Artificial Intelligence (AI) - What it is and Why it Matters

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In brief

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Artificial intelligence is creating many waves worldwide, and the term AI seems to be used a lot. Unfortunately, this seems to bring lots of confusion. However, to clarify things, let’s define artificial intelligence from when it was first introduced. John McCarthy was the scientist who first introduced the term "artificial intelligence," even though the concept had been studied before but broadly and less precisely.

What is Artificial Intelligence?

In the simplest of terms, AI or Artificial Intelligence is a computer or machine that can solve problems usually done using natural human intelligence. A machine will show a form of intelligence if it learns how to solve problems and improve itself. Today, AI-enabled machines should be able to do at least one of the following:

- Learning
- Problem-solving
- Speech recognition
- Planning
- Reasoning
- Ability to manipulate objects
- Perception

Humans are now building machines to specialize in at least one of the above areas. And when applied in combination with data, analytics, and automation, it can help businesses achieve their goals, be it improving customer service or optimizing field monitoring in agriculture.

What are the three types of Artificial Intelligence?

There are three different types of artificial intelligence based on approach. There is Strong AI, Weak AI, and Artificial superintelligence.

Strong AI

Strong AI simulates how the human brain works by building systems that learn and adapt and, in the process, provide some insight into the workings of the human brain. Humans have not yet been able to develop those types of AI yet. We mostly see them in Sci-fi movies where sentient computers think logically, emulate our intelligence, and can even be mistaken for a human.

While there are some tasks where machines are better than humans, such as data processing, Strong AI is still at the concept stage, and human-machine collaboration is still vital in the modern world to bring out the best of both sides.

Weak AI

Weak AI, on the other hand, is a system that acts like a human but does not give any insight into the workings of the human brain. Unfortunately, most of the AI we encounter daily are Weak AI. Even though they have the very high processing power, their area of expertise is narrow. Some examples include digital assistants, weather apps, etc.

Artificial Super intelligence

This is the point where artificial intelligence surpasses human intelligence. For this to be possible, machines have to surpass human intelligence in all contexts and parameters. It is also a futuristic notion with exaggerated AI capabilities. This is a far-fetched futuristic notion. And if it becomes a reality, we should start worrying about machines taking over the world.

Why is it important?

In the world of today, the amount of days generated is far more significant than what it was a decade ago. In addition, almost all the devices we use daily are connected to the internet, which generates data that can be interpreted and used for business purposes. If humans were perfectly capable of processing and interpreting such amounts of data within a short time, then AIs would not be necessary. However, that is not the case.

Humans have limitations to the amount of data they can process accurately. On the other hand, machines have a greater processing capacity, which is done with precision and can arrive at the best outcome within a short time. That is why many more people have started integrating AI in business decision-making based on data.

Artificial intelligence use cases

As technology advances, artificial intelligence becomes an integral part of our society and is used in our daily lives. Here are some use cases of artificial intelligence:

Fraud detection

Some of the main issues faced by the financial industry are determining who is eligible for a loan and detecting fraudulent transactions. Using AI, banks and other financial institutions can quickly sort applicants for loans who are eligible. This will significantly reduce the wait times and accuracy of choosing qualified individuals. Also, AI monitors bank transactions and detects fraudulent activities in real-time.

Field monitoring

The agriculture industry is also heavily using AI to help with important business decisions and crop monitoring, which increase farm yield and reduce crop loss. For example, data collected from the farms using crop monitoring systems are used by AI to make recommendations on which crop to plant based on the season and disease risk. The AI can also provide information on when to plant, irrigate, fertilize, and harvest. This significantly reduces the waste of farm resources.

Personalized learning

Artificial intelligence can create lessons based on the learning capabilities of different students. So, it uses data to master the knowledge gap and makes learning recommendations that will help the students individually.

Healthcare

Healthcare is another industry where AI is becoming popular. Machine learning models are fed with patient data to help doctors with decision-making and treatment recommendations. AI is also being tested in providing dosing for drugs and surgical procedures.

References

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