Chapter 5
Artificial Intelligence as a Tool for Hybrid Education

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ABSTRACT

The chapter offers a reflection on the transformative role of AI in hybrid education. It highlights the advantages of this educational model, such as flexibility and accessibility, and the technological tools that facilitate learning and evaluation. It explores how AI can personalize teaching and assess student performance, without neglecting inherent ethical dilemmas such as data privacy and the risk of algorithmic bias. This chapter proposes generating an informed dialogue about the future of hybrid education in the era of artificial intelligence.

INTRODUCTION

The chapter of this book, titled "Artificial Intelligence as a Tool for Hybrid Education," proposes a comprehensive and reflective analysis of the interaction between hybrid education and artificial intelligence (AI) in contemporary times. This section emphasizes how AI is shaping the educational landscape, as well as the potential implications and ethical dilemmas that accompany this revolutionary transformation.

Initially, a comprehensive view of hybrid education is provided, an educational paradigm that combines aspects of traditional face-to-face teaching with components of online learning. This introduction offers a perspective on the inherent benefits of this approach, such as flexibility, accessibility, and adaptability to the individual learning styles of students.

Subsequently, the various technological tools that support hybrid education are addressed. From learning management platforms to classroom response systems, the chapter delves into how these tools facilitate content distribution, promote collaboration, and support the assessment and tracking of student progress.

Next, the chapter delves into the fascinating world of Artificial Intelligence and its growing impact on hybrid education. It will explore how AI is reconfiguring the teaching-learning process through personalization, improving interaction, and efficiency in evaluation. Additionally, it will analyze how AI can process and predict student performance, identify areas of difficulty, and offer personalized support to overcome challenges.

However, along with these advantages come challenges and ethical concerns that cannot be ignored. The final section of the chapter is dedicated to an analysis of the ethical issues associated with integrating AI into hybrid education. From concerns about data privacy and security to the implications of decision-making based on algorithms and the possibility of inherent biases, the most relevant issues in the debate about the ethics of AI in education will be addressed.

Characterization of the Research

In the academic and scientific context, a systematic review of a specific subject serves multiple essential functions, as indicated by Baker (2016). This type of review aids in clarifying terminology, in unearthing robust evidence, in specifying previously employed research methods, and in identifying gaps in the study of the subject matter at hand. On the other hand, Moreno et. al. (2018) add that such a review distinguishes itself by the transparency and clarity in its formulation process. It allows for the gathering, selection, critical analysis, and synthesis of all available evidence relating to the efficacy of a treatment, diagnosis, or prognosis, among other aspects.

Therefore, to conduct the present chapter with the depth and breadth required by such a complex and multifaceted topic, a methodology for systemic documentary information search has been chosen. This approach is conceived as a hermeneutical and analytical exploration of academic, scientific, and technical sources. Reference will be made to recognized databases, as well as specialized journals in artificial intelligence and hybrid education.

Simultaneously, the objectives guiding this article are three-dimensional. Firstly, it aims to unravel the nature and scope of artificial intelligence within the framework of hybrid education. The second objective seeks to identify the multiple applications and potential limitations of these technologies in the educational domain. Finally, the endeavor is to construct a theoretical framework that serves as a guide where

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