

Benefits of AI in Education

# **Description**

### Theme:

• Artificial Intelligence (AI) is being increasingly integrated across various sectors, including education. Al is improving and simplifying the learning process.

## Benefits of AI in Education:

- Until recently, education used a one-size-fits-all approach, where all children received the same teaching methods regardless of their individual strengths and learning styles. This approach often meant that students with diverse abilities and needs struggled to grasp concepts or excel in their studies, as the teaching methods did not cater to their specific learning requirements. With the help of AI, now many e-learning platforms are personalizing education to help students learn at their own pace and style. For example, AI adjusts the difficulty level of math problems based on how well a student answers previous questions. It also provides study materials specifically targeting areas where the student is lagging. This helps students learn the subjects without feeling overwhelmed.
- Al can make learning interesting by gamification of the subjects. For example, an Alpowered educational app can turn learning math into a game, where students earn points and rewards for solving problems correctly. This can motivate students to learn more.
- Al in education can generate interactive simulations that <a href="help students visualize and understand complex concepts">help students visualize and understand complex concepts</a>. For example, Al-powered platforms can create virtual physics experiments where students can adjust variables like gravity or friction to see how they affect outcomes in real time. These simulations provide hands-on learning experiences that deepen understanding and engagement in subjects like science and mathematics.
- Right now, exams expect every student to do well in the same way. It's like asking a fish to climb a tree. It's not fair because fish are meant to swim, just like students are good at different things. This can make it hard for some students to show how much they really know. Al-powered assessment tools help in creating adaptive tests that adjust the difficulty level based on the student's performance, providing a more accurate measure of their

abilities.

- Al can make educational resources more accessible to students in remote areas. It also helps in translating educational resources into local languages, which is very helpful for India due to its diverse languages. Thereby Al promotes inclusivity in education.
- Al-powered tools <u>can help students with disabilities</u>. For example, Al-driven text-to-speech and speech-to-text tools help students with visual or hearing impairments.
- Al <u>can reduce the burden on teachers</u> by handling several tasks such as providing feedback to students and clearing their doubts.

## **Challenges:**

- Not everyone has access to AI tools, which is creating a <u>digital divide</u>. This gap in access is unfair to students because it means some may not benefit from the educational advantages AI can provide, such as personalized learning and enhanced resources.
- Still, many teachers lack the training needed to effectively utilize AI tools for educating their students.
- Al systems learn from data, so if the data contains biases such as cultural stereotypes,
  Al may unintentionally perpetuate those biases in its outputs. This can lead to unfair or biased outcomes.

#### Al in Education – Advancements in India:

- <u>NITI Aayog's 'AI for All'</u> initiative aims to integrate artificial intelligence into education to enhance learning experiences and accessibility across India.
- '<u>The National Education Technology Platform</u>' promotes the sharing of ideas regarding the use of technology to improve learning, assessment, planning, administration, and more, in both schools and higher education.
- Al tools <u>should be used as supplements</u> and not as complete replacements for teachers. Students, especially children, require the guidance and support of teachers in their learning journey. Moreover, in India, where there are <u>high unemployment rates</u>, it is important not to endanger jobs in the education sector by excessively relying on Al.
- <u>India's first AI robot teacher, 'Iris'</u>, was introduced in a school in Kerala in March 2024. Iris specializes in clearing doubts and explaining concepts clearly to students. As a humanoid AI teacher robot, Iris is designed to personalize learning experiences and empower students.

## Way Forward:

- <u>Bridging the digital divide is very important</u> to ensure that every student has access to Al tools. This ensures that all students, regardless of their location or family income, have equal opportunities to learn and benefit from Al in education.
- To <u>eliminate AI bias</u>, it is essential to ensure that the data fed into AI systems is diverse and representative.

#### Conclusion:

Al tools tailor learning experiences to suit each student's pace and learning style. However, it's important to ensure that all students, regardless of their family income or location, have the same opportunities for educational advancement and personal growth.

## Your Turn...

What are your thoughts on the benefits of AI in education? Express your point of view through the comment section below. Subscribe to our blog to read answers to the trending GD topics.

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