

# Artificial Intelligence

## What is Artificial Intelligence?

Artificial Intelligence is intelligence exhibited by machines in simple pre-programmed machines acting like humans without any feelings.

The evolution of this technology started decades ago where a generation of scientists, mathematicians, and philosophers all had the concept of AI but it wasn't until one British Polymath, Alan Turing, suggested that if humans solve problems and make decisions then why can't machines do the same thing? Later in 1970's the terminology of computer and its usage has started rapidly and took many transformations from the first-generation computer to supercomputers and forthgoing to Artificial Intelligence.



To understand the concept behind how Artificial Intelligence actually works, one needs to deep dive into the various sub-domains of Artificial Intelligence and understand how those domains could be applied to the various fields of the industry.

Predominantly it works on the concept of algorithms that is predefined in the form of machine language. According to today's, emerging technologies Artificial Intelligence can be classified into 3 types:

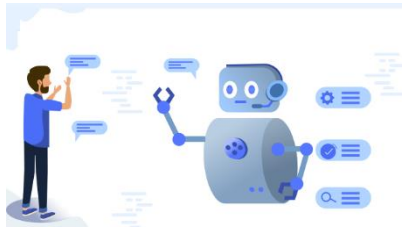
- Artificial Narrow Intelligence (ANI)
- Artificial General Intelligence (AGI)
- Artificial Super Intelligence (ASI)



**Artificial Narrow Intelligence:** This is the most common form of AI as the name specifies narrow it is designed to work on one machine at a time and perform only one task with a limited set of parameters Google and Alexa are the best examples of this.

**Artificial General Intelligence:** It is a theoretical concept that has a human-level of cognitive function, across a wide variety of domains such as language processing, image processing, computational functioning and reasoning, and so on.





Artificial Super Intelligence: It can surpass all human capabilities. This would include decision making, taking rational decisions, and even includes things like making better art and building emotional relationships. AI systems would rapidly be able to improve their capabilities and advance into realms.

As a beginner, here are some of the basic prerequisites that will help get started with the subject.

1. Stronghold on Mathematics – mainly Calculus, Statistics, and probability.
2. A good amount of experience in programming languages like Java, or Python.
3. A stronghold in understanding and writing algorithms.
4. A strong background in data analytics skills.
5. A good amount of knowledge in discrete mathematics.
6. The will to learn machine learning languages.

Despite of AI ruling the 21<sup>st</sup> century, based upon its functionalities and usages it has some pros and cons under its bucket they can be termed as strong ai and week ai.

#### **Advantages of AI:**

There's no doubt that technology has made our life better. From music recommendations, map directions, mobile banking to fraud prevention, AI and other technologies have taken over. There's a fine line between advancement and destruction. There are always two sides to a coin, and that is the case with AI as well. On overall.

- Reduces Human Error
- Helps in lessening repetitive work
- Provides Digital assistance
- Faster and more accurate decisions.

#### **Disadvantages of AI:**

- Cost overruns
- Dearth of talent
- Lack of practical products
- Lack of standards in software development
- Potential for misuse
- Highly dependent on machines
- Requires Supervision.