

# Contribution of Artificial Intelligence in Education: Bright Future of Education

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## Abstract:

Computer science is very important in the field of education. Artificial intelligence is a part of computer science. Artificial intelligence is as important in education as it is in computer science. Artificial intelligence gives a new direction to education. It gives a new way and a new thinking through which we can change the teacher and the way of teaching. This helps not only the students but also the teachers a lot. Checking the answer sheet, otherwise doing all those tasks used to take a lot of time. Now that time has been reduced due to AI. Under this thesis, the development of the combined analysis of computer science and AI has been studied. The role of AI in the analysis of teacher and student has been briefly highlighted. AI is the cornerstone of information science and intellectual tutor system. It has been studied that these systems help in developing good qualities like self-introspection, post-answer, dialectical thinking, creative questioning and selection system. AI is a new technology and a new capability of learning. And in modern times it is moving towards efficiency.

**Keywords:** AI, Education, Computer, Science, Technology

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## Introduction

Artificial Intelligence means the intellectual capacity developed artificially through which computer system or robotic system is prepared and an attempt is made to make them work on the basis of logic on the basis of which human brain works. AI has become an important part of our life. The origin of AI is taken from the scientific research of 1956 Dartmouth based on computer science. The work of AI is generally used in police investigation and cancer treatment. It can also be used to control aircraft. Transport vehicles have been developed through AI. It has also left behind the technology of doctors. Apart from this, AI is also used for finding the culprit, saving, reading to children, imparting new knowledge to senior citizens, taking care of patients in hospitals, detecting fraud, making and tracking bank card. AI technology has emerged more in the last 20 years. It has been used in major IT intuitions such as data recording, drawing, machine learning, planning and explanation etc. AI has played an important role in formalizing and operationalizing psychological theories. Education AI has been applied to many domains such as physics, programming, writing

and reading, and yet the development of educational systems has been done most within the educational field. AI in education has created powerful learning environments and positively impacting experiences for college students for decades. Technologies like computer science (AI) and artificial intelligence have made rapid progress. Its growth is visible in all industries along with education.

## Impact of Artificial Intelligence on Teaching Learning Process

After the coronavirus pandemic, there have been many changes in the field of education in India. Everyone including students and teachers have strengthened their trust in technology. Artificial Intelligence Technology has the power to adapt both learning and teaching. Artificial Intelligence Technology paves the way for the development of the education sector. Strategies for education have been made since the origin of education. Teachers and learners are important elements of education. Teaching strategies have been the reason for the highly effective results of education across the world. Change in education has been possible only

because of teaching strategies. Change is due to the continuous advancement in technology. We are seeing a new change in the teaching-learning system. The relationship between teachers and students is dynamic. Teachers are much more capable of understanding the thoughts of their students. Due to which education has reached its peak today. While the work of teachers is becoming much easier, students are also getting help from Artificial Intelligence. The effect of Artificial Intelligence is increasing day by day. AI is moving towards a new creation. In the past years, Artificial Intelligence has worked in such a way that in the teaching-learning process, now we are able to spread our thoughts through the Internet as well. Artificial Intelligence is moving from the traditional way of teaching to a new way. It can also be considered as the new way of education. AI ranges from self-driving cars to language translation apps, and it is getting more advanced every day. AI is now being incorporated in various industries as a highly skilled assistant specializing in digital marketing.

### **Current Use of AI in Education**

A recent report by Microsoft and Merkinsey involving over two thousand students and teachers in Canada, Singapore, Britain and the US showed that artificial intelligence (AI) is already providing teachers and schools with innovative ways to understand how their students are progressing, as well as personalise the content they are using. The goals and the intended use. The ways in which Artificial Intelligence is currently being used in education are as follows.

- Even today, a large part of the educational process is done manually. But with the help of Artificial Intelligence Technology, routine tasks like grading, evaluation, admission process, progress reports and arranging resources for lectures will be done easily. Teachers' work will be completed on time. It will help in developing students' skills.
- Artificial Intelligence Technology can ensure that education is personalized for individuals. There are already customized learning software and digital programs for

students. Artificial Intelligence Technology can not only cater to the needs of each student but also to the specific topics they should focus on. This will create a unique and tailored learning path for each student.

- Artificial Intelligence Technology will help create smart content that will be accessible to all students, including those who cannot see or hear. It can provide students with real-time captions for everything the teacher says. Artificial Intelligence Technology can break down the silos that prevent students from progressing.
- Teachers must constantly update their skills to be able to impart knowledge to students effectively. Artificial Intelligence technology will allow teachers to keep themselves updated on things they did not know. With this, they will have a more in-depth and comprehensive knowledge base to teach the new generation.
- Students can solve their queries at their own pace and without waiting for teachers. While Artificial Intelligence Technology tutors and chat bots can help students sharpen their skills and improve their weak areas outside the classroom. Teachers can share their experiences more effectively with the help of Artificial Intelligence Technology.
- 6. Artificial Intelligence Technology can not only help academics/educational boards to prepare a curriculum, but it can also help in getting instant feedback about the success of the curriculum. Schools can use artificial intelligence technology systems, especially for online monitoring and to alert teachers if there is any problem with the performance of students.
- When one thinks of the role of artificial intelligence in education, smart content always comes to mind. Smart content is personalized and can be dynamically updated according to demographic, contextual and behavioural data. Artificial intelligence technology is bringing a huge

change in our daily life as well as in various fields.

### **Application of Artificial Intelligence in Many Sectors**

- Artificial Intelligence can be used to develop and advance many sectors and industries, including finance, healthcare, education, transportation, etc.
- The Union Ministry of Water Resources has signed an agreement with Google, which will help in effective and efficient management of floods in India. This collaboration between the Central Water Commission of India and Google will facilitate flood forecasting and make flood related information accessible to the general public. This will help in improving flood forecasting systems and issuing targeted and actionable flood warnings. Under this, the Central Water Commission will use the latest advancements made by Google in the field of artificial intelligence, machine learning and geospatial mapping. This initiative is expected to help crisis management agencies deal with hydrological problems in a better way.
- Artificial intelligence is also used in our day to day activities like smart phones and computers. While writing, the keyboard corrects our mistakes and also gives us the option of correct words. GPS technology is used in tasks like face recognition on machines, tagging sources in social media, etc.
- It is used by financial institutions and banking institutions to organize and manage data. Artificial Intelligence is also used in the maritime system.
- The work of searching for minerals, petrol and fuel in the depths of the sea floor, digging in deep mines is very difficult and complex. There is intense pressure of water at the bottom of the sea. Therefore, fuel is searched with the help of robots.

### **Artificial Intelligence also Suggests Strategies to the Coach.**

- Artificial Intelligence is now being used in medical field for side effects of medicines, operations, X-rays, disease detection, tests, radiosurgery, etc.
- Machines equipped with Artificial Intelligence can work for many hours without stopping. Repetitive tasks are very monotonous for humans, but machines can do this work easily. Major applications of Artificial Intelligence
  - Computer Gaming
  - Natural Language Processing
  - Expert System
  - Vision System
  - Speech Recognition etc.

### **Examples of Artificial Intelligence**

- Automation: It is made up of such a technique which we have understood in the types of AI. It is a process in which the system starts working automatically when given instructions. When the company has high volume and repeatable tasks, then this technique is used. In this, data is evaluated automatically by Artificial Intelligence.
- Machine Learning: It is a system designed in which the computer works without programming. Three types of algorithms work in it. The first is from supervisor learning and data. In this way, the machine reacts automatically by using all three parts.
- Machine Vision: With its help, the computer or mobile camera works in limited vision according to less or more light or digital signal. It has a limitation which is used for analysis.
- Self-Driving Car: This rapidly growing development of AI has also taken the transport by storm. Big companies like Tesla, Apple and Google are using AI to make Self-Driving Car. Using artificial intelligence, it can do many things like braking in driving, changing road lines, changing gears, preventing collisions etc.

## **Negative effects of Artificial Intelligence in education**

- ✓ Every coin has two sides, similarly Artificial Intelligence has its benefits as well as disadvantages.
- ✓ Artificial Intelligence has made education machine-centric. Due to Artificial Intelligence, the proper form of education is not emerging.
- ✓ The way a teacher used to impart education, Artificial Intelligence cannot do that but presents it through written instructions.
- ✓ Scientists and teachers consider it a big danger, which is taking teachers towards trouble.
- ✓ Artificial Intelligence has taken the place of humans and is taking humanity towards its end.
- ✓ Schools of education have become just factories where education is imparted through mechanization.
- ✓ Humans are losing their creative power and are becoming completely dependent on machines. If they are not controlled in time, then this can also pose a danger to humans.
- ✓ When machines will take decisions on moral issues without human intervention through Artificial Intelligence. Like life, security, birth-death, social relations etc.
- ✓ Bill Gates believes that if man creates a machine which thinks well than him, then the biggest threat will arise for the existence of man.
- ✓ Theoretical physicist Timothy Horkens also said that man cannot compete with Artificial Intelligence.

## **Conclusions**

The way Artificial Intelligence is being used, it will sooner or later replace humans. It has already spread its wings in education. Education is becoming increasingly based on technology. And the importance of teachers is decreasing. Books have become just a part of the cupboard. Students are more influenced by technology than books. Every work is possible with the help of technology

these days. Whether it is related to education, industry, banking or anything else. Artificial Intelligence has some advantages and some disadvantages. Artificial Intelligence is a burning topic that has been the centre of discussion for the past several decades. Scientists keep discussing its good and bad consequences from time to time. Today the world is changing rapidly through technology. To speed up development and provide better amenities to people, modern technology is being used extensively in every field. While increasing industrialization, urbanization and globalization have accelerated the pace of development, it has also given rise to many new problems, for which new solutions keep emerging. While scientists count the many benefits of Artificial Intelligence, they also believe that its arrival will cause the greatest harm to humans, because their work will be taken over by machines, which will start taking decisions on their own and if they are not controlled, they can be harmful to human civilization. In such a situation, before using them, there will be a need to balance both the benefits and losses.

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