**Impact of Artificial Intelligence (AI) on Human Society**

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***Abstrac***

 Artificial Intelligence(AI) is the simulation of human intelligence processes by machines especially computer systems, sometimes referred to as artificial intelligence (AI) will alter not just how we carry out our daily activities and interact with others, but also how we perceive ourselves. This article will first define AI and then explain how it will affect changes in the industrial, social and economic landscape for humanity in the twenty-first century. Artificial Intelligence has different types in present time. Modern AI has a precious positive and negative impact on human society.

**Keywords:** Artificial Intelligence, Human Society, Types of Artificial Intelligence.

**Introduction**

 Since we place such a high importance on intelligence, we refer to ourselves as Homo Sapiens, or “man the wise.” We have spent countless years trying to comprehend how we think—specifically, how a small amount of matter is able to see, comprehend, predict and control a universe that is much bigger and more complex than it is. Even further, the study of artificial intelligence (AI) aims to create intelligent beings in addition to trying to understand them.One of the newest areas of science and engineering is artificial intelligence. After World War II AI began a new era of the American state. AI is frequently mentioned as the "field I would most like to be in" by scientists from various fields, along with molecular biology. A physics student would fairly believe that Galileo, Newton, Einstein and the rest had already claimed all the best concepts. On the other hand, there are still a few full-time Einsteins and Edisons available in AI [1].In the current scenario, artificial intelligence plays a diversified role in our human society. Because most of the time we want to fast and smoothly work with less time. Everyday life of us it would greatly impact human life like communication, automation, human psychology and other fields.

**What is artificial intelligence?**

 Artificial intelligence (AI) has many different definitions because it is a general term that covers a broad spectrum of computational techniques and associated practices aimed at improving the ability of machines to perform intelligence-demanding tasks, including pattern recognition, computer vision, and language processing [2].Despite the various definitions, the common concept of artificial intelligence (AI) is that it is connected to machines and computers to aid humankind in problem-solving and streamline working procedures. In a nutshell, it is artificial intelligence that has been created by humans and shown by machines. These capabilities of human-made tools that mimic the “cognitive” skills of the inborn intelligence of human minds are referred to as “artificial intelligence” (AI) [3].With such a vague definition and the quick advancement of technology, it is not surprising that artificial intelligence evolves with time. The "AI effect" or the "odd paradox" describes this situation in which once-ground-breaking breakthroughs become commonplace and ordinary and lose their status as AI, while newer technology with more astounding capabilities is given the AI designation [4].

**Historical Background of AI**

 The first workshop on artificial intelligence was held in 1956 at Dartmouth College. The participants went on to develop and direct the field of AI research. They created programs with their students that the media dubbed “astonishing”: computers were proving logical theorems, learning checkers strategies, solving algebraic word problems, and speaking English. By the middle of the 1960s, the Department of Défense had constructed laboratories all over the world and was extensively funding research in the United States [5,6].

In the 1960s and 1970s, researchers believed that their techniques would someday succeed in building a computer with artificial general intelligence and saw this as the field’s ultimate objective. In twenty years, machines will be able to perform any task that a man can, according to Herbert Simon.[6,7].

**Different types of artificial intelligence**

 Eventually, we see various kinds of Artificial Intelligence. Let us discuss two types of AI, one is weak or narrow and the other is strong or general AI [8]:

a. Weak or Narrow AI: The term "weak AI" describes AI systems that are only capable of carrying out certain tasks. These AI systems do their assigned tasks exceptionally well, but they lack general intelligence. Voice assistants like Siri or Alexa, recommendation algorithms and image recognition systems are a few examples of weak AI. Weak AI operates within set parameters and is unable to generalize outside of its specialized field.

b. Strong or General AI: Strong AI, usually referred to as general AI, describes AI systems that are intelligent enough to compete with or even outperform humans in a variety of tasks. Strong AI would be akin to human cognition in that it would be able to comprehend, reason, learn and use information to solve complicated problems. However strong AI development is still mostly a theoretical endeavour and has not been completed to this point.

**The Impact of Artificial Intelligence on Human Society**

**Negative Impact**

 Artificial Intelligence has created a very negative impact on our human society because everything can be completed mechanically not by human beings. So let us see the negative impact AI will have on human society [9,10,]:

i. AI may be created by humans with racial biases or selfish aims in mind, causing harm to certain individuals or items. For example, the United Nations has opted to limit nuclear power development due to concerns that technology could be used indiscriminately to eliminate humanity or to target specific races or regions in order to establish control.

ii. The way we live in the human community will undergo a significant societal change. Humanity must be resourceful in order to survive but thanks to AI, we can simply teach a computer to perform a task for us without ever picking up a tool. As AI replaces the requirement for face-to-face interaction for idea exchange, the human connection will eventually dwindle. As personal interactions will no longer be necessary for communication, AI will stand in the way of people.

iii. The next issue is joblessness, as many jobs will be automated. The usage of machines and robots on many modern auto assembly lines has resulted in the displacement of many traditional workers. Even at grocery stores, retail staff may be obsolete as digital gadgets replace human labor.

iv. New problems arise not just in the social sense but also in AI itself, as the AI that is being trained and taught to perform the given task may eventually take off to the point that humans have no control, leading to unexpected problems and repercussions. It refers to AI’s ability to automatically operate on its own course while loaded with the necessary algorithms, disobeying the controller’s instructions.

v. Due to the fact that AI investors would receive a disproportionately large portion of the profits, wealth disparity will be produced. It will result in a widening of the wealth and poverty gap. More people will be aware of the alleged “M” shape in wealth distribution.

vi. When a machine can mimic human intelligence, it is a great accomplishment. It can be time-consuming, resource-intensive, and costly. AI is expensive because it requires the most modern technology and software to stay current and fulfill standards.

Vii. AI technologies automate the majority of arduous and repetitive processes. Because we no longer need to memorize information or solve puzzles to complete activities, we are using our brains less and less. Future generations may face problems as a result of AI addiction.

viii. Morality and ethics are important human characteristics that can be difficult to include into an AI. Many individuals are concerned that as AI advances, humanity may be utterly destroyed by it. This is the moment of the AI singularity.

ix. We are taught from a young age that neither machines nor computers have emotions. Because humans operate in groups, team management is essential for achieving goals. The superiority of robots over humans cannot be denied, but it is also true that human ties, which are the foundation of teams, cannot be recreated by computers.

**Positive Impact**

 However, there are many positive impacts on humans as well as especially in the field of human society. From medical diagnosis and treatment to traffic management and environmental preservation, artificial intelligence (AI) offers considerable advantages. Our fundamental rights, as well as the procedures, customs and structures of a democratic society, are all seriously threatened and challenged by the power of AI. Its penchant for automated and autonomous decision-making is replacing human deliberation and accountability and as Cambridge Analytica demonstrates, it can be used to stymie democracy, control populations and monitor them. The task of addressing these issues falls on policymakers and the larger civic society [11,12,13,14,15].

**1. Automated Inquiry System:**

 An automatic information-retrieval system that searches its database to offer the user with specific information or “facts,” rather than making referrals to external sources based on a man-machine dialog that identifies the user’s demands.

**2. An individual's biological model**

 The system periodically checks the patient’s blood flow, lung and heart function, muscular activity etc. to provide inputs to a personal biological model that can then be used to evaluate the patient’s current condition and simulate the effects of medication and treatment.

**3. Automatic Language Translator**

 Already in the marketplace, low-quality computerized language translation is employed to create rudimentary but comprehensible abstracts of foreign technical articles. The input speech must first be understood before being recreated in the target language to ensure that all intended nuances are captured. Thus, such translation is only possible in the few semantic domains that existing language comprehension programs have already proven to be effective at handling.

**4. Improving Cancer Diagnosis**

 1.65 million Americans were diagnosed with cancer in 2015, which is a terrifying diagnosis. It can be difficult to wait for biopsy results but AI might hasten the process of diagnosis and therapy. By 2020, Intel hopes to develop one-day precision medicine for cancer patients which would involve visiting a doctor, receiving a diagnosis and receiving a customized treatment plan—all in the space of 24 hours. Intel will be working with leaders in the healthcare industry to achieve this goal.

**5. Reframing Farming**

 One of the most significant effects of AI could be in food production, which is being challenged by a rapidly rising global population, competition for natural resources, and plateauing agricultural productivity. According to the Food and Agriculture Organization of the United Nations (FAO), the world's population will reach 9.7 billion by 2050. Farmers will need to raise nearly 50% more crops at a time when agricultural land accessible for cultivation is diminishing.

**6. Computer Arbiter**

 A system that somewhat successfully simulates Supreme Court rulings has been developed. The computer bases its judgments on legal precedents and the justices’ prior rulings, which reveal their prejudices. One might have the basis for an automatic arbitrator if such prejudices were replaced with a structured statement of the principles of justice. Meanwhile, such formalization has not yet been tried.

**7. Robot Industry**

 On auto assembly lines, robot manipulators are being employed more frequently to perform repetitive activities like spot welding that can be preprogrammed and work without feedback. Simple, tactile and visual sensors would significantly widen the field of applicability. For instance, a system that could mount wheels on a hub was successfully demonstrated by the General Motors Research Lab utilizing visual methods to line up the wheel with the studs.

**8. Education purpose**

 In this chapter, we looked at the numerous ways that AI is impacting the globe, such as how it’s being used to digitally transform society and improve education. We talked about the advantages of AI, such as its potential to transform many industries and improve our daily lives, as well as the ethical issues raised by its continuous development. It seems obvious that AI will shape our future to a greater extent as it continues to advance. The advantages of AI are clear, even while there are undoubtedly issues that must be resolved, such as privacy and security concerns. AI has the ability to significantly improve our lives in a variety of ways, from changing the healthcare sector to offering individualized learning experiences.

**9. Making Children Safe**

 According to the U.S. Justice Department, digital technology makes it simpler for predators to produce, access and spread photographs of child sexual assault around the world. According to the National Centre for Missing and Exploited Children (NCMEC) online exploitation is widespread. Its Cyber Tipline got 8.2 million reports about molestation, trafficking and offensive photos in 2016 alone. Although technology may have contributed to the issue, AI might help find a solution.

**10. Local meaning and context:**

 The moral significance of taking into account regional interpretations of social practices and language has been emphasized by several authors. In a specific social practice or institutional environment, which has a purpose or objective and its own norms guiding behaviour in that setting, actions and language have meaning. These social and normative contexts need to be respected in our representations and design. In this context, a crucial topic that frequently arises during Design for Values in AI is to what extent an AI system should replace a human agent’s actions when carrying out a particular task, taking into account the social, normative and institutional goals of that task.

**Conclusion**

 It is widely agreed that artificial intelligence, or AI, has made people’s lives carefully more productive by powering countless services and programs that aid individuals in accomplishing daily chores such as communicating with friends and family, utilizing email applications, or using ride-sharing services. Anyone who is concerned about the use of AI will be relieved to find that civilization has been using it for quite some time. As with most life transitions, there are both positive and bad consequences. However, there is no doubt that AI has altered how people live in society. The AI algorithms must be developed to coincide with the general objectives of that of humanity [16].

**References**

**[1]** Russell, S. J. (2010). Artificial intelligence a modern approach. Pearson Education, Inc..

**[2]** Raso, F. A., Hilligoss, H., Krishnamurthy, V., Bavitz, C., & Kim, L. (2018). Artificial intelligence & human rights: Opportunities & risks. *Berkman Klein Center Research Publication*, (2018-6).

**[3]** Tai, M. C. T. (2020). The impact of artificial intelligence on human society and bioethics. *Tzu-Chi Medical Journal*, *32*(4), 339.

**[4]** McCorduck, P., & Cfe, C. (2004). *Machines who think: A personal inquiry into the history and prospects of artificial intelligence*. CRC Press.

**[5]** Russell & Norvig (2021), p. 17

**[6]** [Dartmouth workshop](https://en.m.wikipedia.org/wiki/Dartmouth_workshop):[Russell & Norvig (2021](https://en.m.wikipedia.org/wiki/Artificial_intelligence#CITEREFRussellNorvig2021)), p. 18

**[7]** Haenlein, Michael; Kaplan, Andreas (2019). “A Brief History of Artificial Intelligence: On the Past, Present, and Future of Artificial Intelligence”. California Management Review. 61 (4): 5–14. Doi:10.1177/0008125619864925. ISSN 0008-1256. S2CID 199866730.

**[8]** <https://www.simplilearn.com/tutorials/artificial-intelligence-tutorial/what-is-artificial-intelligence>.

**[9]** Joseph, W. (1976). Computer Power and Human Reason.

**[10]** Rory CJ. Stephen Hawking warns artificial intelligence could end mankind. BBC News. Wikipedia, the Free Encyclopedia on Artificial Intelligence 2014. Available from: [*https://en.wikipedia.org/wiki/Artifical*](https://en.wikipedia.org/wiki/Artifical) *Intelligence.*

**[11]** Firschein, O., Fischler, M. A., Coles, L. S., & Tenenbaum, J. M. (1973, February). Forecasting and assessing the impact of artificial intelligence on society. In IJCAI (Vol. 5, No. 1, pp. 105-120).

**[12]** Richardson, J. (2017). Three Ways Artificial Intelligence is Good for Society. *IQ magazine, Intel. Disponible en línea: https://iq. intel. com/artificial-intelligence-is-good-for-society*.

**[13]** https://www.3dbear.io/blog/the-impact-of-ai-how-artificial-intelligence-is-transforming-society

**[14]** Castagno, S., & Khalifa, M. (2020). Perceptions of artificial intelligence among healthcare staff: a qualitative survey study. Frontiers in artificial intelligence, 3, 578983.

**[15]** Aizenberg, E., & Van Den Hoven, J. (2020). Designing for human rights in AI. Big Data & Society, 7(2), 2053951720949566.

**[16]** Nadikattu, R. R. (2016). The emerging role of artificial intelligence in modern society. *International Journal of Creative Research Thoughts*.