



Emerging Impact of Artificial Intelligence in Human Life

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Abstract

In the modern world, artificial intelligence is developing quickly thanks to new cutting-edge breakthroughs every day. Modern computer systems are built to do simple tasks like driving a car, recognising faces, and other menial jobs. However, the fundamental goal of artificial intelligence is to construct better and more complicated systems that would outperform humans at whatever way. This involves the performance of more sophisticated tasks like playing chess and completing mathematics. Therefore, the future goal of AI is to perfect all human activities and provide better solutions to problems than the human can do. In the long term, an automated system that does all the human functions from controlling cars to computerised business systems will pose several challenges. More so, in preventing the development of lethal arms that significantly harm humans once they are used to attack. As a result, the development of super AI that undergoes self-improvement, triggering intelligence explosion would leave the human intellectual capacity by far. The development of a super AI will mark the greatest invention in the human history. Consequently, the invention of more advanced technologies has significantly helped in war eradication, proper means of fighting diseases and developing appropriate prevention measures. Additionally, cutting-edge technology would be very beneficial in the fight against poverty.

The purpose of this paper is to present an introduction to the general field of artificial intelligence will be followed by a discussion of its birth, history, and development rise in artificial intelligence and along with its applications for various aspects of our life. We will discuss research related to artificial intelligence in this paper.

Keywords: Artificial Intelligence, Human Intelligence, Smart Machines, Automated System

1. Introduction

Artificial Intelligence (AI) is the science and engineering related to the computational understanding of intelligent systems, which can be used for artificial intelligence. Artificial intelligence. It comprises a wide range of tools, techniques, and algorithms, including neural networks, genetic algorithms, and algorithms, symbolic AI, and deep learning. These are the main areas. Growing rapidly and making significant impacts. In diverse fields such as health care, space, robotics, and military. With the increasing amount of data, ubiquitous connectivity, high-performance computing, and various algorithms present at our disposal, AI is going to add a new level of efficiency and innovation to future technologies. The recent success of AI has captured the imagination of both the scientific community and the public. Automatic car is one of example of this. providing the ability to make intelligent decisions on road in real-traffic road conditions.





Since the 1990s, technological advancements have greatly increased, and human performance of many activities has improved even more (Frey and Osborne 2017). The idea of AI as a field of study was closer to science fiction. However, the concept of AI is already a reality and a part of our everyday life rather than a work of fiction. As a result, "machine learning" allows machines to comprehend complex data and deliver accurate information by using neural networks that replicate the actual operations of real neurons (Iqbal et al. 2016). The era of AI's greatest advancements and advancements is now upon us. Consequently, AI has been the most cutting-edge technology. As a result, it will take up much of technology's attention for a long time. It is significant to mention that AI has transformed people's life for the better. Notably, the incorporation of AI technology has a strong connection to enhancing people's daily activities.

2. Conceptual Perspective

There are many various ways to define artificial intelligence (AI); for some, it is the technology that was developed to enable computers and other devices to work intelligently. Some believe it to be a machine that takes the place of workers to provide a faster and more efficient outcome for men. Others view it as "a system" capable of accurately interpreting external data, learning from such data, and using those learnings to accomplish particular objectives and tasks through adaptable change [1].

Despite the diversity of definitions, it is generally accepted that artificial intelligence (AI) is a technology used by machines and computers to support humankind's problem-solving and operational needs. In a nutshell, it is artificial intelligence that has been created by humans and shown by machines. These features of human-made tools that mimic the "cognitive" skills of the inborn intelligence of human minds are referred to as "artificial intelligence" (AI) [2].

AI is now practically ubiquitous in our daily lives thanks to the rapid advancement of cybernetic technology. Some of this technology, like optical character recognition and the Siri (speech interpretation and recognition interface) information-searching tool on computers, may no longer be considered artificial intelligence (AI) because it is so pervasive in our daily lives and we are so accustomed to it [3].

We can differentiate between two sorts of AI based on the capabilities and features it offers. First up is weak AI, sometimes referred to as narrow AI, which is created to do out certain tasks like self-driving cars, facial recognition, or Internet Siri searches. Numerous systems currently in use that advertise that they use "AI" are probably only weak AIs focused on a single, well-defined task. Even while weak AI appears to benefit human life, other people believe it could be dangerous since it could interfere with the electric grid or harm nuclear power plants if it malfunctions.

2.1 Strong AI

The long-term objective of many researchers is to develop strong artificial intelligence (AI), also known as artificial general intelligence (AGI), which is the speculative intelligence of a machine with the capacity to understand or learn any intelligent task that a human being can, thereby assisting human beings to solve the problem at hand. Even if humans may still outperform narrow AI in tasks like playing chess or solving equations, the impact is currently minimal. However, AGI could perform practically every cognitive task better than humans.



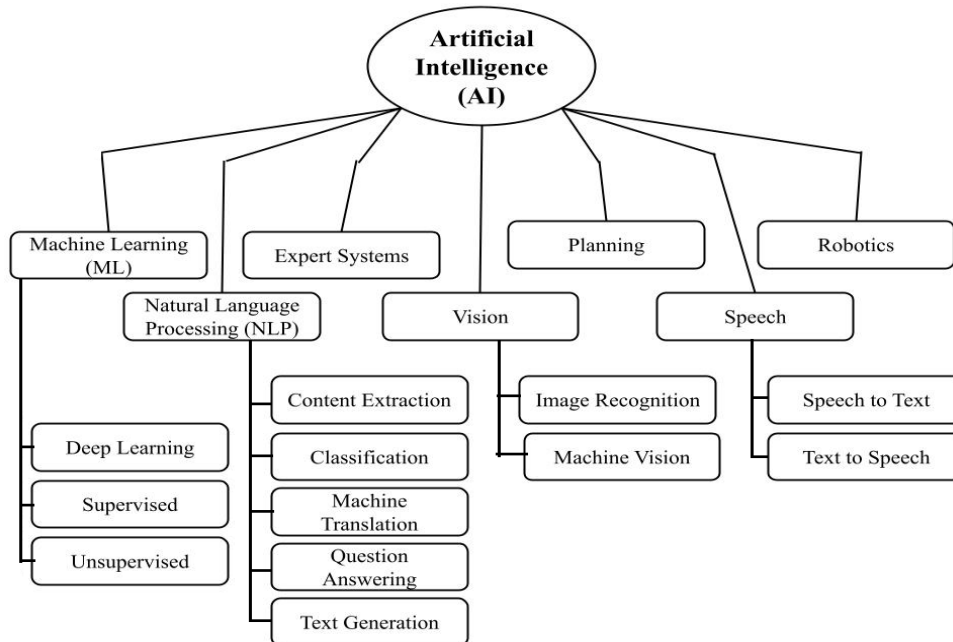


Figure 1: Artificial Intelligence conceptual perspective

Strong AI is a distinct interpretation of AI that suggests it can be trained to mimic human intelligence, be intelligent in any task it is given, and even possess perception, beliefs, and other cognitive abilities that are typically solely attributed to humans [4].

So as a summary it can be observed that these many AI capabilities [5][6]:

Automation: What causes a system or process to operate automatically is called automation.

Machine Learning and Vision: The science of teaching a computer to see through a camera, analog-to-digital conversion, and digital signal processing, as well as to forecast and analyse situations.

Natural language processing: Computer programmes that interpret human language, such as those that detect spam and immediately translate across languages to facilitate human communication.

Robotics: It is an engineering discipline that focuses on creating and designing cyborgs, or "machine men." They are employed to carry out jobs for human convenience or those that are too risky or difficult for humans to carry out, and they can move continuously, like in assembly lines.

Self-driving car: To construct autonomous control in a vehicle, combine computer vision, image recognition, and deep learning.

2.2 Different Types of AI

Based on Capabilities:

Narrow AI

could be a sort of AI that's able of doing a certain assignment intelligently. Within the region of artificial intelligence, narrow AI is the foremost visit and right now available AI. Since contract AI is solely taught for one single action, it cannot perform exterior its field or boundaries. As a result, it's moreover known as "weak AI." When narrow AI comes to its boundaries, it might come up short in startling ways. Apple Siri is a fabulous illustration of Contract AI, however it as it were performing a limited set of obligations. Playing chess,



acquiring recommendations on an e-commerce location, self-driving automobiles, discourse acknowledgment, and picture recognizable proof are all illustrations of narrow AI.

General AI

General AI could be a sort of insights that's able for doing any intellectual work as well as a human. The objective of common AI is to form a framework that can learn and reason like a individual on its claim. As of now, no framework exists that can be classified as general AI and execute any work as well as a individual. Analysts from all over the world are presently concentrating their endeavours on making robots that can do common AI assignments. Since nonexclusive AI frameworks are still being inquired about, creating such frameworks will take a parcel of work and time.

Super AI

Super AI may be a degree of framework insights at which machines may outsmart people and execute any assignment way better than people with cognitive qualities. It's a result of AI in common. A few essential properties of capable AI are the capacity to get it, reason, illuminate confuses, make judgements, arrange, learn, and communicate autonomously. Super AI is still a cutting-edge Counterfeit Intelligence idea. The creation of such frameworks within the real world is still a world changing exertion.

Based on Functionality:

Reactive Machines

The foremost fundamental kinds of Artificial Intelligence are pure reactive robots. Such AI frameworks don't keep track of memories or previous experiences in arrange to form choices within the future. These robots fair consider current circumstances and react in perfect way the most perfect way feasible. Reactive machines, such as IBM's Deep Blue framework, are one illustration. AlphaGo, created by Google, is another case of receptive machines.

Limited Memory

This sort of AI, like Receptive Machines, has memory capabilities, permitting it to use earlier information and encounter to create superior judgments within the future. This category envelops the larger part of the commonly utilized apps in our daily lives. These AI applications may be instructed employing a tremendous sum of preparing information put away in a reference demonstrate in their memory. Illustration: Numerous self-driving automobiles have restricted memory innovation. They spare information like as GPS position, neighbouring car speeds, the size/nature of obstructions, and a hundred other sorts of information in arrange to drive like a individual.

Theory of Mind

Whereas the primary two categories of AI have been and continue to be abundant, another two sorts of AI exist as it were as a thought or a work in advance for the time being. Another level of AI frameworks that analysts are effectively working on is hypothesis of intellect AI. A hypothesis of intellect level AI will be able to recognize the wants, feelings, convictions, and mental forms of the animals with whom it interatomic. Whereas manufactured enthusiastic insights is presently a burgeoning commerce and a centre for noticeable AI analysts, coming to the level of Theory of Mind AI would require progressions in other AI areas as well. Since AI computers will have to be see people as people whose brains may be changed by a assortment of components in arrange to truly get a handle on human needs, they will have to be "get it" people.

Self-Awareness

This is often the final step of AI development, which exists as it were in theory at the moment. Self-aware AI is an AI that has developed to the point where it is so comparable to the human brain that it has picked up self-awareness. The extreme objective of all AI research is and will continuously be to make this shape of AI, which is decades, on the off chance that not centuries, absent from getting to be a reality. This shape of AI will not as it was be able to recognize and create feelings in people with whom it interatomic, but will also have its claim feelings, needs, convictions, and possibly objectives. And usually, the kind of AI that sceptics of the innovation are concerned approximately. In spite of the fact that the development of self-awareness has the potential to quicken our advance as a civilization, it too has the potential to lead to disaster. This can be since, once self-





aware, AI may have beliefs like self-preservation, which may either straightforwardly or by implication check the conclusion of mankind, since such an entity seem effortlessly outmanoeuvre any human brain and make sophist.

3. Human Intelligence and Artificial Intelligence

AI refer potential to computer-controlled machines/robots towards performing errands that that nearly or comparative to human creatures. In this case, Artificial intelligence is utilized to create different robots that have human mental characteristics, behaviours, learning from past involvement, have capacities to sense, and abilities to making predications and decide meaning of certain situation. Robotic technology is generally trending in the current life which has picked up ubiquity in various sectors such as businesses, clinics, schools, military, music, gaming, quantum science and numerous others Artificial Intelligence is a proficient implies that make computers and software control automated considering with master frameworks that significantly outline the brilliantly behaviour, learning and effectively exhortation clients. In common, AI is essentially known as the capacity or potential of mechanical technology to choose, unravel problems and reason. There are different developments of Artificial Intelligence, for illustration automated cars which don't require a driver to control or oversee them. In expansion, artificially intelligent innovation (robots) includes savvy machines that process a huge sum of information that a human being can't be in position to perform. By so mechanical autonomy are assuming repetitive obligations that require imagination and information base. Furthermore, Manufactured Insights (AI) is the combination of different technologies that allow chance to robotics to get it, learn, see or total human exercises on their own.

In this case, Artificial Intelligence programs (robots) are constructed for a selected cause consisting of learning, performing and understating while people intelligence is essentially worried with numerous skills of multitasking in general, an Artificial Intelligence device is majorly worried with emphasizing robotics which portrays human behaviours. But however, Artificial Intelligence may also fail out at a few factors because of variations in human mind and computers. In brief, Artificial Intelligence has the potential to imitate human individual or behaviours Furthermore, Artificial intelligence is presently partly advanced without superior skills to analyse on their very own however instead given instructions to behave on. This might be the closing future of synthetic intelligence, in which the AI machines might be identified the human conduct and feelings and could train their kernel as according to it.

4. Impact of Artificial Intelligence on Human Society

A huge social alter that disturbs the way we live within the human community will happen. Peoples need to be productive to create their living, but with the benefit of AI, ready to fair program the machine to do a thing for us without lifting an instrument. Human closeness will be steadily decreasing as AI will replace the require for individuals to meet confront to confront for thought trade. AI will stand in between individuals as the individual gathering will now not be required for communication.

Unemployment is the another since numerous works will be replaced by machines. Nowadays, numerous automobiles get together lines have been filled with machineries and robots, driving conventional laborers to lose their occupations. Indeed, in general store, the store clerks will not be required any longer as the advanced gadget can take over human labours

There are numerous positive impacts on people as well, particularly within the field of healthcare. AI gives computers the capacity to memorize, reason, and apply rationale. Researchers, restorative analysts, clinicians, mathematicians, and engineers, when working together, can plan an AI that's pointed at therapeutic conclusion and medicines, hence advertising dependable and secure frameworks of health-care conveyance. As wellbeing teachers and restorative analysts endeavour to discover unused and effective ways of treating infections, not as it where the advanced computer can help in analysing, automated frameworks can moreover be made to do a few sensitive therapeutic methods with accuracy. Here, we see the commitment of AI to wellbeing care.





In many fields and applications, machine learning and deep learning are already changing society. Below is a summary of some of the important instances. Although these are by no means the only uses in the market, they do represent the majority in the AI sector.

4.1 Client Services

The conversational chatbot is one of the most widely used types of AI. To automate communication and offer a highly customised customer experience, these are messaging applications, speech-based assistants, or voice-activated devices. These applications—often referred to as the Internet of Things or IoT—can immediately process enormous volumes of data, allowing them to respond more quickly and precisely than a human could ever.

Marketing can utilise similar personalisation that maximises data usage. We receive emails that are pertinent to us and social media advertisements that just so happen to be something we are interested in from this source. Each consumer may even see a separate website homepage in some circumstances, depending on their expected preferences and areas of greatest interest.

These applications of AI are excellent ways to ensure consumer loyalty by providing a tailored experience.

4.2 Fraud and data security

Artificial intelligence (AI) can be used to spot fraudulent activity and stop illegal access to data. Artificial intelligence is essential in the fast-expanding digital world for thwarting cyberattacks. For instance, strong algorithms can detect viruses and stop spam. When there is a possible threat, machine learning will alert organisations by identifying unusual patterns in the data.

Additionally, we are noticing a rise in the use of identity verification methods other than passwords, like facial recognition and fingerprint technology. These distinctive IDs based on unstructured data are much harder to hack and provide an excellent layer of security for companies.

4.3 Automating Business Processes

Many manual processes are common in organisations that have been around for a while. Given its effectiveness at managing mundane operations, enhancing interfaces, desire and speed to perform tedious jobs, and capacity to handle enormous volumes of data, AI is an ideal partner to improve these efforts.

The use of robots in manufacturing facilities, controlling the environment in product storage, processing payments, and logging client requests are some apparent activities, but they just scratch the surface of what is possible. When a doctor speaks clinical notes into an AI device, the documents are immediately filled up and a prescription is ordered. Lawyers will utilise AI to process contracts and agreements that could have taken them days or weeks in a fraction of the time.

4.4 Statistical Prediction

Systems based on predictions employ machine learning. Take a loan applicant as an illustration. Machine learning algorithms can instantly determine if a person is likely to be a good or bad future risk, or whether they will eventually default on payments, as they submit their data. The model might then make a quick decision regarding the loan's interest rate or length.

These days, predictive apps are widely used across many industries. Utilizing recommender systems is one such method. For instance, Netflix foresees the television series we'll stream, Spotify tells us the music we'll listen to, and Amazon knows the items we'll purchase. Even a Google search can anticipate our needs once we type or speak a few words.

4.5 Staff Training

Businesses employ AI to build individualised training plans. Many businesses have extensive knowledge bases that might take employees weeks or even months to learn. By giving the student the content, they prefer, AI has been proven to reduce this by half. This may include the sequence in which the material is taught, the intervals in which repeat material is delivered, or the format of the material, such as written, visual, or audio. Training is more pleasant and beneficial.





5. Conclusion

In this paper we have discussed about impact of AI in human life. AI has been around us for numerous a long time but as we move towards 2022, more is expected from the innovation than ever some time recently. With the way in which it has changed everyday life by means of machine and deep learning, AI has become inserted as portion of what we do. In reality, much of the time we don't even recognize something as AI since it is so familiar, similar to how we take utilizing the Internet for granted.

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