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ARTIFICIAL INTELLIGENCE: MEANING AND ROLE OF ARTIFICIAL INTELLIGENCE IN HIGHER EDUCATION

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Abstract:

Education is an important part of life for everyone, and a good education plays a vital role to have a successful life. In order to improve the education system for the students, there are always a lot of changes happening around the world, ranging from the way of teaching to the type of curriculum. Artificial Intelligence is a thriving technology that is being used in almost every field and is changing the world. One place where artificial intelligence is poised to make big changes is education. This paper gives an overview of importance of artificial intelligence in education along with its meaning.

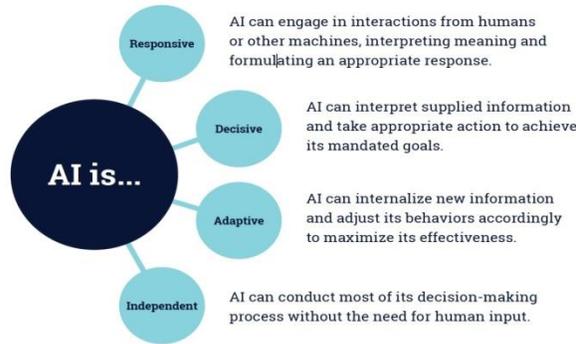
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Introduction:

Artificial Intelligence in Education is developing new solutions for teaching and learning for different situations. Nowadays, AI is being used by different schools and colleges across different countries. AI in education has given a completely new perspective of looking at education to teachers, students, parents, and of course, the educational institutions as well. AI in education is not about humanoid robots as a teacher to replace human teachers, but it is about using computer intelligence to help teachers and students and making the education system much better and effective. In future, the education system will have lots of AI tools that will shape the educational experience of the future. In this paper, we will discuss the meaning and importance of Artificial Intelligence on Education.

Meaning of artificial intelligence:

- ✓ Artificial Intelligence (AI) is a simulation of human intelligence into a computer machine so that it can think and act like a human. It is a technology that helps a computer machine to think like a human. Artificial Intelligence aims to mimic human behavior.
- ✓ Artificial Intelligence is the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. These tasks require the ability to reason, discern, discover meaning, and learn from past experience.
- ✓ Artificial Intelligence in education is the process of integrating and applying Artificial Intelligence (AI) technologies within the classroom to enhance teaching and learning experiences.
- ✓ Artificial Intelligence is the capability of a machine to imitate the intelligent human behavior.



Roles of Artificial Intelligence In Education

1. Personalize Education

Artificial Intelligence helps find out what a student does and does not know, building a personalized study schedule for each learner considering the knowledge gaps. In such a way, AI tailors studies according to student's specific needs, increasing their efficiency.

To do it, many companies train their AIs, armed by the [Knowledge Space Theory](#), to define and represent the knowledge gaps, taking into account the complexity of scientific concepts relations between each other (one can stimulate the learning of another or become a basis for filling in the gap).

2. Produce Smart Content

- **Digital lessons**
Digital learning interfaces with customization options, digital textbooks, study guides, bite-sized lessons, and much more can be generated with the help of AI.
- **Information visualization**
New ways of perceiving information, such as visualization, simulation, web-based study environments, can be powered by AI.
- **Learning content updates**
Besides, AI helps generate and update the content of the lessons, keeping the information up to date and customizing it for different learning curves.

3. Contribute To Task Automation

Administrative tasks simplification: grading, assessing, and replying to students is a time-consuming activity that could be optimized by the teacher using AI.

Entrusting a set of routine tasks to AI helps teachers make room for something more important: concentrating on grading the assignments impossible to delegate to Artificial Intelligence, self-education, upgrading the quality of the lessons.

4. Do Tutoring

Continuously evolving personal study programs take into account student's gaps to fill during individual lessons. Personal tutoring and support for the students outside of the classroom help learners keep up with the course and keep their parents from struggling to explain algebra to their kids. AI tutors are great time-savers for the teachers, as they do not need to spend extra time explaining challenging topics to students. With AI-powered chat bots or AI virtual personal assistants, students can avoid being embarrassed by asking for additional help in front of their friends.

5. Ensure Access To Education For Students With Special Needs

The adoption of innovative AI technologies opens up new ways of interacting for students with learning disabilities. AI grants access to education for students with special needs: deaf and hard of hearing, visually impaired people with ASD...

Artificial Intelligence tools can be successfully trained to help any group of students with special needs.

6. 24/7 Access To Learning

With AI helpers based online, students always have access to learning. They are free to plan their day without being linked to a specific place. They can study on the go, at any place and time they want. They can build their schedule based on their most productive hours.

7. Better Engagement

Individualized schedules, custom tasks, interaction with digital technologies, and personal recommendations are part of the personal approach each student gets using AI. Besides, a personal approach helps students feel special, increasing their engagement and raising interest in studies in such a way.

8. Less Pressure

Lessons tailored to the needs of different learning groups allow students to stop comparing them to each other. Earlier, a student should have asked a teacher for help in front of the class. Now, it's enough to type a query using a personal virtual assistant and get an instant explanation.

These opportunities offered by AI tools make personal progress come to the fore, reducing the pressure in the classroom. Less pressure means less stress and more enthusiasm to study.

Conclusion:

Till now we have discussed in brief about Artificial Intelligence. We have discussed its meaning and role in education. The ultimate goal of educational institutions is to working on AI is to solve majority of the problems or to achieve the tasks which we humans directly can't accomplish. It is for sure that development in this field of computer science will change the complete scenario of the world. Now it is the responsibility of educationalist develop this field.

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