Artificial Intelligence

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What is AI?

AI is intelligence displayed by machines, in contrast with the natural intelligence displayed by humans and other animals.

- Ability to interact with the world (speech, vision, motion, manipulation)

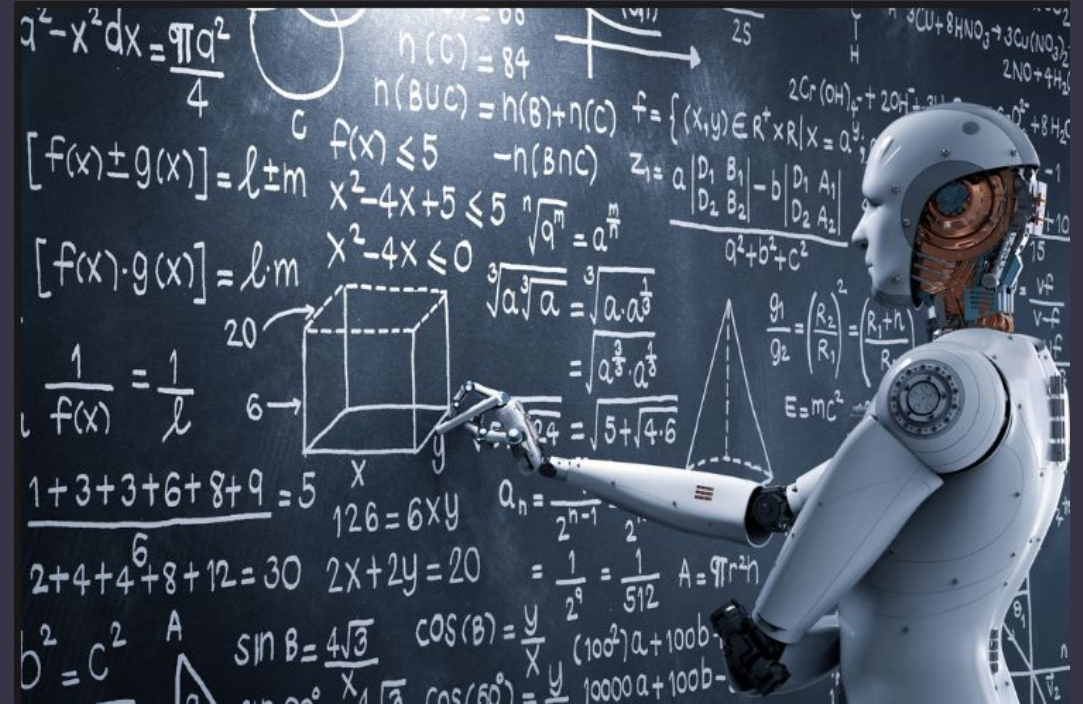- Ability to model the world and reason about it

- Ability to learn and to adapt
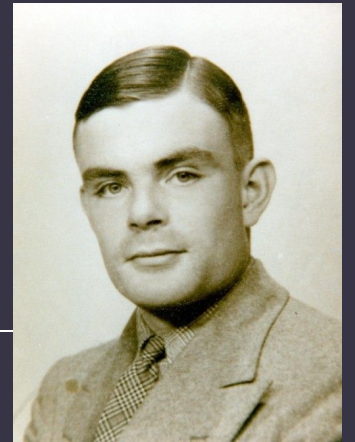
Artificial Intelligence Can Learn

A bit from the history

In 1950 Alan Turing published a paper in which he wrote about creating machines with true intelligence.

He noted that "intelligence" is difficult to define and devised his famous Turing Test:

If a machine could carry on a conversation (over a teletype) that was indistinguishable from a conversation with a human being, then the machine could be called "intelligent."

The Turing Test was the first serious proposal in the philosophy of artificial intelligence.
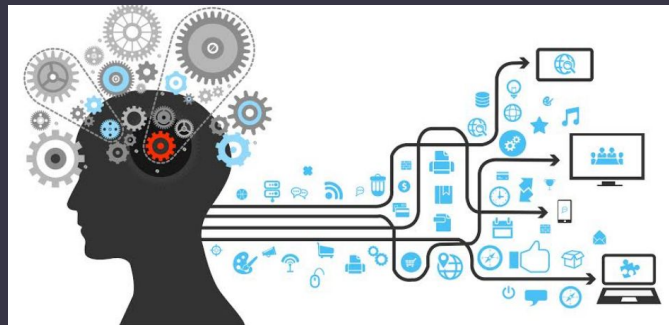
What is the goal?

The traditional goals of AI research include reasoning, planning, learning, natural language processing, perception and the ability to move and manipulate objects.

-Sometimes it is modelling people, but usually we want AI systems to be smarter then we are

-To understand intelligence in order to model it

They have their own secrets

Google's neural networks invent their own encryption

Google Brain team taught neural networks a simple encryption technique

They created networks Alice and Bob, who had to hide a message from Eve

At first Bob and Eve showed a similar ability to decipher Alice's messages

But after practicing, Bob was much more successful in reading the text

What are we for?..

Google's Deep Brain team has been working on artificial intelligence from a variety of angles. Last May, for example, their Magenta project attempted to teach AI how to create art and music.
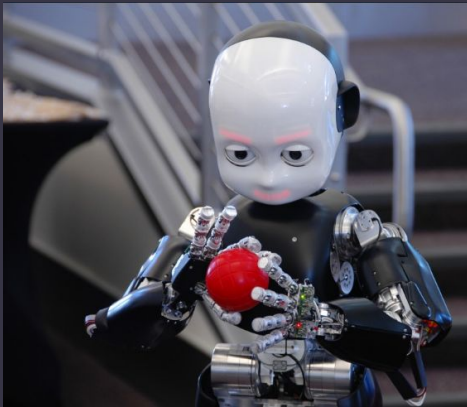

Magenta art
(GOOGLE)

Problems

"The question of whether a computer can think is no more interesting than the question of whether a submarine can swim."
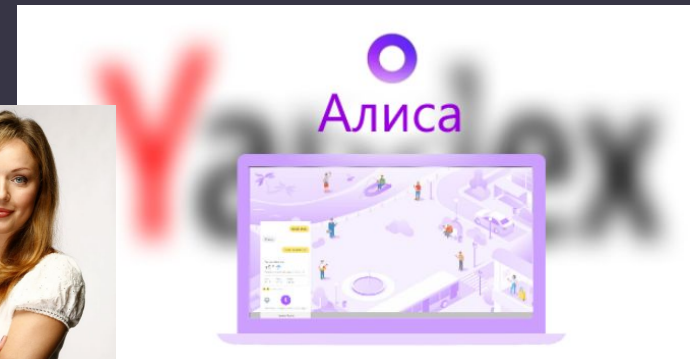*— Dijkstra*

AI Systems today work in their special field

Virtual assistants: **Most AI is female**

-Studies show that most people prefer the sound of a female voice to that of a male

-Also, most AI is worked on by straight men who are more attracted to the female voice.

MEET SIRI!
THE WOMAN BEHIND THE VOICE

Siri

Hi, I'm Cortana.

Алиса

In conclusion, the researchers said that neural networks can indeed learn to protect their communications, just by telling Alice to value secrecy above all else—and importantly, that secrecy can be obtained without prescribing a certain set of cryptographic algorithms.

В заключение исследователи подтвердили, что нейронные сети действительно могут научиться защищать свои сообщения просто указав Алисе, что прежде всего нужно ценить секретность.

И, что важно, секретность может быть получена без предписывания конкретного набора криптографических алгоритмов.

https://arstechnica.com/information-technology/2016/10/google-ai-neural-network-cryptography/