Computing Machinery and Intelligence Analysis

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Alan M. Turing's 1950 *Mind* article entitled *Computing Machinery and Intelligence* ponders the question "Can machines think?". To help answer this question Turing proposes a simple game played between two people and a 'machine'. One person plays the role of an interrogator and is tasked with determining which of the two agents, played by the other person and the machine, is a machine. The interrogator can only communicate between the two agents via text and has no other way of interacting with them. Turing coins this game The Imitation Game and states that if the interrogator is unable to correctly identify the machine then it might, in fact, be intelligent.

This was certainly one of the most interesting articles I have ever read. It was incredibly prophetic, especially the last section on his ideas on what he called learning machines. Turing's predictions that computers would be able to learn were nearly spot on in regards to time frame and execution. This being a *Mind* article allowed Turing to be more philosophical than he would normally be in a research paper. It was also apparent that Turing himself wasn't entirely convinced that The Imitation Game would be able answer "Can machines think?", as he stated at the beginning of section 7. I feel I fall into this same boat. As we have been shown with Eliza, peeling back the layers of a program of this nature completely demystifies it. I feel that many more tests would have to be applied before I would be convinced that there exists a truly intelligent machine in the manor that Turing describes.

The part that caught me off guard the most was definitely section 6.9: The Argument from Extrasensory Perception. At first I thought this might have been a joke, but upon further reading I could tell Turing was quite serious. I liked that he put significant thought and effort into this idea. While I don't believe in ESPs myself, I do think that a philosophical article such as this one better cover as many as it can. Turing's Wikipedia page mentioned that he did visit fortune tellers on occasion, so I would assume that he at least enjoyed a good fortune telling.

As I mentioned earlier, I am not entirely convinced that the imitation game could really be used as proof of intelligence. I am not entirely sure if intelligence can be tested for. This test would also miss many aspects of human intelligence that I believe are useful for understanding intelligence. Emotional intelligence is one area where i believe this test does not adequately capture. I don't think the interrogator and the machine could adequately form an emotional connection over one test. The movie *Her* deals with an emotionally intelligent AI that has opinions that change and morph over time. While I have no clue how to quantify this, I believe its helpful observe a candidate intelligent machine over a much longer amount of time than this test may allow.