Artificial Intelligence and Human Society

Ms. Reena Salvi[1], Dr. Rashmi Singh[2]

[1]Research Scholar, Dept. of Psychology, UCSSH, Mohanlal Sukhadia University, Udaipur
[2]Assistant Professor, Dept. of Psychology, UCSSH, Mohanlal Sukhadia University, Udaipur

ABSTRACT: The present paper is a reviewed paper that aims to study the impact of artificial intelligence on human society. Artificial intelligence is the simulation of human intelligence by software-coded heuristics in machines. There have been many researches which have studied that there is the impact of artificial intelligence on human society. It was found that artificial intelligence does influence human society and contributes to every field. In the health industry, many surgeries are performed under AI robots, and many tests are being conducted, for mental health and also for different counseling purposes chatbots are being used. Many AI technologies are used in factories, service sectors, and transportation to reduce human errors and boost the economy. However, on the other hand, there is a higher chance of AI's infringement on human rights, and it is the biggest concern of many intellectuals. Artificial Consciousness is also a debatable subject that can AI replicate human consciousness which is the result of a long evolutionary process? We can conclude that artificial intelligence is indeed the future of humanity, it can turn the highest possible timeline and also can catapult us into the worst timeline. It depends on people how they would use it.

KEYWORDS: artificial intelligence, human society, human rights, AI consciousness

ARTIFICIAL INTELLIGENCE AND HUMAN SOCIETY

Artificial intelligence is a replication of human intelligence that is able to perform tasks without being explicitly instructed and capable of making decisions and acting rationally. The intelligence emanated by machines is known as Artificial Intelligence. Artificial intelligence has gained approval from all kinds of scientific fields. AI is able to learn with experience and perform human-like tasks. AI term was first coined by a scientist called Marvin Minsky. In 1956 the first artificial intelligence program named "Logic Theorist" was constructed by Allen Newell and Herbert A. Simon. In a very short period, Artificial Intelligence has made its importance in this fast pacing world. New applications for AI are being discovered in every field and the technology is expected to continue advancing at a quick pace.

Three types of Artificial Intelligence-
Artificial Narrow Intelligence (ANI) - This Artificial Intelligence solves one single problem and would be able to execute a single task really well. They do asks like recommending a product for an e-commerce user or predicting the weather and work only with a limited set of parameters. Therefore called, Artificial Narrow Intelligence.
Artificial General Intelligence (AGI) – AGI is defined which has a human –level of cognitive function, across a wide variety of domains such as image processing, language processing, computational functioning and reasoning, and so on. It is still just a theoretical concept. An AGI must comprise thousands of Artificial Narrow Intelligence systems working in tandem, communicating with each other.
Artificial Super Intelligence (ASI) – ASI system would be able to surpass all human capabilities. This would include decision-making, and rational thinking and even includes things like making emotional relationships.

AI and Consciousness

AI supports the human brain and enlarges its intelligence and both are correlated. AI helps in arousing human operational intelligence and has passed all the intelligence of human beings like in computing speed, capacity, and accuracy. AI is our brain-assisting device, which harbors a lot of information. It reduces mental labor and helps in conducting big operations. Brain simulation is helpful to the damaged brain nerve. Although AI is playing a complete part of human thinking activities, the major drawback is that it does not understand the consequences. Panday (2018) stated that consciousness is subtler than intelligence, mind, body, and senses. Consciousness is "awareness" that is found in all living beings. It is not possible to replicate the consciousness by algorithms, computations, processing, and functions of the AI method. Intelligence is the result of an evolution of the human consciousness by nature and AI cannot follow the path of natural intelligence evolution (Xie, 2021). Messika (2020) argued that all conscious beings are subject to morality. For artificial intelligence there is no place for morals and values, it only applies to living beings. Therefore

human consciousness cannot exist without finitude and AI is not finite, so cannot be conscious. Heaven et al. (2021) pointed out that the project of building AI is biased towards human intelligence but the animal world is full of possible alternatives, from birds to cephalopods. Other mammals have a similar brain and are conscious too. However "Metaverse" an AI-based system is claimed to replicate human consciousness. Metaverse is the realm of computer-generated which includes augmented, mixed, and virtual reality. It is a kind of mirror world that duplicate real-life environment. A study by Pew research center and Elon University on the impact of the metaverse by 2040 revealed that 54% of experts expected that by 2040 the metaverse will be more refined and truly full-immersive and well-functioning aspects of daily life for a half billion or more people worldwide. 46% of experts were not agreed that the metaverse would be much more refined. Neuralink is another brain-computer interface project to improve human consciousness and help people with paralysis by implanting devices in the brain. However, there is no estimated timeline for when artificial consciousness could become a reality.

AI in the field of Mental Health

AI is revolutionizing the mental health industry. Telemental Health Care has risen due to the high costs of conventional mental health care. Langarizadeh et al. (2017) reviewed telemental health care as an effective alternative to conventional mental care and stated that telemental health care has multiple technologies and capabilities for providing effective interventions to patients with several mental illnesses. It has great future potential. Chatbots are also introduced to simulate human communication, through text or communication. The first chatbot was developed in the 1960s named ELIZA, to mimic the responses of a psychotherapist in a therapy session. Woebot is a well-known mental health chatbot therapist. It uses cognitive behavioral therapy and applies techniques to help clients to improve their mental health. Sweeney et al. (2021) studied the attitude of professionals who work in the mental health sector regarding the use of conversational user interfaces or chatbots. They found that 65% of them accepted the benefits associated with mental healthcare chatbots, perceived importance of chatbots was also high but 86% of them responded that chatbots do not understand human emotions adequately. The Trevor Project, a suicide prevention and crisis intervention organization, partnered with Google.org to prepare The Crises Contact Simulator, a counselor training tool. Psychology Today reviewed that AI has the potential to leverage large datasets to reduce misdiagnosis. Often depressive episodes in bipolar disorder and depression can be difficult to distinguish and many patients with bipolar are misdiagnosed with major depressive disorder. A machine learning algorithm that used blood samples and self-reports recently identified bipolar disorder patients in many scenarios and is potentially a helpful supplement for clinical psychologists. Wilkerson (2019) stated that AI has the potential to be a super-powered cause of deep stress with the capacity to produce rumination that, in turn, can lead to depression. In this fast pacing world, there is acute and chronic stress which causes severe frustration, anger, fear, and uncertainty. These can jeopardize one's sense of personal identity and self-awareness. Jackson et al. (2016) used Natural language processing to extract symptoms of severe mental illness from electronic records and found that it was possible to extract symptomatology in 87% of patients with SMI and 60% of patients with Non-SMI diagnosis. Dwyer et al. (2018) found that Bain MRI features identified neuroanatomical subtypes of schizophrenia with 63-71% accuracy.

AI in Health-Care Industry

AI assists doctors to diagnose, finding the causes of diseases, and suggesting many ways of treatment and performing surgeries. The da Vinci surgical system, robotic technology allows surgeons to perform slightly invasive procedures. AI-based radiology techniques such as magnetic resonance imaging (MRI) can human body detect many diseases. A survey conducted by the European Society of Radiology (ESR) conducted a survey among ESR members and asked about expectations about AI and it found that AI's impact was expected on oncologic, thoracic, breast, and neuroimaging, mainly involving computed tomography, mammography, and magnetic resonance. Many websites and apps introduced virtual consultations for patients. Doctors can check patients online, which saves money and enable the services of international experts.

AI Impact on the Economy

AI technologies also play a very great impact on the economy with respect to productivity, innovation, growth, inequality, and employment. A report by PwC revealed that by 2030 AI will contribute up to $15.7 trillion to the global economy. Of this, $6.6 trillion is probably will come from increased productivity $9.1 trillion probably will come from consumption-side effects. Meltzer (2018) revealed that AI has an impact on the management and development of global value chains. It can be used to advance predictions of future trends, such as changes in consumer demand, and to better risk management along the supply chain. Szczepanski (2019) has concerned that AI may lead to the creation of super firms-hubs of wealth and that can cause detrimental effects on the economy. Also, it can create a gap between developing and developed countries. Artificial intelligence is rapidly destroying the labor market. Frank et al. (2019) said that AI and automation can enhance the productivity of some workers, they can replace the work done by others and have the capacity to transform almost all occupations at least to some degree. Rising automation causes economic inequality and raises fears of mass technological unemployment. Wilkerson (2019) stated that the main objective behind artificial intelligence is to cut the costs for employers and that it will cheapen the cost of producing goods and services and also the way of living of people. It will cause mental disquiet, unrest, and disorder among people.

Artificial Intelligence and Human Society

Thus, AI is affecting every field in the world. In education for remote classes, assessment of students, grading and evaluation, personalized teaching, and virtual labs. There are ICAI (intelligent computer-assisted instruction) systems to teach or tutor various subjects and CAI (computer-assisted instruction) systems are designed to facilitate student-initiated learning. In the field of agriculture, AI helps to detect diseases and climate change, decreases emissions, and enhances food production. A report stated that the global AI in agriculture market size is expected to be $1550 million by 2025. In the transportation sector, AI helps in increasing the safety of passengers, reducing traffic congestion and accidents, minimizing financial expenses, and lessening carbon emissions. According to a report by the global market AI in transportation will possibly reach $ 3.5 billion by 2023. The surveillance and security industry has seen advanced solutions with the emergence of Artificial intelligence, with the help of AI it is possible to the monitoring of video footage with smart analysis of how security incidents can possibly happen and the requirements for preventing them from occurring and also detect unattended objects like bags in airports and public spaces. In the fashion industry, trends change very fast with new designs or patterns coming into the market every day. AI algorithms can analyze designs through images to copy trending styles and reduce forecasting errors. There is a development of an Artificial Ecosystem. An artificial ecosystem meets all the criteria of a natural ecosystem but is created and controlled by humans. It replicates a natural ecosystem but often is less complex and with little genetic diversity. In the space industry, AI can help in gathering data about different planets, virtual assistance, remote sensing, navigating a mission in space, etc.

AI and Human Rights

The impact of increasing AI technology on human rights is profound. Algorithms based on gender bias and racialism are harmful to society. Al gathers much information about clients from many devices and when companies have enormous data it is a clear threat to clients. AI programs that keep facial recognition for theft protection may discriminate against people from different ethnicity (Hartwig, 2020). Chatterjee and N.S. (2022) analyzed different Indian and international laws on human rights issues and the impacts of these laws to protect the human rights of the individual, which could be under threat due to the advancement of AI technology. They found that regulatory authorities and the legal fraternity need to draft a comprehensive policy to regulate AI in the context of human rights protection. The right to privacy is a fundamental human right by Article 12 of the Universal Declaration of Human Rights, Article 17 of the International Covenant on Civil and Political Rights, and Article 21 of the Constitution of India. But in the digital environment, including when people use apps and social media platforms, a huge amount of their personal information is collected with or without their knowledge- and can be used to profile individuals and predict their behavior. People provide information about health, political beliefs, and family life without understanding who will use it and for which purpose. The Pegasus leak is an example of a violation of human rights by AI. Pegasus was installed in Indian politicians, journalists, and other famous figures that leaked their information and hackers targeted them by spying and eavesdropping (Sherman). An article in The Guardian by Paul and Milamo revealed that a former Facebook employee showed thousands of documents to the Wall Street Journal and US law enforcement claiming that Facebook is working for a profit before the public good. She said that the existing version of Facebook is dividing societies and provoking ethnic violence around the world. Latonero (2018) suggested that technology companies and researchers need to conduct Human Rights Assessments (HRIAs) through the life cycle of AI systems. Researchers should also pay attention to re-evaluating HRIA systems for AI, for the development of AI algorithmic assessments.

CONCLUSION

AI is affecting all aspects of human life. As technology is advancing, it is leading to a more comfortable life. In all industries including health, education, counseling, agriculture, transportation, space, etc. AI has its gripe. It has immense potential to grow and change the world but still, it is unknown whether it will take direction for the betterment of society or lead to destruction. As Stephan Hawking said that "AI will either be the best thing that's ever happened to people of the earth, or it will be the worst thing". There are many future projects like metaverse that will replicate human consciousness but it seems impossible to mimic the natural evolution of human consciousness. Still, scientists and philosophers are brooding on how human consciousness actually works. Furthermore, there is still a lack of emotions in AI systems and robots. Elon Musk is concerned that "Artificial Intelligence doesn't have to be evil to destroy humanity- if AI has a goal and humanity just happens to come in the way, it will destroy humanity without even thinking about it, no hard feelings." There are many companies that are blamed to violate consumer rights and allegedly stealing their personal information. Many famous people are targeted by hackers. Gray Scott called for AI regulation, "The real question is when we will draft an AI bill of rights? And who will get to decide? As a lack of understanding and constant debate between philosophers and scientists, it is not clear what type of model of AI should be followed. Stuart Russell stated that "No one has a clue how to build a conscious machine, at all." Bill Gates, indicated the repercussion of AI, "First the machine will do a lot of work for us and not be super intelligent. That could be positive if we manage it well. A few decades after that though the AI is strong enough to be a concern". Vladimir Putin stated that AI is the future and that whoever reaches a breakthrough in developing AI will come to dominate the world. Hence, it can be stated that AI can be a boon and a curse at the same time if it will not be managed properly. Government should make interfere in the matter of infringement of public privacy. The law and human rights should be regulated and strictly followed. Researchers and scientists should review the model for AI from time to time.

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