Effect or impact of artificial intelligence (AI)

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Abstract

In this paper we learn about artificial intelligence In all over world people are learning how the present day of robots and the future of Artificial intelligence would impact the society and the social life. Artificial Intelligence is a science and expertise based on disciplines. Robots are machines that are most often programmed by a computer. They are capable of performing a series of complex actions robotically. Robots can be utilized by using either an external device (such as a remote control) or through a device that is implanted within the robot itself which can be said as Artificial Intelligence.

Keywords: Artificial Intelligence, Social Life, Logical Reasoning

1. Introduction

Artificial aptitude and Robotics created an interest in the areas of medicine, manufacturing, military, and household applications; there is a push to increase the usage of robots and machine learning in these areas. The idea of combining these machines together with the computational power of computers to act or think in a way human do, creating computers or machines as intelligent as human beings, has existed for some time. Early research by Alan M. Turing who published "Computing Machinery and Intelligence" in 1950 and who is best known for "The Imitation Game" in which the question "Can machines think" is considered and evaluated. Artificial Intelligence study presents evidence on the attitude of firms regarding artificial cleverness (AI), robotics, and Big Data, —sometimes referred to as the "Fourth Industrial Revolution" as well as their views in respect to the impacts that these new technologies may have on future business and employment. Artificial intelligence demonstrated by machine, in contrast to the natural intelligence display by human and other animals. The scope of artificial intelligence is disputed as machine become increasingly capable. In the field of labour economics, substitution of labour by AI and robots is hotly discussed. Although this discussion is a natural extension of numerous studies on the relationship between ICT and labour, the estimation by Frey and Osborne (2013) on the number of jobs at risk to be replaced by future computerization

2. Artificial Intelligence (AI)

John McCarthy is the father of Artificial Intelligence. Artificial Intelligence is a way of making computers and computer-controlled machines and software to be intelligent enough to learn, decide, and execute in a manner similar to that of the way a human brain thinks and acts. Artificial Intelligence is a knowledge and machinery based on disciplines such as Computer Science, Biology, Psychology, Linguistics, Mathematics, and Engineering. It is defined as "The science and engineering of making intelligent machines, especially intelligent computer programs". Alan M. Turing published "Computing Machinery and Intelligence" in 1950. Alan M. Turing is best known for "The

Imitation Game" in which the question "Can machines think" is considered and evaluated. This question has led to the rise of many researchers such as Marvin Minsks, John McCarthy, James McClelland, David Rumelhart, and Lofti Zadeh, resulting in a substantial amount of work in the area of Artificial Intelligence. Robots are machines that are most often programmed by a computer. They are capable of performing a series of complex actions automatically. Robots can be utilized by using either an external device or through a device that is implanted within the robot itself. The term "robot" was form of written messages so that the interrogator cannot determine whether it is man or woman through the voice. The term "robot" was first used by the Czech writer, Karel Capek. George Devoninvented the first digital and programmable robotic 1945.

3. Artificial Intelligence Components

A. **Learning-** Learning is the process of acquiring explicit knowledge or new skills by studying, practicing, being taught, or experiencing something. Learning can be in the form of listening, hearing, remembering such as a sequence of events, playing, watching, writing, identifying, and classifying.

B. **Vision-These** systems analyses and interpret visual input on the computer. In the case of a medical diagnosis, doctors can use clinical expert systems to diagnose the patient using the digital image scans.

C. **Problem Solving-** One of the roles of AI is problem-solving – in which games such as chess, tic-tac-toe, and poker are played using the heuristic knowledge-based rules stored in order to determine the best possible move given the largest number of moves possible**.**

D. *Logical Reasoning*- Logical reasoning is a set of processes that enables us to provide a basis for judgment and making decisions and predictions. The two types of reasoning that are used include inductive reasoning and deductive reasoning. Inductive reasoning is based on specific observations which are suitably combined in order to reach

a broad generalization. Deductive reasoning starts with a hypothesis or broad generalization and examines the possibilities to reach a logical conclusion

E. **Machine Learning-**The machine can be tutored in a supervised manner or it can learn on its own in unsupervised manner. Machine learning is the ability of the computer(s) to learn without explicitly being programmed.

F. **Artificial Intelligence in Medicine-**In medicine, the issue is that few problems have algorithmic solutions that are both practical and valid. Thus, this is why physicians are expected to reason the illness based on the judgmental rules and empirical associations. MYCIN, an expert system developed for diagnosing bacterial infections, consists of two main parts: a knowledge base (built with the help of interaction with the users to help line of reasoning) and an inference engine (for making decisions). The knowledge base contains facts and associations about a subject area, such as medicine. The inference engine contains rules, which can be invoked in two ways: forward chaining or backward chaining.

4. Robotics

Robotics is concerned with the connection of perception to action. AI provides the intelligence by addressing what knowledge is required in the aspect of thinking, representation of the knowledge, and how it is to be used, thus making Robots intelligent. Isaac Asimov, part of the 1945 alumni of Columbia University, coined the term "Robotics". Robots are made out of hardware, which acts as an agent to perform certain defined tasks by manipulation. However; Robots are operated in both supervised and unsupervised manners. Robots can be in form of manipulators, mobile robots (such as the ones used to automate transport in production processes), and humanoid robots (which have a resemblance close to that of a human being). In medicine, Robots are being used in neurosurgery and in treating cancer patients. Use of Robots for household services, such as cleaning and surveillance, have increased and will continue to do so as time goes on. Major Service providers are now planning to provide home-based robotic services to help the sick and aged who are home alone. In Japan, Robots are being used to guide the blind. In addition, humanoid Robots are being tested and evaluated for deep space travel and exploration by NASA.
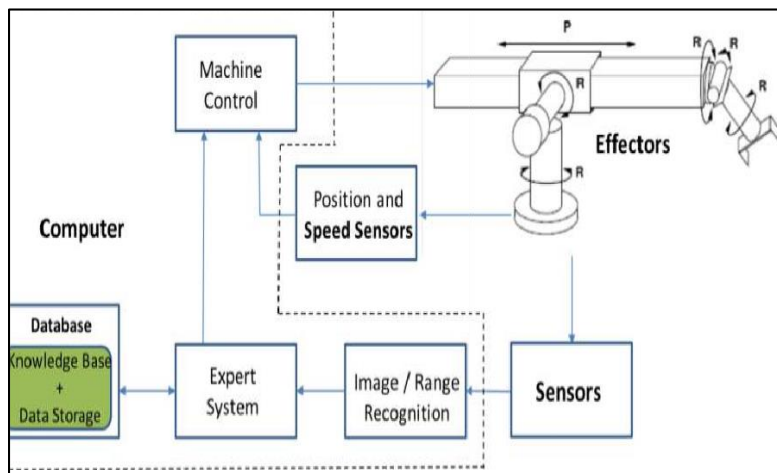

Fig 1: Components of an Intelligent Robot

1. **Sensor-** Sensors are the perceptual interface between the Robot and its environment. There are two type of the sensor which are – Active Sensor and Passive Sensor. Active sensors, such as sonar, laser, and radar, are generally used for distance measurements, such as length or depth, to determine the position of the Robot relative to the object. In order to do so, they emit energy, and the reflected energy received is used to determine the distance. Passive sensors, like cameras, are used to gather images of the environment, so they can be analyzed using computer vision and image recognition techniques. In the planning for a robotic assembly, AI defines knowledge required for reasoning, knowledge representation, and its use, as well as gathering information to update the generated plans, knowledge base, and world model.

2. **Effectors-** Effectors are the ways and means by which Robots manipulate their environment. Effectors consist of wheels, grippers, and revolute joints.

3. **Computer-**In this case, the Artificial Intelligence programs consisting of the number of its components resides on the computer.

5. Impact
Would you allow a robotic car drive you? Would you trust a robot to operate on you? Would you trust a robot to prescribe medications for your aging mother? Would you like robots to fight wars for your country? More importantly, whose fault is it when something goes wrong? Would the blame reside on the owner of the robot or the builder of the robot? As robots continue to penetrate into our daily lives, these questions need answers. Will robots crush the human race? Will we become the biological slaves of robots? Or more realistically, will robots take our jobs? The idea that robots will replace humans in the workplace is a growing threat for many. Although many would like to blame engineers for creating robots and thus leading to those robots taking other people's jobs, engineers are also creating their own robotic replacements through this process. Robots can very easily replace engineers in the fields of software development and

coding. Skill moves at immediate speed, and we now have more power in our pockets than we had in our homes in the 1990s. Artificial intelligence (AI) has been a fascinating concept of science fiction for decades, but many researchers think we're finally getting close to making AI a reality. Driverless cars have now become a reality through new and advanced technology, but with all good things come the bad. The invention of driverless cars is meant to ease people's commute to and fro. But, what happens when something goes wrong? One such example could be a self-driven car given the task of taking you to your friend's party on time. In this scenario, the car will drive at the fastest speed possible, taking the shortest route, violating all the speed limits, and trespassing all of the properties in the neighborhood possible, while also killing and injuring many people along the way. Who will be responsible for the damage done? Who will be responsible for the medical bills of the injured? Will the car's owner be responsible or will it be the car's manufacturing company?

6. Effects
This study presents proof on the attitude of firm regarding artificial intelligence (AI), robotics, and Big Data, —sometimes referred to as the "Fourth Industrial Revolution" —as well as their views in respect to the impacts that these new technologies may have on future business and employment. The study uses original survey data from more than 30000 Japanese firms effective in both the industrialized and service sectors. First, service sector firms generally have a positive attitude towards the use of Big Data and the impacts of AI and robotics, suggesting the importance of paying attention to "AI-using industries", as well as "AI-producing industries." Second, we observe complementarity between AI-related technologies and the skill level of firm employees. The complementarity is more prominent for employees with a postgraduate education. This result suggests that in order to speed up the progress and diffusion of AI-related technology and to maintain employment opportunities, it is necessary to upgrade human capital. Third, firms that operate in global markets report appositive attitude toward the impact of AI-related technologies, indicating that globalization of economic activities will facilitate the development and diffusion of the new technologies and that the converse would also be true.

7. Conclusion
Further research is required in the areas of sensors, where touch and feel need to be perfected, since building Robots resembling humans would require them. So, with the present technology at hand, can we really build Humanoids that represent a human being? And, will robots take over the world? Who knows? Only time will tell.

8. Acknowledgment

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