"Understanding that ChatGPT doesn't understand me" – AI unplugged Part III and students' concepts of human vs. machine learning

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In conversations with schoolchildren and students, the question of whether and how artificial intelligence 'thinks' comes up frequently.

Modern AI systems seem to be able to pass the Turing test without any problems. This means that we are no longer able to distinguish whether the "person" we are talking to is a human or a machine.[1] At a conference in 2018, Google showed how "Duplex" makes a hairdressing appointment using "human language".[2] Other manufacturers, like Google, are working on voice assistants where we can no longer, or only with great difficulty, decide in a conversation whether we are talking to an artificial intelligence or a human. It therefore seems sensible to understand how voice assistants or artificial intelligence in general can be enabled to learn, interact and, above all, make decisions. How can the 'Teachable Machine' learn to distinguish between pictures of dogs and pictures of wolves? What learning technique is used?

This workshop will be about how a single node can "learn" independently and is thus able to achieve an expected result. We will work through this process using a few short examples and discover that the 'learning' of a logical neural network is nothing other than applied mathematics and that we can therefore calculate expected decisions and results.

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[1] See e.g. Turing Test
[2] Google Duplex

Literature / Sources:

Turing Test
https://it-service.network/it-lexikon/turing-test/ and https://de.wikipedia.org/wiki/Turing-Test (Accessed on September 24, 2024)

AI Unplugged - We pull the plug on artificial intelligence Professorship for Didactics of Computer Science Friedrich- Alexander- University of Erlangen- Nuremberg 2nd edition

Google Duplex: An AI System for Accomplishing Real-World Tasks Over the Phone https://research.google/blog/google-duplex-an-ai-system-for-accomplishing-real-world-tasks-   over-the-phone/ (Accessed on September 24, 2024)

Rosenblatt, Frank (1958):
The perceptron : a probabilistic model for information storage and organization in the brain . Psychological Reviews 65 (1958) 386–408

Let's take a look inside a neural network!
Annika Rüll
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https://media.ccc.de/v/37c3-11784-lass_mal_das_innere_eines_neuronalen_netzes_ansehen