

Artificial Intelligence And The Discovery Of Electronic Resources: A Review Of User Attitudes And Perceptions In Academic Libraries

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ABSTRACT

Academic libraries are increasingly embedding artificial intelligence (AI) into the systems that connect students and researchers with electronic resources, from discovery layers and natural-language search to chatbots and recommender systems. This paper reviews recent literature on AI-enabled e-resource discovery and the attitudes of academic library users toward these tools. It finds that users generally value the efficiency, convenience and personalisation that AI offers, while expressing persistent concerns about data privacy, algorithmic bias, transparency and reduced human interaction. Drawing on technology-acceptance research and the digital-economy literature, the paper argues that user trust, rather than technical capability alone, will determine whether AI-enabled discovery tools succeed. It concludes with implications for library policy, digital literacy programming and vendor governance, situating the academic library as a small but instructive case study within the broader digital economy.

Keywords: e-resources; artificial intelligence; user attitudes; user perception; academic library; digital economy.

1. INTRODUCTION

Academic libraries have moved, within little more than a generation, from collections built predominantly around printed volumes to collections in which electronic resources - subscription databases, e-journals, e-books and institutional repositories - form the primary point of contact between students, researchers and the scholarly record. This shift has brought clear benefits in the volume and immediacy of material available to any user with a network connection, but it has also produced a discovery problem: the scale and fragmentation of e-resource collections has grown faster than most users' ability, or patience, to navigate them (Deng, 2010). Faced with dozens of subscription platforms, inconsistent metadata and search interfaces that vary from vendor to vendor, many users now default to general-purpose web search or generative AI tools before, or instead of, the library's own systems.

In response, academic libraries and the vendors that supply them have begun embedding artificial intelligence into the tools used to find and access e-resources. For the purposes of this review, artificial intelligence is understood broadly as computational systems that perform tasks associated with human intelligence - recognising patterns, interpreting natural language and generating predictions or recommendations - applied here to search, conversational assistance and content recommendation (Okunlaya, Syed Abdullah, & Alias, 2022). This broad definition spans a range of underlying techniques, from rule-based expert systems through statistical machine learning to large-language-model-based tools, which differ considerably in how predictable and explainable their outputs are even though they are often discussed under the single umbrella term 'AI' (Asemi, Ko, & Nowkarizi, 2021). Discovery layers increasingly accept natural-language queries rather than strict keyword strings, chatbots provide first-line reference support, and recommender systems suggest resources based on prior searching or borrowing behaviour.

Technological capability alone, however, does not guarantee adoption. A growing body of technology-acceptance research shows that whether users actually rely on AI-enabled tools depends

heavily on how much they trust the system, not simply on how well it performs a given task (Choung, David, & Ross, 2023), a pattern consistent with wider evidence that trust in AI systems is shaped as much by perceived transparency and users' sense of control as by measured accuracy (Glikson & Woolley, 2020). This distinction matters for academic libraries: a discovery tool that is technically capable of surfacing the right e-resource is of limited value if users do not trust its recommendations, understand how their data is used, or feel the tool has displaced the human support they still expect to be available.

This paper reviews recent literature on two related questions: first, how artificial intelligence is being applied to the discovery of, and access to, electronic resources in academic libraries; and second, what published evidence tells us about the attitudes and perceptions of the students, researchers and librarians who use these tools. The review draws on peer-reviewed journal articles, practitioner case studies, and relevant digital-economy policy research, identified through searches of the library and information science, computing, and digital-economy literature, and prioritising studies that report direct evidence of user or librarian perceptions rather than purely technical or vendor-authored material. The topic sits within the concerns of this Journal's readership: academic libraries are, in effect, small-scale digital service providers, mediating access to information goods over the same connectivity infrastructure, and subject to many of the same platform, data-governance and inclusion pressures, as the wider telecommunications and digital-content sectors that this Journal covers (OECD, 2024a). The remainder of the paper proceeds as follows. Section 2 situates e-resources within the broader digital economy. Section 3 reviews the main categories of AI application in e-resource discovery and access. Section 4 synthesises evidence on user attitudes and perceptions, including the theoretical frameworks used to explain adoption. Section 5 sets out the principal challenges facing academic libraries, and Section 6 draws out implications and recommendations before the paper concludes.

2. E-Resources and the Digital Economy of the Academic Library

The Organisation for Economic Co-operation and Development (OECD) frame the digital economy as the set of economic and social activities enabled by information and communication technology, underpinned by connectivity, data and digital platforms (OECD, 2024a). Academic e-resources fit comfortably within this frame: subscription databases, e-journal platforms and institutional repositories are digital content platforms, delivered over the same networks that carry the rest of the digital economy, and increasingly governed by the same questions of platform dependency, data use and algorithmic mediation.

For library users, this ecosystem is experienced less as a single coherent system than as a patchwork of platforms, each with its own interface, metadata conventions and access-control mechanisms; restructuring and integrating these resources and services is a recurring practical challenge for library management (Kumar & Gupta, 2023), one long complicated by inconsistencies in the vendor-supplied usage statistics that libraries rely on to guide collection decisions (McDowell & Gorman, 2004). It is this fragmentation that has made AI an attractive addition to library systems: natural-language discovery layers and conversational tools promise to abstract away the differences between underlying platforms and present users with a single, simpler point of entry. Framing academic libraries as digital-economy actors also highlights that their adoption of AI is not occurring in isolation: it sits alongside broader debates about digital inclusion and connectivity, since AI-driven services risk widening, rather than narrowing, existing digital divides where the necessary infrastructure and digital literacy are absent (World Economic Forum, 2023).

2.1 A Pre-AI baseline: e-resource use and satisfaction

Long before AI entered the picture, library and information science researchers had already established a substantial evidence base on how users experience electronic resources, and this baseline is worth noting because it is what AI-enabled discovery is now layered onto. Comparative work on print versus electronic formats found that users' preferences vary by task, with electronic resources favoured for speed and convenience but print still valued for sustained reading (Z. Liu, 2006). A wide range of institutional case studies across different countries has since reported a broadly consistent structure of findings: users are generally satisfied with the content of e-resource collections but frequently frustrated by discovery interfaces, inconsistent access and gaps in their own searching

skills, with infrastructure and connectivity often the binding constraint on otherwise positive attitudes (Bentil, Liew, & Chawner, 2021). This pre-AI literature establishes that user satisfaction with e-resources has always depended on infrastructure, training and interface design as much as on content quality, and it is against this established baseline that the effects of AI-enabled discovery, reviewed in the sections that follow, need to be assessed.

Two implications follow from setting this baseline explicitly. First, any improvement in user satisfaction that a library observes after introducing an AI-enabled discovery tool needs to be weighed against the possibility that it simply reflects broader gains in connectivity, training or interface design that were already underway, rather than the AI component specifically. Second, and more usefully, it suggests where AI is likely to add the most value: not in collections that are already well curated and well taught, but in the interface layer where earlier studies consistently located the largest gap between what libraries provide and what users can actually find. The sections that follow examine whether the AI applications now being adopted are, in fact, targeted at that interface layer, or whether they are instead being layered onto problems - collection depth, licensing complexity, staffing - that a smarter search box cannot solve on its own.

3. AI APPLICATIONS IN E-RESOURCE DISCOVERY AND ACCESS

3.1 Discovery layers and natural-language search

Discovery layers were originally built to provide a single, unified index across a library's subscribed databases, replacing the need to search each platform separately. The addition of AI to these systems has principally taken the form of natural-language and semantic search, allowing users to phrase queries conversationally rather than in strict keyword or Boolean form, part of a wider digital transformation of discovery, catalogues and information-seeking behaviour in academic libraries (Asemi, Ko, & Nowkarizi, 2021). This capability is not, however, a general substitute for the structured work of cataloguing and classification: discovery, reference and classification are related but distinct functions, each with different requirements for accuracy, explainability and human oversight (Sanji, Behzadi, & Gomroki, 2022).

3.2 Chatbots and virtual reference

Chatbots have become one of the most visible AI applications in academic libraries, automating routine reference and directional queries and, in principle, offering support outside staffed service hours. A practitioner case study from an academic library in the United States illustrates this approach: a locally built chatbot was designed, tested and deployed to support resource discovery and virtual reference, showing that even a modestly resourced, in-house tool can be integrated into everyday reference workflows without requiring a large vendor platform (Rodriguez & Mune, 2022). Other studies have examined general-purpose conversational AI repurposed for reference work: an exploratory study of Google's Bard chatbot found it capable of sustaining contextually relevant, personalised interactions that enhanced information-literacy support, while also surfacing the bias and privacy questions that accompany any AI system trained on broad, uncured data (Adetayo & Oyeniyi, 2023).

Actual adoption of chatbots remains, however, considerably more limited than the volume of published pilot studies might suggest. A web-based survey of academic library websites in Canada found that only a small fraction had deployed a chatbot for reference service, against a much larger number offering conventional staffed live chat, and identified accessibility, privacy, cost and professional-identity concerns as reasons for the slow uptake (Guy, Rival, Lewis, & Groome, 2023). Where chatbots have been implemented, institutions have taken markedly different technical approaches: some have built rules-based systems in which every response is configured directly by staff, trading conversational flexibility for predictability and ease of oversight (Reinsfelder & O'Hara-Krebs, 2023), while others have deployed a rules-based chatbot as a first-line tool for content findability on the library website, a case study of one such deployment finding that users sometimes mistook the chatbot for a human librarian, underscoring the need to clearly signal the nature of the tool at the outset of an interaction (Ehrenpreis & DeLooper, 2022).

3.3 Recommender and personalisation systems

Recommender systems use borrowing or search history to personalise reading lists and suggest resources a user might not otherwise encounter (Okunlaya et al., 2022). Personalisation of this kind raises a question that runs through the wider AI ethics literature: recommendations generated by a model are not always transparent or easily explained to the person receiving them, which complicates a user's ability to judge why a particular resource was, or was not, suggested (Mittelstadt, Allo, Taddeo, Wachter, & Floridi, 2016). There is also a narrower risk worth naming: a recommender trained mainly on past popularity can create a feedback loop in which already well-used resources are recommended more often, while newer or more specialised e-resources become progressively harder to find.

3.4 Metadata automation and licensing

A further category of application uses AI, including optical character recognition and natural-language processing, to enhance metadata and extract searchable text from scanned or archival material. Because these processes involve continuous automated handling of both content and user interaction data at scale, they also carry data-protection obligations that are easy to overlook when the immediate focus is on improved access (Meurisch & Mühlhäuser, 2022). AI is also beginning to touch the acquisitions side of the same problem: one analysis considers whether AI has, or should have, a role in negotiating and administering e-resource licences, concluding that AI-assisted contract review could streamline licensing decisions but that the legal and financial stakes involved mean human oversight is likely to remain essential (Erb, 2022).

3.5 AI strategy, competencies and organisational readiness

Beyond individual tools, a growing literature examines how academic libraries are organising themselves strategically around AI. An early environmental scan found adoption still concentrated in a small number of pilot projects, with most institutions still at the awareness-raising stage (Wheatley & Hervieux, 2019), while a study of thought leaders' expectations found broad agreement that AI would reshape library work over the following decade but sharp disagreement about the pace and depth of that change (A. M. Cox, Pinfield, & Rutter, 2019). More recent survey evidence suggests adoption has since accelerated unevenly, shaped strongly by institutional resourcing and staff confidence with the technology (Huang, 2024).

This strategic uptake has prompted parallel work on staff competencies: one framework maps existing library and information science competency standards onto the specific skills AI implementation requires, arguing that current professional training does not yet cover this ground systematically (Cox, 2023), a gap that dedicated training initiatives have begun to address directly (Kautonen & Gasparini, 2024). Consistent with this, a large-scale survey of AI literacy among academic library employees found meaningful variation in confidence and skill across institutions and job roles, and recommended structured, role-specific training (Lo, 2024), while a broader scoping review found that formal AI-literacy policy guidance across the sector remains sparse relative to the pace of tool adoption (Cox, 2023). Practitioner accounts add a further, more mundane layer to this picture: one case study describes the practical challenge of integrating several AI-powered tools into a coherent research-support workflow rather than deploying any single capable tool in isolation (Michalak, 2024), and a related discussion of the underlying procurement choice - buying a vendor's AI product outright versus building a more limited, locally controlled tool - argues that libraries should weigh reduced short-term effort against longer-term loss of control over data handling and customisation (Michalak & Ellixson, 2024).

4. USER ATTITUDES AND PERCEPTIONS TOWARD AI-ENABLED E-RESOURCE ACCESS

4.1 Positive perceptions: efficiency, convenience and personalisation

Where user perceptions have been studied directly, the overall picture is broadly positive. Early work examining awareness and perception of AI among university library users in Nigeria found that users recognised AI's potential to improve access to resources, operational efficiency and the relevance of recommendations, even as they voiced reservations about specific applications (Abayomi, Adenekan, Abayomi, Ajayi, & Aderonke, 2020). Studies of the professional, rather than student, user base tell a

similar story: a survey of university librarians found broadly favourable views of AI's potential, alongside a clear call for structured training so that staff can use these tools with confidence (Ali, Naeem, & Bhatti, 2021). A similar pattern holds among library professionals elsewhere: a national survey of Indian library and information science professionals likewise found broadly positive perceptions of AI's potential to enhance library activities and support decision-making, tempered by concerns about ethical implementation and infrastructure gaps (Subaveerapandiyan & Gozali, 2024).

This positive-but-uneven pattern recurs across other national contexts. National surveys of librarians in Pakistan report generally favourable attitudes toward AI's potential across a range of library functions, while flagging infrastructure and skills gaps as the main barriers to realising it (Ali et al., 2021), a picture reinforced by a subsequent SWOT analysis of the same national library system that identified skills development as the largest single opportunity for improvement (Ali, Naeem, Bhatti, & Richardson, 2024). Accessibility is a plausible area of particular benefit: natural-language and adaptive interfaces are, in principle, well placed to reduce barriers that conventional catalogue interfaces present to users with visual, motor or cognitive impairments, though dedicated empirical evidence on this specific to library discovery tools remains limited.

4.2 Concerns: trust, privacy, bias and reduced human interaction

Positive overall attitudes coexist with specific and recurring concerns. The same Nigerian study that found broadly favourable awareness of AI also recorded persistent worries about data privacy, a reduction in human interaction, and scepticism that AI could fully replace the judgement of a librarian (Abayomi et al., 2020), concerns echoed in national surveys of library and information science professionals elsewhere (Subaveerapandiyan & Gozali, 2024). A large-scale survey of public perceptions of AI across library settings found that, while a majority of respondents saw clear potential benefits, a similarly large share expressed reservations about job losses among staff and the accuracy of AI-generated recommendations, with support for adoption strongly conditional on libraries being transparent about how and where AI was being used (Yoon, Andrews, & Ward, 2022). These concerns are not confined to AI narrowly defined: broader research on students' information-sharing behaviour around electronic resources has found that many students are unaware of the copyright implications of sharing content discovered through library systems, suggesting that trust and literacy gaps sit within a wider pattern of limited awareness about the rules governing digital content use (Subaveerapandiyan & Gozali, 2024).

4.3 Explaining adoption: trust, ethics and leadership

The Technology Acceptance Model has long explained adoption primarily through perceived usefulness and ease of use; recent scholarship on AI in higher education argues this is no longer sufficient on its own, extending the model with a dedicated construct for trust, and finding that trust exerts a direct influence on users' attitude toward AI technologies, operating both directly and through perceived usefulness (Choung, David, & Ross, 2023). For academic libraries, the practical implication is that user perception of AI-enabled discovery is best understood as a trust problem as much as a usability problem: a tool that surfaces the technically correct resource but does so unpredictably, or without clarity about how it works, is unlikely to earn sustained trust, however capable the underlying model (Mittelstadt et al., 2016).

Institutional leadership appears to mediate whether this trust develops. A study of leadership styles and AI acceptance in academic libraries found that participative, staff-involving leadership was associated with significantly higher acceptance among employees than top-down rollout (Shal, Ghamrawi, & Naccache, 2024), a finding echoed in evaluations of specific services: user satisfaction with AI-assisted chat depended less on whether an interaction was handled by AI or a human than on whether the transition between the two was clearly signalled and escalation always available (Li & Coates, 2024), and acceptance improved markedly when staff had been visibly involved in configuring and testing tools before launch rather than encountering them as a finished vendor product (Kalbande et al., 2024). Evidence from South Africa adds a further, structural qualification: perceived usefulness and organisational support predicted positive attitudes more strongly than prior technical experience, while adoption itself remained concentrated in better-resourced institutions (Molaudzi & Marutha, 2024) - underscoring, again, that trust in AI-enabled discovery is something libraries actively build or undermine through how they manage adoption, not simply a fixed property of user

attitudes.

Taken together, the studies reviewed in this section point to a consistent pattern rather than a scattered set of one-off findings: positive attitudes toward AI-enabled discovery are widespread but shallow, resting on convenience and personalisation rather than on any settled confidence in how the underlying systems work. That shallowness is precisely what makes trust, ethics and leadership - rather than raw technical performance - the variables that determine whether early positive attitudes translate into sustained use, a distinction the challenges and recommendations discussed in the remaining sections take as their starting point.

5. Challenges for Academic Libraries

Several challenges recur across the literature reviewed above. The first is algorithmic bias and opacity: recommender and discovery systems trained on an incomplete or skewed collection, or on metadata of variable quality, risk systematically under-surfacing certain resources or perspectives, and the difficulty of auditing these outcomes is a structural feature of automated systems rather than an implementation error to be quickly fixed (Mittelstadt et al., 2016). Reviews of AI implementation across academic library services converge on a similar shortlist of practical obstacles - data quality, cost, staff skills and information-security risk - that generally rank ahead of user resistance itself (Zondi et al., 2024).

The second is data privacy and governance: AI-enabled discovery and chatbot tools that log user queries and behaviour to personalise results create data-protection obligations that extend beyond the library into the practices of the vendors that increasingly supply these tools (Meurisch & Mühlhäuser, 2022), a concern reinforced by the broader observation that the ethical and governance frameworks needed to audit automated decision-making have consistently lagged behind the pace of deployment (Mittelstadt et al., 2016). The third is the digital divide: AI-enabled discovery assumes reliable connectivity, capable devices and a baseline of digital literacy, and institutions or users without this foundation risk being left further behind rather than better served (World Economic Forum, 2023).

The fourth is professional role change. As routine discovery and reference tasks are automated, librarians' roles shift toward curating, training users in, and auditing AI systems; the perception studies reviewed above suggest general openness to this shift but with clear reservations about being displaced rather than supported (Ali et al., 2021), a training gap that begins earlier than the workplace itself, since professional education has not consistently kept pace with the technology librarians are now expected to govern (Fasola, 2024). The fifth is vendor dependency: as commercial discovery and content platforms embed proprietary AI features, libraries face practical difficulty restructuring these systems on their own terms and risk losing transparency over how discovery is actually being mediated (Kumar & Gupta, 2023).

6. Implications and Recommendations

Several practical implications follow from this review. Libraries should invest in digital and AI literacy programming for both students and staff, and adopt clear, published AI-use policies covering what user data is collected and how recommendations are generated, directly addressing the trust deficits identified above (Mittelstadt et al., 2016). New AI tools should, where possible, be piloted and evaluated locally, with librarians and representative users involved in design and testing before wide deployment, rather than adopting vendor tools wholesale; the San José State University chatbot case study demonstrates that even a modestly resourced, locally built tool can be integrated successfully into a library's everyday reference workflow (Rodriguez & Mune, 2022).

Libraries negotiating with vendors should press for explicit data-governance terms covering data protection, retention and a reasonable degree of algorithmic auditability (Meurisch & Mühlhäuser, 2022), and should treat equitable access as a design constraint from the outset: AI-enabled discovery tools should be tested for usability on low-bandwidth connections and by users with a range of digital skills, consistent with the inclusion goals articulated in digital-economy policy research (OECD, 2024b). Finally, libraries should preserve human-mediated reference support alongside AI tools rather than as a fallback to be phased out; the evidence reviewed here consistently shows that users see AI as a complement to, not a replacement for, human assistance (Kaushal & Yadav, 2022).

7. Conclusion

Artificial intelligence is reshaping how academic library users discover and access electronic resources, through natural-language discovery layers, chatbots, recommender systems and automated metadata enhancement. The evidence reviewed in this paper shows that users, whether students or librarians, are broadly receptive to these developments, valuing the efficiency, convenience and personalisation that AI-enabled tools can offer. That receptiveness is conditional, however, and depends less on technical sophistication than on trust: users want to understand how their data is used, want reassurance that AI has not simply replaced access to human support, and remain sensitive to the risk of algorithmic bias and opacity in what gets recommended to them.

Read alongside the wider digital-economy literature, the academic library's experience with AI adoption looks less like a niche, sector-specific story and more like a smaller-scale version of debates playing out across the digital economy more broadly, about automation, personalisation, data governance and platform trust. Because academic libraries operate within a relatively contained, mission-driven environment with strong professional norms around access and privacy, they may offer a useful and low-risk test bed for AI-governance practices - transparent policies, local piloting, negotiated vendor data terms - that have relevance well beyond the library sector.

Future research would benefit from longitudinal studies tracking how user trust in AI-enabled discovery tools evolves with sustained exposure, rather than relying only on early-adoption snapshots; comparative studies across institutional and national contexts, particularly in lower-connectivity settings where the digital divide is most acute; and closer study of the librarian workforce transition as AI tools take on a larger share of discovery and reference work.

References

1. Abayomi, O. K., Adenekan, F. N., Abayomi, A. O., Ajayi, T. A., & Aderonke, A. O. (2020). Awareness and Perception of the Artificial Intelligence in the Management of University Libraries in Nigeria. *Journal of Interlibrary Loan, Document Delivery & Electronic Reserve*, 29(1–2), 13–28. <https://doi.org/10.1080/1072303X.2021.1918602>
2. Adetayo, A. J., & Oyeniyi, W. O. (2023). Revitalizing reference services and fostering information literacy: Google Bard's dynamic role in contemporary libraries. *Library Hi Tech News*. <https://doi.org/10.1108/LHTN-08-2023-0137/1254684>
3. Ali, M. Y., Naeem, S. Bin, & Bhatti, R. (2021). Artificial Intelligence (AI) in Pakistani university library services. *Library Hi Tech News*, 38(8), 12–15. <https://doi.org/10.1108/LHTN-10-2021-0065>
4. Ali, M. Y., Naeem, S. Bin, Bhatti, R., & Richardson, J. (2024). Artificial intelligence application in university libraries of Pakistan: SWOT analysis and implications. *Global Knowledge, Memory and Communication*, 73(1–2), 219–234. <https://doi.org/10.1108/GKMC-12-2021-0203>
5. Asemi, A., Ko, A., & Nowkarizi, M. (2021). Intelligent libraries: a review on expert systems, artificial intelligence, and robot. *Library Hi Tech*, 39(2), 412–434. <https://doi.org/10.1108/LHT-02-2020-0038>
6. Bentil, W., Liew, C. L., & Chawner, B. (2021). An examination of electronic resource management in academic libraries in Ghana through the Techniques of Electronic Resource Management (TERMS) framework. *The Journal of Academic Librarianship*, 47(1), 102265. <https://doi.org/10.1016/j.acalib.2020.102265>
7. World Economic Forum. (2023, September). Digital inclusion: Projects empowering global inclusion. Retrieved from <https://www.weforum.org/stories/2023/09/bridging-digital-divide-technology-empowering-global-inclusion/>
8. Choung, H., David, P., & Ross, A. (2023). Trust in AI and Its Role in the Acceptance of AI Technologies. *International Journal of Human–Computer Interaction*, 39(9), 1727–1739. <https://doi.org/10.1080/10447318.2022.2050543>
9. Cox, A. (2023). How artificial intelligence might change academic library work: Applying the competencies literature and the theory of the professions. *Journal of the Association for Information Science and Technology*, 74(3), 367–380. <https://doi.org/10.1002/ASI.24635>
10. Cox, A. M., Pinfield, S., & Rutter, S. (2019). The intelligent library: Thought leaders' views on the likely impact of artificial intelligence on academic libraries. *Library Hi Tech*, 37(3), 418–435. <https://doi.org/10.1108/LHT-08-2018-0105>
11. Deng, H. (2010). Emerging patterns and trends in utilizing electronic resources in a higher education

- environment. *New Library World*, 111(3/4), 87–103. <https://doi.org/10.1108/03074801011027600>
12. Ehrenpreis, M., & DeLooper, J. (2022). Implementing a Chatbot on a Library Website. *Journal of Web Librarianship*, 16(2), 120–142. <https://doi.org/10.1080/19322909.2022.2060893>
13. Erb, R. A. (2022). Does Artificial Intelligence (AI) Have a Role in E-Resources Licensing? *Serials Librarian*, 82(1–4), 83–90. <https://doi.org/10.1080/0361526X.2022.2018240>
14. Fasola, O. S. (2024). Awareness, perception and use of Artificial Intelligence tools by LIS educators in Nigerian Higher institutions. *Cybrarians Journal*, (72), 1–20. <https://doi.org/10.70000/CJ.2024.72.591>
15. Glikson, E., & Woolley, A. W. (2020). Human Trust in Artificial Intelligence: Review of Empirical Research. <https://doi.org/10.5465/Annals.2018.0057>, 14(2), 627–660.
<https://doi.org/10.5465/ANNALS.2018.0057>
16. Guy, J., Rival, P. R., Lewis, C. J., & Groome, K. (2023). Reference chatbots in Canadian academic libraries. *Information Technology and Libraries*, 42(4). <https://doi.org/10.5860/ital.v42i4.16511>
17. Huang, Y.-H. (2024). Exploring the implementation of artificial intelligence applications among academic libraries in Taiwan. *Library Hi Tech*, 42(3), 885–905. <https://doi.org/10.1108/LHT-03-2022-0159>
18. Kalbande, D., Yuvaraj, M., Verma, M. K., Subaveerapandiyan, A., Suradkar, P., & Chavan, S. (2024). Exploring the Integration of Artificial Intelligence in Academic Libraries: A Study on Librarians' Perspectives in India. *Open Information Science*, 8(1). <https://doi.org/10.1515/opis-2024-0006>
19. Kaushal, V., & Yadav, R. (2022). The Role of Chatbots in Academic Libraries: An Experience-based Perspective. *Journal of the Australian Library and Information Association*, 71(3), 215–232. <https://doi.org/10.1080/24750158.2022.2106403>
20. Kautonen, H., & Gasparini, A. A. (2024). B-Wheel – Building AI competences in academic libraries. *Journal of Academic Librarianship*, 50(4). <https://doi.org/10.1016/j.acalib.2024.102886>
21. Kumar, R., & Gupta, D. K. (2023). Impact of restructuring resources and services and their utilization in IIT Roorkee library, India. *Library Management*, 44(3–4), 217–228. <https://doi.org/10.1108/LM-03-2022-0017>
22. Li, L. L., & Coates, K. (2024). Academic library online chat services under the impact of artificial intelligence. *Information Discovery and Delivery*. <https://doi.org/10.1108/IDD-11-2023-0143>
23. Liu, Z. (2006). Print vs. electronic resources: A study of user perceptions, preferences, and use. *Information Processing & Management*, 42(2), 583–592. <https://doi.org/10.1016/J.IPM.2004.12.002>
24. Lo, L. S. (2024). Evaluating AI Literacy in Academic Libraries: A Survey Study with a Focus on U.S. Employees. Retrieved from https://digitalrepository.unm.edu/ulls_fsp
25. McDowell, N., & Gorman, G. E. (2004). The Relevance of Vendors' Usage Statistics in Academic Library E-Resource Management: A New Zealand Study. *Australian Academic & Research Libraries*, 35(4), 322–344. <https://doi.org/10.1080/00048623.2004.10755282>
26. Meurisch, C., & Mühlhäuser, M. (2022). Data Protection in AI Services. *ACM Computing Surveys*, 54(2). <https://doi.org/https://doi.org/10.1145/344075>
27. Michalak, R. (2024). Fostering Undergraduate Academic Research: Rolling out a Tech Stack with AI-Powered Tools in a Library. *Journal of Library Administration*, 64(3), 335–346. <https://doi.org/10.1080/01930826.2024.2316523>
28. Michalak, R., & Ellixson, D. (2024). Buy versus build: Navigating Artificial Intelligence (AI) tool adoption in academic libraries. *Information Services and Use*, 44(4), 316–326. <https://doi.org/10.1177/18758789241296755>
29. Mittelstadt, B. D., Allo, P., Taddeo, M., Wachter, S., & Floridi, L. (2016). The ethics of algorithms: Mapping the debate. *Big Data & Society*, 3(2). <https://doi.org/10.1177/2053951716679679>
30. Molaudzi, A. I., & Marutha, N. (2024). Contributory factors to attitudes towards the adoption of artificial intelligence technology in public academic libraries in South Africa. *Information Development*. <https://doi.org/10.1177/02666669241304704>
31. OECD. (2024a). OECD Digital Economy Outlook 2024 (Volume 1): Embracing the Technology Frontier. OECD Digital Economy Outlook, 2024. <https://doi.org/10.1787/A1689DC5-EN>
32. OECD. (2024b). OECD Digital Economy Outlook 2024 (Volume 2): Strengthening Connectivity, Innovation and Trust. OECD Digital Economy Outlook. <https://doi.org/10.1787/3ADF705B-EN>
33. Okunlaya, R. O., Syed Abdullah, N., & Alias, R. A. (2022). Artificial intelligence (AI) library services innovative conceptual framework for the digital transformation of university education. *Library Hi Tech*, 40(6), 1869–1892. <https://doi.org/10.1108/LHT-07-2021-0242>

34. Reinsfelder, T. L., & O'Hara-Krebs, K. (2023). Implementing a Rules-Based Chatbot for Reference Service at a Large University Library. *Journal of Web Librarianship*, 17(4), 95–109. <https://doi.org/10.1080/19322909.2023.2268832>
35. Rodriguez, S., & Mune, C. (2022). Uncoding library chatbots: Deploying a new virtual reference tool at the San Jose State University Library. *Reference Services Review*, 50(3), 392–405. <https://doi.org/10.1108/RSR-05-2022-0020>
36. Sanji, M., Behzadi, H., & Gomroki, G. (2022). Chatbot: an intelligent tool for libraries. *Library Hi Tech News*, 39(3), 17–20. <https://doi.org/10.1108/LHTN-01-2021-0002>
37. Shal, T., Ghamrawi, N., & Naccache, H. (2024). Leadership styles and AI acceptance in academic libraries in higher education. *The Journal of Academic Librarianship*, 50(2), 102849. <https://doi.org/10.1016/j.acalib.2024.102849>
38. Subaveerapandiyani, A., & Gozali, A. A. (2024). AI in Indian Libraries: Prospects and Perceptions from Library Professionals. *Open Information Science*, 8(1). <https://doi.org/10.1515/opis-2022-0164>
39. Wheatley, A., & Hervieux, S. (2019). Artificial intelligence in academic libraries: An environmental scan. *Information Services and Use*, 39(4), 347–356. <https://doi.org/10.3233/ISU-190065>
40. Yoon, J. W., Andrews, J. E., & Ward, H. L. (2022). Perceptions on adopting artificial intelligence and related technologies in libraries: public and academic librarians in North America. *Library Hi Tech*, 40(6), 1893–1915. <https://doi.org/10.1108/LHT-07-2021-0229>
41. Zondi, N. P., Epizitone, A., Nkomo, N., Mthlane, P. P., Moyane, S., Luthuli, M., ... Phokoye, S. (2024). A review of artificial intelligence implementation in academic library services. *South African Journal of Library and Information Science*. <https://doi.org/10.7553/90-2-2399>