

The ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. 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, voice or handwriting recognition, and chatbots. 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 such as 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 full human flexibility over wider domains or in tasks requiring much everyday knowledge. What is intelligence