



THE ROLE OF ARTIFICIAL INTELLIGENCE IN INDIAN EDUACTATION SYSTEM

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ABSTRACT:The use of intelligent technology in Indian education has grown steadily in recent years. The traditional educational system currently handles a variety of tasks, such as gathering data, analysing results, and various processing. With the invention of the computer, the teaching and learning process is now carried out in a virtual environment instead of being limited to classrooms, students, teachers, and institutions. The newest technology, artificial intelligence (AI), offers the Indian educational system help and a solution for computing services. Because of its adaptability, it offers the educational system numerous advantages. In India's information technology sector, the technology is becoming more significant and attracting interest. Combining online learning with conventional teaching and learning Internet-based tools and applications are therefore a key component of intelligent educational systems. Numerous corporate and industrial sectors have embraced intelligence technologies, and higher education institutions are now following suit. The goal of intelligent technology is to automate a class of cognitive and perceptual functions. One of the main concerns of recognition systems when they receive input is the recognition of sensory data, such as speech, images, or vision. Among many other things, artificial intelligence encompasses knowledge representation, inference, search, and learning. While key subjects of intelligent technologies have developed into important subfields of our educational system, researchers in the field of education nowadays employ AI approaches. Intelligent tools such as handwriting recognition software for assessing exam copies and intelligent teaching systems for SWOT (Strength, Opportunity, Weakness, Thread) analysis, class study, web intelligence for e-learning students, and a natural language processing system for on-demand query systems mechanism to identify a student's areas of weakness in order to improve the learning environment. Artificial neural networks, knowledge base systems, and various algorithms are used in the development of all these intelligent technologies.

KEYWORDS: AI (Artificial Intelligence), Human intelligence, educational system, knowledge Representation, Online Learning system.

INTRODUCTION: The acronym for artificial intelligence is AI. A sophisticated software known as artificial intelligence may carry out operations and duties that were previously thought to be exclusive to humans. AI is able to function and think similarly to humans. Algorithms are used by AI. And models to find patterns; it then learns from those patterns and can be applied to solve problems, produce answers, and make predictions. In order to improve, AI may process the data and evaluate its own performance. AI has advanced significantly in recent years, and practically everyone uses it now. AI is present in gadgets, televisions, electric vehicles, cell phones, and even government cameras. Through a field of study known as artificial intelligence, computers are created to do unique tasks that call for intelligence and a knowledge base. Just like we measure motor power in horsepower, the power of computers is measured in human thought. Expert systems and robotics are the two main areas of artificial intelligence. The key goal of artificial intelligence is to comprehend how humans think. AI is primarily employed to comprehend the human mind; if our systems are evaluated based on their humanoid performance, then they are unquestionably engaging in cognitive science. Both artificial and natural intelligence processes are understood through the development of mental and brain models and concepts. It has been a major topic in philosophy since the early writings of Greece and India. The electronic computer promoted by computer scientists who became the main focus of attention in the 1950s. Mathematicians John

von Neumann, Emil Post, Sir Stephen Kleene, Alan Turing Markov, Alonzo Church, and others developed the concept of computation using parallel development, which gave rise to a new set of tools that addressed this problem through structured design, analysis, computer evaluation, and the concept of intelligent behavior the capacity to categorize and recognize patterns. In essence, these jobs are carried out by systems that draw logical conclusions and learn from past experiences.

FUNDAMENTALS OF ARTIFICIAL INTELLIGENCE:

Fundamental supports to AI bound from the concept that intelligence egress the maximum amount from bodies, cells, and societies because it will from development and learning environment. Reproducing ability of human brains has been already proposed using artificial intelligence technologies and a variety of biological units that capable of the self reliant system is inspired by new approaches to AI. Some samples of new concepts embrace biological process computation and biological process physical science, artificial neural networks, bio-robotics and swarm intelligence to say solely many Knowledge representation and reasoning: Data illustration and logics is the branch of artificial intelligence that deals with displaying information about the planet in a way that a computer system can use to solve complex problems, such as diagnosing a disease. Pertaining to medicine or engaging in conversation while speaking a language. In essence, data illustration incorporates findings from psychological science on how people solve problems and show data in order to establish style formalisms that make complex systems easier to style and construct. Knowledge representation is often the area of artificial intelligence that focuses on creating computer representations that gather information about the planet and are used to resolve complex problems.

SCOPE OF STUDY

Our study looks at the challenges associated with integrating AI into the educational system. The purpose of the planned study is to introduce future generations to AI perspectives. Our research will try to determine the likelihood of educating the operational professionals through apps mostly based on AI. Because these professionals are unable to attend the usual category space sessions in schools, this might be crucial. These professions will benefit from our study as they look for ways to improve their data and credentials. Artificial intelligence is frequently used to grade academic packages according to student preferences and identify areas where courses may be improved. It could change the function of instructors in the educational system, such as AI-powered curricula will Give teachers and students insightful criticism and act on the facts. AI may change the way that students learn fundamental skills, where they learn them, and by whom they learn them. AI-powered knowledge will change, but it also helps universities educate and assist students. The secret to improving student learning's efficacy and quality and making it valuable is to replace the outdated teaching methods with more engaging and dynamic learning possibilities that are provided where AI technologies are appropriate. Intelligent technologies could be a great development for multipurpose tasks that have the potential to performing better activities to approach accesses knowledge and performing required tasks for the society of education and training for better achievements.

Objectives of the Study:

1. To Study to learn the fundamentals of knowledge base systems and artificial intelligence.
2. To Study the research artificial intelligence's place in the Indian educational system.

MAJOR TYPES OF AI

- **Reactive Machines:** Having no memory foundation and minimal technology, reactive machines were the earliest artificial intelligence systems.
 - The next phase of AI research involves limited memory.
 - The algorithm mimics the synaptic connections between neurons in the brain by learning from additional data as it is fed. Deep learning algorithms improve image recognition, deep learning, and other reinforcement learning techniques.
- **Theoretical framework:** The first two types of artificial intelligence that are now in use are reactive machines and restricted memory. Future theoretical categories that might be created include ideas of mind and self-aware AI. As of yet, no real-world examples exist.
- **Self-Awareness:** The ultimate development of AI will be one that is conscious, self-aware; it comprehends its existence as if it were a whole human being.

REVIEW OF LITERATURE:

Bhounsule, Chaney, Claeys and Manteufel (2017) describes a concept of robotic service learning that's purpose is an improvement in results of learning. These kind of robotic services are very helpful for learners to learning with a comfortable environment. According to this study, the concept of service learning used by

authors is mainly used to represent the strategy of teaching and learning. This concept of service learning shows service of the meaningful community and teaching responsibilities.

Kumar, Sharma and Grover (2016) discussed facilities of artificial intelligence from student's point of view. Artificial intelligence used at present in almost every field in the form of self-operated machine or robots. In this paper mainly analyze artificial intelligence programming language LISP that makes artificial intelligence possible and Turing test that experimented by Alan Turing. This study is proposed to develop a viewpoint for students using AI that can provide better learning facilities for students and manage course contents of related subjects.

Rangarajan and Mori (2016) say that the intelligent technology such as pattern recognition could play a vital role in learning systems that can be a term as machine learning or human learning. The machine needs pattern recognition system for learning them. Pattern recognition is the most valuable concept of intelligence technologies in the form of a tool to develop an intelligent machine that can work like a human and all tasks related to recognition are performed using algorithms very quickly such as a human brain.

Pagliarini and Hautop (2017) give ideas about robotic technology's future and gives some essential information about robots and their abilities to perform works. The robotic has a very bright future in every field and education system also. There are so many tasks in the educational system that could be performed better than a human professional. For that reason, the robots have abilities to implementation in education system widely.

Kose and Arslan (2015) presented a combination of e-learning methods and intelligent technologies. According to them a lot of educational institutions have been employed widely these intelligent technologies and get better experiences of intelligence based teaching and learning educational activities. It is the indication for the education system that future of education will need more research in important and multidisciplinary areas such as AI. The concept of e-learning is also a leading educational technology but it also needs the help of intelligent technologies. E-learning is very efficient and demandable methods by the education system

ARTIFICIAL INTELLIGENCE IN INDIAN EDUCATION SYSTEM

Our lives are significantly impacted by education, and the educational system heavily relies on technology. The modern educational system makes extensive use of technology. Unfortunately, there is no attempt to replace outdated technology with the newest. Instructional strategies. We can use the example of how the same lecture is given by the same teacher to the same audience in the distant learning mode, which changes the number of audiences. These kinds of distant learning models in the educational system are not adequately addressed by the philosophy of lifelong learning. Students only rivet as much information as possible, according to the distant education model, rather than taking an active role. There are numerous other forms of distant learning that might be employed as an alternative. As an illustration, the University of Virginia offers a teacher education and technology unit.

Establishing live video connections with partner universities to provide a single platform for all students and faculty members where everyone can participate and benefit from the collaborative learning environment. One could argue that, given the demands of education today, traditional teaching approaches alone are insufficient.

Many technical domains, such as computer graphics and artificial intelligence, are used in today's educational system. It is crucial that instructors design the scenarios so that students may comprehend the value of technology and make use of efficiently for learning exercises. In 1995, the Congressional Office of Technology Assessment released a report titled Teacher and Technology that addressed how to manage teacher-technology collaboration. In order for educators to provide a productive learning environment for pupils inside a system of education. Technology has the potential to transform the way educators teach. Many faculties employ the technology to support additional student-centered approaches to instruction, where students originate scientific inquiry and collaborate in group projects.

In contrast, the teacher serves as an assistant or coach. (Norvig and Russell, 1995) It is true that education is currently advancing at a snail's pace, but the outside world is moving quickly. According to Fulton (1989), modern lecture halls are far more intimately connected to their predecessors from fifty and a hundred years ago than are the operative rooms of hospitals, factories, scientific labs, or corporate offices. If we were to put a doctor from a century ago in an operating room today, they would likely be lost, and if we were to put a faculty member from a century ago in a lecture hall today, they would not even blink.

The education system of today employs advanced technology, such as knowledge base systems, expert systems, neural networks to create artificial brains, and genetic algorithms to solve challenging issues. Artificial intelligence is primarily required by the contemporary educational system. The idea of artificial intelligence is emerging as a result of the creation of numerous educational resources. Intelligent tools can be controlled by humans or by themselves without the need for outside guidance.

Many of the outcomes of artificial intelligence during the last 50 years are essential to the goals of academic institutions, students, and faculty. Computers from the last 20 years are used in the educational system. The initial course, titled "computer-based training," and computer aided instruction was such computer used as an attempt to lecture with machines in the education system. In these types of computers, the instruction was not individually used to the learner's needs. Today new technologies are used like Class pad which is an android tablet for education in the educational system, where teachers and students connection gets maximum strength and achieving better the targets of better education. Each person's beliefs determine what goals are appropriate for schooling. Thus, this topic will generate a lot of discussion and is now a major political concern. Among the contentious issues is the course of study, evaluation and learning procedures.

BENEFITS OF ARTIFICIAL INTELLIGENCE:

It's true that natural intelligence preserves a variety of knowledge and abilities, including the ability to learn, make decisions, react and comprehend activities, and solve issues. Numerous intelligence specialists have created clever systems that possess human-like coping intelligence. There are numerous development chances created by these kinds of procedures. It is crucial to understand the precise concept and approach of artificial intelligence before delving into its fundamental strengths and weaknesses. The intelligence of machine systems is referred to as artificial intelligence. We usually do so after consulting intelligence processes. Some of these tasks include the machine's ability to comprehend and behave appropriately in an intelligent environment. Intelligent technologies are nimble in whatever they do and deliver precise outcomes. Based on their study, educational intelligent systems' operations would be administration- and student-centric. Systems like intelligent tutors and mark sheet preparation handle both types of tasks.

LIMITATIONS:

AI intelligence is comparable to natural intelligence revealed by computers or computer code. It is also a field of study that focuses on education. Numerous artificial intelligence researchers and various textbooks describe the field due to intelligent agent's research and style, where this kind of skilled agent is a system that understands its environment and maximizes its chances of success by acting. Despite its significant contribution to modern technologies, artificial intelligence also has certain drawbacks and restrictions. The following are some restrictions on intelligent technologies: Every study has its limits, and this one is no exception. The research worker also has some restrictions. Due to the lack of information about respondents, distortion may arise while aggregating the data. Respondents may conceal information due to a variety of reasons, including poor perception, inaccurate recording, their own content, disinterest, and more. This study has several drawbacks. Even if there is disagreement over the obvious advantages of intelligent computing, a thorough investigation is necessary to ensure that students are actually using and abusing the skills they are learning online. The finest results will be obtained through the use of computer programs in a business setting.

CONCLUSION: In recent years, artificial intelligence has advanced quickly. We are only at the beginning of AI's development, which will continue to advance in the years to come. Further developments in this area will enable AI to interpret data in a manner that appears oddly similar to the way Information is processed by humans. However, compared to tier designers, AI will be able to evaluate this data rapidly and provide far superior responses. As Gemini, Siri, and ChatGPT develop further, we will discover how to employ these AI aides as personal assistants. As AI develops, management and commerce will undergo significant transformations. They will have a far better ability to forecast their customers' purchasing patterns and provide them with recommendations that are customized for certain customers. Clients won't be able to tell virtual assistants apart from their actual staff as they become more human-like. Given that the AI era has begun, it will have a significant participate in business and management in the upcoming years.

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