## Artificial intelligence

Artificial intelligence is the simulation of human intelligence processes by machines, especially computer systems.

AI is important for its potential to change how we live, work and play. It has been effectively used in business to automate tasks done by humans, including customer service work, lead generation, fraud detection and quality control.

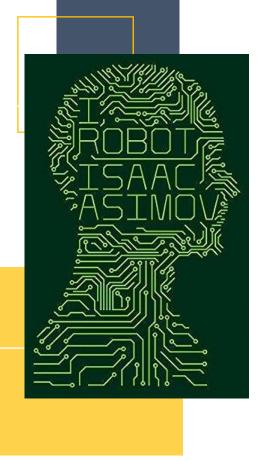
In a number of areas, AI can perform tasks much better than humans. Particularly when it comes to repetitive, detail-oriented tasks, AI tools often complete jobs quickly and with relatively few errors. The rapidly expanding population of generative AI tools will be important in fields ranging from education and marketing to product design.

## **Alan Turing**

Alan Mathison Turing (June 1912 – June 1954) was a British mathematician, computer scientist, logician, cryptanalyst, philosopher, and theoretical biologist. He was highly influential in the development of theoretical computer science, providing a formalisation of the concepts of algorithm and computation with the Turing machine, which can be considered a model of a general-purpose computer. He is widely considered to be the father of theoretical computer science and artificial intelligence.

## Examples of ethical dilemmas

- 1. AI-systems deliver biased results. Searchengine technology is not neutral as it processes big data and prioritises results with the most clicks relying both on user preferences and location. Thus, a search engine can become an echo chamber that upholds biases of the real world and further entrenches these prejudices and stereotypes online.
- 2. In 2019, the Chinese technology company Huawei announced that an AI algorithm has been able to complete the last two movements of Symphony No.8, the unfinished composition that Franz Schubert started in 1822, 197 years before. So what happens when AI has the capacity to create works of art itself? Creativity (the capacity to produce and original content through imagination or invention) plays a central role While AI is a powerful tool for creation, it raises important questions about the future of art, the rights and remuneration of artists and the integrity of the creative value chain. New frameworks to differentiate piracy and needed, and to recognize the value of human creative work in our interactions with AI.
- 3. The autonomous car must undertake a considerable amount of training in order to make the right decision in any imaginable traffic situation. Imagine an autonomous car with broken brakes going at full speed towards a person. It is not a human driver, but the car's algorithm, who will be accountable.



### **Movies on AI**

AI (2001)

Eagle Eye (2008)

Free Guy (2021)

After Yang (2021)

Jung\_E (2023)

#### SAG-AFTRA and WGA's strike

Fran Drescher, president of the Screen Actors Guild-American Federation of Television and Radio Artists (more commonly known as SAG-AFTRA), declared that "artificial intelligence poses an existential threat to creative professions, and all actors and performers deserve contract language that protects them from having their identity and talent exploited without consent and pay. We are all going to be in jeopardy of being replaced by machines".

SAG-AFTRA has joined the Writer's Guild of America, which represents Hollywood screenwriters and has been on strike for more than two months, in demanding a contract that explicitly demands AI regulations to protect writers and the works they create.

Artificial intelligence tools that mimic humans have in recent years become far more effective in creating images and text — and more common. Technology that replicates individuals' faces and voices is becoming more prominent in Hollywood. Chatbots like ChatGPT, which can convincingly reproduce human writing, have surged in popularity since late last year. But they also have clear shortcomings: the bots often get basic facts wrong and are derivative when asked to write creative works.

Many fear that, without strict regulation, their work will be replicated and remixed by artificial intelligence tools, and that such a transformation will both cut their control over their work and hurt their ability to earn a living.

### Neo-Luddism

In the early 19th century, a group of textile workers in England began smashing the newly-invented power looms that were threatening their jobs. These workers, known as Luddites, feared that the machines would render their skills obsolete and leave them unemployed. The Luddites' rebellion was short-lived, and their efforts were ultimately unsuccessful, but their legacy lives on in the term 'Luddite,' which today, is largely used as a derogatory term for anyone with a mere dislike of all technology and/or the introduction of new technology. Stephen E. Jones' book Against Technology offers a considered reading of what he terms Neo-Luddism, as a critique of modern technology and its impact on society.

While the original Luddites were concerned about the loss of manual labor jobs, today's Neo-Luddites are worried about the impact of AI on a range of industries, from manufacturing to finance to healthcare. Concerns about the future of work and the displacement of jobs by automation might inevitably give rise to a new kind of 'machine breaker'.

There are several key trends that echo Luddism in the contemporary context of AI:

- Job displacement.
- Surveillance and privacy.
- Inequality and power imbalances.
- Environmental impact.



Ned Ludd, the leader of the Luddites, 1812.

Ned Ludd is an apocryphal apprentice who allegedly smashed two stocking frames in 1779 after being criticized and instructed to change his method.

# Deep learning

Deep learning is a class of machine learning algorithms that uses multiple layers to progressively extract higher-level features from the raw input. For example, in image processing, lower layers may identify edges, while higher layers may identify the concepts relevant to a human such as digits or letters or faces.

#### ChatGPT

ChatGPT (Chat Generative Pre-Trained Transformer) is a large language model-based chatbot developed by OpenAI and launched on November 30, 2022, notable for enabling users to refine and steer a conversation towards a desired length, format, style, level of detail, and language used.





