



Artificial Intelligence for Research, Innovation, and Knowledge Discovery: Transforming Academic Practices in Higher Education

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Abstract

Artificial Intelligence (AI) is rapidly transforming the landscape of academic research by enabling advanced data analysis, accelerating innovation, and facilitating new pathways for knowledge discovery. In contemporary higher education, AI-driven tools are reshaping research design, literature review, data interpretation, and scholarly communication. This paper examines the role of AI in enhancing research efficiency, fostering interdisciplinary innovation, and supporting evidence-based knowledge creation. Anchored in recent scholarly literature and aligned with the vision of NEP 2020, the study highlights how AI contributes to predictive analytics, pattern recognition, and intelligent decision-making in educational research. At the same time, the paper critically addresses emerging challenges related to research ethics, data integrity, algorithmic bias, and academic responsibility. The paper concludes by emphasizing the need for capacity building, ethical frameworks, and institutional readiness to harness AI for sustainable and inclusive research advancement.

