Bibliometric Analysis of Conversational AI and Chatbot Use in Academic and Public Libraries

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Recent advances in artificial intelligence (AI) and natural language processing, particularly with generative AI tools like ChatGPT, demonstrate how AI can produce human-like responses, facilitate decision-making, and integrate seamlessly into everyday applications. This study aimed at exploring the research trend on conversational AI and chatbots in academic and public libraries, through bibliometric analysis of Scopus-indexed publications from 2015 to August 2025. After refinement and filtering, 39 relevant documents were identified, including journal articles, conference papers, reviews, and book chapters. Collectively, the documents have accumulated 717 citations and an average of 18.4 citations per document. Data analysis was conducted using the Bibliometrix R package and its extension, Biblioshiny. Findings showed a sharp growth in publications after 2018. India leads in output, while smaller countries such as Qatar and Singapore achieve high citation impact. The field is strongly interdisciplinary, linking library science with computer science and natural language processing. Keyword and thematic mapping highlight *chatbots, artificial intelligence, natural language processing,* and *academic libraries* as core themes, with AI appearing as a mature topic and chatbots as an evolving research front. Overall, the study suggests that conversational AI in libraries is expanding but remains in its early stages. By charting current trends, the study points to the critical need for sustained, collaborative, and comparative research to shape the next generation of conversational AI in academic and public libraries. Future research should prioritize consistent keyword usage, clearly distinguish library-focused studies from broader chatbot research, and strengthen collaboration between high-output and high-impact countries. Comparative investigations between academic and public libraries are also recommended to better understand differences in user interaction and knowledge navigation.

Keywords: *Conversational AI, Chatbots, Libraries, Bibliometric Analysis, Artificial Intelligence, Natural Language Processing*