Artificial intelligence is intelligence—perceiving, synthesizing, and inferring information—demonstrated by machines, as opposed to intelligence displayed by non-human animals and humans. Example tasks in which this is done include speech recognition, computer vision, translation between (natural) languages, as well as other mappings of inputs.

ARTIFICIAL INTELLIGENCE applications include advanced web search engines (e.g., Google Search), recommendation systems (used by YouTube, Amazon and Netflix), understanding human speech (such as Siri and Alexa), self-driving cars (e.g., Waymo), automated decision-making and competing at the highest level in strategic game systems (such as chess and go). As machines become increasingly capable, tasks considered to require "intelligence" are often removed from the definition of ARTIFICIAL INTELLIGENCE , a phenomenon known as the AI effect. For instance, optical character recognition is frequently excluded from things considered to be AI, having become a routine technology.

Artificial intelligence was founded as an academic discipline in 1956, and in the years since has experienced several waves of optimism, followed by disappointment and the loss of funding (known as an "AI winter"), followed by new approaches, success, and renewed funding. AI research has tried and discarded many different approaches since its founding, including simulating the brain, modelling human problem solving, formal logic, large databases of knowledge and imitating animal behaviour. In the first decades of the 21st century, highly mathematical-statistical machine learning has dominated the field, and this technique has proved highly successful, helping to solve many challenging problems throughout industry and academia.