Artificial Intelligence Master Class 2023

Let’s Understand AI

Artificial intelligence is an advanced technology, typically run by a series of algorithms, computers, or robots, that uses real-time data to simulate human intelligence. AI can replicate human discernment and make real-time decisions.

When Did Ai Start ?

The period between 1940 and 1960 was strongly marked by the conjunction of technological developments (of which the Second World War was an accelerator) and the desire to understand how to bring together the functioning of machines and organic beings.

Two classes (Groups) of AI

*Based on Capabilities
*Based on Functionalities

3 main types of Artificial Intelligence Based on Capabilities.

Narrow intelligence

is defined as the goal-oriented version of AI designed to better perform a single task such as tracking weather updates, generating data science reports by analyzing raw data, or playing games such as poker, chess, etc

General Intelligence

is the intelligence of machines that allows them to comprehend, learn, and perform intellectual tasks much like humans. With AGI, machines can emulate the human mind and behavior to solve any kind of complex problem.

Super Intelligence

They are high-functioning systems that replicate and even surpass human intelligence but only for a specific purpose. ASI is also known as super AI or superintelligent AI

4 main types of Artificial Intelligence Based on Functionalities

Reactive machines are AI systems that have no memory and are task specific, meaning that an input always delivers the same output

Limited Memory are algorithms that imitates the way our brains' neurons work together, meaning that it gets smarter as it receives more data to train on. Deep learning improves image recognition and other types of reinforcement learning. Limited memory AI, unlike reactive machines, can look into the past and monitor specific objects or situations over time. Then, these observations are programmed into the AI so that its actions can perform based on both past and present moment data.

Theory of mind

The first two types of AI, reactive machines and limited memory, are types that currently exist. Theory of mind and self-awareness are AI types that will be built in the future. As such, there aren't any real world examples yet.

If it is developed, theory of mind AI could have the potential to understand the world and how other entities have thoughts and emotions. In turn, this affects how they behave in relation to those around them.

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Humans understand how our own thoughts and emotions affect others, and how others' affect us—this is the basis of our society's human relationships. In the future, theory of mind AI machines could be able to understand intentions and predict behavior, as if to simulate human relationships.

Self-awareness

The grand finale for the evolution of AI would be to design systems that have a sense of self, a conscious understanding of their existence. This type of AI does not exist yet.

This goes a step beyond theory of mind AI and understanding emotions, to being aware of themselves, their state of being, and being able to sense or predict others' feelings. For example, "I'm hungry" becomes "I know I am hungry" or "I want to eat lasagna because it's my favorite food."

We are a long way from self-aware AI because there is still so much to uncover about the human brain's intelligence and how memory, learning, and decision-making work.

Benefits of Ai

- Reduction in Human Error
- Zero Risks
- 24x7 Availability
- Digital Assistance
- New Inventions
- Unbiased Decisions
- Perform Repetitive Jobs
- Daily Applications
- Automation.
- Productivity.
- Decision Making.
- Solving Complex Problems.
- Economy.
- Managing Repetitive Tasks.
- Personalization.
- Global Defense.

Examples

An example of AI is the Virtual Financial assistant used by the Bank Of America, called ***Erica***. As of 2019, Erica has surpassed 6 million users and has serviced over 35 million customer service requests.

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