Impact of Artificial Super Intelligence in Human life

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Abstract— In today's era, Artificial Intelligence is a rapidly growing computer technology where the creation of intelligent machines can react and work like humans. Artificial Super Intelligence is an intelligence that is more superior to human intelligence with the same cognitive ability as humans. The innovation of superintelligence prompts technological growth, leading to incomputable variations in society. It's super intelligence; once a computer system starts developing, it will acquire information recursively by learning itself. It will be rescaled to an exponential level; however, this variation will quickly evolve human civilization. Artificial superintelligence poses a threat to mankind, although it does not yet exist. This paper mainly focuses on A.S.I. impact either positively or negatively on humans who can transform them in the future.

Keywords—Intelligence, Artificial Intelligence, Artificial Super Intelligence, Technological Singularity, Technological Growth, Human Intelligence.

I.   INTRODUCTION

Artificial Intelligence (A.I.) is a field where science meets real life and as a result, many myths are created. Artificial intelligence can be defined as the development of machines that can perform tasks as humans do. Today's A.I. is not a pair with human intelligence; humans still have the upper hand. However, it is not completely true. There are few areas where computer intelligence is the upper hand than human intelligence, for example: Evaluate some complex problems, Remember a huge amount of data. Artificial Super Intelligence is an intelligence that exceeds human intelligence with the same cognitive ability as humans. Artificial superintelligence poses a threat to mankind, although it does not yet exist. The A.S.I. is achieved when A.I. is more capable than a human.

Many A.I. researchers predict that humans would be able to develop advanced A.I. with human intelligence as quickly in 20 years.AI technology is a field of computer science. A.I.'s main feature is creating and developing computer systems that can perform its task independently and intelligently. Technology and innovation in A.I. turn so superior that it may not require human's help to function. Future A.I. technology may turn into uncontrollable. In which humans cannot control it anymore, whereas it can control humans in the future. As the A.I. is free to do something it pleases, it will continue to enhance itself, becoming extra superior. This is referred to as a technological singularity. To completely understand artificial superintelligence and the bad the effect may have in the future, understanding various A.I. levels is necessary. A.I. is classified into 3 types based on the level of intelligence, as shown in Fig 1.
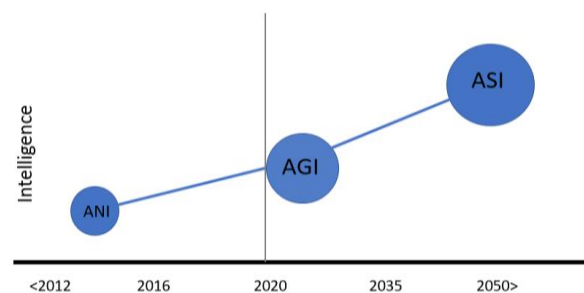

Fig 1: Three phases of A.I. development

A. Artificial Narrow Intelligence

Artificial Narrow Intelligence is a type of A.I. focused on one single narrow task. Most of us interact with Narrow A.I. on daily basics. Examples, Siri, Google Assistant, Google translate, Alexa, Self-Driving Cars and auto-pilot cars. Computer A.I. has beat the human chess world champion, but that the only thing A.I. can do.

B. Artificial General Intelligence

Artificial General Intelligence is a type of A.I. focused on almost matching human intelligence. A.G.I. is an advanced level that covers more than one field like Decision making, Problem-solving, Reasoning, thinking ability, which is equal to human intelligence. Presently, Artificial General Intelligence's main approach is "whole brain emulation," where a brain's memory is transmitted onto a computer, which includes a technology called Neural Networks. Computer architecture is just like the human brain because they can each function through a machine of neurons referred to as neural networks. A.S.I. is a computer that can perform any intellectual task.

The transition of ANI (first stage) to A.G.I. (second stage) has taken a long time as shown in Fig 1. Top Research companies believe that currently, we are at the final stage of Artificial Narrow Intelligence. By the end of the decade, we enter the level of Artificial General Intelligence, in which the intelligence of machines and humans are equal. The transition from A.G.I. (second stage) to A.S.I. (third stage) may take less time than ANI to A.G.I. phase.

C. Artificial Super Intelligence

Artificial Super Intelligence is a much smarter intelligence than the best human brains in decision-making, arts, Behavior, and emotional relationships. As soon as the machine starts gaining knowledge to acquire new information and develop skills, it will enhance technology iteratively in an A.S.I.

Due to advancements in technology, events may turn out to be unpredictable or difficult to understand the intelligence. We have watched fiction movies and read fiction books on Artificial Intelligence and technological Singularity, which overtakes human life and leads to society's destruction.

Technological singularity is when machines reach an intelligence level that exceeds Human Intelligence and where artificially intelligent machines will overtake humans. The Invention of Artificial Super Intelligence triggers Technological growth, which leads to a valuable change in human life. Once the machine starts to develop, it can learn various technologies iteratively.

Many A.I. research corporates have given negative feedback on A.S.I. Artificial intelligence-based applications like Alexa and Siri has made our lives easier. This paper focuses on the positive and negative impact of Artificial Super Intelligence, which destroys human civilization.

II.   GENERAL SOLAR CELL FUNCTION

1. To analyze the impact of Artificial Super Intelligence on human life.
2. A.I. may have a positive or negative effect on humans. Based on all the realities and facts, we will finish up the impact of A.S.I. on human civilization.

III. THE EVOLUTION OF ARTIFICIAL INTELLIGENCE AND THE TECHNOLOGIES ACCELERATING IT TODAY

AI is the intelligence shown by software and machines. A.I. includes Machine Learning, Artificial Neural Networks, Computer Vision, Deep Learning, Natural Language Processing, reasoning and various algorithms that are used to put intelligence in a machine or computer system. Fig 2 represents the evolution of A.I. Future Artificial Intelligence is the intelligence that surpasses human intelligence.

The term A.I. was coined in the 1950s. Alan Turing's test was done to determine whether machine intelligence matches human intelligence. Data is the main need for Artificial Intelligence. To train A.I. algorithms, large number of Datasets are needed. To train it and increase the accuracy, a huge number of datasets, cleaners, and well-processed datasets with high quality are required. As mentioned above, A.I. requires more data. A huge amount of Datasets requires better data processing powers. Tensor Processing Units (T.P.U.s) are released to increase the speed of Machine Learning tasks.
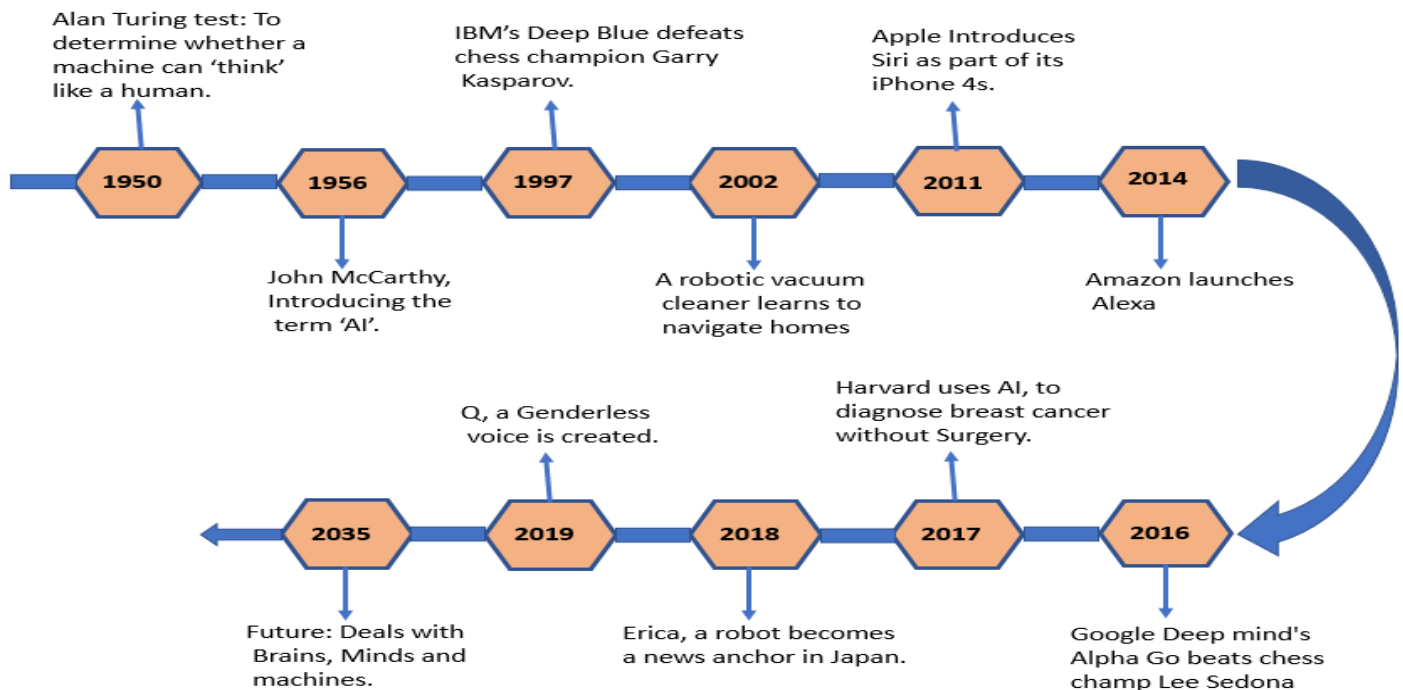
Fig 2: Evolution of Artificial Intelligence

ANI is a machine learning phase where the machine is specialized in one field and solves one problem. A.G.I., a machine intelligence phase, refers to s machine or computer system that is as smart as humans. A.S.I., a phase of machine consciousness that is better than the human brain. A.S.I. deals with deep learning, neural networks that deal with brains and minds. Super Intelligence is an intelligence that exceeds the cognitive performance of humans in all domains.

A.S.I. is an intellectual power beyond human intelligence in every perspective. A.I. Researchers and experts have said that AI in the way of "intelligence explosion," a self-learning, and self-improving A.I. could become more smart and powerful, not controlled by humans. Currently, A.S.I. doesn't exist, A.I. researchers say it could be created someday in the future. The creation of superintelligence might cause a global disaster.

A.I. has started bettering than humans. Example: Detecting cancer better than oncologists and A.I. has beat the human Chess champion Lee Sedona.

We have seen intelligence beyond humans in many fiction movies and science fiction books, where machines have taken over the world. It is believed to happen due to an intelligence explosion associated with Technological Singularity.

I.B.M. Watson and Deep Mind's Alpha Go have proven their intelligence by outstanding human intelligence in the recent pasts.

IV. IMPACT OF ARTIFICIAL INTELLIGENCE ON HUMANS

AI based applications like Siri and Alexa made our lives easier and these A.I. applications are used in our daily lives. At present, many corporate companies use A.I. technology for developing machines that perform human activities. A.I. has been introduced in many fields such as Agriculture, Defense, Healthcare, Gaming, Cybersecurity, Transportation and Retail. The few areas where A.I. applications are used are mentioned below.

A. Agriculture:

In agriculture, Artificial Intelligence is adapted in various farming techniques. A.I. machines work with higher accuracy and speed than humans. A.I. machines detects the defective plants and provide pesticides to

grow healthy crops by providing proper nutrition. A.I. technologies can detect crop diseases and pest damage with 98% accuracy with a success rate. A.I. machines will improve procedures of cultivation and give increasingly effective approaches to produce, cultivate and sell crops.

B. Defense:
Artificial intelligence is used in the Military; Defense forces worldwide are progressively deploying A.I. into weapons and other defense systems that are utilized on land, naval and Space Platforms. A.I. systems can identify and detect cyber threats. A.I. robots are being intended to help humans in dangerous and risky missions, which is the one that exposes humans to harmful radiological materials. Difficult jobs that cause a threat to human life are defusing the bombs which A.I. robots can do. Innovation and implementation of A.I. applications in defense provide safety measures to humans by protecting from harmful radiations.
HealthCare:
In HealthCare, A.I. has been adapted many years ago. The big change in healthcare is in the future by increased use of machine learning techniques. For example, Machine Learning systems will not only play the role of predicting diseases but also prevent early detection. Cancer detecting A.I. applications can recognize and detect better than oncologists. Robotic Surgery is one of the emerging A.I. applications.

C. Education:
Artificial Intelligence technology has a lot of benefits in many industries, including education. Youth spend a lot of their time using smartphones and computers. The AI-based application allows students to study in their free time by providing learning materials based on their test performances. A.I. offers Virtual Mentors to track student's progress and provide different training courses to see the gaps in the student's knowledge. Example: Online learning platform Coursera. AI-based applications offer Students to learn from specialized scholars around the world and Sharing Knowledge.

i.   A.I. and the future of Humans
Even before moving to the level artificial superintelligence, there are already several negative impacts being experienced as a result of A.I. Superintelligence is a term that describes the state where cognitive systems not only learn but also learns how to learn.

- A.I. Robots, with them replacing jobs, can lead to unemployment, except if people can fix the joblessness with occupations A.I. can't do.
- As observed mostly with cell phones and other innovations, People can become dependent on A.I. and lose their psychological capacities.
- A.I. machines or Weapons that are used by defense, military forces for exploitation, if fallen into the wrong hands lead to destruction.

ii.   Possible consequences of Artificial Super Intelligence on human life
The 4 standard ways that an A.S.I. influence human beings are mentioned below.
1. Active malice: An A.S.I. could think that human beings are interrupting their plans and need to be Destroyed or eliminated.
2. Passive decimation: The most extreme likely risk situation using far: an A.S.I. comes to a decision that people don't generally need and continues to advance for something that has a risky side effect dangerous to people.
3. Passive lack of concern: An A.S.I. could choose not to do anything or to traverse and investigate space or other interest that doesn't influence individuals.
4. Active assistance: We might need to make an A.S.I. that improves in a manner that extends human abilities.

V.   CONCLUSION

In the future, due to technological singularity, humans are going to experience technological growth very significantly and viably. There will be an immense change in human life as indicated by the consequences of experiments and surveys done. Humans should be provided with proper information by educating and instructing them about the impact of innovation, at exactly that point, we can anticipate great future advances. If we fail to provide awareness about technological singularity to individuals, it will take to a stage where computer systems have authority and control over humans.

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