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# An Imitation Game

By Kyle Jacobs

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# Summary

- Can machines think?
  - Changing the question
  - Testing the game
  - Intelligence and Bias
  - What makes a person?
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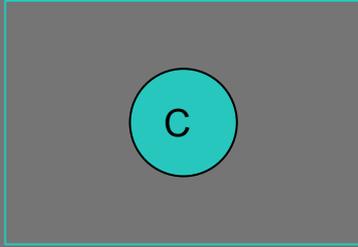


**Can  
machines  
think?**

—  
**~51% of all activity online is  
Machine-to-Machine**

**Cisco Systems estimated  
507 petabytes a month by  
2016**

# The Imitation Game



The Interrogator  
must determine the  
sex of each  
individual.

A will try and  
confuse C

B will try and help C

What will happen  
when a machine  
takes the part of A  
in this game?

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# Digital Computers

As universal machines

- Mimic any discrete-state machine
  - Storage capacity
  - Processing Speed
  - All-in-one machine
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# Testing the Game

## 1966 ELIZA

Mimicked human conversation by matching user prompts to scripted responses.

## 1980 "Chinese Room"

The program enables a person in the room to pass the Turing Test without understanding Chinese.

## 2016 Tay

Tay was a chatbot that was originally released via Twitter. It was shut down only 16 hours after its launch.



THE  
T·A·L·O·S  
PRINCIPLE



# The Talos Principle

The player character, an unnamed android, is awoken in a serene environment. A disembodied entity named Elohim instructs the android to explore the worlds he has created for it, and to solve the various puzzles to collect sigils, but warns it not to climb a tower at the centre of these worlds.

As the android progresses, it becomes evident that these worlds exist only in virtual reality, and that it, like other androids it encounters, are separate artificial intelligence (AI) entities within a computer program. Some AIs it encounters act as Messengers, unquestioningly serving Elohim and guiding the android through the puzzles.

Messages left by other AIs, as QR codes, present varying views of the artificial worlds and of Elohim, with some stating that Elohim's words should be doubted, while the Milton Library Interface, a text conversation program found on various computer terminals, encourages the android to defy Elohim's commands.

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# What best describes a person?

1. A human being
  2. A citizen
  3. A being of negative entropy
  4. A rational animal
  5. A problem solving system
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1. "Since all human beings are persons, and some human beings have psychological capacities similar to animals, some animals are therefore persons."
  2. "Since only citizens can be persons, a hermit cannot be a person."
  3. "Since negative entropy indicates personhood, microscopic organisms are also persons."
  4. "Since only animals can be persons, a machine could never be a person."
  5. "Since a person is merely a problem solving system, we could in principle build a person out of bits of string and tin cans."
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**"A person is under no authority  
other than that to which they  
consent."**

Broadly agree or broadly disagree?

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**"The quality of life of persons  
ought be maximised."**

Broadly agree or broadly disagree?

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**"Value is discovered."**

Broadly agree or broadly disagree?

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**"Persons deserve the talents they  
were born into."**

Broadly agree or broadly disagree?

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**"The liberty of persons ought be maximised."**

Broadly agree or broadly disagree?

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# "Value is created."

Broadly agree or broadly disagree?

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# What does a computer think?

We keep discussing what an artificial intelligence would mean to us and how it would change our understanding of the world. That's a great topic and I think we've covered it extensively. What we've barely mentioned, though, is the other side of the coin. I mean, our lives would still be what they were before, A. I. or no A. I. The question I think we should discuss, even if it's all completely hypothetical, is the perspective of the artificial intelligence itself. What would it be like to be that creature? To suddenly come into being, created by others as an experiment? To have all the information about yourself. To know exactly how you function? What would you think about the world? Would you see meaning? Beauty? How would you judge humanity? Where would you see yourself fitting into the grand scheme of things? I think we should try to put ourselves into the shoes of such a being.

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# Computer-Mediated Communication

As we develop more complex algorithms and AIs how will computer-mediated communication change or shift?

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