

Application of AI tools in Academic Libraries with Particular Reference to University Libraries

K. Surendra Babu^{1*}, B. Naresh Naik² and Nattam Usha³

¹ Professor & Librarian, Sri Venkateswara University, Tirupati, India

² Research Scholar, Department of LIS, Sri Venkateswara University, Tirupati, India

³ Librarian, Narayana Pharmacy College, Nellore, India

**surendrasvul@gmail.com*

The integration of Artificial Intelligence (AI) tools in academic libraries, particularly in university contexts is reshaping the landscape of information services, user engagement, and library operations. This study investigates the diverse and transformative applications of AI in university libraries, focusing on how these technologies enhance information retrieval, automate administrative processes, and provide personalized support to users. AI technologies such as machine learning, natural language processing, chatbots, and intelligent search systems are increasingly employed to deliver faster, smarter, and more user-centric services. The study highlighted how AI improved resource management and decision-making through predictive analytics, enabling libraries to analyze usage patterns, allocate resources efficiently, and tailor services to individual needs. AI-driven tools also played a crucial role in enhancing accessibility, offering services like real-time language translation, speech-to-text, and screen reading, thereby promoting inclusion among diverse user groups. Furthermore, AI contributed significantly to academic research support by offering literature review assistance, plagiarism detection, and citation management, ultimately accelerating research workflows. Despite these advancements, the study acknowledged several challenges including ethical concerns, data privacy, algorithmic bias, and the need for staff training. These considerations underscore the importance of responsible AI adoption that complements human expertise rather than replaces it. The research advocates for a strategic approach to AI implementation that includes infrastructure development, skill-building, and ethical oversight. In conclusion, the study emphasizes that AI is not merely a technological upgrade but a strategic tool for reinventing the role of university libraries in the digital age. Its successful adoption can lead to more intelligent, inclusive, and efficient academic libraries, aligned with the evolving needs of students, faculty, and researchers. Through thoughtful integration, AI holds the potential to strengthen the academic mission of university libraries and elevate their role as central hubs of knowledge, learning, and innovation.

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