Vidyankur: Journal of Philosophical and Theological Studies XXII/1 Jan 2019 | ISSN P-2320-9429 | **19-30**
https://www.vidyankur.in | DOI: 10.5281/zenodo. 4159437
Stable URL: http://doi.org/10.5281/zenodo.4159437

A Futuristic Assessment of Being Human in the Age of AI

John Kennedy Philip SDB
Divyadaan: Salesian Institute of Philosophy, Nashik

*Abstract***:** In the past few decades, technology has been transforming human life at a faster pace than ever before. Technology has become part and parcel of our life and it has led the human race into the age of artificial intelligence (AI). It is impossible to separate human beings from the development of technology, especially from the development of AI. Through the development of AI, we are gifted with unlimited and unprecedented advancements as never before. Although humanity rejoices in being empowered by these AI developments, it is also worried about where they may be leading to. In addition, 'Artificial Intelligence' and 'human being' are two complex phenomena. The thoughts and trends of AI affect contemporary human lives both positively and negatively. In bringing together the positive and negative effects of AI

Cite this article in APA Style: Philip, J. K. (2019) A Futuristic Assessment of Being Human in the Age of AI. Vidyankur: Journal of Philosophical and Theological Studies. XXI/1 Jan-June 2019 www.doi.org/ 10.5281/zenodo. 4159437 19-30

trends in the lives of contemporary human, this article also presents a better way to understand a way ahead.

Keywords: Artificial Intelligence (AI), Technology, Life 3.0, Symbolic AI, Connectionist AI, Situated Robotics, Superintelligence.

Introduction

This paper attempts to present the positive and negative impacts of AI and brings out the possible way ahead as a suggestion for human beings to integrate their future life with AI.

"Technology development is giving the potential to flourish to human beings like never before or the potential to self-destruct" (Tegmark, 2017: 22) are eye-catching words of reminder from Future life Institute (FLI). It is impossible to separate human beings from the development of technology. Technology has become part and parcel of our life and it has led the human race into the age of artificial intelligence (AI). Humankind's scientific and technological progress, from the discovery of fire to the invention of AI, is full of amazing contribution that is made by a single individual or a community. However, what is AI? What is the purpose of AI? Can it be utilized to make human life better in the world? Is it possible to create a machine-like human being? If machine-like human beings are created, will they replace us on this earth? are some of the questions raised by contemporary intellectuals.

The field of AI is growing faster, what was once considered a possible distant future is now being tested and rolled out. Many new applications and autonomous robots are created in the human environment to help people as capable assistants or to work alongside people as

cooperative members of human-robot teams (Boden 2006). On the other hand, Stephen Hawking, a great physicist and cosmologist, warned his public audience that AI is going to replace human beings on this earth (Sulleyman, 2018). There are some events taking place in the world of technology to show that the relation chain between AI and human beings is breaking. In the year 2017, in Facebook Application, two AI bots created their own languages to communicate without the help of human beings (Beal and Jehring, 2017). If AI can think and communicate between themselves without the help of human beings, can they not replace human beings on this earth by becoming more intelligent than human beings? Several questions such as these have been constantly raised by the public, ethicists, and cosmologists in the debate on AI. Hence, the primary objective of this essay is to answer the aforementioned questions.

The queries that are related to the fundamental questions can be grouped under three major questions, which will be answered in the course of our investigation. The first question has to do with the definition, history and different methodologies of AI: What is AI? The second question pertains to the threats of AI: What are the threats created by AI? The third question explores the different solutions proposed by various philosophers to avoid these threats: What are the solutions to the threats of AI?

Defining Artificial Intelligence

AI is generally understood as the possession of intelligence by computers or machines (Boden 2006: 345). Although the whole of humanity rejoices in being empowered by AI, it is also worried about where AI might be leading us. Before embarking on an enquiry of such a philosophically overloaded issue, let us define AI in this sub-topic. Two terms that are inextricably associated with AI are ‘artificial’ and

'intelligence'. The definition of the term 'artificial' *prima facie* seems to be self-evident. The Oxford dictionary defines the term 'artificial' as "[t]hings that are made or produced by human beings to copy something natural." In the field of AI, the definition of the term 'artificial' refers only to 'machines' (Horen, 1984: 48).

In 2017, a symposium on AI was organized by the Swedish Nobel Foundation. A panel of leading AI researchers was asked to define intelligence. These leading researchers argued at length and failed to reach a consensus (Tegmark, 2017: 49). Max Tegmark narrates this incident in his book *life 3.0* and remarks that "[w]e found this quite funny: there's no agreement on what intelligence is even among intelligent intelligence researchers!" (Tegmark, 2017: 49). The reason why it is difficult to nail down a specific definition of intelligence is due to the blurred line between biological intelligence and mechanical intelligence. Tegmark defines intelligence as the "[a]bility to accomplish complex goals" (Tegmark, 2017: 49). Based on previous deliberations, the working definition of AI can be formulated as "[t]he capacity of a machine to imitate human intelligent behaviours" (McCollum: 2013: 2). After having enunciated the definition of AI, let us present the history of AI briefly in the following section.

History of Artificial Intelligence

In the history of scientific and technological development, AI is and will be a milestone. AI is the newest field in science and engineering. Though the work was started soon after the Second World War, (Garnham, 1988: 5) human beings' quest for AI goes back to the ancient Greeks over 2200 years.

The importance of Aristotle (384-322 BC) to the fields of technology and science should not be overestimated

(Feldman and Ford, 1979: 12). In his writings, on the field of human knowledge, he laid the foundation for modern scientific study and systemization of knowledge (Feldman and Ford, 1979: 12). Ancient Greeks were more technologically advanced than has often been assumed (Garnham, 1988: 4). The best example of their technological development is using of *Antikythera* mechanism in 80 BC. In addition to that, this *Antikythera* mechanism and the abacus are considered to be the ancestors of all the renaissance calculating devices. Around 1500, Leonardo da Vinci designed but did not build up the mechanical calculator (Cited in Boden, 2006: 345). In the modern world, calculating machines were first constructed by the philosophers Pascal and Leibniz (McCollum, 2013: 3). The first known and perfect calculating machine were constructed in 1623 by the Geneva scientist, Wilhelm (McCollum, 2013: 3). In the year 1651, Thomas Hobbes, in his book '*Leviathan*,' suggested the idea of 'artificial animal' (Garnham, 1988: 4). In 1830, Charles Babbage designed the first-ever digital computer (McCollum, 2013: 3) which was a kind of seed and opened a new door for today's AI. The term AI was first coined and used by John McCarthy in 1956 (Garnham, 1988: 4).

Four Major Methodologies of Artificial Intelligence

One can even broadly delineate the history of AI as the development of different methodologies of AI. According to Russell and Norvig, there are four major AI methodologies: Symbolic AI, connectionist AI, situated robotics, and evolutionary programming (Superintelligence) (Boden 2006: 345).

a. Symbolic Artificial Intelligence

Symbolic AI is also known as classical AI and 'Good Old Fashioned AI' (GOFAI) (Copeland, 1994: 122). These symbolic AI consist of sets of logical conditions of action (if-then), to achieve their purpose. For instance, in calculators, if

the condition is 2+2, the answer will be 4. These GOFAI methodologies are used to develop programs such as problem solvers, theorem-provers, data-mining systems, machine translators, expert system of many different kinds, chess players, semantic networks, question and answering programs, and analogy machines (Boden 2006: 345).

b. Connectionist Artificial Intelligence

In the 1980s, many AI scientists saw the revival of network theory or connectionism as a solution to the problems faced by GOFAI. The most common accepted definition of connectionism is, "an approach to modelling cognitive systems which utilizes networks of simple processing units that is inspired by the basic structure of the nervous system of the human being" (Bechtel, 1994: 200) Connectionist AI was inspired by modelling functions of the retina and brain of a human being.

c. Situated Robotics

Situated robotics is another and more recently enhanced AI methodology (Boden 2006: 347). Unlike GOFAI and connectionist AI, situated robots can act directly to environmental cues (Boden 2006: 345). Fire alarms and metal detectors are the best examples of situated robotics.

d. Superintelligence

Superintelligence, as defined by Bostrom, are "[i]ntellects that greatly outperform the best current human minds across many very general cognitive domains" (Bostrom, 2014: 63). In other words, superintelligence is the term that is used to refer to intellects especially the robots that greatly outperform the best current human minds, especially in general cognitive domains.

Some Positive Impacts of Artificial Intelligence

These AI agents are transforming our lives for the better in this world. As AI becomes more capable, our world becomes more efficient and consequently rich to live. Our devices are now connected with all the social media through which our personal digital assistants answer all the questions that we ask. Algorithms track our habits and make recommendations based on our likings from choosing the video on YouTube to choosing of wife in some matrimony applications. AI's advancements in medicine and the field of automobiles are remarking. There won't be any excitement to see cars will soon be driving themselves, and robots will be delivering our pizza, etc. Besides, humanoid robots are being developed to provide the elderly with assistance in their homes and in the same way Google Assistant is the best help for people who are feeling lonely. The deep learning algorithms are all around us, tracking us, prompting us, shaping our preferences and our behaviours (Boden 2006: 347).

Some Negative Impacts of AI

History shows that many new technologies have had unintended negative effects on the world. The scientific fictional movies such as 'Terminator' and 'Robot', novels such as *origin* depict the end of humanity by AI. The dangers of these movies are not that it would happen, but they distract us from seeing the real risks and opportunities presented by AI. These thoughts about the threats of the evolution of AI to the human civilization are shared not only by cineastes and novel writers, now, but famous ethicists and philosophers also focus on these AI threats (Farquhar et al, 2017: 9). Tech giants such as Alphabet, Google, Facebook, Microsoft, Twitter, and IBM as well as some individuals like Stephen Hawking and Elon Musk believe that this is the right time to discuss and talk about AI. In a 2014 survey of AI experts, the Median experts

estimated that there is a 50% chance of creating human-level AI by 2040, and there is a 75% chance of creating superintelligence in the following hundred years (Farquhar et al, 2019: 9). If AI is invented to automate all the jobs, will it not be a threat to human beings who are working in those fields? For instance, look at trucking: it currently employs millions of individuals in the United States alone. What will happen to them if self-driving trucks become widely available in the market?

It is an interesting fact to note that in 2015, only 1,78,000 different robots were used in the field of business for different purposes in China. It is sad to note that in 2017, it was increased and resulted in 3,78,000 robots (Kappor, 2017: 18). If the ratio of using AI in the field of business is increasing, is it not a threat to people already employed in those fields? The modern economy has become more dependent on computers and AI. Thousands of workers have been displaced by these AI at present and many more will be in the future. If it is going to replace one by one in the field of work, is it not a cosmological threat to the human being?

The first word that usually comes to mind when we hear the word 'machine' is that they are unbiased (Kumar, 2015: 38). But are they really so? It is a question that is becoming more and more germane in the field of AI. There are so many incidents to indicate that AI is biased and these developments are not suitable for all. Once upon a time, Google's photo application automatically classified dark skin tones as gorillas (Kumar, 2016: 38). In an AI judged beauty contest, AI went through thousands of selfies and chose forty-four fair-skinned faces to be the winners of the contest not even one dark-skinned face was chosen as a winner (Kumar, 2016: 39). Microsoft's twitter-based chatbox 'Tay' was designed to learn from its

interactions with users. Within 24 hours it was shut down. The user community taught it some seriously offensive languages and it regurgitated it faithfully and the very public experiment wrecked up a disaster with aggressive spewing racist and sexist remarks by this application (Kumar, 2016: 39).

Another interesting threat of AI is that it may lead one to attack his/her enemy even without building any weapons of AI. Through cyberwar, one can hack and crush the enemy's self-driving cars, auto-piloted planes, nuclear reactors, industrial robots, communication systems and financial systems (Tegmark, 2017: 118). If it is done by an evil-minded individual to destroy the whole of humanity, will it not pronounce the end of whole humanity? Sexual relationships with robots may seem far-off now, but they are coming sooner than we think (Brown, 2018). As virtual reality evolves, a robotic partner will become more and more plausible, perhaps even become preferable to human beings. If it is becoming plausible and preferable, will it jeopardize the role of husband and wife in the family? If a human is marrying an AI, it will be an ethical threat.

Will AI replace human beings? The answer to this question is simple: No, AI machine or computer can ever perform the intellectual act of understanding and judging or determining itself freely, because they are material machines and cannot perform spiritual actions of understanding, judging and free self-determining acts. Computing enormous data at very rapid speeds which supercomputers can do, is not the same as understanding, judging and deciding freely, which only humans can do, although words like intelligence and learning are also used for AI machines. However, we must take some necessary steps to ensure that this technological development suits all.

Conclusion: A Way Ahead

"The saddest aspect of life right now is that science gathers knowledge faster than society gathers wisdom," (Cited in Tegmark, 2017: 316) are the words of Isaac Asimov. Hence, before building or developing AI, proper education and understanding have to be given to our young people to make technology robust and beneficial; the modernization of ethical laws is needed before technology makes them obsolete. Resolving all the international conflicts is more important before they escalate into an arms race in autonomous weapons. Creating an economy that ensures prosperity for all will avoid AI racism. Creating a society where AI – safety research get implemented rather than ignored is essential. Agreements on some basic ethical standards before teaching morality to powerful machines will be a great helping hand for human beings to create an unbiased AI. We need to remember that as we shape the age of AI, we are the guardians of our future because our future is not something that is written on stone and just waiting to happen to us. It is ours to create. Let us create a better and fascinating future for us and our children.

References

Aatif, Sulleyman. (Nov 2, 2017) "Stephen Hawking Warns Artificial Intelligence 'May Replace Humans Altogether," *Independent News*, November 2, 2017, http://www.independent.co. uk/life- style/ gadgets-and-tech/news/stephen-hawking-artificial-intelligence-fears-ai-will-replace-humans-virus-life-a8034341.html, accessed January 6, 2018.

Beal, James and Andy Jehring. (Aug 1, 2017), "Facebook Shuts Off AI Experiment After Two Robots Begin Speaking in Their own Language Only They Can Understand," The Sun, August 1, 2017, https://www. thesun.co.uk/tech /4141624/

facebook- robots- speak- in-their-own-language. html, accessed January 6, 2018).

Bechtel, William. (1994). "Connectionism." In *A Companion to the Philosophy of Mind*, edited by Samuel Guttenplan. Oxford: Blackwell Publishers Ltd, 200-201.

Boden, Margaret A. (2006). "Artificial Intelligence." *Encyclopedia of Philosophy*. Edited by Donald M. Borchert, Detroit: Gale Cengage Learning, 1: 345-359.

Bostrom, Nick. (2014). *Superintelligence: Paths, Dangers, Strategies* (Oxford: University Press.

Copeland, Jack B. (1994). "Artificial Intelligence." In *A Companion to the Philosophy of Mind*, edited by Samuel Guttenplan. Oxford: Blackwell Publishers Ltd, 120-125.

Feldman, Antony and Peter Ford. eds. (1979). *Scientist and Inventors: The people who made Technology from Earliest Times to Present Day*. London: Aldus Books.

Garnham, Alan. (1988). *Artificial Intelligence: An Introduction*. London: Routledge & Kegar Paul Ltd.

Horen, Dennis J. (1984). "Artificial Intelligence." In *The Oxford Companion to the Mind*, edited by Richard L. Grecory. New York: Oxford University Press, , 48-51.

Kappor, Ketan. (Dec 6, 2017). "How to get those Top AI Jobs," *The Hindu*, Dec. 6, 2017, 18

Kumar, Ekta. (Sept. 16, 2016). "If Artificial Intelligence is taught to think like Humans, Then Are Machines Going to Be Sexist, Racist and Discriminatory." *Outlook*, 37-40.

McCollum, Aaron E.(2013). *The Transhumanism Pandemic: Sub-Humanity's Messiah; Humanity's Annihilation*. Stanhope Gardens: Pisceanesque Publishing.

Sebastian Farquhar et al., (2017). *Existential Risk: Diplomacy and Governance*. Oxford: Oxford Press.

Tegmark, Max. (2017). *Life 3.0: Being Human in the Age of Artificial Intelligence*. New Delhi: Penguin Books.

John Kennedy Philip is a member of the Salesians of Don Bosco, belonging to the province of Chennai. He has completed his masters in philosophy in Divyadaan, Nashik. Currently, he is teaching philosophy in the same institution. His main interests are Philosophy of Science, Artificial Intelligence, Transhumanism and Philosophy of Technology. Email ID: johnkennedy842@gmail.com

Article Received: Jan 11, 2019; Accepted: Feb 22, 2010; Words: 2880

© by the authors. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license. (http:// creativecommons.org/ licenses/ by /4.0/).