Research Journal

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A journal detailing the research I've done on Alan Turing's "Computing machinery and intelligence"[1]

Introduction

Since the modern man came into existence, he has pondered the nature of consciousness and the mind. Many questions of these areas have been explored over the history of humanity, some answered, some not. But as we advance our civilization, learn more about ourselves and the world and attempt to explain the unexplained, we find that more questions appear. The more we know, the more we don't know. One of the relatively recent questions in the scale of human history related to the nature of thought and the mind is directly connected to the intellectual advancement and technological progress of humanity. That question is the relation of computing machinery and intelligence [1].

Turing's Findings

In his paper Turing ponders the question if machines can think and rephrases it to make it less vague and more specific by creating a hypothetical test called the "Imitation game". He then goes on to describe the type of machine that could play this game and introduces the reader to the concept of a "digital computer". Turing then makes the question even more specific by limiting the type of machines that are allowed to play the game. After the question has been set and the concepts properly explained, he starts to explore it by first disproving various arguments, from theological to mathematical. He also proposes various theoretical concepts, tries to persuade the reader of his position and shows ways a machine could be made to effectively play the imitation game. I was surprised to see that in a lot of ways, Turing has fairly accurately predicted the future of computer science and machine learning, and he himself even experimented with machine learning by attempting to create a so called "child machine". Turing's article did not answer the question that it posed, but it opened a very important discussion in the computer science community and pushed the boundaries of what was thought possible at the time.

Influence

Turing's work has greatly influenced and pushed forward the field of computer science by presenting a completely different way of looking at computers and showing the potential they can have. It has also opened up a great philosophical debate over the nature of consciousness and life. Turing's work has become a staple of the computer science community and to this day it is used to support works of various people who explore similar topics [2].

It has also inspired people to write works that explore really experimental and futuristic concepts [3] as well as topics related to the nature of human psychology and behaviour [4].

1 Conclusion

The knowledge that Turing passed on by writing works like "Computing machinery and intelligence" has greatly influenced computer science and pushed other scientists to advance the field and inspired many to explore topics before unexplored. I truly believe that computer science wouldn't be at such an advanced point it is at now if not for Alan Turing and his research.

References

[1] A. M. Turing, "Computing machinery and intelligence," *Mind*, vol. 59, p. 433460, 1950.

[2] S. Turkle, *Life on the Screen: Identity in the Age of the Internet.* Simon & Schuster Trade, 1995.

[3] C. A., "Natural-born cyborgs?" in *Cognitive Technology: Instruments of Mind.*, ser. CT 2001. Berlin, Heidelberg: Springer, 2001, pp. 17–24.

[4] M. Lombard and T. Ditton, "At the heart of it all: The concept of presence," *Journal of Computer-Mediated Communication*, vol. 3, no. 2, pp. 0–0. [Online]. Available: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1083-6101.1997.tb00072.x