

ARTIFICIAL INTELLIGENCE

FUTURISTIC APPROACH TO LIBRARIES



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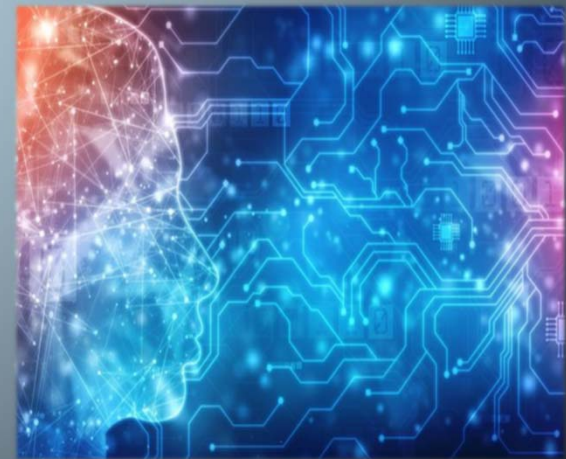
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Introduction

Artificial Intelligence (AI) is poised to disrupt our world. With intelligent machines enabling high-level cognitive processes like thinking, perceiving, learning, problem solving and decision making, coupled with advances in data collection and aggregation, analytics and computer processing power, AI presents opportunities to complement and supplement human intelligence and enrich the way people live and work.



Definition of AI

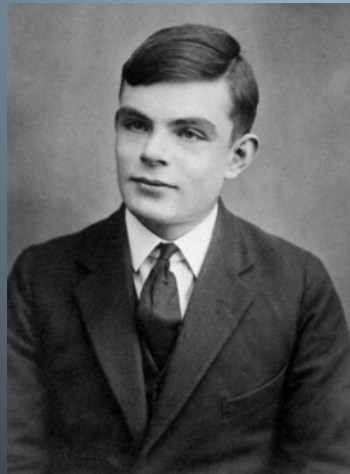
The subfield of Computer Science concerned with understanding the nature of intelligence and constructing computer systems capable of intelligence action.

- (Winston, 1999)



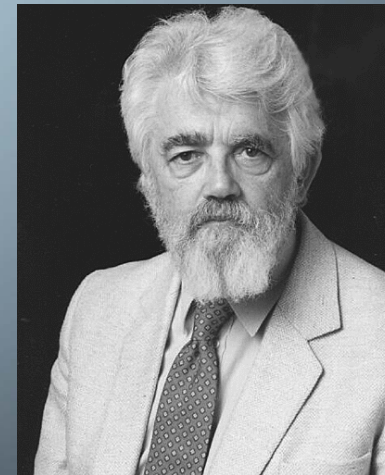
Two Pioneering Figures in the Field of AI

“A computer would deserve to be called intelligent if it could deceive a human into believing that it was human.”



ALAN MATHISON TURING
(1912-1954)

“I don't see that human intelligence is something that humans can never understand.”



JOHN MCCARTHY
(1927-2011)

“Founding Fathers of AI”

Components of AI



Logic and Rules Based

Computer makes decisions based on a decision tree, logic rules, or a predefined process with a calculated result.



Pattern Based (Machine Learning)

Computer learns overtime by using data and algorithms to detect patterns.



Deep Learning

Deep Learning is a subset of Machine Learning that enables the computer to make decisions on its own.



Neural Networks

A neural network allows an AI to make its own conclusions, where a simple pattern-only based AI must rely solely on data. A neural network allows deep learning to

Types of AI

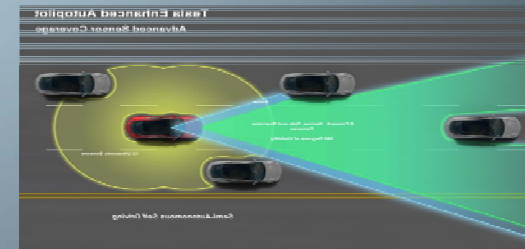
ANI – Artificial Narrow Intelligence

Comprises of basic/role tasks such as those performed by chatbots, personal assistants like SIRI by Apple and Alexa by Amazon.



AGI – Artificial General Intelligence

Involves continual learning by the machines. Self-Driving Cars by Uber, Autopilot by Tesla.



ASI – Artificial Super Intelligence

Consist of Intelligent way smarter than humans. Such as Robotics, Missiles and Satellites.



Possible Areas of Application of AI in Libraries

- Expert System in Library Services
- Intelligent systems
- Natural Language Processing in Library Services
- Machine learning in Library Services
- Robotics in the Library Services
- Intelligent Interfaces to Online Databases
- Information search and discovery
- Text and Data Mining

