

Awareness & Perception of Artificial Intelligence among LIS Professionals: A Study

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ABSTRACT

This article examines the awareness and perception of Artificial Intelligence (AI) among library professionals, highlighting its growing role in transforming library services. The investigation reveals varying levels of familiarity and understanding of AI applications, including cataloguing, information retrieval, and user services. While AI offers benefits like improved efficiency and enhanced user experience, concerns about job impact, data privacy, and ethical issues exist. The study emphasizes the need for targeted training and education to foster a positive and informed approach to AI integration, ultimately enhancing library professionals' ability to harness AI's potential and improve services.

KEYWORDS: Awareness, perception, Artificial Intelligence, LIS Professionals, Efficiency, Technology, Libraries, Applications.

INTRODUCTION

Computers have become ubiquitous globally, transforming operations in various settings, including libraries. AI applications address library challenges, improving efficiency and user satisfaction, enabling quick access to accurate information. Library professionals' awareness and perception of AI play a significant role in its adoption and integration. Many professionals recognize AI's potential to enhance services, streamline tasks, and improve user experience. However, varying levels of familiarity and training needs exist. AI's benefits in libraries include improved cataloguing, enhanced information retrieval, and personalized user services. Addressing concerns through education and dialogue can foster a positive and informed approach to AI integration.

REVIEW OF LITERATURE

Hussain (2023) observed that artificial intelligence (AI) is one of the major emerging technologies of the present era. Although AI has been applied in sectors such as business, defence, health and education, its role in library services is increasingly centred on supporting intelligent decision-making. AI has become a widely adopted

technology in libraries and holds the potential to transform library services in the information age. This paper aims to explore the application of AI in library Operations.

Ali et.al (2022) conducted an overview of artificial intelligence tools used by university librarians. Their results indicated that librarians are generally aware of AI technologies. Libraries currently use NLP-based services such as Google Assistant, voice searching, and Google Translate. Pattern recognition methods, including text data mining, are also employed to retrieve library materials and facilitate online searching. In addition, big data is accessed through cloud-based services like one Drive and Google Drive. Despite this awareness, the study found a very low level of familiarity with robotics and chat bots. The authors also provided recommendations for libraries that have not yet adopted AI technologies or that seek to implement more advanced tools.

OBJECTIVES OF THE STUDY

- Assess the level of awareness of Artificial intelligence among LIS Professionals.
- Identify the perception of AI among LIS professionals.
- Determine the extent of adoption of artificial intelligence in academic libraries.
- To Identify the benefits of AI
- To identify the challenges associated with the use of AI.

NEED OF THE STUDY

Artificial Intelligence is changing how we handle information, and libraries are also affected by it. Today, libraries are starting to use AI tools like automatic book cataloging, smart search systems, chatbots to answer questions, software to check for copying, and systems that suggest books to readers. But whether these tools work well in libraries depends on how much library staff know about AI and what they think about it. Right now, technology is moving very fast, but many library professionals are not fully ready for it. This is more of a problem in India because of low budgets, books in many languages, and different levels of computer knowledge. Also, library users now want quick, AI-based services. If library staff do not learn or accept AI, libraries may become outdated. AI also brings issues like privacy, unfair results, and freedom of information that librarians should understand. But we don't have enough clear information on how much LIS professionals know about AI, how they feel about it, and what training they need. So, this study is important to find out the current level of awareness and opinion of LIS professionals about AI. This will help government bodies, library groups, and colleges to plan proper training, improve LIS courses, and bring AI into libraries in a good and safe way. This will keep the library profession strong and ready for the future.

SCOPE AND LIMITATION OF THE STUDY

This study covers LIS professionals of Andhra Pradesh. The Researcher found a little hardship while collecting the data since the professionals were busy with academic work activities. The information provided by the respondents is deemed to be true and on the basis of which analysis has been made. This study is mainly on social orientation.

METHODOLOGY

The basic research method adopted in the present study was the survey method. As there are many methods used in survey methods to collect data like observation, interview and questionnaire, the present study is based on survey method to collect data from the LIS professionals in Andhra Pradesh. Comprehensive and structured questionnaire was developed by the researcher in consultation with the research supervisor for the purpose of this study. The questionnaire was to collect the data from the LIS professionals.

Sample Selection

This used data set from randomly collected Library staff, responses from Google forms, with a sample size of 150 representing different responses to their interactions with AI. This research employed the data randomly collected from various academic Library Staff of Andhra Pradesh. Hardly the research collected 138 questionnaires out of 150.

ANALYSIS OF THE DATA

Table 1: Gender wise responses

Gender	No. of Respondents	In Percentage
Male	96	69.56
Female	42	30.44
Total	138	100.00

Table-1 shows that 96 (69.56%) of the respondents are male and remaining 42 (30.44%) are female. Hence it may conclude that majority of the respondents are male.

Table 2: Aware on Artificial Intelligence

Awareness	Respondents	percentage
Yes	126	91.34
No	12	8.70
Total	138	100

It is evident from table-2 that 126 (91.34%) respondents are aware of artificial intelligence, While 12 (8.70%) are not. This shows a high level of AI awareness among LIS Professionals Surveyed.

Table 3: Levels of awareness of AI

Levels	Respondents	Percentage
Dynamed	0	0
Chatbot's	78	56.52
Expert AI	21	15.22
Virtual Reference	57	41.30
Multiple Responses		

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Table-3 presents the sources through which library and information science professionals gained awareness of artificial intelligence. Chatbot's were the most common source, cited by 78 respondents (56.52%), followed by virtual reference services with 57 respondents (41.30%), and expert systems were mentioned by 21 respondents (15.22%). While none reported DynaMed as a source. Since multiple responses were allowed, Percentages exceed 100%.

Table 4: Perceptions of Artificial Intelligence

Perceptions	Respondents	Percentages
Positive development for Professionals	42	30.43
Technologies Adopted in Libraries	69	50.00
Capable of replacing Human Librarians	57	41.30
Adoption of technologies help to library Activities	36	26.09
(Multiple Response)		

Table-4 presents the perceptions of LIS Professionals regarding artificial intelligence. Since multiple responses were permitted, percentages exceed 100%. The most common perception, held by 69 respondents (50.0%), was that AI represent technologies adopted in libraries. This was followed by 57 respondents (41.30%) who believed Ai is capable of replacing human librarians. Additionally, 42 respondents (30.43%) viewed AI as a positive development for professionals, while 36 respondents (26.09%) indicated that the adoption of AI technologies help library activities.

Table 5: Benefits of AI

Benefits of AI	respondents	percentages
Manual & Repetitive Task by Librarians	21	15.22
Search tools better & faster	72	52.17
Avoid Pattern-tailored Recommendation	66	47.83
Discover new knowledge in Libraries	51	36.96
Save time	57	41.30
(Multiple Response)		

Table 5 shows the perceived benefits of AI as reported by LIS professionals. Multiple responses were permitted. The most frequently cited benefit was improved search tools that are faster and more efficient, selected by 72 respondents (52.17%). This was closely followed by pattern-tailored recommendations for users, with 66 respondents (47.83%). Additionally, 57 respondents (41.30%) indicated that AI saves time for library staff and users, while 51 respondents (36.96%) noted its role in the discovery of new knowledge. Only 21 respondents (15.22%) identified the reduction of manual and repetitive tasks as a key benefits.

Table 6: AI using in Different Sections

Sections	Respondents	Percentage
Reference Section	63	45.65
Circulation Section	57	41.30
Cataloguing classification section	63	45.65
Acquisition section	30	21.74
(Multiple Response)		

Table 6 illustrates the application of AI across various library sections. An equal number of respondents, 63 (45.65%), reported the use of AI in the reference section and the cataloguing and classification section. This was followed by the circulation section, with 57 respondents (41.30%). The Acquisition section had the lowest reported use, with 30 respondents (21.74%) indicating AI implementation.

Table 7: Aware of AI Technologies

Technologies	Respondents	percentage
Machine Learning	30	28.26
Natural language Processing	54	39.13
Computer Vision	78	56.52
Robotics	39	28.26
Expert systems	21	15.22
(Multiple Response)		

Table 7 presents the level of awareness among LIS professionals regarding different AI technologies. The highest awareness was for computer vision, with 78 respondents (56.52%). This was followed by natural language processing, with 54 respondents (39.13%) and Robotics, with 39 respondents (28.26%). Machine learning was reported by 30 respondents (21.74%) while expert systems that the lowest awareness, with only 21 respondents (15.22%).

Table 8: Understanding of AI Applications

Understanding	respondents	percentage
Excellent	36	26.09
Good	60	43.48
Average	36	26.09
No	06	4.35
Total	138	100

Table 8 shows the self-reported level of understanding of AI applications among LIS professionals. The majority of respondents, 60 (43.48%) rated their understanding as “Good”. This was followed by equal numbers who rated their understanding as “Excellent” and “Average”, with 36 respondents (26.09%) in each category. Only 6 respondents (4.35%) reported having no understanding of AI applications.

Table 9: Perceive the potential Impact of AI

Impact	respondents	percentage
Highly	51	36.96
Some What positive	57	41.30
Neutral	21	15.22
Highly Negative	9	6.52
Total	138	100

Table 9 explores that majority of respondents viewed the impact positively, the largest group 57 respondents (41.30%) perceived the potential impact as somewhat positive, while 51 respondents (36.96%) rated as Highly positive. In contrast, 21 respondents (15.22%) remained neutral and only 9 respondents (6.52%) perceived the potential impact as highly negative.

Table 10: Attending the Training Programs Related to AI

Attending Training	respondents	percentage
Yes	63	45.65
No	75	54.34
total	138	100

Table-10 revealed that 63 (45.65%) of the respondents are said yes and remaining 75(54.34%) are said Not attending the training programs related to AI, Users are stated that they are not attending any training programme.

Table 11: Interested in learning applications of AI

Learning Interest	Respondents	Percentage
Very interested	66	47.83
Some What interested	39	28.26
Not Very interested	27	19.56
Not interested	06	4.35
Total	138	100

Table 11 shows that 66 (47.83%) of the respondents are very interested and 39 (28.26%) of them somewhat interested, 27 (19.56%) are not very interested and remaining 06(4.35%) are no more any interest in learning the applications of AI.

Hence it may conclude that most of the respondents opined that very interested to learn about AI technologies.

Table 12: Adoption of AI for libraries

Concerns	Respondents	Percentage
Privacy & ethical	37	26.82
Job Displacement (role changes)	58	42.02
Lack of skilled Personnel	26	18.85
Resistance to change	17	12.31
Total	138	100.00

Table 12 presents the primary concerns expressed by LIS professionals regarding the adoption of AI in libraries. The most frequently cited concern was Job Displacement or role changes, reported by 58 respondents (42.02%). This was followed by privacy and Ethical Issues, with 37 respondents (26.82%) concerns about lack of skilled personnel were noted by 26 respondents (18.85%) while resistance to change was the least cited concern, with 17 respondents (12.31%).

Table-13: Rating the overall preparedness for integration of AI technologies

Rating	respondents	percentage
Highly	57	41.30
Some What	38	27.54
Not very	26	18.84
Not Prepared at all	17	12.32
Total	138	100.00

Table 13 Shows LIS professionals self-rated level of preparedness for integrating AI technologies. The largest proportion, 57 respondents (41.30%) considered themselves highly prepared, followed by 38 respondents (27.54%) who felt somewhat prepared, 26 respondents (18.84%) rated themselves as Not very prepared and 17 respondents (12.32%) indicated they were not prepared at all.

Table 14: Biggest ethical challenge to the Use of AI in Libraries

challenges	respondents	percentage
Bias & fairness in Algorithms	49	35.51
Privacy& data protection	46	33.33
Transparency & Accountability	30	21.74
Potential Job Displacement	13	09.42
Total	138	100.00

Table 14 identifies the ethical challenges LIS professionals consider most significant in the use of AI in libraries. The most frequently selected challenge was Bias and fairness in Algorithms, cited by 49 respondents (35.51%), followed by privacy and data protection with 46 respondents (33.33%), transparency and accountability was identified by 30 respondents (21.74%), while potential job displacement was the least selected ethical concern, with 13 respondents (9.42%)

Table 15: Recommendation to Adoption of AI in Libraries

Recommendation	respondents	percentage
Very Likely	60	43.47
Somewhat likely	55	39.86
Not Very likely	15	10.87
Not Likely at all	08	05.80
Total	138	100

Table-15 shows that presents the likelihood that LIS professionals would recommend adopting AI in libraries. The data show that 60 respondents (43.47%) are very likely and 55 respondents (39.86%) are somewhat likely to recommend AI adoption. A smaller proportion reported being not very likely 15 (10.87%) or not likely at all 8 (05.80%).

Table 16: Exposure of AI tools or services in Libraries

Yes/No	Respondents	percentage
Yes, and they have been helpful	57	41.30
Yes, but they have not been helpful	43	31.17
No, but I'm open to exploring	24	17.39
No, I'm not interested	14	10.14
Total	138	100

Table 16 presents LIS professionals exposure to AI tools or services in libraries and their perceptions of usefulness. 57 respondents (41.30%) found them helpful, meanwhile 43 respondents (31.16%) indicated they had not been helpful, among those without exposure 24 respondents (17.39%) stated they are open to exploring AI tools, whereas 14 respondents (10.41%) expressed no interest.

FINDINGS

- 96 (69.56%) of the respondents are male and remaining 42 (30.44%) are female.
- (91.34%) respondents are aware of artificial intelligence.
- Chabot's were the most common source of AI awareness, cited by 78 respondents (56.52%).
- The most frequently cited benefit was improved search tools that are faster and more efficient, selected by 72 respondents (52.17%).
- 63 (45.65%), reported the use of AI in the reference section.
- The highest awareness of AI technology was for computer vision, with 78 respondents (56.52%).
- The majority of respondents, 60 (43.48%) rated their understanding of AI application as "Good".
- A majority of respondents viewed the impact positively, the largest single group being 57 respondents (41.30%).
- The most frequently cited concern regarding AI adoption was Job Displacement or role changes, reported by 58 respondents (42.02%).
- The largest proportion, 57 respondents (41.30%) considered themselves highly prepared for AI integration.
- The most frequently selected challenge was Bias and fairness in Algorithms, cited by 49 respondents (35.51%).

RECOMMENDATIONS

- Increase Awareness and Training: Enhance AI awareness programs and offer more training sessions to cover the gap for those who have not attended any AI-related training.
- Focus on Beneficial AI Applications: Emphasize the deployment of AI in areas where it has shown the most benefits, such as search tools and reference services.
- Address Ethical Concerns: Develop clear policies and guidelines to address privacy, ethical concerns, and job displacement fears to ease the adoption process.
- Improve Preparedness: Implement initiatives to increase preparedness for AI integration, focusing on those who feel less prepared.
- Enhance User Services: Prioritize AI applications that enhance user services and experiences, ensuring these are at the forefront of AI adoption strategies.
- Foster Understanding and Interest: Provide resources and workshops to improve understanding of AI applications and maintain the interest of those who are somewhat interested.
- Monitor and Evaluate: Continuously monitor the impact of AI tools in libraries and gather feedback to ensure they meet user needs and are helpful.
- Promote Ethical AI Use: Encourage the development of transparent, fair, and accountable AI systems to address bias and ensure privacy and data protection.
- Address Intellectual Property Concerns: Provide education and resources to address concerns related to intellectual property and copyright issues in the context of AI.

CONCLUSION

This study assessed how academic library professionals in Andhra Pradesh Perceive and understand artificial Intelligence (AI) in context of library management. Results showed that librarians are familiar with AI technologies, particularly in library operations, and view them as tools to improve job performance and user satisfaction. Participants believed AI would enhance their performance, not replace their jobs, identifying circulation and reference services as prime areas for AI implementation. The study emphasizes the need for increased AI awareness, skill development, and advocacy programs to address job security concerns. Librarians are encouraged to attend AI-related trainings and conferences. The study provides valuable insights for library managements, policymakers, and researchers, serving as a reference point for AI adoption studies in developing countries

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