The Three Types of Artificial Intelligence: Understanding AI

AI is rapidly evolving. Artificial Super Intelligence could be here sooner than expected.

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According to a **Gartner Survey** of over **3,000 CIOs**, **Artificial intelligence** (AI) was by far the most mentioned technology and takes the spot as the top game-changer technology away from **data and analytics**, which is now occupying a second place.

AI is set to become the core of everything humans are going to be interacting with in the forthcoming years and beyond.

Robots are **programmable entities** designed to carry out a series of tasks. When programmers embed human-like intelligence, behavior, emotions, and even when they **engineer ethics into robots** we say they create robots with an embedded Artificial

Intelligence that is able to mimic any task a human can perform, including debating, as **IBM showed** earlier this year at CES Las Vegas.

IBM has made a **human-AI debate** possible through its **Project Debater**, aimed at helping decision-makers make more informed decisions.

Depending on the type of tasks carried out by AI robots, AI has been divided into different categories. It is worth noting, however, that AI is still in its infancy. In the future, AI is going to look and behave quite differently from what it is today.

To be prepared for the future, we need to start brushing-up our knowledge of AI. Humans also need to be prepared for the challenges and changes AI will bring to society and humankind as a whole. So, what Artificial Intelligence actually is?

What is AI?: The three types of Artificial Intelligence

"AI is the science and engineering of making intelligent machines, especially intelligent computer programs." - Alan Turing

First of all, to be able to participate in today's discussions about Artificial Intelligence and to understand the changes it will bring to the future of humanity we need to be knowledgeable of the basics.

The different types of AI depend on the **level of intelligence embedded** into a robot. We can clearly categorize AI into three types:

Artificial Narrow Intelligence (ANI)

Artificial Narrow Intelligence (ANI), also known as Narrow AI or Weak AI, is a type of Artificial Intelligence **focused on one single narrow task**. It possesses a narrow-range of abilities. This is the only AI in existence today, for now.

Narrow AI is something most of us interact with on a daily basis. Think of Google Assistant, Google Translate, Siri, Cortana, or Alexa. They are all machine intelligence that use Natural Language Processing (NLP).

NLP is used in chatbots and other similar applications. By understanding speech and text in natural language they are programmed to interact with humans in a personalized, natural way.

AI systems today are used in medicine to diagnose cancers and other illnesses with extreme accuracy by replicating human-like cognition and reasoning.

Artificial General Intelligence (AGI)

When we talk about Artificial General Intelligence (AGI) we refer to a type of AI that is **about as capable as a human**.

However, AGI is still an emerging field. Since the human brain is the model to creating General Intelligence, it seems unlike that will happen relatively soon because there is lack of a comprehensive knowledge of the functionality of the human brain.

Yet, as history has shown many times, humans are prone to creating technologies that become dangerous to human existence. Why then trying to create algorithms to replicate brain function would be different? When this happens, humans will have to accept the consequences this might bring.

Artificial Super Intelligence (ASI)

Artificial Super Intelligence (ASI) is way into the future. Or, that is what we believe. To reach this point and to be called an ASI, an AI will need to surpass humans at absolutely everything. The ASI type is achieved when AI is **more capable than a human**.

This type of AI will be able to perform extraordinary well at things such as arts, decision making, and emotional relationships. These things are today part of what differentiates a machine from a human. In other words, things that are believed to be strictly human.

However, many could argue that humans have not yet mastered the art of emotional relationships, or good decision making. Does it mean that perhaps, a few centuries into the future, Artificial Super Intelligence will master areas where humans have failed?

Roboethics: Human ethics applied to robotics

At the same time that we get into the conversation and learn more, we need to start the discussion on **roboethics.** How are humans going to interact, consider, and treat these machines in the future? When are humans going to **grant rights** to AI? Who is going to have the power to grant such rights?

In 2001, **Steven Spielberg** in collaboration with the **Kubrick Studios** brought to the movie theaters an argument about the core on the human existence represented by a **humanoid Mecha** called David. He is the first of its kind: A child who can be activated to feel love, learn from his surroundings, and consequently develop other human emotions such as fear and sadness.

Humans embedded David with the capacity to feel emotions. However, **humanity failed** in taking responsibility for the life they had created. David's mother abandon him in the forest hurting David's feelings.
Meanwhile, in the real world, **Hanson Robotics' Sophia** was the first robot who was granted citizenship by the Saudi Arabian government. Although Sophia is considered one of the most advanced robots today, she is still a prototype, but one set to become an Artificial General Intelligence in the future. In the video below, Sophia has a conversation with one of her creators.

Robots embedded with AI and future applications of the technology pose **ethical questions** that must be addressed now, as many futurists, philosophers, and AI researchers across the world have already proposed.

This is the time to begin the discussion on **Transhumanism** and the AGI or **Singularity**, expected to emerge **by 2060**, in order to be prepared for the future.

You may ask, what kind of world this will be when a computer's cognitive ability will become superior to a human's. Today's **Generation Alpha** children are the ones who are going to co-live with Artificial Super Intelligence. And that will open a new chapter in the history of humanity.

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