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Topic: Artificial Intelligence

Github Link: <https://github.com/Salem-Badr/ece001>

Github Page: https://salem-badr.github.io/ece001/

Application Brief:

Artificial Intelligence is the study of how to make computer do things which at the moment people do The better. primary goal of artificial intelligence is to improve computer behavior so that it can be called intelligent. Artificial Intelligence (AI) is a field of study based on the premise that intelligent thought can be regarded as a form of computation. To achieve this, two major issues need to be addressed. The first issue is knowledge representation, and the second is knowledge manipulation. Within the intersection of these two issues lies mechanized intelligence. AI combines precision and computational power with pure logic, to solve problems and reduce error in operation. Already, robot expert systems are taking over many jobs in industries that are dangerous for or beyond human ability. I highlight that the potential applications of Artificial Intelligence are abundant. They stretch from the military for autonomous control and target identification, to the entertainment industry for computer games and robotic pets.

The four types of artificial intelligence:

Currently, people become obsessed with AI especially after developing the Sofia robot in October 2017. So we will explain the four main AI types and how they were developed over time:

1- Interactive type:

It is an interactive machine that reacts based on its experiences at the present moment as it does not store any parts of memory or past experiences. So, this type can do very well in playing games as it has the ability to figure out the right move to beat the opponent. Examples of this type are: Deep Blue chess player and Alphago chess machine.

2- Limited memory type:

This type is slightly different from the interactive type, as it stores certain parts of memory, which are the parts that help it interact based on this memory. It is a short-term memory though. Examples of this type: self-driving cars, chat robots and traffic lights.

3- Type of mind theory:

This type is more intelligent as he interacts based on his awareness of people's thoughts and feelings, these machines adapt to surrounding people, build social interactions, and predict the way people expect to be treated, and thus interact with them based on these expectations.

4- Self-perceived type:

This type is an extension of the third type of mind theory. In other words, the concept of self-awareness refers to "consciousness". So, this type of machine can realize its needs and inner condition more than we are human beings. Also, this kind of machine has the ability to perceive consciousness which we are unable to.

Screenshots:



