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Application of A.I. in Future

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Abstract: *In the future, intelligent machines will replace or enhance human capabilities in many areas. Artificial intelligence is the intelligence exhibited by machines or software. It is the subfield of computer science. Artificial intelligence is becoming a popular field in computer science as it has enhanced the human life in many areas. Artificial intelligence in the last two decades has greatly improved performance of the manufacturing, service sector and so in the field of education. Study in the field of artificial intelligence has given rise to the rapidly growing technology known as expert system. Application areas of artificial intelligence is heaving a huge impact on various fields of life as expert system is widely used in these days to solve the complex problems in various areas as education, engineering, business, medicine, weather forecasting etc. The areas employing the technology of artificial intelligence have seen an increase in the quality and efficiency. This paper gives an overview of this technology and the scope of artificial intelligence in different areas with special reference to the use of this technology in the field of education along with its meaning, searching techniques, inventions and future.*

Keywords: intelligent machines

I. INTRODUCTION

Defining Artificial Intelligence

AI is a machine-based learning method that simulates human intelligence. It's the ability of a computer program to "think" on its own, learn, draw connections, and streamline tons of processes for you.A common scenario is a text-based AI program that allows you to type a question and it provides an answer. The AI model will read your question, interpret what you're trying to ask, and then look through its massive database to answer the question for you.A simple way to explain AI is substituting the human brain for a computer-based program to do tasks for you. AI can be used with text, visual media, video, music, and much more.

Brief History of AI

The idea of AI has been around for a long time. It was written about as a theory shortly after the first computers hit the market. Formally, AI started in the mid-1900s, with milestones like the Turing Test being created to test whether an AI-based model can think and have emotions.

Today, AI is commercially available for most people. All you need is an internet connection, and you can start using basic AI models for free.

Strong AI vs. Weak AI

The principle behind Strong AI is that the machines could be made to think or in other words could represent human minds in the future. Thus Strong AI claims that in near future we will be surrounded by such kinds of machine which can completely works like human being and machine could have human level intelligence. If that is the case, those machines will have the ability to reason think and do all functions that a human is capable of doing. Current researchis nowhere near creating strong AI, and a lively debate isongoing as to whether this is even possible .

Weak AI

The principle behind Weak AI is simply the fact that machines can be made to act as if they are intelligent. Weak AI simply states that thinking like features can be easily added to computer to make them more useful tools and this already started to happen. For example, when a human player plays chess against a computer, the human player may feel as if the computer is actually making impressive moves. But the chess application is not thinking and planning at all. All the moves it makes are previously fed in to the computer by a human and that is how it is ensured that the software will make the right moves at the right times.More examples of Weak AI are witness expert systems, drive by

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wires cars and speech recognisation systems Artificial Intelligence (abbreviated as AI) is the capability of a device to perform activities, which would otherwise only be expected of the human brain. These activities include the capacity for knowledge and the ability to acquire it. It also comprises of the ability to judge, understandrelationships and last but not least produce original thoughts.

Intelligence = perceive + Analyse + React

Also, there is a huge different between short termmemory and RAM. Short-term memory holds pointers to thelong-term memory where all the information is actually stored while RAM stores data that is isomorphic to data being held on a hard disk. Also, RAM has a memory limit while there seems to be no capacity limit when it comes to short-term memory.

ADVANTAGES AND DISADVANTAGES

One of the major advantages of artificial intelligence isthat its decisions are based on facts rather than emotions. Even after our utmost efforts, it is a well-known fact that human decisions are always affected in a negative way by our emotions.

Unlike humans, machines with artificial intelligence donot need any sleep, thus overcoming the inherent disadvantage of tiredness in humans.

Easier spreading of knowledge. . Once an artificial mind is trained for something, it can be very easily copied to the others reducing the time wasted in otherwise passing on knowledge to other humans through training.

Lack of creativity in responses.

Inability to explain the logic and reasoning behind acertain decision.

Current development is at a stage where the AI cannotknow when there is no solution to a particular problem.

Any malfunctioning can lead to the AI producingwrong solutions and since it cannot explain thereasoning behind its answer, blind reliance on AI canlead to problems.

Lack of common sense in reasoning can also major problems.

It can be used to cause mass scale destruction if givenin the wrong hands.

All this being said, one of the most concerning problem with the development of AI is that it will soon startsubstituting humans in every field thus causing a high rate ofunemployment, which would lead to depression, crime andpoverty. Also, there are some fields that require the humantouch and there is a growing sense of belief that machineswill quite possibly never be able to replace humans. Thecaring behavior of nurses in hospitals is one example of ajob that humans feel machines will never be able to dojustice to.

Applications of Artificial Intelligence

With a better understanding of Artificial Intelligence as a whole, let's explore some specific applications of artificial intelligence in today's world. Some of these are more general, but all of them are applicable to the everyday person.

Healthcare Diagnosis and Treatment

One of the more exciting ways to utilize AI today is through healthcare diagnostics and treatment. With humans, there are a lot of limits. Doctors are expensive, waiting rooms are crowded, hospitals are busy, and people make mistakes.

A spider bite looks a lot like MRSA, and it's common for doctors to accidentally misdiagnose patients for several reasons.

With AI-based healthcare, uploading a picture and answering the AI's questions can provide helpful results. The AI model can access billions of pictures and databases to make sure every diagnostic is as accurate as possible.

With AI, you won't need to go to the hospital to get a diagnostic and treatment plan. You'll be able to get real advice from the comfort of your home, likely using a phone-based app.

Autonomous Vehicles

Autonomous vehicles are cars that can drive themselves with no input needed from a human at all. You might have seen some examples in the news recently, and there are even experimental autonomous vehicles on the road today in parts of America.

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How do these cars drive themselves? Through AI. Artificial Intelligence is acting as the brain for the whole operation. It's interpreting incoming data from sensors on the car, making decisions in real-time, navigating using the most efficient route, and ensuring the car stays safe during the whole trip. AI decides when the car shifts, when to accelerate, how quickly to go, and when to brake or stop.
Without AI, the autonomous vehicle will stay parked in one spot, unmoving.

Environmental Monitoring and Conservation

There are so many risks to the environment, but AI-based environmental monitoring and conservation is a way to reduce some of these risks. It works through numerous sensors scattered around outside, across the globe. The AI model will monitor all these data as a means of predicting and preventing any upcoming ecological threats.
It's a useful tool in wildlife conservation efforts, looking into patterns of poaching and animal populations to avoid extinction and give early indicators if something is wrong. For instance, this system could find that the population of sheep is falling too quickly and the population of wolves is growing. The system can tell the user this information and even suggest methods to correct the ecological issue.

II. CONCLUSION

Artificial intelligence is rapidly transforming the digital landscape, becoming an integral part of how we interact, work, and innovate. As AI continues to advance, it promises to shape the future in ways we are just beginning to understand.

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