

USE OF ARTIFICIAL INTELLIGENCE IN EDUCATION

Mohd Jameel

Jaipur National University, Jaipur

Abstract

This paper describes how Artificial Intelligence is applied in Education. Artificial Intelligence in Education (AIED) is an emerging field in Educational technologies. Educators are still unsure how to employ AI pedagogically and how AI may effect teaching and learning in higher education. The impact of AI on education is discussed here. It also covers how to construct an AI-enabled educational platform and the effects of AI in education. Artificial Intelligence (AI) is currently used practically everywhere. We are in the midst of a revolution in artificial intelligence. The use of artificial intelligence in education will now be tried in many contexts. New educational technology help attain and manage educational goals. First, this research examines how AI may assist educators use data to improve education in impoverished countries. This study will explore teachers' and students' views on the usage of AI in education. Its curse and human wisdom. Teachers and students enthusiastically endorse using AI in the classroom. But teachers are more accustomed to new technology than kids. More research on generational and geographic differences in teacher and student views can help improve AI in Education (AIED).

Key Words: artificial intelligence, education, transformation

INTRODUCTION

People have always educated and learned. Pupils and teachers are evaluated on a range of things. Teachers assess students on a range of things. Discipline, inventiveness, participation, speed of learning, and instructor obedience are some examples. These include a focus on the learner's subjects and the opportunity to recreate their work. The first thing on the list is exam comprehension. Points or marks awarded to students for their knowledge

Several forces have pushed this topic to the top. Among the important factors are: of a teacher's decision to assess pupils' answers over a school year at a given point.

Being overburdened with professional and personal duties will take a lot of effort from the instructor who is already busy. Most teachers utilise students' test scores to assess their other skills.

It is easy to analyse with prior preconceptions. As a result, a tested student will rarely use your actual talents, knowledge, and abilities! Students admire teachers for their ability to interact with students.

Knowledge, subject matter, level, empathy, and many other characteristics influence interactions with students. Most students want to be instructors' favourites, and professors have long been accused of favouring certain pupils. This happens when a student can't get the teacher's attention. In this case, both the teacher and the student lose focus.

Many of these abnormalities lead student and teacher learning models to alter. Students today are expected to be mentors as well as learners. This affects the structure and content of instruction.

The application of artificial intelligence in education has got people's attention for a variety of reasons:

Automation: By automating mundane tasks like reviewing, classifying digital resources, or scheduling, teachers can spend more time interacting with students.

Acclimation: Technology is an integral part of today's educational and business contexts. According to the latest Pew Research data, 95% of young people use smart phones, with 45% always connected to the internet. As students embrace technology, they will benefit from AI in the classroom.

Integration: Intelligent technology and a managed IoT network can be used to give personalised educational solutions to college students.

Delineation: As students' needs and curricular priorities vary, teachers must ensure their curriculum is relevant and useful. AI-powered analytics in education helps identify significant trends, draw crucial markers, and create the best educational environment for digital transformation.

Personalizing Education

An intelligent system tutor (ITS) or adaptive instructor (AI) facilitates dialogue, answers questions, and provides feedback. ITS and adaptive teachers alter learning materials, pace, sequence, and harshness to meet the needs of each student. The AI could also help students learn to recognise facial expressions, for example.

A study conducted by found that teachers' jobs may be modified in several ways. A recent study

found that between 2017 and 2021, the use of artificial intelligence in education will grow by 47%. A digital platform for teaching, exams, and student feedback is also being developed by the companies. These platforms can be used from preschool to university level, and they provide new challenges to students while discovering knowledge gaps and redirecting them to new topics. Artificial intelligence applications can help both the instructor and the community by customising a curriculum to each student's needs. It allows students in remote areas to attend classes. The AI may translate the teacher's presentation into whatever language the learner wants. This programme can help students with hearing or vision difficulties. It also helps students who can't go to school due to illness or other reasons.

Students can enroll in global classes online to learn about subjects not covered in their school's curriculum. They can get training outside of the classroom with intellectual content already produced or in development. This application may not be available in all educational institutions right now. But there is a lot of power to make it happen. Researchers are working on creating a virtual human guide that can think, act, reply, and communicate verbally and nonverbally.

IMPACT OF AI IN EDUCATION

Almost every aspect of our lives will be impacted by artificial intelligence in the future, and the education sector will be the most affected of all. This is because teaching and learning are important aspects of life, and the existing education system leaves a lot to be desired. Schooling in the past was not as adaptable as it would be in the future, thanks to artificial intelligence in education. Teachers, who are the most significant players in the educational system, are both inflexible and prohibitively expensive to hire and retain. Teachers in certain nations are burdened with a large amount of paperwork and are underappreciated for their efforts. AI can assist each individual in a unique way by providing them with a customized curriculum based on their interests and skills evaluations.

ADVANTAGES OF AI IN EDUCATION

Nowadays' youth want to spend a lot of time on their phones or tablets. Students can use AI applications to learn for ten to fifteen minutes in their spare time. Using Gesture Recognition Technology, AI can help us determine a pupil's attitude or ease during a lecture. With advanced

artificial intelligence, a machine can read a student's facial expressions or movements to determine if they are failing to understand the lecture and alter the lesson accordingly.

Customizing academic curricula is possible with AI-powered machines. Using artificial intelligence, blind or deaf students may be able to attend global schools. This can also help pupils who are sick and unable to attend class.

In the traditional educational system, teachers mark homework and tests, which takes time. These tasks will be simplified by artificial intelligence. It also helps formulate recommendations for bridging learning gaps.

AI provides tools for those who speak many languages or have hearing or vision problems. Presentation Translator, an AI-based system application, provides real-time subtitles. For example, students studying abroad can read and hear in their local language using Google Translate. Virtual reality (VR) and gamification are helpful for more interactive sessions.

Some institutions currently use computers to grade multiple-choice exams, and now efforts are being made to grade written responses such as paragraphs and statements. This saves time for teachers, which can be used to focus on individual student growth and assessment.

Admissions and enrollment processes may also be automated in the future.

Students can utilise AI to help them with homework or test preparation at home. Artificial intelligence will soon be able to respond to a range of learning styles. Tutoring and study programmes are becoming more advanced thanks to AI. In education, AI solutions like AI mentors for students are being developed.

Artificial intelligence can classify students into groups depending on their suitability for various tasks. This is called Adaptive Group Formation. Artificial intelligence algorithms can grade student essays in real time. In this way, future essays may be compared to the database's earlier essays, allowing for more accurate predictions. A computer-based system that enables for individualised, flexible, and sensitive instruction. The Domain Knowledge Model is a critical component of the AIED system because it allows students to assess their contribution to the solution. The learner's model represents students as models with changing knowledge and skills. The Model of Pedagogy component represents the system's ability to educate, while the Interface component represents the

learner-system interface.

The Voice Assistant is the second AI component that is very successful in educating. It's a groundbreaking usage of AI. Virtual assistants include Google Assistant, Microsoft Cortana, Apple Siri, and Amazon's Alexa. These voice assistants allow students to communicate directly with online and offline educational resources without the need for teachers to interfere.

Many educational institutions, including colleges and universities, are phasing out traditional learning techniques. For campus-related information, they have already begun delivering students voice assistants instead of printed study materials or sophisticated websites. For example, Arizona State University provides incoming students with Alexa, an Amazon virtual assistant, to deliver more frequent, precise information on school needs.

Voice Assistants can be used at home or in other non-educational settings to access educational resources. For example, answering frequently asked concerns regarding campus needs or a student's schedule and courses helps the institution save money on producing handbooks that are only utilised briefly when they first join the school and reduces the need for internal support. This technology's use is expected to rise in the next years.

It's no wonder that educational systems are scrambling to keep up with the demand for more talent to keep the AI growth engine humming. However, education is improving in all sectors of science, technology, engineering, and mathematics (STEM). However, artificial intelligence curriculum are transforming education.

With the help of smart technologies, people can learn more efficiently and achieve their educational goals.

It is used to promote one-on-one tutoring using the Intelligent Tutoring System. They can decide for or against a student using neural networks and algorithms. Students are already being introduced to the many alternatives accessible for higher education using artificial intelligence.

Artificial intelligence has the potential to revolutionise education. Robots can improve a text's grammatical structure and create digital content. In the classrooms, digitalization had already begun.

Increasing investment and interest in artificial intelligence will impact colleges in the future years.

The growth of the worldwide student market, democratisation of higher education, and increased financial pressure from more students wanting to pursue higher education will be the key drivers of AI adoption in higher education.

DEVELOPING OF AN AI ENABLED PLATFORM FOR EDUCATION

There are six major milestones in the development of an artificial intelligence platform for education.

Step 1: Research the solutions that are currently available.

Step 2: Take into consideration the application's content, which should be both fascinating and interactive.

Step 3: Consult with your project's development team about the requirements of your project.

Step 4: To ensure that the programme is free of problems, it should be extensively and correctly tested.

Step 5: After the app has been released, promote it and solicit user feedback.

Step 6: Make sure to update your app on a regular basis.

To get the user to choose your solution above the others, we must first thoroughly analyse the existing solutions and add new features to them. Examine the design ideas. Users value valuable content, therefore consider themes like medical, literature, mathematics, and other related fields. This useful information can be obtained through tutors at various institutions or colleges, as well as courses and training programmes.

Prior to starting a project, determine the business objectives and project needs.

The development team must include seasoned software developers with past experience with AI.

After getting customer feedback and reading their evaluations, you can update your platform on a regular basis, adding new content or features. To attract more customers, you must provide a great user experience. This is achievable if no users protest, but we must first detect and fix any vulnerabilities in the platform before publishing it. Qualified Quality Assurance Engineers can solve this issue. Regular platform upgrades are required to respond to client feedback.

CONCLUSION

The use of AI in education is groundbreaking.

Not yet, according to a research by the Centre for Integrative Research in Computer and Learning Sciences. As a result, individuals creating AI applications should thoroughly notify educators and policymakers. Despite the disadvantages of using artificial intelligence in education, our future is AI, and schools should start exposing students to this type of technology that currently uses some AI. The impact of AI will be felt first at the lowest education levels, then in higher education levels. Time will tell what impact artificial intelligence will have on schooling. Artificial intelligence is designed to assist educators rather than replace them.