International Journal of Information Studies and Libraries
10 (2) 2025, 17-28
www.publishingindia.com/ijisl/
https://doi.org/10.21863/ijisl/2025.10.2.003

Submitted: 21 October, 2025
Revisions: 09 November, 2025
Accepted: 20 November, 2025

User Experience with AI Research Assistants in Tamil Nadu University Libraries: A Research Study

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Abstract

This study examines the experience of research scholars, instructors and students of university libraries using AI research assistants in Tamil Nadu universities and how they use artificial intelligence software to enhance academic research. In a time when AI-based tools such as ChatGPT, Grammarly, Turnitin, Semantic Scholar and Zotero become even more ubiquitous, the study investigates usage patterns, perceived advantages, disadvantages and library system readiness for embracing such technology. 150 Tamil Nadu state, central, deemed and private university respondents participated in a standard questionnaire. Postgraduate students (28.0%) and PhD research scholars (38.7%) are the most common users of AI research assistants, indicated the survey finding. The most common use is from science and technology study streams (36.7%) and the most common attendance is from state university institutions (45.3%). Users use AI tools primarily to read books, assist them in writing academically, cite them and check for plagiarism. Though they are all highly valuable, the research also raises questions regarding ethical use, digital illiteracy and uneven access in university departments and institutions. The research emphasises the need for courses in AI literacy, codes of ethics and other infrastructure support for the academic library. The research then illustrates how AI research assistants, with supportive library policy and instruction, can significantly impact scholarly integrity, research productivity and user empowerment in higher education.

Keywords: Academic Support, Artificial Intelligence, Research Assistants, Tamil Nadu, University Libraries, User Experience

Introduction

With the age of digital revolution, scholarly research is being more and more influenced by the use of artificial intelligence (AI) platforms and tools. These technologies are also known as AI research assistants and have changed the way scholars and students retrieve information, perform literature reviews, cite papers, identify plagiarism and edit scholarly articles. This software, such as ChatGPT, Grammarly, Turnitin, Semantic Scholar, Zotero and Quillbot, has become well-known at universities and colleges, where one can improve the quality and effectiveness of their research work. University libraries, long seen to possess information and serve as academic aid offices, are now becoming digital learning and research aid centres. Consistent with this role transformation, they more and more offer AI-based resources in accessible locations and educate their users about how to effectively and ethically use these tools.

Chen, Zhang and Xu (2021) propose that AI-based tools in digital libraries are improving personalisation, recommendation systems and user engagement through automation and streamlining scholarly communication processes. Its use is not without challenges. While the quality and quantity of research are enhanced for the

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How to cite: Velmurugan, V. S. (2025). User experience with AI research assistants in Tamil Nadu University libraries: A research study. *International Journal of Information Studies and Libraries, 10*(2), 17-28.

scholars, ethical usage, accuracy of information, privacy of data and excessive dependence on machine-generated content are some of the concerns.

O'Reilly and Veletsianos (2021) raise a warning against wholesale adoption of AI in academe, calling for institutions to encourage responsible and reflective usage of the technology. In the Indian scenario, more specifically within Tamil Nadu—a state with a good higher education system and high university concentration—adopting AI in research activity in colleges is gradually growing. However, there is not much empirical research examining the experience and use of AI research assistants among students, research scholars and faculty members of university library networks.

Objectives of the Study

The main objective of this research is to explore the way users of university libraries in Tamil Nadu interact with and experience AI research assistants. The precise objectives are:

- To determine the demographic and academic characteristics of users accessing AI research assistants in university libraries in Tamil Nadu.
- To analyse the nature of AI tools (e.g., ChatGPT, Grammarly, Turnitin and Semantic Scholar) frequently utilised by students, research scholars and faculty members.
- To determine the frequency, purpose and usage patterns of AI research assistants in various disciplines and institution types.
- To analyse the perceived advantages, usefulness and drawbacks of AI research assistants from the users' perspective.
- To examine the university libraries' role in facilitating access, training and ethical utilisation of AI software for educational research.
- To determine challenges and hindrances encountered by the users in adopting and utilising AI research assistants effectively.
- To provide suggestions and best practices for maximising the use of AI tools in scholarly research through university libraries.

Literature Review

The rapid growth of artificial intelligence (AI) has significantly influenced academic research work, with the library playing a key role in providing AI-enabled tools. Various studies have conducted research on AI usage in research and library operations, highlighting its groundbreaking character, simplicity of application and ethical considerations. The following is a synopsis of literature supporting the current study.

AI in Academic Libraries

AI applications in libraries range from robotic cataloguing and recommendation services to intelligent research assistance. Chen, Zhang and Xu (2021) gave an overview of how AI is applied in digital libraries and how it plays a role in shaping user experience with better search capabilities, personalised information and increased access to scholarly content. Their article points to the relevance of applying AI tools in allowing users to manage large volumes of data more efficiently. Similarly, Kantule and Kadam (2025) reported that academic libraries underwent a paradigm shift with the integration of AI, transforming them into adaptive, efficient and inclusive knowledge hubs. Their study emphasised, how AI supported sustainability across environmental, economic and social dimensions in alignment with the United Nations Sustainable Development Goals (SDGs). They highlighted applications such as intelligent cataloguing, predictive analytics and personalised services as key innovations reshaping library functions. However, they also identified challenges, including ethical concerns, algorithmic bias and the widening digital skill gap among library professionals. The authors proposed a strategic roadmap for responsible and equitable AI adoption, concluding that when implemented ethically and inclusively, AI could redefine the mission and societal relevance of academic libraries in the 21st century.

Research and Academic Writing AI Tools

AI-based writing assistants such as Grammarly, Quillbot and ChatGPT are used extensively by researchers and students for paraphrasing, grammar correction and

refining content. Fernandez (2018) highlighted the manner in which AI tools are revolutionising the process of academic research through support with writing, plagiarism detection and creation of citations. The tools reduce the burden and enhance productivity, especially for junior researchers. Again, Panda and Kaur (2024) examined the broader role of generative AI in academia through a systematic literature review. Their study found that generative AI tools support various research tasks, including literature review, content creation, language enhancement, plagiarism detection, data analysis and journal selection. These tools significantly reduce researchers' workloads, save time and improve the quality of scholarly work. However, the authors also noted key challenges such as concerns about accuracy, ethical issues, limited contextual understanding, dependence on AI reducing critical thinking, difficulties in data visualisation, the need for continuous training and high costs related to specialised AI tools.

Ethical Issues and Ethical AI Adoption

With the growing dependence on AI tools, there has also been a concern for scholars on academic integrity, over-reliance and ethics. O'Reilly and Veletsianos (2021) requested institutions to promote responsible AI adoption, cautioning against mindless reliance on generative models. Their research promotes training users in the limitations and risks of AI-generated content. Panda et al. (2024) further explored ethical implications by examining AI integration within library environments. Their study highlighted that while AI improves library operations, user experience and service delivery, it also raises ethical concerns related to privacy, intellectual freedom, bias and inclusivity. They proposed that ethical AI implementation should be guided by principles of transparency, accountability and user consent. The authors recommended continuous ethical oversight, staff training and community engagement to ensure that AI supports—rather than replaces—human expertise, while preserving the core values of libraries as inclusive and knowledge-centric institutions.

User Satisfaction and Trends in Adoption

Studies have further explored how different academic groups perceive and accept AI technologies. Jantz (2017) studied innovation trends among academic libraries and concluded that successful adoption of new technologies like AI depends on institutional support, staff readiness and user awareness. Disciplinary background, age group and academic role define how users engage with AI. Chi (2025) examined the integration of AI in library services through a qualitative content analysis of existing literature. The study found that AI significantly enhanced technical and public library services by improving efficiency, personalisation and accessibility. However, it also highlighted major concerns related to data privacy and security, algorithmic bias, low AI literacy among librarians and high implementation costs. Chi emphasised that addressing these challenges is essential to ensure effective AI adoption, better user satisfaction and improved library service delivery.

Research Gap and Need of the Current Study

Despite being affluent in world literature, Indian research, particularly in Tamil Nadu, remains not much explored. The growing emphasis on digitalisation through initiatives such as Digital India and NEP 2020 has prompted the use of AI in education and research. The LIS professional's career is evolving to include user education on digital and AI tools, and therefore their participation in AI literacy activities becomes necessary.

Methodology

This stage defines the research design, population, sample design, data collection instrument and data analysis process employed in the study to assess the user experience of Tamil Nadu university library AI researchers. Descriptive survey research design was appropriately applied in the study for quantitative data gathering of users' habits, liking and attitudes towards AI researchers. This was a strategy through which the researcher would be in a position to gather extensive insights into experiences from students in different academic activities, courses and institutions. Postgraduate students, Ph.D. students and lecturers from different universities within the state of Tamil Nadu constituted the study population. State, central, deemed and private universities were included. Purposive sampling was employed in an attempt to recruit participants who were already familiar with the

application of AI-based research tools. The respondents were 150 and chosen in a way that would yield an evenly proportionate representation in discipline, academic level, age bracket, gender and institution type. Data was collected through a structured researcher-administered questionnaire. There were substantial sections of the questionnaire: demographic information (e.g., academic level, gender, age bracket, faculty and institution type).

Data Analysis and Findings

Table 1: Demographic Profile of Respondents (N = 150)

Demographic Variable	*Category*	*Frequency (n)*	*Percentage (%)*
Gender	Male	82	54.7%
	Female	68	45.3%
Age Group	Below 25 years	32	21.3%
	26–35 years	67	44.7%
	36–45 years	31	20.7%
	Above 45 years	20	13.3%
Educational Qualification	Postgraduate Students	42	28.0%
	M.Phil. Scholars	12	8.0%
	Ph.D. Scholars	58	38.7%
	Faculty Members	38	25.3%
Discipline	Arts and Humanities	39	26.0%
	Science and Technology	55	36.7%
	Social Sciences	33	22.0%
	Library and Information Science	23	15.3%
Type of Institution	State University	68	45.3%
	Deemed University	31	20.7%
	Private University	29	19.3%
	Central University	22	14.7%

Analysis of the Demographic Profile

Gender Distribution

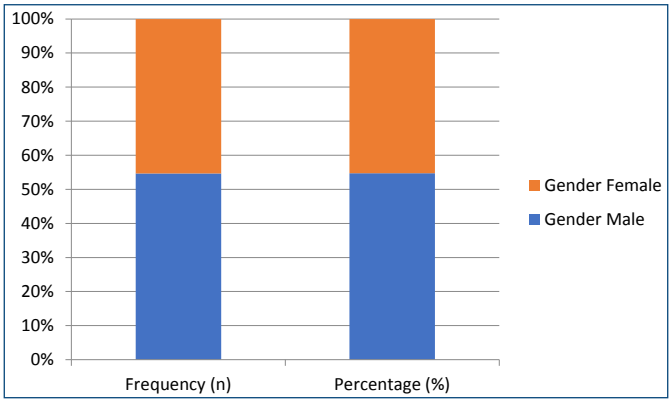

Fig. 1: Gender-Wise Distribution of Study Sample

The gender distribution of the respondents shows a very mild male dominance:

- Male (82 respondents; 54.7%)
- Female (68 respondents; 45.3%)

This near-equitable representation shows fair representation of both sexes for the study, hence facilitating diversity of perspectives on the use and experience of AI research assistants in university libraries.

Implications

- Most men (by 9.4%) might indicate relatively higher adoption or exposure of men to AI research tools, though not to such an extent as to indicate a huge gender divide.
- The figure of women (45.3%) indicates high levels of participation and openness among women students and scholars to working with new technologies in research in academia.
- This dissemination demonstrates that AI tools are utilised and accessed by both male and female users, making gender-neutral training and support programmes as effective and apt.

The gender-disaggregated statistics reveal that both male and female users are equally active in the use of AI research assistants in Tamil Nadu university libraries. The similarity in usage in terms of near-parity indicates the common appeal and relevance of AI tools between the genders, in favour of their application as a valuable addition to library services for both user groups.

Age Group

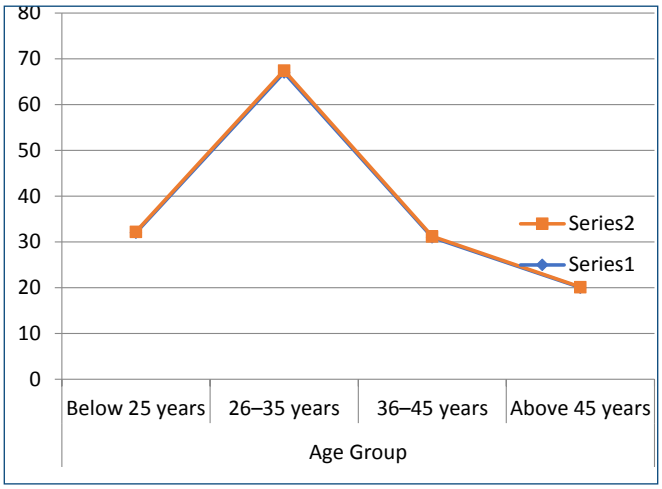

Fig. 2: Distribution of Sample According to Age Group

The respondent profile captures some surprising insights into usage behaviour and adoption of AI research assistants across the teaching lifespan among educators.

26–35 Years (67 Respondents; 44.7%)

The segment has the most users and includes two-fifths of the sample. Research scholars (M.Phil. and Ph.D. students) and recently recruited teachers are the majority of the segment.

Implications

- Their heavy application of AI software would translate to heavy application of research assistance and IT software competency.
- The AI software, like ChatGPT, Grammarly, Turnitin and citation managers, would commonly be applied in literature reviews, paraphrasing, plagiarism detection and research paper composition assistance to researchers.

Less Than 25 Years (32 Respondents; 21.3%)

These encompass the majority of postgraduate students in the early years of study.

Implications

- Their use is evidence of early exposure and greater dependence on AI software to work on assignments and studies.
- It also shows evidence of the inclusion of AI literacy and ethics in master's studies.

36–45 Years (31 Respondents; 20.7%)

The age group is usually made up of mature students and mature students.

Implications

- A percentage lower than the lower groups can be evidence of, delayed recognition or late integration into AI applications
- Application of AI in research work, i.e., plagiarism detection, reference management and research support, indicates growing interest and incremental usage by the users.

General Observation

- 66% of users are between 26 and 45 years of age, i.e., producer scholars with high interest in using AI as a research tool.
- Distribution refers to AI research assistants of all ages, whereby they are optimally suited to fit career and novice researchers, and it is a measure of requirements, awareness and availability of computers for research.

Educational Qualification

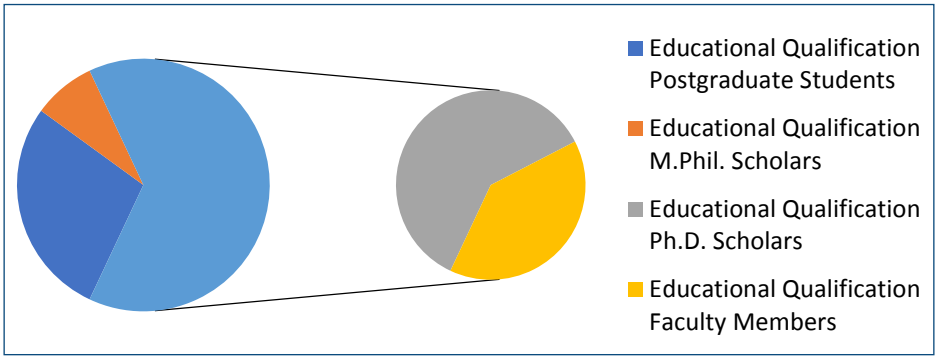

Fig. 3: Sample Distribution According to Educational Qualification

This variable presents an image of the manner in which researchers at higher education and professional development levels engage with AI research assistants in library environments at Tamil Nadu University.

PhD Scholars (58 Respondents; 38.7%)

Explanation

They constitute the top category, corresponding to high usage levels of AI tools by senior-level researchers.

Implications

- PhD scholars generally work on advanced research problems involving extensive literature searches, citation management and academic writing assistance.
- Their uses are literature discovery (e.g., Semantic Scholar), composition editing (e.g., Grammarly, ChatGPT) and research exposure (e.g., AI-based profile optimisation).
- Their aggregate uptake is the utilitarian need for intelligent digital assistance to cope with the volume of postgraduate work.

Postgraduate Students (42 Respondents; 28.0%)

Explanation

As future researchers, postgraduate students form the second largest group.

Implications

- Their uses show pioneering adoption of AI learning and scholarly scholarship.
- Most of them have not acquired elementary research and scholarship writing skills yet, and they employ AI to proofread grammar, generate ideas and create citations.
- Libraries need to pay special attention to the acquisition of AI literacy and research ethics by this group.

Faculty Members (38 Respondents; 25.3%)

Explanation

The faculty members make up a majority of participants, which indicates that even veteran academicians are adopting AI tools.

Implications

- Staff use AI software to check for plagiarism (e.g., Turnitin, iThenticate), text editing and student research preparation.
- Their involvement is evidence of the revolutionising of the academic process with AI driving instruction, monitoring and publication planning.
- Institutions can facilitate staff through advanced training of AI tools, policy sensitisation and ethical guidelines.

M.Phil. Scholars (12 Respondents; 8.0%)

This segment is accorded the lowest priority, possibly on account of the fact that the trend is not in the positive direction for admissions to M.Phil, in general in India.

Implications

- Few in number, M.Phil. Students are now changing their interest towards coursework rather than research work, and in most such cases, this coursework is AI-based for generating dissertations and research papers.
- Mid-level assistance is not offered to the category by AI, i.e., ease of writing and citation trend.

Overall Conclusion

- The most utilised is by PhD students (38.7%), followed by postgraduate students (28.0%), indicating that AI tools are a necessity both initially and in later stages of scholarly research.
- High utilisation by faculty members (25.3%) is an indication of the growing institutional implementation of AI technology in academia.
- They indicate the necessity for AI learning programmes with specialised competencies at all learning levels to enable ethical and effective use.

Discipline-Wise Distribution

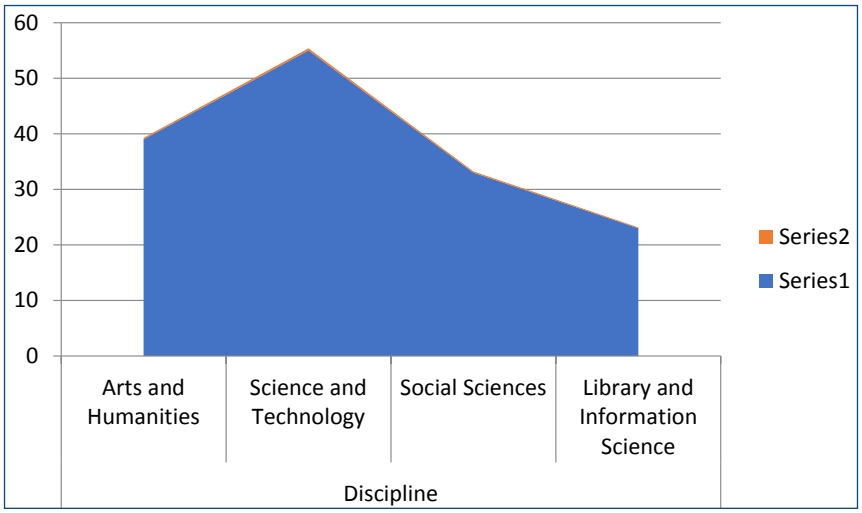

Fig. 4: Distribution According to Discipline of the Sample

This variable scrutinises the background of the respondents' discipline, and light is shed on the way the research assistants, with the help of AI, are being implemented in different disciplines in universities' libraries across Tamil Nadu.

Science and Technology (55 Respondents; 36.7%)

This is the most dominant category among the respondents, indicating rampant use of AI tools by STEM disciplines of science, technology, engineering and mathematics.

Implications

- AI software is readily available for data analysis, code coding, writing and reference management.
- Scholars in the discipline provide more technological literacy and willingness to use AI-powered interfaces such as ChatGPT, Grammarly, MATLAB AI assistants and Semantic Scholar.
- Their large-scale adoption shows that AI research assistants are the new norm requirement in research-based disciplines where automation makes productivity easy.

Arts and Humanities (39 Respondents; 26.0%)

Arts and humanities researchers also have high adoption rates of AI tools.

Implications

- Language support, paraphrasing, literature analysis and writing a thesis are all performed mainly by AI in this field.

- Humanities students usually have to handle enormous amounts of text and are aided by AI in reading ease, grammar and coherence.

Such involvement depicts increased digital inclusion and technology integration in more traditionally less technology-based fields.

Social Sciences (33 Respondents; 22.0%)

Social sciences also demonstrate widespread use of AI tools.

Implications

- This category is facilitated by AI tools in the construction of surveys, statistical analysis (e.g., add-ons for SPSS), writing assistance and citation management.
- Social scientists also explore the ethics of AI, policy and social implications, therefore both using and criticising such technologies.
- Their adoption rate indicates an equilibrium application of AI to both qualitative and quantitative analysis.

Library and Information Science (LIS) (23 Respondents; 15.3%)

Despite being the smallest group, Library and Information Science (LIS) researchers and practitioners bring with them a distinct perspective to the study, as they deal directly with research assistance and library technology.

Implications

- They are most likely applying AI to literature curation, metadata tagging, bibliometrics, plagiarism detection and user support services.
- Their existence signifies the utilisation of Library and Information Science (LIS) professionals as users and enablers of AI tools within the academic community.
- Their fewer numbers may signify the smaller size of LIS departments but very likely not reduced interest or involvement.

Overall Conclusion

- Science and technology are predominant in the use of AI tools (36.7%), signifying technical needs and high research output.
- Arts, humanities and social sciences together represent nearly half (48%) of the users, suggesting cross-disciplinary adoption.
- The LIS contribution (15.3%), although lesser, is strategically significant since they are enablers and trainers of AI tools for other scholars.
- This division implies that AI research assistants are being adapted in all fields, albeit at differing degrees depending on research needs and digital preparedness.

Type of Institution

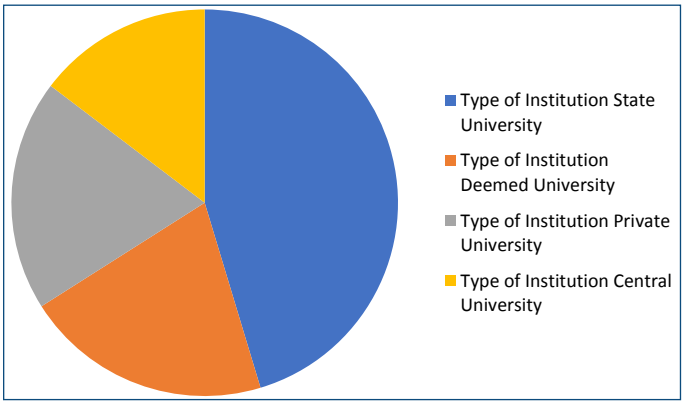

Fig. 5: Institution Type of the Sample Respondents

This variable is to capture the manner in which the nature of scholarly institutions affects the adoption and use of AI research assistants by the clients of the Tamil Nadu University library.

State University (68 Respondents; 45.3%)

Interpretation

State university respondents constitute the largest group in the sample and represent almost half of all the respondents.

Implications

- The high number in this category shows the predominant dominance of state universities in the higher education world of Tamil Nadu.

High enrolment and research-active state universities will likely integrate AI tools into the educational support services.

It also indicates that state university libraries are spending more on AI-equipped research facilities or digital literacy programmes.

Deemed University (31 Respondents; 20.7%)

Explanation

This includes autonomous universities with curriculum autonomy and research and innovation specialisation bias.

Consequences

The mean response of universities under consideration indicates interest in adopting technology, usually triggered by institutional focus on research quality.

Grant writing, support for research projects and international publishing can be encouraged here with the help of AI research assistants.

Private University (29 Respondents; 19.3%)

Explanation

Private universities comprise a significant proportion of the respondents, and this indicates that AI tools are becoming popular in newer and trendy academic institutions.

Implications

- They are likely to be quicker in embracing new education technology and are able to provide integrated access to AI tools through packages from libraries or learning management systems.
- This institution's staff and students can be more technology-conscious and adequately supported by AI-based systems.

Central University (22 Respondents; 14.7%)

Interpretation

It is the smallest of the four categories.

Implications

- The smaller number might also be a reflection of the fact that there are fewer central universities in Tamil Nadu, compared to a decline in the utilisation of AI tools.
- Central universities at least have a robust academic infrastructure and access to publicly funded digital libraries and AI tools.
- Their involvement, while smaller in number, is strategically important, as they set academic standards and policy marks.
- The majority of users (45.3%) come from state universities, so there is a need to enhance AI-supported research here.
- Private and deemed universities (40% combined) are most welcoming, perhaps due to greater flexibility and a research innovation focus.
- Fewer in quantity, central universities can be role models to incorporate AI in scholarly research based on their national-level status.

The demographic profile suggests that the use of AI research assistants is largely by young students and postgraduates from the majority of fields of study, especially in state universities. The overwhelming rate of use of PhD researchers and lecturers suggests increasing dependence on AI utilities in the effectiveness of research and academic support in the libraries of the Tamil Nadu University.

Discussion

Use of AI tools in research tasks has significantly added to the burden of the teacher educators, students and scholars and their association with the production of knowledge and information. The users' experience with AI research assistants in academic libraries of the Tamil Nadu state was thus explored through this study, and the challenges and opportunities resulting from the entry of AI into academies were elucidated.

Higher Usage of AI Tools by User Groups

The study indicates that the PhD students (38.7%) and postgraduate students (28%) use AI research assistants most frequently. The users make use of AI-based tools such as ChatGPT, Grammarly, Turnitin/iThenticate, Zotero and Semantic Scholar to improve writing, check plagiarism, manage citations and find literature.

This is also supported by prior research studies of Chen, Zhang and Xu (2021), which elaborated on how AI applications become valuable parts of digital libraries with advanced access, decision-making support and improved user satisfaction through personalisation. Convenience and speed offered by the applications are greatly appealing to research-orientated user communities.

Disciplinary and Institutional Differences in Utilisation

Science and technology discipline users (36.7%) were observed to be the most engaged adopters of AI tools, as their familiarity with computer tools and research-orientated academic environments is most likely to have disposed them. Users in Arts, Humanities and LIS had comparatively smaller but more engaged adoption.

This is in agreement with Fernandez (2018), who recorded variation in the adoption of AI tools across domains and according to perceived ease of use and usefulness. State universities also represented the highest proportion of participating institutions at 45.3%, indicative of their size of academic population and potentially increased access to digital environments.

Role of Libraries and the Need for AI Literacy

The study also highlights that although AI research assistants are increasingly used by the users; the institutions are still inadequately trained and directed. The majority of the users had learnt to function with AI tools on their own, and concerns of plagiarism, misuse and addiction were raised.

As AI is not an amenity technology but rather a change agent and must be interacted with through critical conversation and ethical guidance, as O'Reilly and Veletsianos (2021) argue, libraries are required to step up to the task of providing systematic AI literacy education and act as ethical guides in providing responsible AI integration into academically led research.

User Expectations and Challenges

There were issues regarding the authenticity of AI-generated content, the privacy of personal data and ChatGPT and other tools being unable to cite or establish facts. There was also a digital divide between seasoned researchers and established institutions and students of varying degrees of digital enablement.

Jantz (2017) noted that innovation in academic libraries relies on the readiness of institutions, training of staff and education of users. Academic libraries will have to close the gap in digital literacy, make AI tools universally accessible and drive the right guidelines for the ethical use of AI to overcome these challenges.

AI as a Supplement, Not a Replacement

Generally, the user experience factor suggests that AI research assistants are viewed as supplements to contribute to enrichment for traditional research work. But the users do recognise limitations of AI, particularly in invoking human judgement, critical thinking and knowledge of expertise.

This is on top of an even wider consensus within the literature more broadly that AI needs to be used to augment, not replace, the human factor in research. This places librarians, teachers and schools at the forefront of this process of building this new synergy between AI and research consumers.

The research brings into perspective the education of the increasing use and popularity of AI research assistants at Tamil Nadu universities, especially among technology students and research scholars. The research continues to list the need for systemic support, training and ethics towards the pursuit of optimal returns from AI-based research scholarship. University libraries must rebrand themselves not just as sources of information but also as AI literacy centres and research facilitators, shepherding users through the evolving landscape of intelligent research tools.

Recommendations

Recommendations from the findings of this research are the following to enhance the application of AI research assistants in Tamil Nadu university libraries:

AI Literacy in Academic Curriculum

- The inclusion of modules for AI awareness and usage for responsible research in research methodology courses for postgraduate and doctoral students.

- On-the-job training on the application of AI tools such as ChatGPT, Grammarly, Zotero, Turnitin and Semantic Scholar should be included in library orientation programmes.

Develop Library Infrastructure with AI Tools

- University libraries will subscribe to institution-level access to top AI-based research support tools.
- Libraries may function as digitisation centres by offering access to writing aid tools, citation management tools, content summaries and plagiarism check tools.

Provide Periodic Workshops and Training

- Periodic FDPs, research workshops and webinars must be conducted to familiarise users with new AI research tools.
- Certain user groups (postgraduates, Ph.D. students and instructors) will be compelled to attend training sessions in a bid to promote increased adoption and utilisation.

Promote the Ethical and Responsible Use of AI

- Guidelines on responsible use of AI by institutional policy, particularly plagiarism, data privacy, intellectual property and over-reliance, need to be developed.
- Incentivise researchers to outsource AI assistance on research writing and rigorously screen AI-generated work.

Facilitate Faculty Use and Involvement

- University faculty can be incentivised to facilitate best practices in AI tool use for research and mentoring.
- Individual involvement by them can motivate students to use AI correctly and responsibly in their work.

Discipline-Specific Support for AI

- As research procedures vary by field, AI support services will need to be discipline-specific to them (for instance, humanities writing software, science data software).
- Subject librarians can be educated to provide recommendations regarding the discipline-specific usage of AI.

Partnership with EdTech Providers

- Universities and libraries can partner with developers of AI tools for buying customised products or academic licences.
- This partnership would also enable research collaborations in AI for LIS and education.

Monitor and Evaluate AI Tool Use

- Regular user feedback needs to be conducted to quantify AI research assistant usability and performance.
- Libraries can use this data to re-engineer tools, discern gaps and track measures of research support.

Develop Institutional Repositories of AI-Supported Research

- Institutional repositories need to be incentivised to facilitate sharing of research outputs with AI support.
- Support instances involving the use of AI tools for enabling research towards fostering transparency and innovation.

Create Policy-Level Endorsement

- University administrations must establish integration policies in accordance with national education and digital policies (e.g., NEP 2020, Digital India).
- The libraries can initiate formulating such policies for proper use of AI in institutions.

These proposals try to fill the gap between AI research assistants and their best, ethical applications in Tamil Nadu state university libraries. These proposals, if put into effect, will maximizes the research efficiency, digital literacy and research ethics and bring the university libraries on par with 21st-century research needs.

Conclusion

The research was centred on increased use and user satisfaction of AI research assistants by university professionals, students and research scholars in the Tamil Nadu university libraries. The research established that from writing assistants and plagiarism detection to citation management tools and intelligent search engines, AI tools are becoming an essential part of the research process for the education community. The population survey confirms the identification of PhD students and postgraduate students as the highest-rate users, largely of science and technology fields and state institutions, both indicative of a requirement for research support and a willingness to embrace AI innovations. Although young users are highly digitally flexible, researchers and teachers are also increasingly incorporating AI into instruction, indicative of changing attitudes towards technology-driven research. The research addresses the importance of how users appreciate AI research assistants since they are friendly, easy and user-friendly to enhance the quality of work accomplished academically. It further describes the necessity of guided, ethics-based and institution-funded direction in the ethical as well as efficient use of AI. Overlooking the in-use-by domain and type of institution indicates the necessity of interventions that are domain-specific using the AI and shared digital approaches. Overall, research assistants in AI are transforming the academic scholarship life in Tamil Nadu's universities. Libraries need to keep up with this revolution by becoming enablers of AI adoption—by providing access, training and support in creating good and responsible use. University libraries can play a vital part in equipping researchers with intelligent tools without corrupting scholarship's integrity and fairness while higher education is going on in the information age.

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