

Article Response #2

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The article “Investigating Applications of Artificial Intelligence in University Libraries of Pakistan: An Empirical Study” was published in the November 2023 issue of *The Journal for Academic Librarianship*. Authors Muhammad Asim, Muhammad Arif, Muhammad Rafiq, and Rafiq Amad use a mixed methods approach of quantitative data and qualitative interviews to investigate how universities in Pakistan are integrating AI technologies in daily library activities. The goal of this study was to help information professionals and school administrators understand how accepted AI was among university librarians as well as the challenges and deemed benefits of this technology. The objectives were to discover which AI related services were being offered in libraries, the benefits AI provided these libraries, and the challenges with integrating these new technologies in the university libraries.

For the quantitative portion of the study, 237 university librarians throughout Pakistan received a questionnaire of ten questions that was validated by a panel of experts in knowledge management, information management, administration, and AI platform development. The Cronbach alpha reliability test was applied to the questionnaire for validation. Response to this questionnaire was voluntary with 119 university librarians responding. The majority of those that responded were male. 44% of the respondents were over 40 years-old and 33% were between the ages of 36 and 40 years-old. 33% of questionnaire responders had between 11- and 15-years’ worth of experience while 22% had over 20 years’ worth of experience. This demographic analysis can be seen in *Table 1. Respondents’ profile*. in the article.

Findings from this survey revealed the AI-based technologies used in these university libraries such as text-to-speech, voice commanded information searches, RFID

tagging for self-checkout of items, data analysis for collection management, patron recognition software by barcode or QR Code, and language translation technology. Most of these respondents were keen about this new technology and wanted to implement other technology such as facial recognition for checking out items as well as virtual reference librarian services. This data can be seen in *Table 2. Current status of AI-based library services*.

Table 3 details the Benefits of AI in Libraries with the majority responding that AI benefitted libraries by helping automate repetitive tasks and in the curation and creation of digital collections. Table 4. reveals some of major factors dealing around the implementation of AI technology in libraries like costs and funding, administrative support, and librarians willingness to use and learn these technologies. Table 5. Deals with the challenges of AI adoption in libraries such as low budgets, high cost of support and maintenance, integration with existing systems, and ethical and legal risks.

For the Qualitative portion of the study, ten university librarians with familiarity of AI applications in university libraries were interviewed. They were questioned about their understanding of AI, AI adoption in Pakistani university libraries, the challenges for AI adoption and implementation in libraries, and the benefits of AI for university libraries, The themes overview can be found in Table 6. along with quotes from those who were interviewed. These participants all had a basic understanding of AI technologies but had different experiences with applications. When discussing the challenges of AI implementation, most cited high costs and the financial strain on libraries as a reason.

The authors detail the implications of this study as well as its limitations. They did feel the study provided a valuable overview to policymakers as to the current state of AI technologies in Pakistani university libraries. The information should be useful to information professionals planning to integrate AI technologies into their libraries. The limitations of this study were the questionnaire that was catered solely to the environment of Pakistani universities. Also, the rapidly evolving nature of AI may make some of these findings obsolete in the years to come.

Personally, I found this to be a thorough study, but I'll admit I'm a novice when it comes to this style of research. By exploring this study in detail, I realize that researchers need to anticipate any questions the reader may have and thoroughly explain this research in detail. In fact, one criticism I had of this study was the repeating of findings, but maybe that is necessary to better inform the reader.

References

Asim, M., Arif, M., Rafiq, M., & Ahmad, R. (2023). Investigating applications of Artificial Intelligence in university libraries of Pakistan: An empirical study. *The Journal of Academic Librarianship*, 49(6), Article 102803.

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