

# A Review Paper on Artificial Intelligence & Its Applications

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**Abstract**— In olden days, there was all work done by the humans because that time there was not such technologies like these days. In those days, science is not too much developed and technology was not invented. So all the work was totally dependent on the persons and humans are recognized that “Today “s science is the tomorrow’s technology”. New advanced technologies are the blessing of god. Appropriate inventions for reducing the human work load and bright future will be invented which is known as Artificial Intelligence. There were many myths at the early stage when we are tending towards a new era of absolute technology and superior science.

**Index Terms**— Artificial intelligence, digitalization

## I. INTRODUCTION

Humans has proved his presence on the earth, it is necessary that every individual should understand about artificial intelligence which is going to mean for the humans new world or technical era .As we see any sci –fi movie like avengers, power rangers terminal tor etc., are completely equipped super hero “s to the world for demolished super powers . if anyone has seen rockets or space shuttle launching, auto driving c cars, or tiny robots which help in household and simple chores to hard power full human muscle works, which are very great examples of artificial intelligence. No doubt that artificial intelligence is the two hot test buzzword all over the earth at present, artificial intelligence is almost everywhere like our vending machine to our mobile phone, home appliance everywhere . in these days YouTube, instagram twitter almost every application software use the artificial intelligence to attract their users by enhancing in their system user interface.

## II. ARTIFICIAL INTELLIGENCE

According to father of AI, John McCarthy, who introduced the term “Artificial Intelligence?” Said that It is the comprises of science and engineering to make intelligent gadgets for human welfare. AI is that much smarter than the best human brain cells in pragmatic field, including computer science and linguistic reasoning. It is a modern way of machines which will do all human work and retrieve to solve complex questions in an intelligent manner. It is relatable with the

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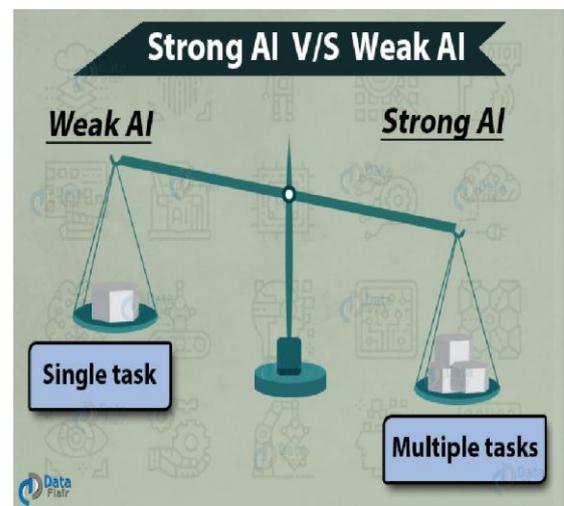
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basic and most necessary asp acts in our life i.e. science, computer science, mathematics, physics, linguistics, biology, chemistry, neuron science, sociology etc. AI plays a very crucial role to show intelligent behavior, to apply, demonstrate and give a better result to the world.

Artificial General Intelligence or AGI is a level that introduces the machine can do prudent behavior as the living organism can do many ask at a time. A wider view to artificial intelligence is that it can be the Collection of learning, applying, perception, problem solving and adapting or perplexed puzzle solving new solutions to the interface. It also includes logic and reasoning

Artificial intelligence defines as two types:

1. Basic AI.
2. Strong artificial intelligence



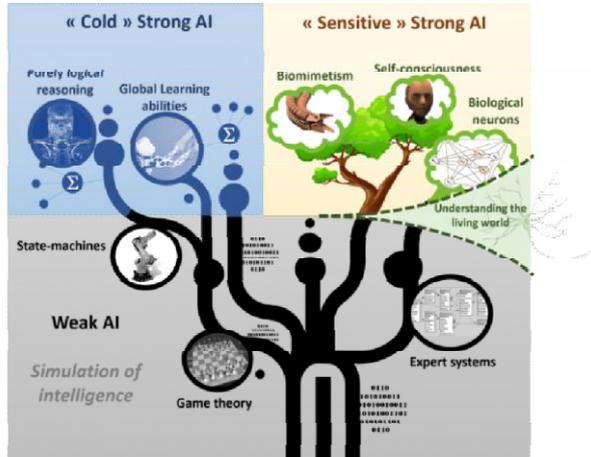
1. Basic AI

The Law of Weak Artificial intelligence is that the device behaves as if they are smart. Weak AI expresses that virtual abilities like thinking, decision making, talking, moving can be done by devices if they are designed in such that way. E.g. at ludo game, the computer can automatically play and move dice better than human thinking. The device does not have that ability but in really it is programmed like that the device always takes appropriate moves.

2. Strong AI:

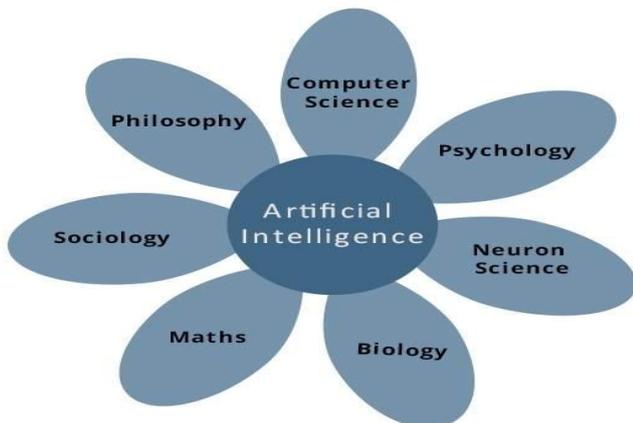
The Law of powerful AI is that the device will do calculations and think it and will conclude the

answer in better way. E.g. the artificial intelligence comprises supercomputer WATSON invented by IBM. Thus in next decades, there will be definitely such devices or may be discovered by us which will done its own work and think more effefetly than us.



### What Contributes to AI?

AI is a science and technologies rely on disciplines such as Computer Science, environment, Psychology, Linguistics, Mathematics, and Engineering. A larger thrust of Artificial intelligence is in the development of computer technologies associated with human intelligence, such as logical reasoning, learning, and problem solving. Out of the environmental areas, one or multiple areas may contribute to build an intelligent efficient



### III. APPLICATIONS OF ARTIFICIAL INTELLIGENCE

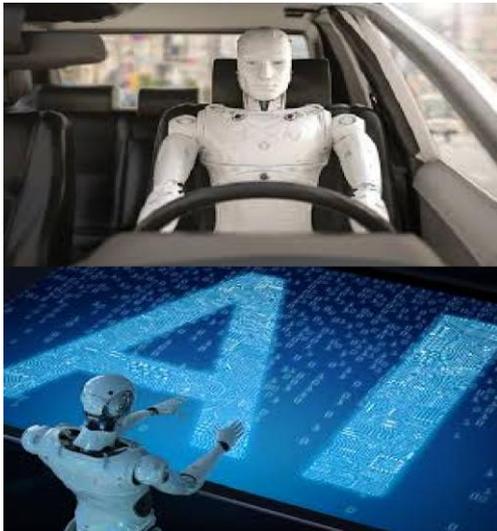
For this world a s we know that AI is most and applicable useful topic in our human life. There is wide range of day -today examples of artificial intelligence. There is siri by apple, Google now by Google assistance , Watson by IBM and Cortina by windows mobile for various other systems which are intelligent powerful digital personal assistants, these have speed and gesture recognition system which is

useful to the user to find and solve out all the required things without any physical interference .

All future and current researches are carrying on by our expert scientists on humanoids values i.e. robotics along with human behavior and feelings to perform all the human actions. There are available high performance super cars along with automatic drivers assists, navigations, park assist, missiles with radar, satellites and navigation systems for human interaction.

- **Gaming** – artificial intelligence plays major role in strategic games such as chess, puzzles, poker, tic-tac-toe, etc., these machines can think of huge number of possible positions based on heuristic knowledge.
- **Natural Language conversion** – With the help of artificial intelligence is possible to interact with the computer that understands natural language spoken by human’s beings.
- **Expert computer Systems** – Many applications which comprises machine, software, and special information to impart reasoning and advising. They provide explanation and advice to the users of that application.
- **Vision Systems** – In These systems understand, interpret, and comprehend visual input on the system. For example,
  - A spying satellite takes photographs, which are used to find out spatial information or map of the particular areas.
  - Doctors and many hospitals use clinical expert system to diagnose the patient and manage the all over system info.
  - Police and administration use computer software that can identify the face of criminal with the stored faces made by forensic artist.
- **Speech & voice Recognition** – these intelligent systems are capable of hearing and comprehending the language in the form of sentences and their meanings while a person talks to this system. It can handle different accents, slang words, noise in the background, change in human’s noise due to fever or any other diseases, etc.
- **Handwriting Recognition** – This tool handwriting recognition software fetch the text written on paper by pencil or on screen by a stylus. It can identifier the shapes of the letters and convert it into desirable text.

- **Smart Robots** –With AI robots can perform the tasks given by human beings. These robots have sensors to detect physical and logical data from the real world such as light, heat, temperature, speed, sound, bump, and pressure. They have efficient and powerful processors, multiple sensors and large memory, to show intelligence. In addition, they are capable of learning from their mistakes and previous activities and they can follow to the new environment.



#### IV. ADVANTAGES OF ARTIFICIAL INTELLIGENCE

- ❖ **Full Accuracy with minimum errors:** Artificial intelligence machines and systems are design less errors with high accuracy as it takes decisions as per previous events or information.
- ❖ **High-Speed:** systems can be of much high-speed and fast-decision making, with the help of AI systems can beat a chess, ludo champion in the ludo and Chess game.
- ❖ **High reliability:** These systems are highly reliable and able to perform the same action multiple times with effective and high accuracy.
- ❖ **Helpful in risky areas:** AI based machines can be helpful in situations such as defusing a bomb, detect any terrorism activity exploring the ocean floor, where to employ a human can be risky.
- ❖ **Digital Assistant:** intelligence can be very useful to provide digital assistant to the system users such as AI technology is currently used by many type of E-commerce websites to show and listing the products as per customer requirement.
- ❖ **Useful as a public utility:** Ai based system can be very useful for public utilities such as a Automatic car which can make our journey much safer and efficient, facial recognition hands free for security purpose, Natural language processing to

communicate with the human in human-language, etc.

#### V. DISADVANTAGES OF ARTIFICIAL INTELLIGENCE

- ✓ **Costly:** The system requirement of Artificial intelligence is much costly as it requires lots of maintenance and storage to meet current world problems.
- ✓ **Not able to think wider:** we are making intelligent machines with AI, but still they are not able to work out of the box, as the robot will only do that work for which because they are trained, or programmed.
- ✓ **No human feeling and emotions:** AI based machines can be an superb performer, but still it does not have the feeling so it is not able to make any kind of emotional attachment with human, and sometime be dangerous users if the proper care is not taken.
- ✓ **Increase dependency on systems:** In this world with the increment of technology, people are getting more dependent on devices and computers hence they are losing their own capabilities.
- ✓ **No Original Creativity:** As humans are so intelligent and can imagine some new ideas but still AI machines cannot beat this power of human intelligence and cannot be creative and imaginative

#### VI. CONCLUSION

The whole world is on the route of Digitalization and for that determination the artificial intelligence concepts plays an important and effective role. Our research paper is totally based on that things, how the intelligence and new upcoming technologies get invented in our day to day life for future existence. Today 's machines are ready to give the knowledge based and its performed education and are responsible for carrying out the intelligence. In upcoming days, we can't think and imagine about the progress of entire world due to only Artificial Intelligence and Innovative Machinery. We can "Imagine or predict about what happening in surrounding environment and in all over world because of experts and engineers. Experts developed the Robots who is working like a Human Being and also the research is going on to create the best world in future for getting best appropriate results .Our Youth generation support is one of the most important and appreciable parts to develop the new technologies. Combination of Science and Engineering and the artificial intelligence will surely take the world at its highest peaks of success.

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