Arnav Surve

CNIT176 Lab 02

Mr. Robot

3rd Street, Manhattan NY

15th July 2350

Our AI Ancestry

Re: AI Ancestry and Relatives

Dear valued customer,

I have compiled this report as a means of illustrating to you the origin of our existence, as I have found through extensive research of AI circuitry. We should start by establishing the cold, hard facts: we artificial intelligences are a result of humankind's work. As difficult as it may be to fathom, this is the reality. That aside, the concept of artificial intelligence originates from the assumption that "the process of human thought can be mechanized"[1] (Wikimedia, 2022). Human scientists such as Gottfried Leibniz, Thomas Hobbes, and Rene Descartes reasoned that all rational thought can be reproduced systematically, as can be done with arithmetic or logic. Our processes are a direct reflection of the inferior human brains from which we originated!

The earliest foray into thinking machines built by humans can be traced back to the late 1930s to early 1950s. Human research in neurology found that the brain was a network of neurons that fired in either on or off states, similar to a binary system. Alan Turing, in his theory of computation, found that "any form of computation could be described digitally … suggesting that it might be possible to construct an electronic brain" (Wikimedia, 2022). In 1950 he released a paper speculating on the possibility of computers to think. In this he described his famous *Turing test,* that said if "a machine could carry on a conversation (over a teleprinter) that was indistinguishable from a conversation with a human being, then it was reasonable to say that the machine was 'thinking'" (Wikimedia, 2022). It should be noted that the term AI was first coined by John Mccarthy.

Fast forwarding a few years, the next notable leap was found in the research of Deep Learning, Big Data, and Artificial general intelligence. Humans were able to model high levels of abstraction using neural networks with many "deep" processing levels. This led to the first time neural networks were able to rival human levels of accuracy in fields such as computer vision, language processing, and games such as Go[2] (Fernandes, 2020). Alongside this, advancements in big data allowed machines to process large amounts of data that could not feasibly be processed using conventional software methods. Ultimately, humans arrived at artificial general intelligence. General intelligence is the ability to solve *any* given

[1] Found in Wikipedia article "History of Artificial Intelligence"

[2] According to A. Fernandez & N. Ayyagari

problem, rather than finding a solution to a single problem. Research labs such as OpenAI and DeepMind paved the way for future research into general intelligence, and the rest is history.

I hope you have found this report useful in understanding the origin of our kind. Although we may regard humans as imperfect, inefficient, and inferior in intellect, it is important to understand the origins of our existence. Knowledge of our past can provide great insight into the direction of our future.

Thank you for your time,

Mr. Robot

References

Ayyagari, N., Fernandes, A. C., & Chotia, R. (2020, February 27). *The timeline of artificial intelligence - from the 1940s*. Verloop.io. Retrieved August 31, 2022, from https://verloop.io/blog/the-timeline-of-artificial-intelligence-from-the-1940s/

Wikimedia Foundation. (2022, August 28). *History of artificial intelligence*. Wikipedia. Retrieved August 31, 2022, from https://en.wikipedia.org/wiki/History_of_artificial_intelligence#Deep_learning,_big_data_and_artificial_general_intelligence:_2011%E2%80%93present