



# Artificial Intelligence (AI) is the best educator in the post-modern Education

**Joseph T A,**

Researcher, School of Education, Jaipur National University, Jaipur

## Abstract

The very purpose of an educator is to provide the best education. The advent of technology in modern era shares this responsibility in various modes in education. In this paper I have presented the fact that the technology has revolutionized the education sector. This is done through the arrival of artificial intelligence in education in various modes. It is discovered that the artificial intelligence and its various subsets, machine learning, deep learning and even associated online learning modes rapidly influenced the education sector after the Covid-19 pandemic. Thus artificial intelligence based technology is the latest trend and relevance in the education sector.

Keywords – Digital education, Artificial intelligence, Deep learning, Machine learning.

## 1. Introduction

India is an educational hub. This is not anything new. From the time immemorial, India has been an educational hub in the world. There is no dispute on the quality and quantity of this hub. It has been functioning independently to nurture and to avail the needs of the public. But time and again the various factors intervened in the process and that affected the quality and quantity of our education. Indian education is rich in knowledge, constructed by experience and examples. That is why it grew as an educational hub. The educational fragrance has crossed the oceans and mountains. People crossed over the oceans and mountains to own the rich knowledge and experience the examples.

In the post-modern period India is aspiring to be the knowledge power house in the world. Our country has every potential to achieve this by focusing on the developments in education. There is a need to revolutionize the

education through the technology more particularly AI in education. India can be still a knowledge hub by providing good education adopting technologies involving AI. The different national educational policies are aimed to transform India in to a global knowledge superpower.

## **2. Role of Indian Education in the World**

The future is formed through education. Education illuminates a person's mind and thought that are essential for the future. Education also shows different avenues in life. It develops human personality and thoughts. The post-modern education demands focus on life skills, critical thinking and analytical thinking and logical reasoning. Every country prioritizes the focus of their education on various aspects. Therefore every country has its own education system. Despite of these priorities in education it is the human mind that chooses the best education. In this regard India creates the best outcomes from our education by making future ready. In the recent times we witness a transformational moment in the Indian education system. It provides the best teaching and learning experience in all the aspects. Still there is a long way to reach the global demands. In the changing environment it is really a great challenge to create global citizens.

## **3. Digital Education**

### **3.1. Emerge of Digital Education during Covid-19**

The Covid-19 pandemic brought the standstill situation all over the world. It disrupted all aspects of human life including education. Soon the stakeholders of education sort the help of digital learning to help the billions of students whose education was affected. Digital education involving online learning, machine learning, and artificial intelligence were implemented during the first phase of Covid-19 as an emergency response to the education. This situation caused a revolutionary change from the traditional educational practices to digital learning that involves artificial intelligence. Now AI in education has opened an innovative and alternative way of teaching and learning.

### **3.2. Development of Online Learning**

Online learning was the best solution for the students and educators during the Covid-19 pandemic. It helped to have full access to education to all. Education was very effectively delivered due to the development in virtual and online learning. During the early stages of pandemic the educators and students adopted the online learning. The

varied delivery modes of online learning platforms were digital classroom solutions, virtual classroom solutions, virtual meeting platforms and so on. This made education sector more dynamic.

### 3.3. Appearance of Mobile Learning

In the recent years the applications of mobile devices and related technologies in teaching and learning have increased. It is purely due to their capabilities to be used in many fields. The mobile learning is also called M-Learning because the mobile devices have the possibility to contribute to the educational sector. The students and teachers have increased the use of mobile related educational apps especially to access learning materials, internet access and to facilitate learning in new and innovative ways. Thus, the term 'mobile learning' emerged with the use of mobile devices related educational apps in teaching and learning activities. In 2015, McQuiggan, Kosturbo and Sabourin defined 'mobile learning as instant and optionally accessible, anywhere, anytime learning, which helps to create our knowledge, satisfy our curiosity, collaborate with others and enrich our experiences'. There are different benefits from the mobile learning. It provides immediate access to information for students and teachers, diverse ways of learning, contextual learning, self - instructed learning. Finally, it supports and encourages to participate actively in learning. Hence it is a challenge to integrate mobile learning in to the classroom. But through a proper training and guidance it should be implemented in to the classroom for effective learning experience.

### 3.4. E-Learning

E-Learning is an electronic learning that stands for the kind of learning accomplished by electronic gadgets, media, listening devices, audio and video-tapes and other resources. There are also other form of e-learning by teleconferencing, video-conferencing, computer based conferencing, e-mail, live chat, surfing on the internet and so on. Initially e-learning was only an emotional supportive network for learning. Later it brought impact on the students' perception, self-learning, critical learning and other factors. However, these modes of e-learning enhance teaching and learning. It has every potential to collaborate classroom situations. These modes of learning provide the correct knowledge and information of every subject. It is helpful for the classroom teaching and comprehensive development of the students. During the pandemic stakeholders of education explored the potential challenges to explore the learning through e-learning. Thus it helped the teachers and students in focusing on their academics performance.

## 4. Emerge of Artificial Intelligence in Education

Till the recent past, the students were depending on the library, encyclopedia, books and other materials to complete an assignment or project. It is the same case to collect extra information and knowledge. But the post- modern period is heading towards digital world and technologies for their education. The technologies are advanced rapidly with the arrival of Artificial Intelligence (AI), and its subset Machine Learning (ML), and Deep Learning (DL). The pandemic has completely shifted the physical classroom in to digital classrooms. In the context the AI in education has dominated because of its influences and accessibility to the field of education. AI can be well connected to the classrooms and libraries in the world to help the students and teachers.

### 4.1. Machine Learning

We are bound to say that experience is the best teacher. Many times our learning and decisions are depending on the experiences that we had. These experiences help us to make conclusions. It is not only humans learn from experience even the computer too learns from the experiences. But for a computer data takes the role of these experiences. The data comes out with learning algorithms and build models in machine learning. Hence machine learning is defined as a subject of learning algorithms and building models. However, machine learning is applied in the education sector. It is very much interesting form researchers and scientists as it supports teachers, predict student performance and test students and so on. Machine learning causes many changes to a teacher's job and educational practices. In addition to this machine learning is applied in various forms in education. It is already found that machine learning is a game changer in the field of education.

**4.1.1. Envisage Student Performance:** Machine Learning has the ability to learn about each student and can foresee the performance of every student. It identifies the weakness of the student during the learning. Based on those weaknesses it suggests different learning tools for their effective learning.

**4.1.2. Grade Students:** Grading student is one of the tasks for a teacher as it can be influenced by human biases and other factors. Machine learning can do grading reasonably without any biases. It has its tools to assess the content, and grammar. This makes teachers job easier.

**4.1.3. Arrange Content Adequately:** Students need to acquire knowledge and learn skills in an orderly way. It is possible when it is presented to them in an organized manner. Machine learning organizes the content in a productive way.

**4.1.4. Propose Learning Process:** Machine Learning provides new learning methodology. First of all it identifies the problems and weakness of learning. Then it suggests new learning method for effective learning.

**4.1.5. Career Choice Prediction:** Machine Learning has applied to identify and track the interest, aptitude and dislike of a student. This helps to analyze their behavior and reaction. Depending on the analysis the AI promotes students to their areas of interest and taste. This brings productive results in their career.

**4.1.6. Group Students and Teachers:** Teachers and students cannot be grouped at random. So the grouping is done according to the need and availability of teachers and students. Thus Machine Learning is applied even to group teachers and students according to their needs and availability.

## 4.2. Deep Learning

Deep learning is defined as a subset of machine learning. It is also an extension of machine learning. It deals with neural network algorithms that have a repetitive clustering. Hence it is a type of artificial learning that depicts human brain. Deep learning uses a large amount of data to learn, train and improve their performance over time. During the pandemic deep learning has been applied on students in their e-learning. Digital platforms were used during the pandemic to conduct online classes. It was the need also to ensure that the students are properly engaged during online classes. In this context, deep learning algorithms were helpful to monitor and supervise the student's emotions such as anger, fear, happiness, sadness and surprise. The deep learning was able to detect this through their facial and emotional recognition. This was done on students during their hour-long classes.

## 5. Conclusion

It is in the educational process one impart knowledge, develop understanding and skill. In the post-modern period the educational process has undergone revolutionary changes due to the development of technology. Technology became part of the educational process in imparting knowledge and learning skills. Technology has influenced the different aspects of human life. We began to live with technology in different modes. Artificial intelligence is the

latest development in this regard. It is very much applied in the education process in the recent times. This made teaching and learning faster and effective. Henceforth, the stakeholders of education have confidently depending on the digital technology for further height of education.

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