Information and Communication Technology Software's Transformative Impact on Academic Libraries with Artificial Intelligence and ChatGPT

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Abstract

This paper investigates how ChatGPT, Artificial Intelligence (AI), and Information and Communication Technology (ICT) software have changed academic libraries and their resources. We live in a digital age, and libraries are changing to suit the changing needs of their patrons. Technology is a major factor in this change. Through available comprehensive literature reviews and case studies, this study identifies and evaluates various ways the ChatGPT, AI, and ICT software are changing academic libraries. Search and retrieval operations are improved using ChatGPT and AI-powered search algorithms, providing more accurate and efficient access to academic materials. Furthermore, the study delves into how AI algorithms' customized suggestions enhance user contentment and facilitate resource exploration. Furthermore, the deployment of ChatGPT-powered virtual assistants offers library patrons round-the-clock assistance, improving the accessibility of library services. Since AI makes managing digital collections in academic libraries easier, its use in content curation, summary, and metadata production is also covered. The paper also emphasizes how AI functions like text-to-speech and speech recognition could increase the accessibility of resources for people with disabilities. AI-driven data analytics provide librarians with insightful information that helps them maximize resources and library services. It also looks at how ChatGPT's natural language processing (NLP) features might help users with research chores including creating queries and gathering data from academic publications.

The paper emphasizes on values of moral consideration as well as the supplementary functioning of human knowledge in integrating ChatGPT, AI, and ICT software in academic libraries. It highlights the importance for libraries to strike a careful balance between user privacy, information ethics, and technological innovation.

Libraries are the heart of knowledge in the academic world, providing support for research, instruction, and intellectual inquiry. However, with the rapid advancement of information and communication technology (ICT) software, academic libraries' conventional role has undergone considerable changes in recent decades. Among the major advancements in this discipline that are changing the academic library and resource landscape are artificial intelligence (AI) and ChatGPT.

This article explores the various consequences of ChatGPT, AI, and ICT software on academic libraries, as well as how library services are changing in the digital age.