Chapter 8
The Application of Artificial Intelligence in Educational Administration

Elisha Mupaikwa
https://orcid.org/0000-0002-0313-7139
National University of Science and Technology, Zimbabwe

ABSTRACT

To enhance the calibre of decisions, artificial intelligence technologies have been included in educational administration. The use of artificial intelligence in school administration is covered in this chapter. Out of the 130 journal articles that were downloaded from peer-reviewed journals, 50 articles were chosen for review. According to the review's findings, artificial intelligence has been applied to educational administration in several areas, including performance and assessment, faculty management, student management, course management, and student recruiting and admission. Lack of expertise and skills, ethical issues, financial difficulties, and infrastructure issues were the main obstacles to the use of AI in school administration.

INTRODUCTION

Artificial intelligence assists administrators in higher education institutions with high-volume administrative duties, such as financial management, procurement, and admissions, through a variety of technologies such as chatbots that answer students' questions, expert systems, natural language processing systems and machine learning algorithms for clustering and classification. Generally, administration is a social

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process that deals with locating, preserving, inspiring, regulating, and combining material and human resources in an integrated system that is particularly made to accomplish predefined goals. At the heart of administration in educational contexts, Igbokwe (2023) asserts that is leadership, and that successful leadership is essential to an institution's success. In educational administration, the focus of staff support for achieving student lifetime learning should be on development programs that bolster teaching practices, offer continuous assistance and feedback, and encourage teacher cooperation. Thus an organization's ability to survive and remain relevant in its communities is made possible by this essential component. In educational administration, creating and maintaining productive teaching and learning environments requires the integration of people and resources. The relevance of educational institutions is often significantly related to the level an institution strives to address the economic developments of communities and to satisfy the general needs of the communities. The realization that education is often the primary driver of economic development in many countries, leading to the allocation of a larger portion of national budgets to educational sectors, has spurred research on educational administration. Research also confirms that competent management is necessary to achieve successful management and administration, which is necessary for educational institutions to fulfil their mandate. According to research by Galafa and Lucas (2018), educational managers in Malawi faced several difficulties, including a dearth of resources for teaching and learning, a high student-to-teacher ratio, a distance between schools and homes, a lack of infrastructure, and a lack of motivation on the part of both teachers and students. According to Galafa and Lucas (2018), these issues have a detrimental influence on Malawian schools' operations, making it more difficult for them to achieve their goals and make a meaningful contribution to the country's development. Not a single education scholar has suggested using artificial intelligence to address the issues facing educational institutions. Because of this, scholars have become interested in the role that educational administration plays in a country's economic development. These researchers have also looked into the difficulties that educational administrators confront in their workplaces. According to some experts, controlling learning environments is an issue that educational administrators encounter at all levels of educational institutions. Artificial intelligence is seen as a potential approach to address these challenges. The use of AI in education has been recognized by research as having a strong correlation with a country's economic development. This is demonstrated by a study conducted in China by Knox (2024), who states that three key concepts need to be taken into account when studying the adoption of AI in education. These are: (1) that relationships between AI and education are shaped by a broad network of actors rather than just technology designers and educators; (2) that relationships are defined by contestation rather than consensus; and (3) that AI technologies are developed within an already established

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