Chapter 10
Edufusion:
Integrating Artificial Intelligence With Teaching Practices to Enhance Learning Experiences

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ABSTRACT

The present research explores the influence of artificial intelligence (AI) on traditional teaching methods in the education sector. Through a comprehensive review of existing literature and empirical studies, the present research aims to elucidate the transformative potential of AI technologies in reshaping pedagogical practices and enhancing learning outcomes. The study aims to provide the integrated perspective on the ever changing dynamics influenced by the incorporation of AI in the current education system through a meticulously conducted questionnaire-based investigation involving a diverse pool of huge participants, primarily students from the region of Delhi NCR.

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1. INTRODUCTION

Education has relied on the conventional classroom arrangement for a very long time, with the concept of a teacher teaching a group of students face-to-face collectively. While this approach served as the foundation of learning, there are certain limitations associated with it. Students have respective learning needs where traditional teaching lacks to resolve individual differences effectively. From the perspective of cognitive theories, learning is considered as the mental processing of information that involves the acquiring, constructing, coding, memorizing, storing and retrieving and non-retrieving from memory.

The education technology industry, frequently alluded to as 'EdTech', is developing, with massive interests in nations like China, the United States and India. In the present times, electronic learning or web-based learning is combined with conventional classroom learning for more effective outcomes. The first years saw how technological innovation acted when traditional classroom teaching was impacted by Coronavirus. The writing recognizes the utilization of virtual study halls, increased reality classrooms, web 2.0 advances, MOOCs, and numerous other internet learning conditions for granting training.

Earlier studies on technology-based learning found that AI based technologies were not significantly different from traditional classroom learning when it comes to effectiveness. The studies have to compare web-based instruction to face-to-face or “offline” instruction, and they have to focus specifically on objective measures of student learning. The researchers found that the students who took classes in a hybrid format (combination of online and offline) performed significantly better, on average, than did those taking courses through traditional i.e face-to-face interactions. Also, there was no significant difference found between completely online and completely face-to-face format.

In education, a learning model that depends on the consideration of contrasts in students is frequently alluded to as personalized learning. Personalized learning allows understudies to get guidance and heading when they need it. Customized learning can likewise consider a better breakdown in topic inclusion and a more flexible pathway for understudy achievement. Customized learning on a computerized platform can be acknowledged utilizing Artificial Intelligence (AI).

In addition, in today's time, when Artificial intelligence (AI) has surprised the world, it is unavoidably expected that AI based procedures be integrated into e-learning frameworks for tackling issues like programmed ID of learning styles/ mental abilities of the students really. As we all know that today's technological sophisticated world has shown a positive role of AI and Machine Learning, it is needed to adopt cost-effective and smart education globally.