- Intelligence
  - A dog is more intelligent than a worm.
    1. Dogs can learn/can be trained.
    2. Worms have 302 neurons; dogs have 530 million.
    3. Dogs can feel love.
    4. Dogs can understand behavioural cues and can tell mood by the smell.
    5. Can bury a bone or a stick and can remember where.

  - **A Human is more intelligent than a dog.**
    1. Self-awareness
    2. Reasoning
    3. Problem Solving
    4. Abstract thinking
    5. Complex Language

  - An Organisation is more intelligent than an individual human being.
    1. More efficient
    2. Decision making is more reasoned due to many individuals.
    3. More diverse thoughts and different perspectives
    4. Difficult Tasks
    5. A team is more motivated than an individual.

Def: "More Intelligent" = more complex thinking processes, better reasoning, more efficient, better at solving difficult tasks.

- Chatbots

What technique did it use?

It uses a technique called "pattern matching" and natural language processing. (1)

How did it advance the state-of-the-art AI?

Mitsuku uses natural language processing and machine learning to learn over time and provide more human like interactions. (2)

Why is the Loebner Prize reported as defunct since 2020?

Hugh Gene Loebner passed away and the money for the prize ran out. (3)

Other Chatbots compared to Chat-GPT

There are several types of Chatbot or Chatbots with different focuses, such as Mitsuku. Which is more focused on providing a more human like interaction and engaging in casual conversations. Chat-GPT can handle a wide range of tasks such as text generation and is more versatile.

AI State-of-the-art

-playing a decent game of table tennis

> Yes, it is possible, I saw a video of a robot which learned to play with machine learning algorithms. (4)

> driving through the canter of Cairo

> no, but some say that there will be self-driving in 12 Years, but experts have stated that it is unlikely that there will be fully self-driving cars by 2035 which require no human interaction the difficult part nowadays is to detect every pedestrian and ethical questions about self-driving cars need to be solved. (5) (6)

> playing a decent game of bridge at a competitive level.

Yes, an ai had beaten eight world Champions in bridge. (7)

> write an intentionally funny story.

Yes, chat-GPT can write short jokes and funny stories.

> translate languages in real time.

Yes, Meta introduced an AI called SeamlessM4T that can translate spoken language in real time. (8)

> perform a complex surgery.

No, AI is used in Diagnostic specialties to recognize patterns or classify images etc. (9)

AI competition

> ImageNet Challenge for computer vision, has improved the state-of-the-Art far, they made a computer first understand which Objects are in the picture and then taught it how to make sense of it and describe what is pictured in a sentence. Also, important for self-driving cars. (10)

The Chinese Room Argument...

The Chinese Room Argument is a thought experiment in which a man, who doesn´t understand a word of Chinese, is locked in a room with boxes of Chinese symbols and a book full of instructions on how to use them. He is communicating with a Chinese speaker on the outside of the Room. The Chinese speaker then thinks that the man in the room is also a Chinese speaker although he does not understand a word of Chinese.

John Searl, the man who introduced this theory of mind, is implementing this on the discussion of the intelligence of a computer. He argues that a Compter cannot understand Chinese solely on the basis that it is able to simulate a Chinese speaker through a program that enables it to do so. It means that a computer program that passes the “Touring Test” is not necessarily intelligent it only simulates intelligence. He also states that minds have actual mental or semantic contents and thoughts whereas computation is only formally or syntactically and by only having syntactical computation we cannot go to semantic.

The Argument is directed to “Strong AI”. He claims that if the position of “Strong AI” is true and there is a program for Chinese, a computer cloud run this program and come to understand Chinese. But a human could run a program for Chinese and wouldn´t come to understand Chinese and because of that “Strong AI” is false.

This statement does not make sense, I learned English although I am not a native English speaker. I learned it through a “program”, my English classes in school, I came to understand English and now I am writing this text in English which wouldn´t be possible if I hadn´t an understanding for it. And that’s how anybody has learned anything, through a “program”, for example Math is learned through classes in school, the first words we speak we have learned through our parents and we surely didn´t understand them at first but we came to an understanding, reading is also something we must learn, we learn the symbols of the alphabet and come to understand them.

Reasoning, Planning, Learning, Natural language communication and making decisions in the face of uncertainty, “Strong AI” mastered all these aspects. And if we had an AI which would be capable of

mastering these aspects then could certainly come to an understanding of language etc.

On the other hand, we have “Weak AI” which is limited to individual application fields. A “Weak AI” is not able to really understand language or anything else. I think “Weak AI” can understand the program which enables it to communicate with natural language, but it cannot understand the semantic of it nor have a real understanding of Natural language. Therefore, the Chinese Room Argument is suitable for the position of “Weak AI”.

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