

Artificial Intelligence in Education

Parkhi Garg

ABSTRACT

According to assorted national and international reports, artificial intelligence in education (AIED) is one in all the for most rising fields in education. It has been around here for 30 years but still, it is unclear for the teachers and tutors how to make the most out of it. The purpose of this research was to assess the impact of Artificial Intelligence (AI) on education.

In this research paper, we will discuss the definition of artificial intelligence with respect to education. Further, we will discuss the roles of artificial intelligence (AIED), challenges faced, framework. We will also have a brief conclusion and any further changes to be made. We will also discuss the negative impact of ai on higher education.

Parallel to the event of digital tools and their redoubled property, the number of information generated by digital tools and their computing power has grown up staggeringly. This increase is leading to the deployment of smart systems which can recognize huge amount of data and human reasoning.

Since then the demand for Ai is increasing rapidly as it has become a part of our daily lives. It rapidly transforms industries such as Banking, Healthcare, Transportation, Retail, etc.

Despite the extensive opportunities that ai might offer to support teaching and learning, new ethical problems, risks, disadvantages come in with the development of ai applications. For example, in times of power cuts, it can take up the jobs of several teachers, faculty members, administrative staff.

In this paper we will explore the history of ai its role, impact on education and the challenges faced.

HISTORY OF AI

The history of ai goes lower back farther than many people suppose: figuring out the dream of human automation. The term "artificial intelligence" was introduced in 1956 by the scientist John McCarthy. Considering the fact that then, the sphere of technology has gone through many cycles. The high factor of ai being strongly hyped.

Accompanied by disappointment and criticism up to now, the sector of artificial intelligence has experienced 3 waves.

In the 1980s, we saw Japan firmly committed to artificial intelligence to help its industry move forward. The United States and the United Kingdom followed closely behind. During this period, artificial intelligence dominates through

I. INTRODUCTION

In computer science, the name artificial intelligence known as AI refers to human-like intelligence which is exhibited by some robot, computer, machine. In the past decades, number of progress has been reported by researchers who are working on ai.

There is a long history of using technology in education. Education is one of the areas which shows great potential for the application of ai technology. One tipping point was the introduction of artificial intelligence in classrooms. And where it all started was from the desktop computers in classrooms. Since then the digital world has entered education. Computers were interconnected via international networks, numberless teaching ways and content is found there. In addition to the computer, more and more other devices were introduced into education that either replace or complement the desktop computer.

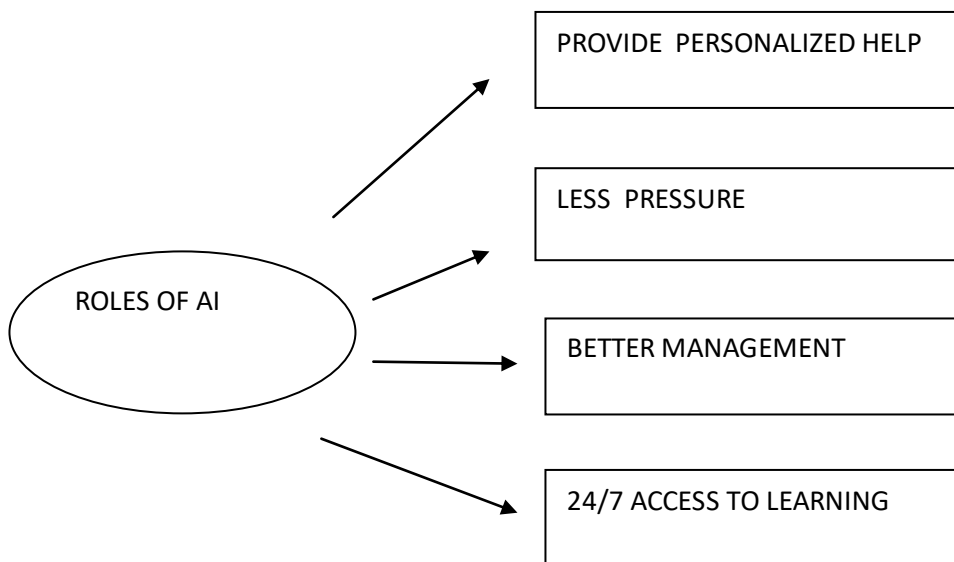
the expert system. The expert system simulates certain tasks/actions of personnel. In these the system will be fully manually programmed "smart". Therefore, artificial intelligence cannot learn new tasks without the need for people to write necessary new rules. The system can do the best described as a pre-programmed "decision tree" that systematically evaluates whether/other statements come to a decision. Since the expert system uses hand-made rules, it turns out that the expert system cannot operate normally. It is often difficult for AI programmers to encode all the rules into an expert system. Therefore, in the 1990s, AI dropped sharply again. Recently ai has a new revival ie deep learning. Deep learning is a function that imitates the work of a human brain in order to take some important decision and to do certain tasks. Deep learning is a special class of machine learning and machine

learning is a set of algo that learns from data. Challenges which we were facing in the previous time were now suddenly turned out easy with the help of deep learning.

I. ROLES OF ARTIFICIAL INTELLIGENCE

Artificial intelligence makes it possible for machines to learn to explore, adjust to new inputs and behave like the human beings.

The adoption of technology in the field of technology education is transforming the way we learn things and teach. It will also lead to a different experience in the field of learning.



PROVIDE PERSONALIZED HELP

AI helps to know what a student know and what not. Help to create a personalized schedule for the students who are weak in particular areas and subjects. In this way, ai helps to increase efficiency.

How this is achieved ?

Many companies train their ais by knowledge space theory to define and maintain knowledge gaps.

LESS PRESSURE

Sometimes it becomes awkward for students to ask their queries in front of the entire class. Now its enough to type their queries using a personal virtual assistant and get their queries solved instantly.

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

BETTER MANAGEMENT

Individualized schedules, custom tasks, interaction with digital technologies, and personal recommendations are part of the personal approach each student gets using AI.

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.

II. IMPACT OF AI

Modern technology is advancing day by day, new updates and improvements are coming in the technologies. Artificial intelligence has a lot of benefits in field of education but here we are going to discuss about the NEGATIVE impact of ai on education.

- a) **Decrease of human interaction**
- b) **Unemployment of teachers**
- c) **Lack of emotional intelligence**
- d) **Communication barrier**
- e) **Decrease in thinking power of scholars**

DECREASE OF HUMAN INTERACTION

One of the main negative impact is decrease in human interaction. As I mentioned earlier ai has the power or the ability to make some decision not the crucial one but it can take decision without any human interaction.

Every student can learn and study with the help of artificial intelligence gadgets and laptops. In some situations, students feel like talking to there teachers and parent they need human interaction. Students cannot learn all the things from artificial intelligence gadgets, devices, and machines. From ai students can learn about the content of the study material but from interacting with their parents

and teachers they learn about the basic human values, purpose of life, culture, deep knowledge about life, experiences etc

.UNEMPLOYMENT OF TEACHERS

The use of artificial intelligence is increasing rapidly in the field of education . Student nowadays are more interested in learning from the ai gadgets rather than learning same things from their teachers. Artificial intelligence takes the employment of the teachers. Teachers are the most important part of a society; the student's future is completely dependent on the teachers. The way a teacher can shape the future of student no artificial gadget can do it. Students learn from their teacher's thoughts.

LACK OF EMOTIONAL INTELLIGENCE

Artificial intelligence gadgets like laptops, computer do not have any feelings and they can only provide students with the study content.

Sometime student need that special attention and emotional support to learn certain things in a different way which can never be provided by any of the AI tool.

No doubt AIED is very efficient and working great but it can never replace the human presence.

COMMUNICATION BARRIER

The communication barrier is also one of the negative effects of artificial intelligence technology for students in education. Not all students need artificial intelligence technology for study and learning.

Some students need special attention towards there weak points ai can teach them twice or thrice but with the same method but a teacher can communicate well and understand where the student is lacking.

The communication barrier leads to less innovative ideas as there is no one to guide them in personal. There is a huge difference in how a teacher teaches and how a machine teaches. There could be a no of positive points but barrier communication is one of the great negative impact of AI.

DECREASE IN THINKING POWER OF SCHOLORS

By the usage of artificial intelligence, scholars are not ready to do any kind of task by themselves. They think they will get everything by using ai.

They do all the things with the help of artificial intelligence and didn't want to put there own efforts to generate new and innovative ideas.

III. CHALLENGES OF AIED

Nowadays, AI has been applied to various domains, such as visual and voice recognition, decision-making. for example, some robots can interact with humans via visual and audio tracking technologies.

Using ai in education has promoted new opportunities for designing productive learning techniques. Which remains a challenge for most of the researchers. The basic challenge is how to stimulate the intelligence of the human mind. How to create a system that can analyze a situation and make better decisions.

Now the question arises?

Will the use of robots in the classroom for teaching help students learn better?

No matter how analytical, popular ai will be but it can never develop a child's mind the way a teacher can do. It doesn't have alternative teaching methods. Ai usage also increases the ethical, moral and privacy concerns. AI systems need access to massive amounts of data, as well as confidential student and faculty personal info, relying upon the application. Therefore, its usage raises a myriad of moral, and privacy considerations, which should be addressed. Among them are data security, consent to use personal knowledge, who is in a position to access the information.

Beyond the privacy, moral and ethical concerns raised above there are many challenges which the institutions are facing to implement the ai system. These include questions like who will be responsible for developing ai policies, what role faculty will have in designing the system, and how much technical support will be needed.

IV. CONCLUSION

The rise of AI makes it impossible to ignore a serious debate about its future role of teaching and learning in higher education and what type of choices universities will make in regard to this issue. The fast pace of technology innovation and the associated job displacement, acknowledged

widely by experts in the field (source), implies that teaching in higher education

The objective or the purpose of this research paper was to assess the impact of ARTIFICIAL INTELLIGENCE(AI) on education. This study has also provided an overview on the potential of ai in higher education to support administration, students, faculty members. We discussed the roles of ai. Every thing has 2 impact a negative and a positive impact on our lives such way we discussed about the negative impact of ai in education on students and teachers.

Further new implementations need to be introduced in the field of artificial intelligence to curb the negative impact.

In this research paper we further discussed about the challenges faced by ai in the field of higher education.

V. LITERATURE SURVEY

The advancement of AI has brought computer-supported education to a brand new era. By incorporating human intelligence, a computing system might function Associate in Nursing intelligent tutor, tool, or learner yet as facilitating deciding in academic settings. the combination of AI and education can open up new opportunities to immensely improve the standard of teaching and learning. academics will have the benefit of intelligent systems that aid in assessments, knowledge assortment, enhancing learning progress, and developing new ways.

More significantly, this study has provided an summary of the Brobdingnagian array of potential AI applications in pedagogy to support students, school members, and directors.

Classroom AI tools have capabilities in analyzing multiple sources of information and comparing them to well-known patterns. this may determine the root causes for issues, and additionally drive towards additional consistent outcomes across completely different categories, despite the expertise of teaching employees.

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