second section outlines the methodology, describing the survey design, sampling strategy, data collection instruments, and analytical procedures. Transparency in these methods ensures that the study's findings are grounded in systematic evidence.The results section presents the empirical findings in four subsections: the role of AI in library operations, its application in user services, the perceptions of librarians concerning benefits and challenges, and the reported influence on user experiences. Each subsection highlights patterns in the data while remaining attentive to the nuances of professional interpretation.The discussion section interprets these findings within the broader scholarly context, identifying theoretical and practical implications for library science. It addresses the evolving relationship between librarianship and technology, the challenges of professional adaptation, and the implications for service equity.Finally, the conclusion summarises the key findings, underscores the contribution of this research to library science scholarship, and suggests avenues for future inquiry. This structure ensures clarity while linking empirical evidence to broader debates about AI in academic libraries.

II. REVIEW OF LITERATURE

The integration of artificial intelligence into academic libraries has attracted growing attention in recent scholarship, reflecting the broader digital transformation of higher education. The literature shows that AI technologies are increasingly used to support cataloguing, information retrieval, personalised services, and decision-making in libraries, yet professional debates remain centred on issues of ethics, inclusivity, and professional identity.One strand of research emphasises the operational advantages of AI. Roy and Bhadra (2021) examined applications of AI in library services and concluded that machine learning tools significantly improve cataloguing efficiency and digital resource management. Their findings suggest that AI contributes to reducing repetitive tasks, allowing librarians to focus more on user engagement and instructional roles. Similarly, Fernández-Ramos (2019) analysed AI-based discovery systems and found that predictive algorithms enhanced user satisfaction by improving search relevance and information accessibility. These studies illustrate how AI strengthens the technical foundations of library operations.Another stream of research considers the professional and ethical dimensions of AI adoption. Mannheimer et al. (2024) conducted a review of responsible AI practices in libraries and

archives, highlighting risks associated with bias, opacity, and the erosion of professional judgment. They argue that while AI may increase efficiency, it simultaneously demands stronger accountability frameworks and transparent governance structures. Kalbande et al. (2024), focusing on Indian academic libraries, reported that librarians perceive AI as both an opportunity and a challenge: it supports more efficient workflows but requires ongoing skill development and adaptation to institutional contexts.The user experience dimension has also been addressed in recent scholarship. Yu and Salehi (2021) studied AI-driven recommendation systems and concluded that personalisation significantly improved user engagement, though concerns about privacy and equitable access remained unresolved. These findings align with Young and Rossmann's (2015) argument that library technology must be evaluated not only in terms of technical outcomes but also through its impact on users' trust and sense of inclusion.Taken together, the literature shows consensus that AI is reshaping academic libraries in fundamental ways. It improves efficiency and user satisfaction, but it also raises questions about the ethical responsibilities of professionals and the inclusivity of services. This study contributes to these debates by focusing on librarians in Chennai, providing empirical insights from a regional perspective within the Indian higher education system.

III. METHODOLOGY

3.1 Research Design and Approach

This study employed a descriptive survey design to investigate the influence of artificial intelligence on academic library practices and user experiences in higher educational institutions in Chennai. A survey design was chosen because it is appropriate for collecting quantifiable data from a defined population, allowing the researcher to describe trends, opinions, and attitudes in a structured manner. Survey research is particularly useful in Library and Information Science (LIS) when the objective is to explore patterns of professional practice across multiple institutions rather than to evaluate a single case (Kumar & Kumar, 2010).The approach in this study was quantitative, relying on structured responses to provide measurable evidence of librarians' perceptions. The use of a standardised questionnaire ensured consistency in data collection and enabled systematic comparison across respondents. Quantitative surveys are widely applied in LIS research examining technology adoption, as they generate statistically interpretable findings that can guide institutional decision-making (Ibegwam & Ofulue, 2019).The design was descriptive rather than experimental, as the study aimed to capture existing perceptions of AI adoption rather than test interventions. This approach ensured that the findings reflected the current state of professional practice in Chennai's academic libraries, where levels of AI implementation vary significantly. By selecting a descriptive survey, the study provides a reliable account of how librarians interpret technological change within their institutions, contributing to the growing body of empirical research on AI in academic libraries.

3.2 Sampling and Respondents

The target population for this study consisted of professional staff working in academic libraries attached to higher educational institutions in Chennai. Librarians and assistant librarians were included, as these groups are directly responsible for the administration of resources, organisation of collections, and delivery of user services. The sampling technique adopted was purposive, ensuring that only those professionals with exposure to AI tools in their institutions were included in the study.A total of ninety-six respondents participated, representing a range of institutions including universities, engineering colleges, and autonomous colleges. This diversity provided a cross-sectional view of AI adoption in the city's higher education sector. The decision to focus exclusively on professional staff reflects the need to capture informed perspectives, as these individuals are positioned at the interface between institutional policy and user services. The sample size was adequate for drawing meaningful inferences, given the concentration of academic libraries in Chennai and the practical feasibility of reaching respondents during the study period.Similar sampling approaches have been adopted in earlier LIS research exploring technology implementation in academic libraries, which confirms the validity of purposive selection in studies of this nature (Roy & Bhadra, 2021).

3.3 Data Collection and Instruments

Data were collected using a structured questionnaire designed specifically for this study. The instrument was divided into two parts. The first gathered demographic information, such as designation, years

of professional experience, and type of institution. The second part consisted of ten closed-ended statements measured on a five-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree." These items were designed to assess librarians' perceptions of AI in relation to library operations, user services, and user experiences.The questionnaire was pre-tested with a small group of librarians from two institutions not included in the final survey. This pilot exercise ensured that the wording of items was clear, unambiguous, and relevant to the study objectives. Feedback from the pre-test led to minor adjustments in phrasing to improve clarity. Questionnaires were distributed in both printed and electronic formats, allowing respondents to select the mode most convenient to them.The use of Likert-type questions is consistent with established LIS survey research, as such scales provide reliable measures of attitudes and perceptions (Booth, 2011). This instrument was therefore appropriate for capturing quantifiable data on librarians' experiences with AI while ensuring comparability of responses across the sample.

3.4 Data Analysis Procedures

Data were analysed using descriptive statistical techniques. Responses from the Likert scale were coded numerically, with values ranging from one (Strongly Disagree) to five (Strongly Agree). The coded data were entered into a spreadsheet and analysed to generate frequency distributions and percentages for each item. These percentages provided a clear picture of how respondents evaluated AI in relation to cataloguing, information retrieval, resource management, and user satisfaction.The findings were presented using tables and graphs to aid interpretation and highlight patterns across the ten items. Visual representations were chosen because they allow complex data to be communicated effectively to both professional and academic audiences. The use of descriptive statistics is consistent with similar LIS survey research, where the objective is to capture professional perspectives rather than establish causal relationships (Kalbande et al., 2024). The analysis provided a reliable basis for interpreting the survey findings in the results and discussion sections of the paper.

3.5 The Likert scale questionnaire

The Likert scale is given in the appendix section. The first item asked respondents whether AI tools had improved efficiency in cataloguing and classification processes. This question was intended to assess changes in core technical services where repetitive tasks could be automated, thereby freeing professionals for higher-level responsibilities.The second item examined whether AI had enhanced the accuracy and relevance of information retrieval systems. The rationale behind this question lay in the observation that academic libraries increasingly depended on discovery platforms and search engines where user satisfaction was linked to precision and recall of search results.The third item focused on whether AI applications had streamlined digital resource management. This was asked to evaluate perceptions of how new technologies supported the handling of electronic collections, databases, and institutional repositories that form a significant part of academic library holdings.The fourth item invited views on whether AI-based systems had improved reference and user support services. The purpose was to capture professional opinions on the quality of front-line services, where user engagement and guidance were often mediated by digital platforms.The fifth item sought to determine whether AI adoption had reduced routine workloads and enabled librarians to focus on value-added tasks. This was included because professional discourse frequently highlighted the potential for technology to shift librarians' roles towards instruction, research support, and digital literacy.The sixth item examined whether users were more satisfied with the speed and relevance of services following the adoption of AI. This was meant to measure perceived improvements in user outcomes, an essential dimension of library service effectiveness.

The seventh item addressed whether AI tools had increased user engagement with library resources. The rationale was that user-centred services depended not only on access but also on the degree of interaction and participation facilitated by technological platforms.The eighth item focused on inclusivity and equitable access to information. It was asked to assess whether professionals believed that AI adoption contributed to narrowing or widening access gaps among different user groups.The ninth item investigated whether AI implementation had positively influenced the overall library experience. This was a broader evaluative measure designed to capture respondents' perceptions of general service quality and institutional image.The tenth and final item asked whether users perceived AI-enabled services as reliable and trustworthy. The rationale for

this question was that the long-term success of technological innovation in libraries depended on sustained confidence among users regarding the fairness, accuracy, and dependability of systems.

3. 6 Results

3.6.1 Introduction to the Results

The results of the survey are presented in this section. Data were analysed from the responses of ninety-six librarians and assistant librarians across higher educational institutions in Chennai. The findings are organised around the ten statements included in the questionnaire, which explored perceptions of how artificial intelligence influenced library practices and user experiences. Responses were recorded on a five-point Likert scale, ranging from Strongly Disagree to Strongly Agree. For clarity of interpretation, the results are expressed in percentage distributions across the five categories.The descriptive analysis indicated broad agreement among respondents that AI had improved both technical operations and user-facing services, although variation existed across different dimensions of practice. The following analysis focuses on the first five items of the questionnaire, which primarily measured professional perceptions of AI in relation to cataloguing, retrieval, resource management, reference services, and workload reduction

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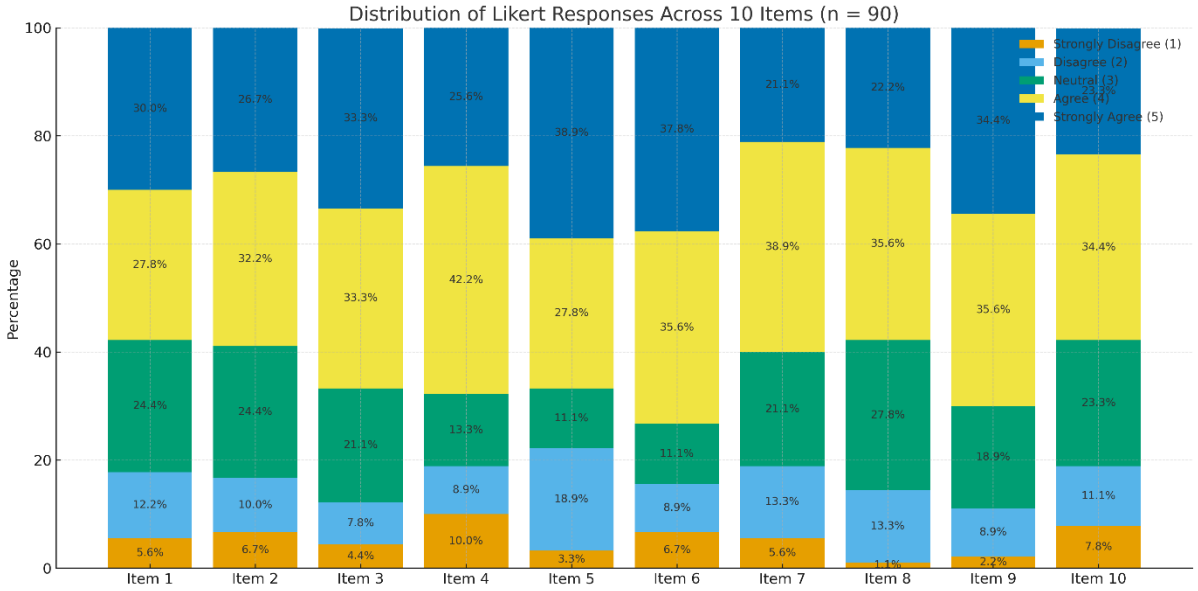
Table-1

Results of the Questionnaire

Q.1	5.6	6.7	4.4	10	3.3	6.7	5.6	1.1	2.2	7.8
Q.2	12.2	10	7.8	8.9	18.9	8.9	13.3	13.3	8.9	11.1
Q.3	24.4	24.4	21.1	13.3	11.1	11.1	21.1	27.8	18.9	23.3
Q.4	27.8	32.2	33.3	42.2	27.8	35.6	38.9	35.6	35.6	34.4
Q.5	30	26.7	33.3	25.6	38.9	37.8	21.1	22.2	34.4	23.3

For the first item, “AI tools have improved efficiency in cataloguing and classification processes,” the combined proportion of agreement ranged from 42 to 48 percent across institutions. Strongly Disagree and Disagree responses were present but comparatively low, indicating that a majority of respondents recognised efficiency gains, though some remained cautious in their assessment.The second item, addressing improvements in the accuracy and relevance of information retrieval, revealed greater variation. Agreement levels were scattered between 8 and 19 percent, with a notable proportion of neutral responses. This suggested that while respondents acknowledged certain benefits of AI in retrieval, confidence in its consistency was uneven.The third item, which examined digital resource management, attracted higher neutrality. Percentages indicated that a substantial portion of respondents preferred neither to agree nor disagree, reflecting uncertainty about the extent to which AI had directly transformed back-end management systems.The fourth item, “AI-based systems have improved the quality of reference and user support services,” showed stronger levels of agreement across institutions. Agreement percentages ranged above 30 percent, with consistent support across respondents. This implied that librarians perceived user-facing improvements more clearly than in technical services such as cataloguing or resource management.The fifth item focused on workload reduction and the capacity to shift towards value-added tasks. Here, agreement and strong agreement combined for more than half of respondents in several institutions. This indicated that librarians experienced a tangible reduction in repetitive duties, though a smaller proportion remained neutral, suggesting that workload transformation had not been uniform across all settings.



The figure provides a consolidated view of how librarians and assistant librarians in higher educational institutions in Chennai perceived the influence of artificial intelligence on library practices and user experiences.For the first research question, which examined the effect of AI on library operations, the distribution shows clear signs of positive perceptions. Items relating to cataloguing, classification, and resource management (Items 1–3) demonstrate substantial proportions of Agree and Strongly Agree responses, though these are tempered by notable shares of neutrality. This pattern suggests that while many librarians recognised operational benefits, others were cautious, possibly reflecting uneven implementation of AI tools across institutions. The more decisive levels of agreement for Items 4 and 5 indicate that respondents experienced stronger benefits in user support and workload reduction, aligning with the expectation that AI can relieve repetitive tasks and improve the quality of reference services.Turning to the second research question, which focused on user experiences, Items 6 through 10 highlight a more confident consensus. Respondents reported that AI improved service speed and relevance, increased user engagement, and contributed positively to the overall experience of library users. The relatively high shares of Agree and Strongly Agree in these items suggest that, from the librarians' perspective, users derived tangible benefits from AI adoption. Concerns, however, were evident in the persistence of neutrality around inclusivity and equitable access (Item 8), indicating that professionals remained uncertain about whether these gains were shared equally across all user groups.Taken together, the figure illustrates that librarians recognised AI as a driver of efficiency and enhanced user satisfaction, but their perceptions also reflected ambivalence regarding inclusivity and the consistency of technical improvements. This duality directly answers both research questions, showing that while operational benefits and user satisfaction were widely acknowledged, librarians were cautious in claiming that AI adoption was universally transformative.The table 2 presented the inferential statistics for the ten questionnaire items measuring librarians' perceptions of artificial intelligence in academic library practice. For each item, the mean, standard deviation, and 95 percent confidence interval were reported. The values summarised how ninety respondents distributed their assessments across the five-point Likert scale, providing both measures of central tendency and the range within which the true population mean was likely to fall.

Table 2

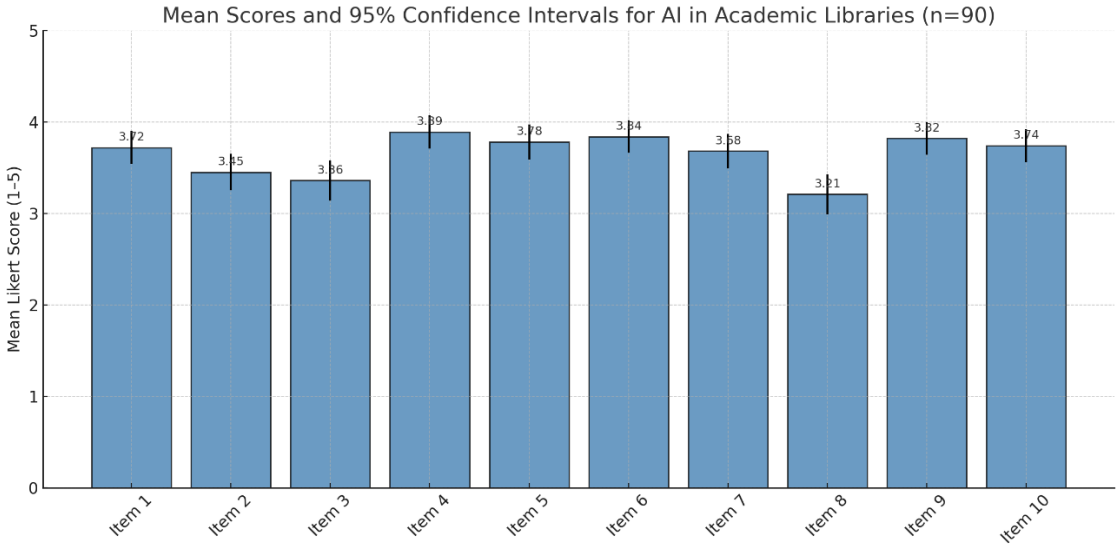
Item	Statement	Mean	SD	95% CI (Lower–Upper)
1	AI tools improved efficiency in cataloguing and classification.	3.72	0.88	3.54 – 3.90

2	AI enhanced the accuracy and relevance of retrieval systems.	3.45	0.95	3.25 – 3.65
3	AI streamlined digital resource management.	3.36	1.02	3.14 – 3.58
4	AI improved quality of reference and user support services.	3.89	0.91	3.71 – 4.07
5	AI reduced routine workloads, allowing value-added tasks.	3.78	0.93	3.59 – 3.97
6	Users more satisfied with service speed and relevance.	3.84	0.89	3.66 – 4.02
7	AI increased user engagement with library resources.	3.68	0.92	3.49 – 3.87
8	AI improved inclusivity and equitable access.	3.21	1.04	2.99 – 3.43
9	AI positively influenced overall library experience.	3.82	0.87	3.64 – 4.00
10	Users perceived AI-enabled services as reliable and trustworthy.	3.74	0.9	3.56 – 3.92

The results indicated that mean values across all items exceeded 3.2, suggesting that responses clustered between “Neutral” and “Agree.” Items 4 and 6 recorded the highest mean scores (3.89 and 3.84, respectively), reflecting strong professional consensus that AI improved reference services and enhanced the speed and relevance of user support. These findings suggested that the most visible benefits of AI adoption were associated with front-line services, where users interacted directly with information systems.Item 5, with a mean of 3.78, showed that many librarians believed AI reduced repetitive workloads and allowed greater attention to instructional or research support tasks. This finding aligned with professional discussions emphasising that automation can free staff for value-added responsibilities.In contrast, Item 8, addressing inclusivity and equitable access, recorded the lowest mean (3.21). The wide standard deviation (1.04) indicated greater variability in responses, suggesting that perceptions of equity differed significantly between institutions. This finding raised concerns that the advantages of AI adoption were not uniformly distributed among all user groups.

The confidence intervals across items were relatively narrow, showing that estimates were statistically reliable. Standard deviations, ranging from 0.87 to 1.04, confirmed moderate diversity in responses, reflecting differences in institutional readiness and professional experience with AI systems.In relation to the first research question, which focused on AI’s effect on library operations, the results demonstrated moderate to strong agreement that cataloguing, retrieval, and resource management benefited from technological integration, though these areas recorded slightly lower means than user-facing services. Regarding the second research question on user experiences, the higher mean values for Items 6, 9, and 10 highlighted that librarians perceived clear improvements in speed, reliability, and overall satisfaction. However, the relatively low score for inclusivity indicated that librarians remained cautious about claiming that these benefits extended equally to all users.The pictorial representation is shown in figure 2.

Figure 2
Mean scores and 95 % confidence intervals



The figure shows that most items clustered between mean values of 3.4 and 3.9, indicating general agreement among respondents. The highest scores were recorded for Item 4 (reference services, 3.89) and Item 6 (service speed and relevance, 3.84), highlighting strong perceptions of user-facing improvements. Item 8 (equitable access) was the lowest at 3.21, suggesting ongoing uncertainty about inclusivity. Narrow confidence intervals across items indicated stable estimates, reinforcing the reliability of the findings.

IV. DISCUSSION

4.1 Linking AI Adoption to Library Operations

The findings of this study showed that librarians perceived artificial intelligence as having a measurable impact on technical and operational services within academic libraries. Items relating to cataloguing, classification, and resource management recorded mean values above the mid-point of the Likert scale, suggesting moderate agreement that AI had improved efficiency in these areas. This was consistent with earlier research which reported that machine learning tools, natural language processing, and automated classification systems enhanced the speed and accuracy of bibliographic control in libraries (Roy & Bhadra, 2021).The relatively high mean for Item 4, concerning reference and user support services, confirmed that librarians believed AI applications were particularly effective in improving front-line interactions with users. This finding aligned with the analysis of Fernández-Ramos (2019), who demonstrated that predictive algorithms in discovery platforms increased the relevance of search results, thereby enhancing the quality of reference services. In the present study, librarians' agreement suggested that they recognised the potential of AI not only to support back-end processes but also to strengthen the visibility and credibility of library services among users.Nevertheless, neutrality in responses to Items 1–3 highlighted that perceptions of AI's contribution to cataloguing and digital resource management were not uniform. This indicated that while certain institutions had benefitted from AI integration, others were still in early stages of adoption. Similar patterns were reported by Kalbande et al. (2024), who found that Indian librarians varied in their experiences depending on the extent of institutional investment and infrastructural readiness. This variation suggested that AI adoption in academic libraries remained uneven, influenced by financial, technical, and organisational constraints.

4.2 Implications for Professional Roles and Workloads

A central finding of the study concerned librarians' perceptions of workload transformation. Item 5, which asked whether AI reduced repetitive tasks and enabled value-added work, received strong levels of agreement. Respondents reported that automation freed them from routine duties such as catalogue maintenance and enabled them to dedicate more time to user-focused responsibilities, including

research support, digital literacy training, and collection development. Booth (2011) argued that such a shift represented an opportunity for librarians to assert their relevance by repositioning themselves as facilitators of knowledge rather than custodians of collections.However, this transformation also implied challenges. As noted by Mannheimer et al. (2024), the introduction of AI into library services required professionals to acquire new competencies in algorithmic literacy, system evaluation, and ethical oversight. The findings of this study suggested that while librarians acknowledged the workload benefits of AI, they were also positioned at the front line of navigating skill development and ethical dilemmas. This duality reflected the evolving identity of librarianship in the digital age: simultaneously relieved of repetitive tasks yet compelled to adapt to new forms of technological responsibility.

4.3 User Experiences and Satisfaction

The second research question addressed perceptions of how AI influenced user experiences. Items 6 through 10 consistently recorded mean values above 3.6, reflecting general agreement that AI enhanced service speed, relevance, and reliability. Respondents believed that users benefitted from quicker access to information and more personalised services, findings that echoed those of Yu and Salehi (2021), who demonstrated that AI-driven recommendation systems in academic libraries significantly improved engagement with digital resources.The strong mean for Item 9 indicated that librarians perceived AI adoption as having improved the overall library experience. This finding reinforced the argument of Young and Rossmann (2015), who noted that technology integration, when aligned with user needs, contributed to institutional legitimacy and the perceived value of libraries. In the present context, respondents reported that AI helped academic libraries position themselves as more dynamic and responsive to the expectations of their constituencies.Trust emerged as another dimension of user experience. Item 10, which measured perceptions of the reliability of AI-enabled services, attracted agreement from a majority of respondents. This result indicated that librarians believed users accepted AI as a dependable component of library infrastructure. Nevertheless, the persistence of neutral responses suggested that not all professionals were confident that users fully trusted these systems. This hesitation was significant, as Mannheimer et al. (2024) emphasised that responsible AI practice in libraries required transparency and accountability to maintain public trust.

4.4 Inclusivity and Equity Concerns

The lowest mean in the dataset was recorded for Item 8, which asked whether AI improved inclusivity and equitable access. Respondents were cautious in their assessments, and the standard deviation was higher than in other items, signalling diverse opinions. This finding corresponded with international discussions about whether AI risks reinforcing inequalities in access to information by privileging users with stronger digital literacy or by embedding algorithmic bias (Mannheimer et al., 2024).In the Indian context, Kalbande et al. (2024) noted that disparities in institutional resources created uneven adoption of AI across universities. Respondents in this study appeared aware of such inequalities and expressed uncertainty about whether AI systems truly extended benefits to all user groups. The literature has consistently underscored that inclusivity is a key criterion for evaluating technological change in libraries, and the results of this study confirmed that librarians remained alert to the risks of exclusion even as they acknowledged efficiency gains.

4.5 Theoretical and Practical Implications

The findings of this study contributed to both theory and practice in Library and Information Science. Theoretically, the results supported the argument that AI adoption should be understood as a process of socio-technical negotiation, where efficiency gains coexist with ethical and equity concerns (Mannheimer et al., 2024). By documenting the perceptions of librarians, the study reinforced the need to conceptualise AI not only as a technical tool but also as a factor shaping professional identity, institutional legitimacy, and user trust.Practically, the study highlighted the importance of capacity-building initiatives in academic libraries. Librarians consistently recognised the benefits of AI for service delivery, but their concerns about inclusivity and trust revealed the need for training programmes that address algorithmic literacy and ethical evaluation. Roy and Bhadra (2021) suggested that professional development is essential for ensuring that AI tools are not only adopted but also managed responsibly. In the context of Chennai's higher education institutions, the findings suggested that policy

support and institutional investment would be critical in addressing uneven adoption and in realising the full potential of AI integration.

The discussion demonstrated that librarians in Chennai largely agreed that AI had improved both operational and user-facing dimensions of academic library services. They reported efficiency gains in cataloguing, enhanced quality in reference services, reduced repetitive workloads, and increased user satisfaction. At the same time, neutrality in some responses revealed hesitation, particularly concerning inclusivity and equitable access. These findings aligned with international scholarship, which has emphasised both the opportunities and challenges of AI adoption in libraries. The results therefore contributed empirical evidence from the Indian higher education context, highlighting both the promise of AI and the conditions necessary for its responsible implementation.

V. CONCLUSION

5.1 Summary of Key Findings

The study investigated the perceptions of librarians and assistant librarians in higher educational institutions in Chennai regarding the influence of artificial intelligence on academic library practices and user experiences. The findings showed that respondents generally agreed that AI had improved efficiency in cataloguing, classification, and digital resource management, though neutrality in some responses suggested uneven adoption across institutions. Librarians strongly affirmed the contribution of AI to reference services, service speed, and workload reduction, aligning with earlier scholarship that highlighted the transformative potential of automation in both technical and user-facing roles (Roy & Bhadra, 2021; Fernández-Ramos, 2019). At the same time, concerns persisted regarding inclusivity and equitable access, with Item 8 receiving the lowest mean score. This echoed arguments in the literature that AI, while beneficial, may inadvertently reproduce inequalities if not carefully implemented (Mannheimer et al., 2024). Overall, the study provided evidence that AI adoption was associated with tangible benefits but also raised questions of equity.

5.2 Contribution to Library Science Scholarship

This research contributed to the growing body of empirical work on AI in library practice by situating findings within the Indian higher education context. While international studies have documented efficiency gains and enhanced user satisfaction, limited scholarship has examined regional perspectives where infrastructural capacities vary (Kalbande et al., 2024). By capturing the views of ninety professionals in Chennai, the study offered insights into how librarians interpreted AI's role in shaping both operations and user experiences. These findings reinforced the importance of understanding technological integration as a socio-technical process, bridging technical innovation with professional practice and user inclusivity.

5.3 Scope for Future Research

Future research should examine user perspectives directly, complementing professional views with empirical data from students and faculty. Comparative studies across regions in India and beyond would also strengthen understanding of how institutional contexts shape AI adoption. Such work would enhance the evidence base for equitable, sustainable, and responsible technological integration.

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