

Applications of Artificial Intelligence in Current Era

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ABSTRACT This paper reviews the various advantages and disadvantages of artificial intelligence. It also discusses the various applications of this technology in various industries.

Introduction to Artificial Intelligence

AI is a type of intelligence that can solve complex problems. It is usually referred to as a computer or a machine. Intelligence is the ability to imagine a world where machines can learn and memorize patterns, making them adaptable to change. Strong AI is a theory that states that machines could one day become capable of representing human minds. This concept claims that in the future, machines could have the capability to have human-like intelligence. If machines are made to be able to mentally capable of reasoning and performing the tasks that humans can do, then they should be able to do them. However, current research is not enough to make them strong enough.

Thinking like a human being can be easily added to a computer to make it more useful. For instance, when playing against a computer, the player may feel like the computer is making impressive moves. All the movements that the computer makes are previously fed in by a human. The capacity to acquire knowledge is also involved in various activities such as listening and speaking. There are a huge differences between RAM and short-term memory. Short-term memory refers to the bits that are stored in the short-term memory while RAM stores the data that is stored on a hard disk.

The Turing test is a test conducted by Alan Turing to demonstrate the capabilities of a machine. It asks whether a human judge can mentally communicate with a machine. Each participant is placed in an isolated location. If the judge cannot tell the machine from the human, then the machine is declared to have passed the test.

There are a number of older disciplines that have roots in AI. Some of these include philosophy, logic, math, and cognitive science. Through these studies, we can gain a deeper understanding of how these disciplines have developed and what their role in AI. One of the main advantages of artificial intelligence is its ability to make decisions based on facts instead of emotions. This eliminates the need for humans to be emotional. Once trained, an artificial mind can be copied to another person, which saves time and effort in passing on knowledge.

Applications of Artificial Intelligence

Current development stage shows that AI doesn't know when it has no solution to a particular issue. Having no idea about the reason behind its answer can lead to the AI producing the wrong solutions. Common sense can also be a major issue with AI as it can be used to commit mass destruction if given the wrong hands.

There are some fields where the human touch is required, such as hospitals and law enforcement. Many people believe that machines will never be able to replace humans in these fields. It is very important that we ask the question whether AI has been able to achieve the level of capability that humans can do. There is also a huge acceptance of AI in various fields of study. NASA has sent robots to Venus to study the environment and the possibility of life flourishing on the planet. Mercedes-Benz and other car manufacturers rely on software controllers to control the systems that operate their vehicles. These controllers help subway lines in Washington, D.C. stop within 3 inches of the platform's right spot.

There are trains that have motormen that are mainly tasked with assuring passengers. AI has become so prevalent in these fields that it is no longer referred to as Artificial intelligence anymore.

Supporters of AI would also point to the time when Deep Blue II defeated Garry Kasparov. It proved that AI is capable of being smarter than humans.

Also, Deep Blue II studied all of Kasparov's previous games. Even though it defeated him, it was never a fair fight. Despite the progress made in AI, it is still not at a level where it is capable of completely replacing the mind. Cortex is a project of Artificial Development Inc. and the Blue Brain Project, which are two main ventures that aim to develop AI-capable brain networks. With the combination of low computational time and high precision, AI has become a cutting-edge technology. It has taken over many tasks previously handled by humans. Some of the applications of AI are as follows. Gaming industry one of the most popular uses of AI is in the gaming industry, where it is used to play chess.

AI is also being used in Kinect for body motion detection. However, its capabilities are still in their infancy and require more development. These robots do not require breaks while working. They can easily overcome the fatigue factor of humans by monitoring and predicting weather conditions. Expert Systems are specialized machines that are trained to solve specific problems in a certain field. They use statistical analysis and data-mining techniques to develop effective and logical solutions.

The knowledge base contains all the data and rules that an expert system needs to have complete expertise in its field of expertise. This field seeks to extract knowledge from a query and then formulate a recommendation or solution that fits to a given situation. Data mining is a process utilized for discovering hidden patterns in large databases. This process involves performing various steps before performing the mining. Knowledge representation, search and control, and knowledge acquisition are the three fundamental techniques that are used in AI. The rise of artificial intelligence will transform the way we live. The creation of machines that can perform complex tasks and communicate with humans will become more prevalent.

Conclusion

There will be a great future for applications of AI in health care. However, until then, we are not ready to embrace the idea of machines becoming more intelligent than humans. Even if it is possible, it will still require a long time to develop and implement these features. If one is sick, then they can easily hire a robot nurse to provide them with medicine at regular intervals. It is not yet clear if this technology will have any positive or negative effects on our future. AI has a lot to gain from the computing world. For instance, they can learn and improve themselves by example. They do not need to create an algorithm to perform a task. AI machines are also very well-suited for real time systems since they can respond quickly to different scenarios. Due to their fast response times, they can consume a lot of computational energy.

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