ADA LOVELACE

FIRST TO PUBLISH THE CODE FOR THE FIRST EVER COMPUTER AND FORETOLD THE INTELLIGENCE OF AI

Development of Mathematical Passion

Ada was born and brought up in London, England. As a child, Ada was very dedicated to her education because of her grandmother. However, at the age of 13 she became ill with the measles, causing her to be bedridden. Later on, during Ada's teenage years, she went to London parties with her mother and went to a multitude of parties, one of which hosted by mathematician Charles Babbage. He showed Ada his small difference engine (an automated mechanical calculator) which intrigued her even more.

SHE FOUND THAT MACHINES COULD DO COMPLEX OPERATIONS

Post marriage and after creating a family, Ada reentered the field of mathematics and began to translate and interpret Babbage's analytical engine notes into English. She helped create the foundation of computing. Lovelace was the first to identify how machines could perform complex operations, not just basic number calculations. She saw that using symbolic operations could generate an algebraic result, such as a^2-b^2=(a-b)(a+b). She published the first computer algorithm.

SHE IDENTIFIED THE INTELLIGENCE OF AI

Lovelace was the first to theorize that machines could never be "truly intelligent". She predicted that machines will never be any smarter than humans, as their input source is humans. Present day, LLMs (Large Language Models) need human input data sets in order to be trained to generate responses. The Lovelace Test, created in 2001, was made to reinvent the Turing Test as AI models easily pass that showing how it is not an accurate representation of intelligence. The Lovelace Test determines that intelligence can be measured by creativity, and says that if the LLM can create a poem, etc. and the programmer cannot identify how it is created, then the LLM is intelligent.

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