

Computing Machinery and Intelligence

A. M. Turing 1950

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I. DESCRIPTION OF THE STUDY

The purpose of this research is Computing Machinery and Intelligence. Allan Turing purpose a question, 'Can machines think?' He says we need to define what we mean by "machines" and "think" if we want to know if machine can think, but we can't use common understanding of the definitions, because this would be committing the logical misconception since the concept and their meaning can never be define by taking the poll.

II. METHODS AND DESIGN

Turing claims that his thought expirement called "Imitation game" can be used to find an answer to the question by subjecting machines. Suppose you have three people: a man (A), a woman (B), and an interrogator (C). C is in a separate room to A and B. Asking questiins, C's goal is to guess which of A or B is a womenm, and which is the man. A's job is to confise C, while B's job is to assist C. No matter who is the man and who is the women, both will say things like "Don't listen to him, i am the women." Turing then asks what would if the part of A is taken by a computer instead.

III. ANALYSIS

Turing thinks that if A as computer could convince the interrogator that they are human, this functionally the same thing as saying that the computer is thinking. He considers counter example to his clain and provides evidence that these counter exaple are not convincing. The first counter is that of consciousness, something similar to the "what it feels like" because we can't enter into the inner expierence of other animals but we assume that they have it. Additionally, when you talk to other human being you think that they have a rich inner life just like yours.

IV. RESULTS

Turing propose different arguement against the possibility for conscious machines. Ultimately, though, Turing believes that such machines will eventually be able to pass intellectual test for humans. Turing also addresses the problem of creating a machine that can think and make decision like human. Instead of programming into a computer every little component of human knowledge and understanding, and the relations between, Turing argues that a program must be written that directs a computer to learn. Thus, a computer will be able to build its own understandings, just as a child does.

V. LIMITATIONS

Turing singles out human behavior for further analysis. Taking counter argument saying that people make mistakes all the time, but computer do not. In the limitation game, it's proposed that the interrogator would always be able to identify the computer by using complex mathematical questions. Yet, Turing says, since the computer is trying to fool the interrogator, all it would have to do is pretent to make some mistakes. Moreover, there are different kinds of error: errors of functioning and errors of conclusion. we ignore the former when we consider idealised machines, and the latter only happens when meaning is attached to the latter. The machine can't do this unless it's thinking.

VI. SIGNIFICANCE

Turing predicted that machine with 100MB of memory can easily pass the limitation game. Even though today's computer have far more memory than that only few have succeeded. Those computer which have done well fouced more on finding clever ways to fool the judges than using overwhelming computer powers. The first program some claim to success is ELIZA by mimicking a psychologist by encouring them to talk more. Since then there are lots of chatbot and robots but they have failed to mimic like human being since human language are far more complex to understand.

VII. CONCLUSION

This paper has a great impact even more advanced for computer science and engineering to crack how human being view themselves. While Alan Turing does not imply the role of the computer as a medium, I believe this article shows the benefit and importance of stepping back from the medium and asking, "How does a computer advance and mimic the way human think and senses?"

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