ARTIFICIAL INTELLIGENCE

In [computer science](https://en.m.wikipedia.org/wiki/Computer_science), **artificial intelligence** (**AI**), sometimes called **machine intelligence**, is [intelligence](https://en.m.wikipedia.org/wiki/Intelligence) demonstrated by [machines](https://en.m.wikipedia.org/wiki/Machine), in contrast to the **natural intelligence** displayed by humans and animals. Computer science defines AI research as the study of "[intelligent agents](https://en.m.wikipedia.org/wiki/Intelligent_agent)": any device that perceives its environment and takes actions that maximize its chance of successfully achieving its goals.[[1]](https://en.m.wikipedia.org/wiki/Artificial_intelligence#cite_note-Definition_of_AI-1) Colloquially, the term "artificial intelligence" is used to describe machines that mimic "cognitive" functions that humans associate with other [human minds](https://en.m.wikipedia.org/wiki/Human_mind), such as "learning" and "problem solving".[[2]](https://en.m.wikipedia.org/wiki/Artificial_intelligence#cite_note-FOOTNOTERussellNorvig20092-2)

As machines become increasingly capable, tasks considered to require "intelligence" are often removed from the definition of AI, a phenomenon known as the [AI effect](https://en.m.wikipedia.org/wiki/AI_effect). A quip in Tesler's Theorem says "AI is whatever hasn't been done yet."[[3]](https://en.m.wikipedia.org/wiki/Artificial_intelligence#cite_note-3) For instance, [optical character recognition](https://en.m.wikipedia.org/wiki/Optical_character_recognition) is frequently excluded from things considered to be AI, having become a routine technology.[[4]](https://en.m.wikipedia.org/wiki/Artificial_intelligence#cite_note-4) Modern machine capabilities generally classified as AI include successfully [understanding human speech](https://en.m.wikipedia.org/wiki/Natural_language_understanding),[[5]](https://en.m.wikipedia.org/wiki/Artificial_intelligence#cite_note-FOOTNOTERussellNorvig2009-5) competing at the highest level in [strategic game](https://en.m.wikipedia.org/wiki/Strategic_game) systems (such as [chess](https://en.m.wikipedia.org/wiki/Chess) and [Go](https://en.m.wikipedia.org/wiki/Go_%28game%29)),[[6]](https://en.m.wikipedia.org/wiki/Artificial_intelligence#cite_note-bbc-alphago-6)[autonomously operating cars](https://en.m.wikipedia.org/wiki/Autonomous_car), intelligent routing in [content delivery networks](https://en.m.wikipedia.org/wiki/Content_delivery_network), and [military simulations](https://en.m.wikipedia.org/wiki/Military_simulations).

Artificial intelligence can be classified into three different types of systems: analytical, human-inspired, and humanized artificial intelligence.[[7]](https://en.m.wikipedia.org/wiki/Artificial_intelligence#cite_note-7)Analytical AI has only characteristics consistent with [cognitive intelligence](https://en.m.wikipedia.org/wiki/Cognition); generating a cognitive representation of the world and using learning based on past experience to inform future decisions. Human-inspired AI has elements from cognitive and [emotional intelligence](https://en.m.wikipedia.org/wiki/Emotional_intelligence); understanding human emotions, in addition to cognitive elements, and considering them in their [decision making](https://en.m.wikipedia.org/wiki/Decision_making). Humanized AI shows characteristics of all types of competencies (i.e., cognitive, emotional, and [social intelligence](https://en.m.wikipedia.org/wiki/Social_intelligence)), is able to be [self-conscious](https://en.m.wikipedia.org/wiki/Self-consciousness) and is [self-aware](https://en.m.wikipedia.org/wiki/Self-awareness) in interactions with others.