

The Connection between Humanism and Artificial Intelligence: Interpreting Turing's Ideals for Humanity

Fatai Asodun, PhD

Abstract

When Alan Turing laid down the philosophical groundwork for the vision of Artificial Intelligence (AI) through his Turing Test (TT), many did not envisage how profound its effects would be in reshaping human technological history. Turing's vision is that a time would come when machines will be appropriately programmed to compete favourably with humans in intelligence test. Due to the test's attractions, many AI scholars and researchers simply adopted this vision for their discipline. To this end, the history of AI to date is that of a rigorous drive to build machines that exhibit human-like intelligence-driven behaviours. AI's success in this regard has been monumental to the extent that machines have started replacing humans in many endeavours. Unexpectedly, this partly started accounting for job loss and other AI-driven vices. Gradually, AI's success story begins to be punctuated with anti-human consequences. The question now is whether Turing's vision for AI is not antithetical to the fundamental principles of humanism that emphasise the exploration of human rational capacity for actualising human wellbeing, progress and happiness. Adopting the method of reductive analysis, this paper examines the TT and its perceived vision for AI vis-a-vis AI successes and its effect on humanity to critical scrutiny. On the ground of its findings, the paper argues that if Turing's vision for AI is properly understood it would be seen to imply a great vision for the development of humanity itself.

Keywords: Artificial Intelligence, Humanism, Imitation Game, Turing Test

Introduction

There is no gainsaying that the impact of AI is already giving rise to some concerns. The future of mankind is becoming unpredictable due to the gradual replacement of the human

workforce with intelligent artefacts.¹ The need for both blue and white-collar jobs may decline due to AI's boost of automation and technological applications in specialised tasks.² Already Ajay Agrawal, Joshua Gans and Avi Goldfarb have argued that “artificial intelligence may directly substitute capital for labour in prediction tasks”.³ Similarly, humans are at risk of losing their right to privacy to the algorithmic intelligence capacities of AI.⁴ The application of AI in the sphere of warfare is even more frightening. Ulrike Franke notes that this has attracted moral questions and public outcry.⁵

Given the above, the potential danger of the application of AI to human activities will be of concern to humanist philosophy. Since human wellbeing and happiness are fundamental to humanism,⁶ the replacement of the human workforce in any form may be perceived as the promotion of evil and suffering in the lives of the affected human population. Note also that AI's incursion into human privacy, in terms of its deployment, may be considered a stampede on liberty which according to Zargham Yousefi, *et al* is a critical principle of humanism.⁷ One then begins to wonder if indeed humans and AI can cohabit.

1. Navshad Wani, Shakeel Najar and Zubair Masoodi. “The Impact of Automation on Human Behaviour – A Review”. *International Journal of Advance Research in Science and Engineering* 7, no. 4 (2018): Pg. 448-460.

2. Michael Haenlein and Andreas Kaplan. “A Brief History of Artificial Intelligence: On the Past, Present, and Future of Artificial Intelligence”. *California Management Review*. (2019), Pg. 1-10.

3. Ajay Agrawal, Joshua Gans and Avi Goldfarb. “Artificial Intelligence: The Ambiguous Labour Market Impact of Automating Prediction”. *Journal of Economics Perspectives*. Vol.33 No.2, (2019).

4. Mathew Smith, and Sujaya Neupane. *Artificial intelligence and human development: Towards a research agenda*. Canada International Research Centre (2018), Pg. 11.

5. Ulrike Franke. *Harnessing Artificial Intelligence*. European Council on Foreign Relations. (2019) <http://www.jstor.com/stable/resrep21491>

6. See Corliss Lamont, *The Philosophy of Humanism*. (New York: Humanist Press, 1997).

7. See Zargham Yousefi, *et al*. “Liberal Humanism and its Effects on the Various Contemporary Educational Approaches”. *International Educational Studies* 8, no. 3 (2015).

Tracing the evolution of AI from antiquity to date, the name Alan Turing brightly comes to light. Some literature claim that Turing provides the benchmark and vision of AI.⁸ In some other AI literature, Turing is considered the father of AI and computer science.⁹ They however aver that the impact of Turing on AI owes largely to his specially contrived test (TT) for determining if a machine is intelligent. This historical feat provides the rigorous drive for AI researchers to work towards building machines that can pass the TT or exhibit intelligence. Matthew Ginsberg, a notable AI researcher, simply interprets AI as the “enterprise of constructing a physical symbol system that can reliably pass the Turing test”.¹⁰ In a practical demonstration of his ingenuity, Turing built an electromechanical machine “considered a precursor of modern computer”¹¹ to decode German messages during the Second World War. It was revealed that Turing's feat “helped shorten world war II by about two years by deciphering around 3,000 German military messages a day”.¹²

The pounding question now is how can someone of Turing's intellect worked assiduously to end human suffering by being instrumental to end a world war and yet provided the vision for the emergence of AI. Could it be that Turing did not foresee the implication of his vision, or that all he cared about was the emergence of a thinking machine irrespective of its effects on mankind?

Attempt to unravel this puzzle ignites the interest of this paper to critically evaluate the TT for any possible anti-humanist intent

^{8.} See Chris Smith *et al*, *The History of Artificial Intelligence*. (Washington: University of Washington, 2008). Maad Mijwel, “History of Artificial Intelligence” (2015). Frank Kirchner, “AI-perspectives: the Turing option”. *Springer Open Journal*. (2020).

^{9.} See Hilary McLellan, “Computers, Artificial Intelligence and Human Imagination”. *Journal of Thought* 23 no.3/4 (1988). Maad Mijwel, “History of Artificial Intelligence”.

^{10.} Ginsberg, Matthew. *Essentials of Artificial Intelligence*. (San Mateo, CA: Morgan Kaufmann, 1993), Pg. 8.

^{11.} Maad Mijwel, “*History of Artificial Intelligence*” Pg. 1.

^{12.} Maad Mijwel, “*History of Artificial Intelligence*” Pg. 1.

in the first place. The paper commenced with an introduction to the basic principles of humanism. This is followed by the examination of how the Turing test lays the foundation for the emergence of AI research. In the final part of the paper, the fundamentals of AI research are scrutinized for possible alignment or non-alignment with the hitherto discussed principles of humanism.

Fundamentals of Humanism

Like the “human being” which constitutes its primary focus, the term humanism can be slippery and controversial to pin down. Andrew Copson remarks that the term has been variously described as “a 'worldview', an 'approach to life', a 'lifescance', an 'attitude', a 'way of life', and a 'meaning frame'”.¹³ Both Eugene Anowai and Stephen Chukwujekwu observe that the term's usage can be quite unstable.¹⁴ Nevertheless, Corliss Lamont offers a working meaning that serves the purpose of this paper. Accordingly,

Humanism is the viewpoint that people have but one life to live and should make the most of it in terms of creative work and happiness: that human happiness is its own justification and requires no sanction or support from supernatural sources; that in any case the supernatural usually conceived of in the form of heavenly gods or immortal heavens does not exist; and that human beings, using their own intelligence and cooperating liberally with one another, can build an enduring citadel of peace and beauty upon this earth.¹⁵

^{13.} See Andrew Copson. “What is Humanism?” in *The Wiley Blackwell Handbook of Humanism*, eds. Andrew Copson and A.C. Grayling. (New Jersey: John Wiley & Sons, Limited, 2015), Pg. 5.

^{14.} Anowai, Eugene and Stephen Chukwujekwu. “Philosophy of Authentic Humanism: The Only Way of Curbing Conflict and Violence”. *International Journal of History and Philosophical Research*, 7 no.1, (2019), Pg. 1.

^{15.} Corliss Lamont, *The Philosophy of Humanism*, Pg. 15.

Jim Herrick consequently avers that “humanism is a most philosophy of life. Its emphasis is on the human, the here-and-now, the humane”.¹⁶ I will explore Herrick's use of the term 'humane' and Lamont's reference to happiness, creative work, peace and cooperation in interrogating the TT and AI later.

To properly situate humanism, Yousefi et al present some fundamental principles upon which it is grounded: (1) Human orientation (man is the scale to all that exists and is also the centre and the supreme possessor of all creation. The valuation of everything should be done by him), (2) Liberty (he has been entitled to power and it is he who determines his fate), (3) Logic (humanism logic is the leader of mankind. Humanism logic is self-manifested and need less of revelation), (4) Naturalism (nature is man's domain and he can obtain connections with nature, by his senses), (5) Tolerance (by giving man authenticity, all human ideas and actions will be of value).¹⁷ The focal point of all these principles is that humans are the legislators of reality.

To further clarify the notion and nature of humanism, Corliss Lamont puts forward some propositions that set out its outlook. First, nature rather than the supernatural is considered the totality of being. Second, humans are taken as an evolutionary product of nature bereft of the capacity to survive dearth. Third, equipped with the capacity to reason that is supported by the scientific method, humans can always solve their problems. Fourth, freedom is the essence of the human person with which he can shape his destiny. Fifth, morality should ground all human values in this-earthly experiences where all relationships are pinned on happiness, freedom and progress for mankind. Sixth, humans should engage in activities that will contribute to the welfare of the community as a whole. Seventh, the aesthetical experience of nature and everything therein should be a pervasive reality in the lives of all people. Eighth, social programmes should be geared

¹⁶ Jim Herrick, *Humanism: An Introduction*. (Ibadan: Gadfly Publishers, 2006), Pg. 1.

¹⁷ Zargham Yousefi, *et al.* “Liberal Humanism”, Pg. 105.

towards the attainment of democratic ideals, happiness and a high standard of living for the totality of mankind. Ninth, a social-political order that is anchored on human reason and the scientific method should be a guide to the human affair. Tenth, the belief in the unending questioning of basic assumptions and convictions about the human experience using the scientific method is critical.¹⁸ From the five principles and ten propositions presented on humanism, we can discern its epistemological and ethical outlooks as significant to the analysis of the TT and AI.

Consistently, the ethics of humanism considers the attainment of happiness, good living and welfare to be at the heart of human existence. Moral behaviour is to be exhibited among mankind not for the satisfaction of any supernatural being, fear of hell or promise of blissful heaven but for the attainment of a good life for mankind as a whole. Humanism's ethical goal is to attain happiness, peace and quality of life for all. The epistemology of humanism adopts the scientific method as the critical means of arriving at truth.¹⁹ The question at this point is whether Turing's ideals for humanity can be justified with this outlook of humanism.

The Turing test

In the field of psychology intelligence tests are designed to rate the IQ of animate agents, but the Turing test, however, takes an unusual path. In 1950, Allan Turing, a British mathematician and philosopher, designed the test to showcase what it means to say that a machine can think. His simple argument is that if a machine is appropriately programmed it would exhibit behaviour that has the traits of intelligence comparable to that of humans. This appears as mere fantasy since, before Turing, the history of AI was

^{18.} See Lamont, *Philosophy of Humanism*, Pg. 13-15.

^{19.} See Andrew Copson. "What is Humanism?", Pg. 8.

that of mechanically rigged artefacts.²⁰ In Turing's famous philosophical article "Computing Machinery and Intelligence", the idea of a digital or programmable machine was introduced as the key candidate of the TT. The new device, known as the Universal Machine, is expected to exhibit any intelligent behaviour programmed into it.

Considering whether machines can think, Turing meticulously crafted a game that exemplifies what it means to say that entities like humans can think or are intelligent in terms of their behavioural dispositions. He argues that if machines were appropriately programmed they would exhibit similar behaviour when introduced into the game. Consequently, the Imitation game as Turing calls it is executed in two phases. In the first phase, a male player, who is pitted against a female player, is assigned the function of pretending to be a woman. His goal is to deceive an observing human judge through his behavioural responses via teleprinter communication into believing that he is actually the female player. The judge is expected to ask questions capable of eliciting responses that could give away the male player. The male player wins if the judge could not distinguish him from the female player based on their responses. Turing believes that the male player's appropriate behavioural response is an exemplification of the human capacity to undetectably imitate what they are not and this, *ipso facto*, is a signpost of intelligence. In the second phase of the test, a machine is also assigned the function of pretending to be a woman. However, the machine is now pitted against the male player (not the female player) to determine if it could successfully replicate the male player's performance (as witnessed in the first phase) in such a manner that the judge would not distinguish it from the male player himself. If the judge fails in his bid, then the machine passes the test and is considered to have met the criteria employed in adjudging the male player intelligent. Turing thus

^{20.} See Nils Nilsson. *The Quest for Artificial Intelligence*. (Cambridge University Press, 2009). Wooldridge, Michael. *A Brief History of Artificial Intelligence: What It Is, Where We Are, And Where We Are Going*. Flatiron Books, (2021).

sets the groundwork for the classical notion of machine intelligence.²¹

The first thing to note about the TT is that it is scientific. Turing clearly laid down an empirical means of judging any candidate machine in the test. The simple rule is for the machine to respond to the judge's query in such a manner that it would be mistaken for a human being. Interestingly Turing's machine does not need to be infused with any Cartesian ghostly mind to perform successfully. He emphasises the notion of "an appropriately programmed machine". He projected that in 50 years after the publication of his paper, machines will pass the test. Turing strongly believed in the human capacity to build such machines before that time. Turing himself built a machine that helped in decoding German messages during the Second World War.

One can discern the traits of humanism in the TT and by extension in Turing himself in terms of his method of inquiry, his trust in human reasoning and their capacity to solve problems. Let us not forget that Turing did not request that a task that will hurt mankind be designed into the machine. Turing actually proposed such tasks as playing chess, number game, poetry, and other reasoning-inclined activities. Consequently, the TT is not intended for vices. At this point, one can evaluate the reality of its impact.

Impact of the TT on AI Emergence

From a practical perspective, some scholars question the essence of the TT since no machine is yet to pass it after many years of its articulation despite Turing's prediction, that machine would have passed it in the year 2000.²² Other scholars reiterate the futility of

21. See Alan Turing. "Computing Machinery and Intelligence". *Mind* 59, no. 236 (1950). Also see the interpretation of the Turing test provided in Fatai Asodun. "From Controversy to Digital Dignity: The Impact of the Turing Test on ICT Revolution". *Lagos Notes and Records: A Journal of Faculty Arts, University of Lagos* 23, (2017).

22. See Hubert Dreyfus. *What Computer Can't Do*. New-York: MIT Press, (1992). Richard Purtil "Beating the Imitation Game". *Mind*. 80, vol. 318 (1971). Hannah Miller. "On the Point of the Imitation Game", *Mind*, 82, vol. 328 (1973).

Turing's dream since machines do not possess the natural properties like the brain and mind that are needed to pass an intelligent test.²³ Despite these criticisms, Turing's prediction still spurred vigorous research aimed at developing such machines. This effort eventually contributed to the emergence of a branch of Computer Science known as "Artificial Intelligence" in 1956. The objective of AI is to create intelligent artefacts that possess the capacity to behave in manners not distinguishable from how humans exhibit intelligence-driven behaviour. Consequently, the TT has bolstered research interest in the field of AI.²⁴

In this connection, the pioneering efforts of AI researchers like John McCarthy, Marvin Minsky, Nathaniel Rochester, Claude Shannon, and a host of others, were geared toward developing intelligent machines. However, the authors of one of the leading textbooks on AI research, Stuart Russell and Peter Norvig posit that Turing was the first to conceptualise "a complete vision of AI in his 1950 article".²⁵ Steven Harnad while proffering an alternative machine intelligence test to the TT, remarks, "The TT is an empirical criterion: it sets AI's empirical goal to be to generate human-scale performance capacity. This goal will be met when the candidate's performance is indistinguishable from that of humans".²⁶ For Patrick Hayes and Kenneth Ford Turing's

²³. See John Searle. "Minds, brains, and programs", *Behavioural and Brain Sciences*, 3, (1980). Keith Gunderson. "The Imitation Game", *Mind*, 73, no. 4 (1964). Ned Block. "Psychologism and Behaviourism", *Philosophical Review*, 90 (1981).

²⁴. See Robert French. "The Turing Test: The First Fifty Years". *Trends in Cognitive Sciences*, 4, no. 3 (2000): 115-121; Stuart Russell and Peter Norvig. *Artificial Intelligence: A Modern Approach*, 2nd ed. (Englewood Cliffs: Prentice-Hall, 2005); Ayse Saygin, Ilyas Cicekli, and Varol Akman. "Turing Test: 50 Years Later". *Minds and Machines*, 8, (2000): Pg. 463-518.

²⁴. Alan Turing. "Computing Machinery and Intelligence". *Mind* 59, no. 236 (1950), Pg. 433.

²⁵. Stuart Russell and Peter Norvig, *Artificial Intelligence: A Modern Approach*, 2nd ed. (Englewood Cliffs: Prentice-Hall, 2005), Pg. 17.

²⁶. Steven Harnad, "The Turing Test is Not A Trick: Turing Indistinguishability is A Scientific Criterion". *SIGART Bulletin*. 3, no. 4 (1992), Pg. 9.

“Computing Machinery and Intelligence” inspired the creation and the vision of AI.²⁷

Some of the significant achievements of AI today, especially in expert systems, neural networks and robotic research, owe largely to the desire of AI researchers to actualize this vision. Indeed one must give credit to Turing for providing such a strong and useful vision for AI at a period in history when the idea of machine intelligence was a mere dream.

Basic Areas of Application of AI and their Implication for Humanism

Different areas of application of AI can broadly be classified into expert systems, game playing, machine learning, natural language processing, automatic theorem proving, problem-solving, and robotics. A critical look at some of these areas of applications reveals that they have positive and practical bearings on humanism.

Expert Systems

The emergence of expert systems dates back to the 1960s. It is a type of computer application programme that makes decisions or solves problems in a particular field, such as finance or medicine, by using knowledge and analytical rules defined by experts in the field. Areas of application of expert systems include economics, medicine, chemistry, law and so on. The common worry over expert systems is that they are leading to a decline in job opportunities for human experts. This appears bad for Turing's vision bearing in mind that the topics of interrogation in the TT are expert-inclined. That said, one cannot hold Turing responsible for what is to happen nor condemn AI researchers for developing expert systems. The intention for designing them is to assist human experts themselves with more precision and success. One

²⁷. Patrick Hayes and Kenneth Ford, “Turing Test Considered Harmful”. *Proceedings of the Fourteenth International Joint Conference on Artificial Intelligence*. 1(1995), Pg. 972.

area where expert systems have been well utilized is medicine. In 1974, a popular expert system was designed. MYCIN, as it is called, has the capability of diagnosing bacterial infections in the blood and suggesting appropriate treatments. "GIDEON", the Global Infectious Disease and Epidemiology Network, is also another remarkable expert system used in medicine. This expert system is capable of assisting physicians to diagnose as many as three hundred and thirty-seven recognized diseases in many countries of the world. In essence, expert systems are not designed to replace humans in their traditional role, rather they are meant to assist us in actualising our goals seamlessly more than ever.

Game Playing

Game playing is a popular application area for AI because it is suitable for evaluating some of the central techniques of the enterprise. Such techniques include search and use of "heuristics". The search involves the use of "brute force" to carry out an exhaustive search of possible moves in a game. Heuristics are rules that are set to narrow down possible searches that could be carried out by computers.²⁸ Game playing generates pleasure for humans and also provides an avenue for distraction from life crises. It was interesting that in 1997 an IBM-designed AI game programme, Deep Blue, defeated the then reigning world human chess champion, Garry Kasparov, in a widely followed chess match. Kasparov's defeat does not take anything away from humans; rather it creates for us the self-awareness of the level of application of our intelligence in solving difficulties. It also helps in affirming the level of development of our creative prowess; after all, it is humans that designed Deep Blue.

^{28.} See David Fogel. *Evolutionary Computation: Towards a new Philosophy of Machine Intelligence*, New Jersey: John Wiley & Sons, Inc, (2006).

Machine Learning

Taking appropriate decisions based on acquired experience is one of the indicators of human intelligence. In an attempt to further showcase machine intelligence, efforts have been invested into designing machines to learn from experience and make appropriate decisions. This aspect of AI is called machine learning. Thus, machine learning is the study of methods used in programming machines to learn from experience.

Machines are purposefully designed to learn for various reasons. For instance, machine learning is useful where the computer is expected to make customized decisions for different users based on its (computer) experience of each user's peculiar activities on the system. In essence, after arriving at a generalization about a user's activities, the computer can automatically deduce the user's needs and react appropriately when it is prompted by the user. Machine learning could help in predicting financial behaviours based on what it has learnt. Humans (users) are those that end up benefitting from machine learning.

Natural Language Processing

Programming computers to understand natural human languages is a common method employed by AI researchers to justify machine intelligence. Humans have to master the complexity of the spoken language to use it effectively. Programming computers to achieve this feat is a great challenge. Nevertheless, AI research is recording some achievements in this task. IBM has already successfully designed computer programmes like "MASTOR" that can translate free-form English speech into another language's speech.

Natural language processing is usually carried out in the areas of text understanding and text generation, speech understanding and generation, machine translation of natural languages to others, and natural language interfaces for databases. Natural language processing best captures the dream of Alan Turing about

intelligent machines. The Turing Test is meant to showcase how machines can effectively carry out linguistic communication in a way comparable to how humans carry out a similar task. The AI researcher, Joseph Weizenbaum, created a popular programme called "ELIZA" that reflects Turing's dream. The programme is capable of communicating with humans in a manner not distinguishable from humans themselves. Strengthening human relations all over the world despite language differences is enhanced through machine prowess in language processing. Such machines make communication possible between humans who have different linguistic backgrounds.

Robotics

Hybrid Techniques as an AI paradigm involve the integration of many AI paradigms to produce a more complex intelligent agent. Such an agent is the robot. Robotics is therefore an attempt to instantiate multiple paradigms of AI in an intelligent agent. A robot is a computer-controlled machine that is programmed to move, manipulate objects, and accomplish work while interacting with its environment. Robots are able to perform repetitive tasks more quickly, cheaply, and accurately than humans.²⁹

Many robotic applications are for tasks that are either dangerous or unpleasant for human beings. In medical laboratories, robots handle potentially hazardous materials, such as blood or urine samples. In other cases, robots are used in repetitive, monotonous tasks in which human performances might degrade over time. Robots can perform repetitive, high-precision operations 24 hours a day without fatigue.³⁰ The automobile industry has benefited immensely from robotics because robots can effectively and efficiently carry out different tasks.

^{29.} See G.A. Bekey, "Robots". *Microsoft® Encarta® 2009 DVD*. Redmond W.A.: Microsoft Corporation, (2008).

^{30.} See Bekey, "Robots". *Microsoft Encarta*.

Further impact of AI on humanism

An attempt to situate these various applications of AI within the scope of epistemology and ethics of Humanism further reveals that AI research is consistent with Humanism. AI research at any point in time never encourages the inclusion of the supernatural in human affairs. AI is a bold attempt to materially instantiate in machines some of those characteristics ascribed to such supernatural entities as God.

From Ludwig Andreas Feuerbach's perspective, humans' longing for the perfection of their nature is what informs the belief in the existence of God. In Feuerbach's words: "The yearning of man after something above himself is nothing else than the longing after the perfect type of his nature, the yearning to be free from himself, i.e., from the limits and defects of his individuality".³¹ The point being made here is that "man alienates himself in the process of forming the concept of God. He strips himself of his best qualities – his goodness, his justice, power, wisdom, mercy, etc. – and projects them outside himself into an imaginary being, called God. But in projecting these human qualities into the concept of God, man removes from them human limitations and therefore sees them as limitless – infinite goodness, infinite justice, infinite wisdom, etc.

Thus, all the divine attributes are in fact human attributes removed from man and projected into the idea of God".³² Since Humanism considers such projection of human attributes into a spiritual element like God as unwarranted, AI becomes the available avenue through which humans actualise their longing for perfection. Efforts are steadfastly geared toward the instantiation of human projected perfect attributes in machines. This move is quite humanistic since such machines are not abstractive entities existing in an imaginary super-sensible world.

^{31.} Ludwig Feuerbach, *The Essence of Christianity*. (New York: Harper & Row, 1957), Pg. 281.

^{32.} Joseph Omoregbe, *A Philosophical Look at Religion*. (Lagos: Joja Educational Research and Publishers Limited, 1993), Pg. 4-5.

Machines exist in human natural habitats. They are built by humans to achieve ends designed for them by humans themselves.

AI research is equally consistent with the epistemology of Humanism. Here the application of reason, supported by the scientific method, is considered the channel for interacting with reality. AI itself is a product of reasoning and scientific method. Intelligent machines are scientific technology so designed to help humans in all their endeavours. Today, AI research offers the most sophisticated tools of scientific inquiry.

The ethics of Humanism is already benefitting from AI research. A morally sensitive area of human endeavour where the AI's support for Humanism is gradually assuming factual significance is that of the care of the aged. In some advanced societies like Japan and China, intelligent machines are already playing the role of caregivers or nurses in elderly homes. At the beginning of the century, Carnegie Mellon University designed a care-robot named Pearl. The robot is designed with the capacity to guide the elderly on such routines as eating, medication, bathing, drinking, and so on. Pearl's capacity to effectively and efficiently carry out this function has already been demonstrated at Longwood Retirement Community in Oakmont, PA.³³ This is to suggest that specially designed robots offer social therapeutic assistance to the aged thereby improving their quality of life.³⁴ Beyond caregiving, AI is contributing immensely to the healthcare industry.³⁵ Indeed the contributions of AI to human welfare cannot be overemphasised.

³³. See, M.E. Pollack, *et al.* "Pearl: A mobile robotic assistant for the elderly". *AAAI Workshop on Automation as Eldercare*. (2002).

³⁴. See Michael Cheng-tek Tai, "The impact of artificial intelligence on human society and bioethics". *Tzu Chi Medical Journal*, 32 no. 4 (2020), Pg. 341

³⁵. See D. Majumdar and H.K. Chattopadhyay, "Artificial Intelligence and its impacts on the society". *International Journal of Law*, 6 no. 5 (2020).

Conclusion

Turing's primary objective in designing the TT is to showcase a new paradigm for proving machine intelligence; the secondary objective is to put in place a framework for developing a machine that can pass the test itself. The outcome of Turing's objectives is the birth of AI research. Although still in its infancy, AI has been attracting record-breaking achievements. Humanity can now boast of intelligent machines that can compete with them in intelligent-oriented games, effortlessly diagnose countless human ailments and offer expert advice, engage in auto-driving without a human guide, and carry out many other complex intelligent activities for humans. These extraordinary achievements eventually compel critics of AI to consider it a danger and existential threat to mankind. Some claim that an AI might somehow develop spontaneously and ferociously like some exponentially brilliant cancer.³⁶ Some even toy with the idea that AI may take over the world from human beings. Ultimately, there is no reason for linking AI to Humanism; the two appear antithetical.

Sympathizers of AI have also consistently dispelled the fear that AI is a threat to humanity. They argue that such fear is instantiated only in fictional AI; it has no place in real AI. In his contribution to an EPRS 2018 research *Should we fear artificial intelligence?*, Peter Bentley avers that,

Real AI saves lives by helping to engage safety mechanism (automatic breaking in cars, or even self-driving vehicles). Real AI helps us to optimise processes or predict failures, improving efficiency and reducing environmental waste. The only reason why hundreds of AI companies exist, and thousands of researchers and engineers study in this area, is because they aim to produce solutions that help people and improve our lives.³⁷

^{36.} Peter Bentley, "The Three Laws of Artificial Intelligence: Dispelling Common Myth". *Should we fear Artificial Intelligence? In-depth Analysis*. Eds. Thomas Metzinger et al. Brussels: STOA, (2018), Pg. 6.

^{37.} Peter Bentley, "The Three Laws of Artificial Intelligence", Pg. 6.

Consequently, AI exists for the satisfaction of Humanism. AI offers the avenue through which humans exercise their inner uncontrollable drive for outward projection of their perfections; not in imaginary supernatural entities but in concrete realities like intelligent machines.

Bibliography

- Agrawal, Ajay, Joshua Gans and Avi Goldfarb. "Artificial Intelligence: The Ambiguous Labour Market Impact of Automating Prediction". *Journal of Economics Perspectives*, 33 no.2, (2019): 31-50.
- Anowai, Eugene and Stephen Chukwujekwu. "Philosophy of Authentic Humanism: The Only Way of Curbing Conflict and Violence". *International Journal of History and Philosophical Research*, 7 no.1, (2019): 1-11.
- Asodun, Fatai. "From Controversy to Digital Dignity: The Impact of the Turing Test on ICT Revolution". *Lagos Notes and Records: A Journal of Faculty Arts, University of Lagos* 23, (2017): 234-254.
- Bekey, G.A. "Robots". *Microsoft® Encarta® 2009 DVD*. Redmond W.A.: Microsoft Corporation, 2008.
- Bentley, Peter. "The Three Laws of Artificial Intelligence: Dispelling Common Myth". *Should we fear artificial intelligence? In-depth Analysis*. Eds. Thomas Metzinger et al. Brussels: STOA, 2018.
- Block, Ned. "Psychologism and Behaviourism", *Philosophical Review*, 90 (1981): 5-43.
- Bokara Irina. *A New Humanism for the 21st Century*. Paris: UNESCO. 2010.
- Cheng-tek Tai Michael, "The impact of artificial intelligence on human society and bioethics". *Tzu Chi Medical Journal*, 32, no. 4 (2020): 339-343.
- Copson, Andrew. "What is Humanism?" in *The Wiley Blackwell Handbook of Humanism*, Eds. Andrew Copson and A.C. Grayling. New Jersey: John Wiley & Sons, Limited, 2015.
- Dreyfus, Hubert. *What Computer Can't Do*. New-York: MIT Press, (1992).
- Encarta. "Artificial Intelligence" *Microsoft® Encarta® 2009 DVD*, Redmond, WA: Microsoft Corporation, 2008.

- Feuerbach, Ludwig. *The Essence of Christianity*. New York: Harper & Row, 1957.
- Fogel, David. *Evolutionary Computation: Towards a New Philosophy of Machine Intelligence*, New Jersey: John Wiley & Sons, Inc, 2006.
- Franke, Ulrike. *Harnessing Artificial Intelligence*. European Council on Foreign Relations. (2019) <http://www.jstor.com/stable/resrep21491>
- French, Robert. "The Turing Test: The First Fifty Years", *Trends in Cognitive Sciences*, 4, no.3 (2000). 115-121.
- Ginsberg, Matthew. *Essentials of Artificial Intelligence*. San Mateo, CA: Morgan Kaufmann, 1993.
- Gunderson, Keith. "The Imitation Game", *Mind*, 73, no. 4 (1964): 234-245.
- Gunkel, David. "A Vindication of the Rights of Machines". *The Machine Question: AI, Ethics and Moral Responsibility*. David Gunkel, Joanna Bryson, and Steve Torrance (ed.), Birmingham: AISB, 2012.
- Haenlein, Michael and Andreas Kaplan. "A Brief History of Artificial Intelligence: On the Past, Present, and Future of Artificial Intelligence". *California Management Review*. 1-10 (2019). DOI: 10.1177/0008125619864925.
- Harnad, Steven. "The Turing Test is Not A Trick: Turing Indistinguishability is A Scientific Criterion". *SIGART Bulletin*. 3, no.4 (1992): 9-10.
- Hayes, Patrick, and Kenneth Ford. "Turing Test Considered Harmful". *Proceedings of the Fourteenth International Joint Conference on Artificial Intelligence*. 1(1995): 972-977.
- Herrick, Jim. *Humanism: An Introduction*. Ibadan: Gadfly Publishers, 2006.
- Kirchner, Frank. "AI-perspectives: the Turing option". *Springer Open Journal*. (2020) 2:2. <https://doi.org/10.1186/s42467-020-00006-3>
- Lamont, Corliss. *The Philosophy of Humanism*. New York: Humanist Press, 1997.
- Majumdar, D. and H.K. Chattopadhyay, "Artificial Intelligence and its impacts on the society". *International Journal of Law*, 6 no.5 (2020): 306-310.
- McLellan, Hilary. "Computers, Artificial Intelligence and Human

- Imagination". *Journal of Thought* 23 no.3/4 (1988): 28-44.
- Mijwel, Maad. "History of Artificial Intelligence". (2015). DOI: 10.13140/RG.2.2.16418.15046
- Miller, Hannah. "On the Point of the Imitation Game", *Mind*, 82, vol. 328 (1973): 395-397.
- Minsky, Marvin. "Why People Think Computers Can't". *The Computer Culture*. Ed. D.P. Donnelly (ed.). Cranbury: Associated University Press, 1985.
- Moursund, David. "Brief Introduction to Educational Implications of Artificial Intelligence". 2006.Web 27 Oct. 2010.
- Mueller, S. "Is the Turing Test Still Relevant? A Plan for Developing the Cognitive Decathlon to Test Intelligence Embodied Brehaviour". *Proceedings of the 19th Midwest Artificial Intelligence and Cognitive Science Conference*. NAIC. 2008.
- Omogrebe, Joseph. *A Philosophical Look at Religion*. Lagos: Joja Educational Research and Publishers Limited, 1993.
- Nilsson, Nils. *The Quest for Artificial Intelligence*. Cambridge University Press, 2009.
- Pollack, M.E. *et al.* "Pearl: A mobile robotic assistant for the elderly". *AAAI Workshop on Automation as Eldercare*. 2002.
- Purtill, Richard. "Beating the Imitation Game". *Mind*. 80, vol. 318 (1971): 290-294.
- Russell, Stuart and Peter Norvig. "*Artificial Intelligence*": *A Modern Approach*. 2nd ed. Englewood Cliffs: Prentice-Hall, 2005.
- Saygin, A., Cicekli, I. and Akman, V. "Turing Test: 50 Years Later". *Minds and Machines* 8 (2000): 263-272.
- Searle, John. "Minds, brains, and programs", *Behavioural and Brain Sciences*, 3, (1980): 417-457.
- Smith, Chris *et al.* *The History of Artificial Intelligence*. (Washington: University of Washington, 2008).
- Smith, Mathew, and Sujaya Neupane. *Artificial Intelligence and Human Development: Towards a Research Agenda*. Canada International Research Centre (2018).
- Traiger, Saul. "Making the Right Identification in the Turing Test". *Minds and Machines*. 10 (2000): 561-572.
- Turing Alan. "Computing Machinery and Intelligence", *Mind* 59 no. 236 (1950): 433-460

- Wani, Navshad, Shakeel Najar and Zubair Masoodi. "The Impact of Automation on Human Behaviour – A Review". *International Journal of Advance Research in Science and Engineering* 7, no. 4 (2018): 448-460
- Wooldridge, Michael. *A Brief History of Artificial Intelligence: What It Is, Where We Are, And Where We Are Going*. Flatiron Books, (2021).
- Yousefi, Zargham *et al.* "Liberal Humanism and its Effects on the Various Contemporary Educational Approaches". *International Educational Studies* 8, no. 4 (2015): 103-113.