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## Artificial Intelligence in Education: Transforming the Learning Experiences for Teachers

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#### Abstract

The use of artificial intelligence can be seen in all the areas of the world and with that education is no exception. The use of artificial intelligence in education is helping in reshaping the world of education by providing the teachers new tools and technology to improve and enhance their teaching. This paper aims to bring into light the impact of artificial intelligence on teaching and emphasizing the role of artificial intelligence in providing personalized and adaptive learning, streamlining the administrative task and unlocking deeper insights into student learning. It also reviews the associated challenges and difficulties related to data privacy and equitable access. The paper aims to throw some insight on how the use of artificial intelligence can help teacher improve his teaching experiences and also the challenges which are associated with the use of technology.

**Key-words:** Artificial Intelligence, personalized learning, virtual reality learning etc.

# Introduction

The increasing use of artificial intelligence in education is transforming the whole structure of our education system. In India from centuries onwards we are following the traditional form of education where the teacher holds an important position and traditional classroom setting is used to deliver the lecture. But with the advancement of the tools of artificial intelligence the classrooms are now changing and new smart classrooms are emerging. Artificial intelligence is offering tools to support and develop teacher effectiveness rather than replacing human educators. The use of artificial intelligence in education is making learning more personalize, interactive, flexible, engaging and accessible.

Artificial learning is having a deep impact on education system. Some of them can be discussed as follows.

# Personalize learning platform-

Every teacher is aware of the individual differences that prevail among the students. Each student needs different pace and methods to learn anything. With the use of artificial intelligence, the teacher can analyze each student's performance and can adjust the content accordingly and this will help teachers to focus on the area of concern. Platform like Dreambox helps in creating content based on an individual's particular needs and can contribute to a positive outcome.

# Intelligent tutorial system

This system works on the principle of one on one instruction. They provide personalized guidance according to the need of the students. This system is available to students all the time and after school they can solve their queries and can get instant feedback. Intelligent tutorial system is like an extension of the instructional presence of the teacher which helps in the continuity of the learning.

# Automation of administrative task

Artificial intelligence can effectively do the routine administrative task and this will provide the teacher some extra time to focus on their work of teaching. The administrative works like attendance, grading, report generation can be done by artificial intelligence and this will reduce the work load of the teacher which will allow the teacher to spend more time on individualized instruction and mentoring.

# Virtual reality learning-

The virtual learning is a very interesting way of teaching by taking the student to the virtual world and offering immersive and dynamic learning environment. By studying with the use of virtual reality resources the student shows more interest and for teachers also it becomes more interactive and engaging experience.

## Early warning system

When artificial intelligent has all the data stored related to a student, it can also pinpoint the difficulties and problems faced by the students in studies by analyzing their results, grades, attendance and other related information. By getting an early knowledge about student's problem the teacher can work to resolve that problem. Such early identification helps the educator to work on it and resolve it.

#### **Content creation**

Artificial intelligent can help the educator create content related to the student's personalized needs. The educator can get more effective result if the material is made keeping in view the learners learning style and preferences.

## Enhancing accessibility and inclusion

Artificial intelligence helps educators to deal with the students having diverse needs. Technology such as speech recognition and text to speech can help students with disabilities. These tools help teachers to create more inclusive learning environment.

## Challenges of using artificial intelligence in teaching

There are certain challenges faced by the educators when artificial intelligent is implemented it in education. Some of the challenges can be discussed as below.

## Technical expertise-

The teachers can struggle with a lack of expertise in the use of artificial intelligence in classroom. To develop an effective artificial intelligence tool for education, the educator needs to invest time and effort and with that understanding of the technology is also needed. All this makes the educator disinterested towards the use of artificial intelligence in education.

## Data privacy

Artificial intelligence system need large amount of personal information of a student in order to design any program. This raises an issue regarding the safety of the data. If the data is not secure properly it can be misused and can give rise to other complications.

# Cost and accessibility

Implementation of artificial intelligence is expensive and need infrastructure and training. The teacher who is teaching in remote areas can find it difficult to implement such technology in their teaching system.

## Dependence on technology

The use of artificial intelligence in education increases the risk of our dependency on technology. The teacher will depend fully on the technology for its work and this will effect his critical thinking and problem solving skills. So the use of artificial intelligence should be regulated and limited only to assist the educator.

# Conclusion

We can see that artificial intelligence is not only a trend but a necessity of today's world. Artificial intelligence has potential to revolutionize the teaching and learning process. It offers opportunities to change teaching and learning experiences by providing personalized education. The use of technology by teachers will definitely result in enriching the education experience of the students. For a country like India the use of artificial intelligence in education will pave the way for an inclusive and innovative learning environment.

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