

Artificial intelligence

[Technology](#), [Artificial Intelligence](#)



This paper illustrates the social implications of artificial intelligence as a part of Information technology. So the paper tries to investigate on the origin, evolution, types and purpose of artificial intelligence technology. In order to understand the technology of AI, the paper closely observes the technical architecture and related functionality of AI as an Informational technology.

Then the study tries to observe the applicable areas of AI under different industrial segments. The paper analyses the real impact by observing the positive as well as negative outcomes of the AI on the society.

The paper concludes that as like other technologies, the features of AI are highly useful to the society and there is a necessity to concentrate on restructuring the legal frame work while operating with such an efficient system as it almost replaces the human intervention in many cases.

Introduction:

Artificial intelligence is one of the advanced fields to investigate in information technology. It is the branch of science combined with engineering that uses the computer programs in making intelligent machines. AI is mainly concerned with designing of systems that exhibit the characteristics associated with human intelligence like understanding of language, learning, reasoning, solving problems etc.

The field attracted many IT researchers due to its enormous underlying intellectual challenges. Researchers are creating systems which can imitate human thoughts, understanding of speech, logical processing, and automatic math calculations etc.

The dream of smart machines becoming true due to advanced progress in AI programming techniques. It is related to the usage of computers to understand human intelligence, but AI has not confined itself to methods that are biologically observable.

The ultimate effort of AI is to make computer programs that can solve problems and achieve goals that can replace the human effort. For this reason, the field of AI has become controversial in the sight of social, ethical, and philosophical practitioners.

Scope of study:

The current study tries to identify the social implications of Artificial intelligence.

Background:

History of AI:

The AI name was proposed in 1950s but it was implemented at 1956 at a conference on the campus of Dartmouth College. John McCarthy, Marvin Minsky, Allen Newell and Herbert Simon, were the pioneers of AI research. They wrote programs for solution for word problems in algebra, proving logical theorems and speaking English.

At that time, they worked on machines to develop the machines to do the work as equal to human intelligence can do. But due to the difficulties like lack of raw computer power, the inflexible combinatorial explosion of their algorithms, the difficulty in representing commonsense knowledge and doing commonsense reasoning, the incredible difficulty of perception and motion and the failings of logic, their dreams were not come true.

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The Specialization of various AI Studies and different AI-related studies had developed during the 70's. Edward Feigenbaum started research on expert systems and Roger Schank advanced language analysis with interpretation of meanings to words. Due to the success of expert systems like MIS, knowledge system, medical diagnosis, the AI field was revitalized in early 1980s and also commercial growth has taken place with a big place for market in the IT industry.

The market for AI was crossed more than a billion dollars. In the 90s, AI achieved great successes giving its credit to the factors like incredible power of computers and joint ventures to have new tie-ups between AI and other fields working on similar problems.

Artificial intelligence was adopted throughout the technology industry in the areas like medical processing, heavy logistics, data mining, remote controlling, space science, military sciences and critical math computing areas etc.,

Purposes of Artificial Intelligence:

The development of AI has two motivations. Those are technological and psychological motivations. So far, development in AI programs has been conducted with these two motivations. Some developers want to make computers to do useful task without caring how developers do that task. These are methods such as sensitivity to ultraviolet light, or an extensive search in advance through all the legal chess moves for several steps.

Other developers are using AI to learn about human brains. The medicine technology wants to investigate on human brain. AI gives a simulating edge

to do such investigations on machines instead of conducting critical experiments directly on humans. This process of investigation in turn helps to develop psychological theories for the benefit and advancement of human kind.

Development of AI:

Over the past 50 years, AI has made its impact on many sectors like education, medicine, logistics, pharmacy, R&D etc., to enhance the utilities in the daily lives of people in society. AI is being used in everyday consumer items such as robotic vacuum cleaners, running shoes along with advanced aeronautic navigation systems and medical computer imaging systems.

Artificial intelligence focused on developing hardware and software systems to solve problems which can only be solved by human intelligence usually. The AI includes studying and developing machines such as robots, automatic pilots for airplanes, space ships, and "smart" military weapons.

Artificial Intelligence aims to create intelligence through man made systems. This intelligence can range from low-level insect intelligence to human level intelligence.

Artificial intelligence is to manipulate the information and interact with the environment which entails intelligence in an organism. The main idea behind the AI is that human beings and animals acquire knowledge from their environment and manipulation that knowledge in an efficient manner.

Artificial Intelligence is slowly becoming part of our daily life. The AI applications range from video game to military applications.

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In practice, AI's effective computability is drawn similar to the human intelligence in the lines that mind is represented by program controlled machines and mental structures refer to symbolic data structures, while mental processes implement algorithms. With this architecture, AI facilitates the computers to adopt advanced problem solving approaches to solve the complex situations.

Artificial Intelligence is not limited to the field of information technology but also it encompasses on certain fields of Linguistics, Physiology and Psychology.

AI is also very much helpful to Psychologists. They can express their theories clearly as programs. If the program fails to produce the proposed results, then the theory is incorrect, but the executed program will give a way to find out the mistake very easily in the instances like simulation, which would be very difficult and time consuming to find otherwise.

However, if the program succeeds, it does not just infer that the results for the theory are true in actual sense; but they help to correlate the practical outcome with the theories.

AI is being using in the areas like financial processing, R&D design engineering, public transport schedulers, planning & architecture, security protocols etc., AI systems can provide guidance on gardening, travel, car maintenance in daily life and In order to assist the disabled persons AI robots were also developed.

The theory and practice of AI is leading to the development of a wide range of artificially intelligent tools. Sometimes these tools will work under the

guidance of a human and sometimes without external guidance, those are able to solve or help to solve a steadily increasing range of problems. (David Moursund)