Commentary

iMedPub Journals
http://www.imedpub.com

American Journal of Computer Science and Engineering Survey

2020
Vol. 8 No.3:12

Artificial Intelligence and its Applications

Fahad Ayyaz*

Allama Iqbal Science College, Bahawalpur, Pakistan

*Corresponding author: Fahad Ayyaz, Faculty at Allama Iqbal Science College, Bahawalpur, Pakistan, E-mail: fahadayyaz05@gmail.com

Received: November 09, 2020; Accepted: November 23, 2020; Published: November 30, 2020

Citation: Ayyaz F (2020) Artificial Intelligence and its Applications. Am J Comput Sci Eng Surv Vol. 8 No. 3: 12.

Description

Artificial Intelligence (AI) is the ability of a digital computer or computer-controlled robot to perform tasks commonly related to intelligent beings. The term is usually applied to the project of developing systems endowed with the intellectual processes characteristic of humans, like the ability to reason, discover meaning, generalize, or learn from past experience.

AI is accomplished by studying how human brain thinks and the way humans learn, decide, and work while trying to solve a problem, and then develops intelligent software and systems by using the outcomes of this study.

Categorization of Artificial Intelligence

Artificial intelligence is often divided into two different categories: weak and strong. Weak artificial intelligence embodies a system designed to hold one particular job. Weak AI systems include video games like the chess example from above and private assistants like Amazon's Alexa and Apple's Siri.

Strong artificial intelligence systems are systems that keep it up the tasks considered to be human-like. These tend to be more complex and sophisticated systems. They are programmed to handle situations during which they'll be required to problem solve without having an individual intervene. In applications like self-driving cars or in hospital operating rooms these kinds of systems can be found

Goals of AI are to Create Expert System which exhibit intelligent behavior, learn, demonstrate, explain, and advice its users.

To Implement Human Intelligence in Machines – Creating systems that understand, think, learn, and behave like humans.

Contributions to AI

Artificial intelligence is a science and technology supported by disciplines like Computer Science, Biology, Psychology, Linguistics, Mathematics, and Engineering. A major thrust of AI is within the development of computer functions associated with human intelligence, such as reasoning, learning, and problem solving.

Out of the subsequent areas, one or multiple areas can contribute to create an intelligent system.

Approaches of AI

- Cybernetics and brain simulation
- Symbolic
- Cognitive simulation
- Logic-based
- Anti-logic or scruffy
- Knowledge-based
- Sub-symbolic
- Embodied intelligence
- Computational intelligence and soft computing
- Statistical

Approaches of AI

AI has been dominant in various fields like

Gaming-AI plays crucial role in strategic games like chess, poker, tic-tac-toe, etc. where machine can think of huge number of possible positions based on heuristic knowledge.

Natural Language Processing-It's easy to interact with the computer that understands natural language spoken by humans.

Expert Systems-There are some applications which integrate machine, software, and special information to impart reasoning and advising. Explanation and advice to the users is provided by them.

Vision Systems-These systems understand, interpret, and comprehend visual input on the PC. For example,

Spatial information or map of the areas is figure out by the photographs taken by a spying aeroplane.

To diagnose the patients, doctors use clinical expert system.

Police use computer software which will recognize the face of

criminal with the stored portrait made by forensic artist.

Speech Recognition-When a human talk to it, some intelligent systems are capable of hearing and comprehending the language in terms of sentences and their meanings. It can handle different accents, slang words, noise within the background, change in human's noise due to cold, etc.

Handwriting Recognition-The text written on paper by a pen or on screen by a stylus can be read by the handwriting recognition software. It can recognize the shapes of the letters and convert it into editable text.

Intelligent Robots-Robots are ready to perform the tasks given by a human. They have sensors to detect physical data from the important world like light, heat, temperature, movement, sound, bump, and pressure. They have efficient processors, multiple sensors and large memory, to exhibit intelligence. In addition, they can adapt to the new environment and they are capable of learning from their mistakes.