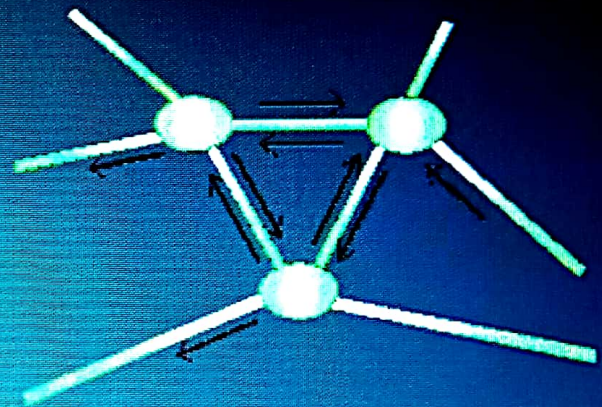# Definition

Artificial Intelligence(AI) is the intelligence of machines and the branch of computer science that aims to create it.

Textbooks define this field as "the study and design of intelligent agents".

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DEFINITIONS

* A.I is a branch of computer sciences dealing with symbolic, Nonalgorithic-Methods of problem solving.

* AI works with pattern matching methods which attempt to describe objects, events or processes in terms of their qualitative features and logical and computational Relationship.

What is <u>Intelligence</u> ?

→ To respond to situations very flexibly.

→ To make sense out of ambiguous or contradictory messages.

→ To recognize relative importance of different elements of situations

→ To find similarities between situations despite difference

→ To draw distinctions between situations despite similarities which may link them.

History

Thinking machines and artificial beings appear in Greek myths.

Alan Turing's theory of computation formed the basis of development of the electronic computer and in turn aided the idea of AI research.
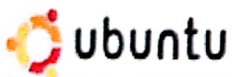
The field of AI research was founded at a conference on the campus of Dartmouth College in the 1956.

John McCarthy, one of the leaders of AI Research was regarded as "The Father of AI".

"Machines will be capable, within twenty years, of doing any work a man can do"

-Herbert Simon

Artificial Intelligence

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Traits of an Intelligent System

Deduction, Reasoning & Problem Solving

Knowledge Representation

Planning & Learning

Natural Language Processing

Motion & Manipulation

Perception & Social Intelligence

Creativity

General Intelligence

Artificial Intelligence
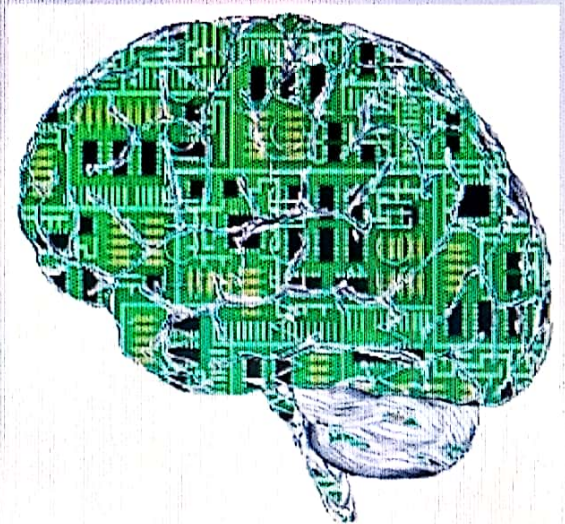
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Approaches

Cybernetics & Brain Simulation

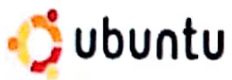Symbolic

Sub-Symbolic

Statistical

Integrating the Approaches

Artificial Intelligence

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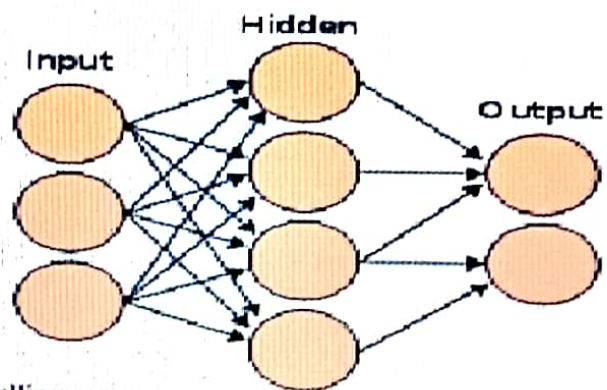 ubuntu

Tools

Search & Optimization

Logic

Probabilistic Methods for Uncertain Reasoning

Classifiers & Statistical Learning Methods

Neural Networks

Control Theory

Languages

Artificial Intelligence

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Evaluating Progress

In 1950, Alan Turing proposed a general procedure to test the intelligence of an agent known as the Turing test.

The broad classes of outcome for an AI test are:

Optimal

Strong super-human

Super-human

Sub-human

Artificial Intelligence

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Applications

Artificial intelligence has successfully been used in a wide range of fields:

Medical Diagnosis

Stock Trading

Robot Control

Law

Scientific Discovery

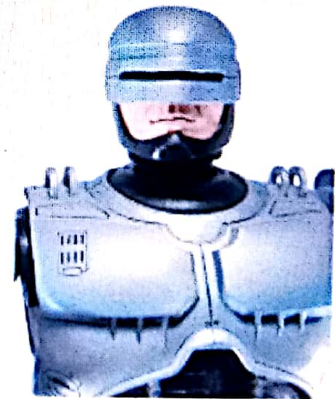Video Games & Toys

Web Search Engines.

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Predictions

AI is a common topic in both science fiction and projections about the future of technology and society.

Robot Rights

The impact of AI on society is a serious area of study for futurists.
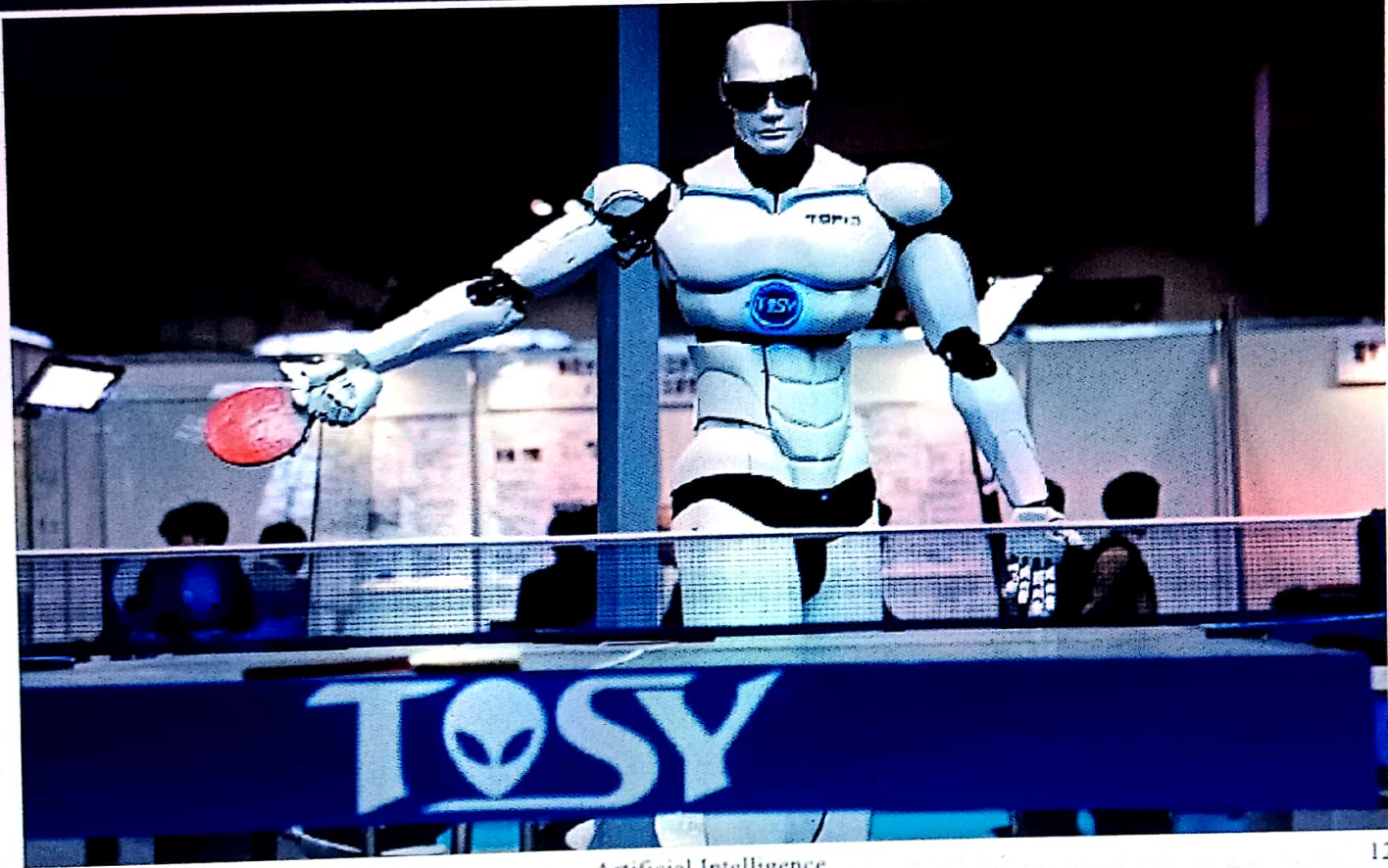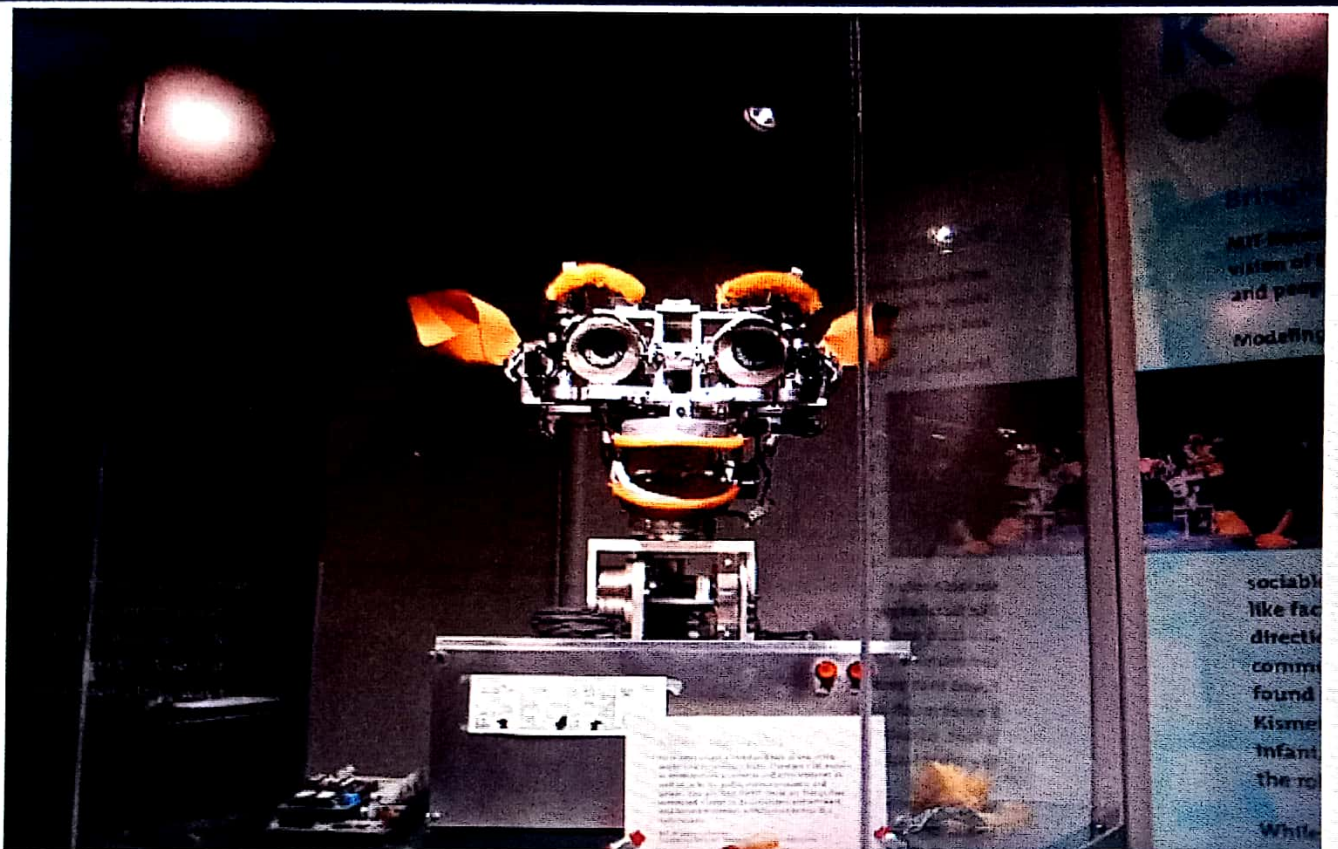
Transhumanism- RoboCop

Artificial Intelligence

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TOPIO

Artificial Intelligence

KISMET

Deep Blue Vs Garry Kasparov

Artificial Intelligence

A Small Live Example

Elliza

Artificial Intelligence   16