# Chapter 18
# Discovering the Role of Artificial Intelligence in K12:
## The Future of Online Platforms

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## ABSTRACT

*The purpose of this study is to explore AI (artificial intelligence)-enhanced teaching and learning in future educational development. The chapter is a representation of whether the future of online platforms will highly depend on AI or not. The study identified how students are affected by technology-enhanced AI as a future online platform. The study consists of qualitative research methodology approach where literature review is conducted to determine the future of online platforms with the help of robotic technology or AI. Results of the study revealed that the role of AI and the future of online platforms with the help of robotic technology has a significant effect on sustainable educational development. The study is limited to literature review only, and that may affect the generalizability of the result.*

## INTRODUCTION

Artificial Intelligence, also known as AI, is a remarkable phenomenon that has grabbed and enhanced certain industries successfully and made their activities more reliable and convenient. The scenario was not different for the education field, artificial intelligence has flourishingly grasped scholarly attention with the buildout of applications that are much in demand and advanced online learning platforms (Hossain, Nurunnabi, Hussain, & Saha, 2019). Due to the pandemic that has widely spread across the world, K-12 teachers are struggling with assessing and appraising the students and their performance, and in most cases, the teachers have to work extra hours for teaching and evaluating their performance (Hossain, Nurunnabi, Nadi, Hasan, & Ahsan, 2021). However, the implementation of artificial intelligence has been significant in the business and e-commerce industry (Harris & Goode, 2010), but developed technology and the usage of artificial intelligence is less notable in educational development. This chapter will be providing a progressive guideline of the role of AI in teaching and how AI can generate development and enhancement in the educational field. Furthermore, this chapter also demonstrates the subsequent outcome of education through online platform. The online platform has successfully minimized the distance of learning. Regardless of location, instructions and lectures were delivered with aided millions to gain education in their own convenience. COVID 19 did create social distancing, but online platforms saved the educational field from dropping, leading to a progression of studies. Smartphones are more familiar to most people and also the price of the devices are much more affordable nowadays, resulting in an enormous increase of smartphone users (O'Dea, 2021). The reasonable price of computers has significantly encouraged students to purchase for their academic purposes.

The ultimate aim of this study is to ascertain the implementation of artificial intelligence and technology through online platform. It is a demonstration on how the implementation of AI would have an impact on education, recognizing the available technologies that can brighten up the field of education and whether it is attainable for the learners or not.

## BACKGROUND OF ARTIFICIAL INTELLIGENCE

Artificial intelligence is the process of using organized and programmed machines to process and execute in the same way that a human does. Artificial intelligence has become an important part of many fields of study in the twenty-first century, including engineering, business, science, education, the stock market, and law and economics (Oke, 2008). It can also be defined as studying mental processes using computer models (Charniak, 1985). In the early 1950s, artificial intelligence (AI) was first deployed.Artificial intelligence combines three disciplines: psychology, which deals with cognitive processes, philosophy of mind, and computer science, which includes semantics, mathematics, and dialectics.

Over the years, the field of artificial intelligence has seen a dramatic rise in advancements in branching out and practicality (Akerkar,2014).It has shown itself to be a most important mechanism of people'slife, reinforcing daily community-based interests as well as economic events in mature economies like Japan and the United States of America, as well as developing countries like China and India (Lu,Li,Chen,Kim,&Serikawa,2017).Artificial Intelligence has concentrated on the growth of software to imitate human capabilities and brainpower such as reasoning, grasping, and natural language communication. With such created programs, they have gradually become a form of auxiliary to humankind (O'Hare & Jennings, 1996).

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