Learning

There are a number of different forms of learning as applied to artificial intelligence. The simplest is learning by trial and error. For example, a simple computer program for solving mate-in-one chess problems might try moves at random until mate is found. The program might then store the solution with the position so that the next time the computer encountered the same position it would recall the solution. This simple memorizing of individual items and procedures—known as rote learning—is relatively easy to implement on a computer. More challenging is the problem of implementing what is called generalization. Generalization involves applying past experience to analogous new situations. For example, a program that learns the past tense of regular English verbs by rote will not be able to produce the past tense of a word such as jump unless it previously had been presented with jumped, whereas a program that is able to generalize can learn the "add ed" rule and so form the past tense of jump based on experience with similar verbs.

Reasoning

To reason is to draw inferences appropriate to the situation. Inferences are classified as either deductive or inductive. An example of the former is, "Fred must be in either the museum or the café. He is not in the café; therefore he is in the museum," and of the latter, "Previous accidents of this sort were caused by instrument failure; therefore this accident was caused by instrument failure." The most significant difference between these forms of reasoning is that in the deductive case the truth of the premises guarantees the truth of the conclusion, whereas in the inductive case the truth of the premise lends support to the conclusion without giving absolute assurance. Inductive reasoning is common in science, where data are collected and tentative models are developed to describe and predict future behaviour—until the appearance of anomalous data forces the model to be revised. Deductive reasoning is common in mathematics and logic, where elaborate structures of irrefutable theorems are built up from a small set of basic axioms and rules.

Start-Up (Korean: □ □ □ □ ; RR: Seutateueop) is a South Korean television series starring Bae Suzy, Nam Joo-hyuk, Kim Seon-ho and Kang Han-na.[1] The series revolves around a woman who has dreams of becoming an entrepreneur like Steve Jobs, and her love triangle between a man who is secretly her first love and another man who is pretending to be her first love.[2] It aired on tvN from October 17 to December 6, 2020, every Saturday and Sunday at 21:00 (KST). It is available for streaming on Netflix.[3]

There has been considerable success in programming computers to draw inferences, especially deductive inferences. However, true reasoning involves more than just drawing inferences; it involves drawing inferences relevant to the solution of the particular task or situation. This is one of the hardest problems confronting AI.

Strong AI, applied AI, and cognitive simulation

Employing the methods outlined above, AI research attempts to reach one of three goals: strong AI, applied AI, or cognitive simulation. Strong AI aims to build machines that think. (The term strong AI was introduced for this category of research in 1980 by the philosopher John Searle of the University of California at Berkeley.) The ultimate ambition of strong AI is to produce a machine whose overall intellectual ability is indistinguishable from that of a human being. As is described in the section Early milestones in AI, this goal generated great interest in the 1950s and '60s, but such optimism has given way to an appreciation of the extreme difficulties involved. To date, progress has been meagre. Some critics doubt whether research will produce even a system with the overall intellectual ability of an ant in the foreseeable future. Indeed, some researchers working in AI's other two branches view strong AI as not worth pursuing.

Applied AI, also known as advanced information processing, aims to produce commercially viable "smart" systems—for example, "expert" medical diagnosis systems and stock-trading systems. Applied AI has enjoyed considerable success, as described in the section Expert systems.

Set in South Korea's fictional Silicon Valley called Sandbox, Start-Up tells the story of people in the world of startup companies.

Seo Dal-mi (Bae Suzy) is a bright and ambitious young woman who dreams of becoming Korea's Steve Jobs. Dal-mi doesn't have a fancy background but she's passionate about her work. She has bright energy and is a person of great vitality, having experience in a wide range of part-time jobs.

Nam Do-san (Nam Joo-hyuk), is the founder of Samsan Tech. A 'math genius', or genius savant, as a young boy, Do-san was once the pride of his family but became their shame now, as his business has been going down for the past two years. He finds out that Dal-mi mistakenly remembers him as her first love, so he decides to work his way up in hopes of turning that misunderstanding into reality.

In cognitive simulation, computers are used to test theories about how the human mind works—for example, theories about how people recognize faces or recall memories. Cognitive simulation is already a powerful tool in both neuroscience and cognitive psychology.

artificial intelligence (AI), the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. The term is frequently applied to the project of developing systems endowed with the intellectual processes characteristic of humans, such as the ability to reason, discover meaning, generalize, or learn from past experience. Since the development of the digital computer in the 1940s, it has been demonstrated that computers can be programmed to carry out very complex tasks—as, for example, discovering proofs for mathematical theorems or playing chess—with great proficiency. Still, despite continuing advances in computer processing speed and memory capacity, there are as yet no programs that can match human flexibility over wider domains or in tasks requiring much everyday knowledge. On the other hand, some programs have attained the performance levels of human experts and professionals in performing certain specific tasks, so that artificial intelligence in this limited sense is found in applications as diverse as medical diagnosis, computer search engines, and voice or handwriting recognition.

How Does Artificial Intelligence Work?

AI Approaches and Concepts
Less than a decade after breaking the Nazi encryption machine Enigma and helping the Allied Forces win World War II, mathematician Alan Turing changed history a second time with a simple question: "Can machines think?"

Turing's paper "Computing Machinery and Intelligence" (1950), and its subsequent Turing Test, established the fundamental goal and vision of artificial intelligence.

At its core, AI is the branch of computer science that aims to answer Turing's question in the affirmative. It is the endeavor to replicate or simulate human intelligence in machines.

The expansive goal of artificial intelligence has given rise to many questions and debates. So much so, that no singular definition of the field is universally accepted.