



“The future of humanity is in your hands”

AI Leadership

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AI Leiderschap

A young man with curly hair is lying on a brown couch, looking relaxed. He is wearing a light blue hoodie, dark green pants, and maroon and white striped socks. He has white headphones around his neck and is holding a smartphone in his hands. A black game controller lies on the couch next to him. The background shows some greenery and a colorful painting.

Mijn traject in mijn broekzak

Opgroeien

AI in die broekzak?

- AI voor HI/MI
- Van Lucy tot AI
- Wat & Waarom AI?
- Generatieve AI

**“A.I. is de imitatie van de
menselijke intelligentie door
machines ...
die zelflerend zijn”**



-3,2M jaar - Lucy



-300.000 jaar - Fire Homo Sapiens



-6000 jaar – Sumeria Scribe

A historical painting depicting a man with a beard, wearing a red robe, sitting at a desk and working with tools like hammers and chisels. He is positioned in front of large, ornate murals on the wall behind him, which depict various figures in a classical setting.

-2300 jaar - Aristoteles



-600 jaar - Gutenberg

A historical painting of George Boole, an English polymath and logician, sitting at a desk in a dimly lit study. He is wearing a dark vest over a light-colored shirt and is focused on writing in a large open book with a quill pen. On his desk, there is a large, illuminated globe on an armillary sphere, a telescope, and various scientific instruments. The background is filled with bookshelves, suggesting a library or a scholarly environment.

- 170 jaar - George Boole



-73 jaar - Alan Turing



1956 Dartmouth Conference: The Founding Fathers of AI



John McCarthy



Marvin Minsky



Claude Shannon



Ray Solomonoff



Alan Newell



Herbert Simon



Arthur Samuel



Oliver Selfridge



Nathaniel Rochester

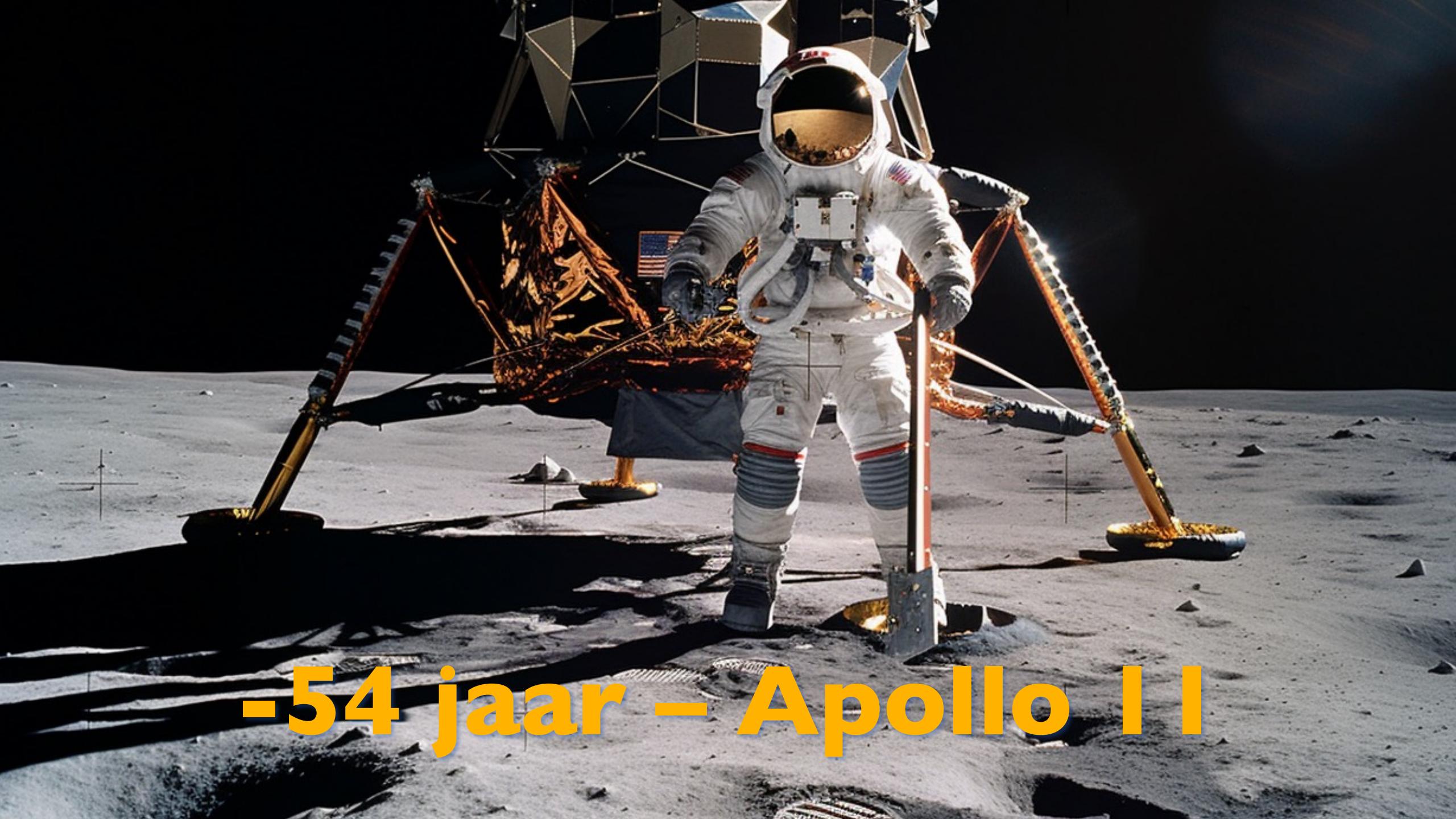


Trenchard More

-67 jaar - Artificial Intelligence



-60 jaar - Digitalisation



-54 jaar - Apollo 11



-54 jaar - Arpanet



-48 jaar - Personal Computer

-33 jaar - Internet Search

-30 jaar - Smartphones





-26 jaar - Deep Blue



- 15 jaar - iPhone



- II jaar - Deep Learning



-9 jaar - Cat Discovery



-3 jaar – GPT3



- 10 maanden - ChatGPT

Wat vertelt de geschiedenis ons?

- Belang AI en de huidige evoluties in hun context te kunnen zien/zetten
 - 3 fases //
 - 1) Tot aan digitalisering was elke evolutie 100% human-made
 - 2) Van digitalisering versnelt alles door ‘computer’ondersteuning
 - Maar blijft aan het ritme van de evolutie van de menselijke intelligentie
 - 3) Vanaf AI gaat de evolutie aan de snelheid van de evolutie van AI
 - En die gaat exponentieel
 - Waarom belangt dit ons aan?
 - Omdat we er allemaal mee geconfronteerd worden
 - In het bijzonder voor project Parkour
 - PARKOUR = app die alle regels respecteert
 - Daarnaast kunnen de jongeren op eender welke AI-gedreven app zonder limieten

The rise of AI

THE RISE OF AI

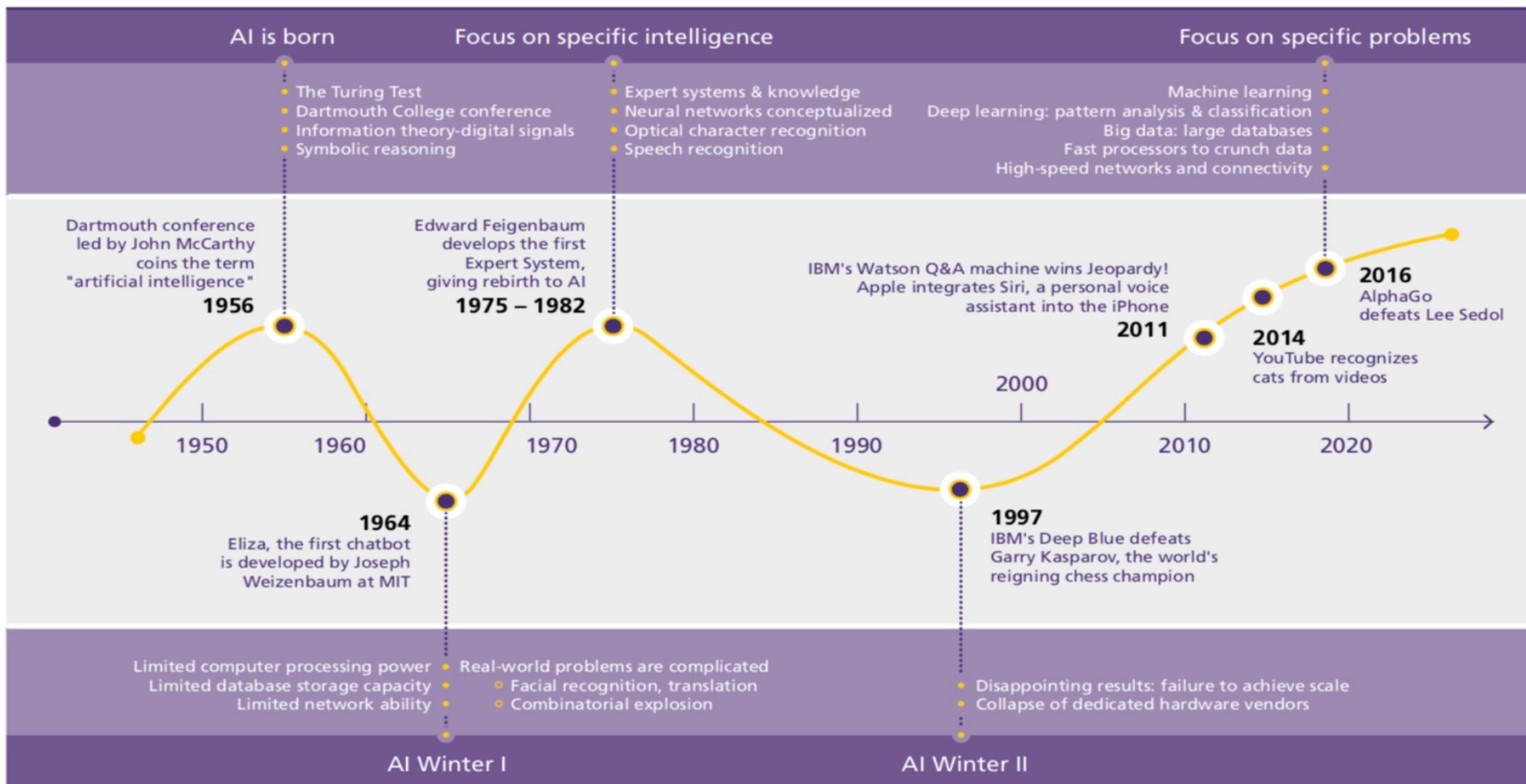


Figure 1: An AI timeline; Source: Lavenda, D./Marsden, P.

source dhl via @mikequindazzi

The rise of AI

- The term "artificial intelligence" was first coined in 1956 at the Dartmouth Conference, which is considered a seminal event in AI history.
- The original definition and scope of AI was described in the 1955 proposal for the 2-month conference written by John McCarthy, Marvin Minsky, Nathaniel Rochester and Claude Shannon.
- The aims and goals of AI from that original proposal:
"The study is to proceed on the basis of the conjecture that every aspect of learning or any other feature of **human intelligence** can in principle be so precisely described that **a machine can be made to simulate it**. An attempt will be made to find how to make machines use language, form abstractions and concepts, solve kinds of problems now reserved for humans, and **improve themselves.**"



The Locomotive Act 1865 stipulated that any self-propelled road vehicle had to be preceded by a person walking at least 60 yards ahead, carrying a red flag

AI vs HI

AI versus Menselijke Intelligente

AI vs HI

- AI imiterert HI → de vraag is dus hoe I is HI?
 - Hoe intelligent is de menselijke intelligentie?



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AI vs HI

- AI imiterert HI → de vraag is dus hoe I is HI?
 - Hoe intelligent is de menselijke intelligentie?
- Bias → AI imiteert HI → AI's Bias = HI's Bias
 - Genderbevoordeling
 - aanwerven zonder info over gender
 - andere info die dit toch bepaalt
- Wat als AI ons kan helpen (nog) beter te worden?
 - AI gebruiken voor persoonlijke groei
 - Een sparing partner die 'eerlijk' kan zijn ... met wat sturing ...

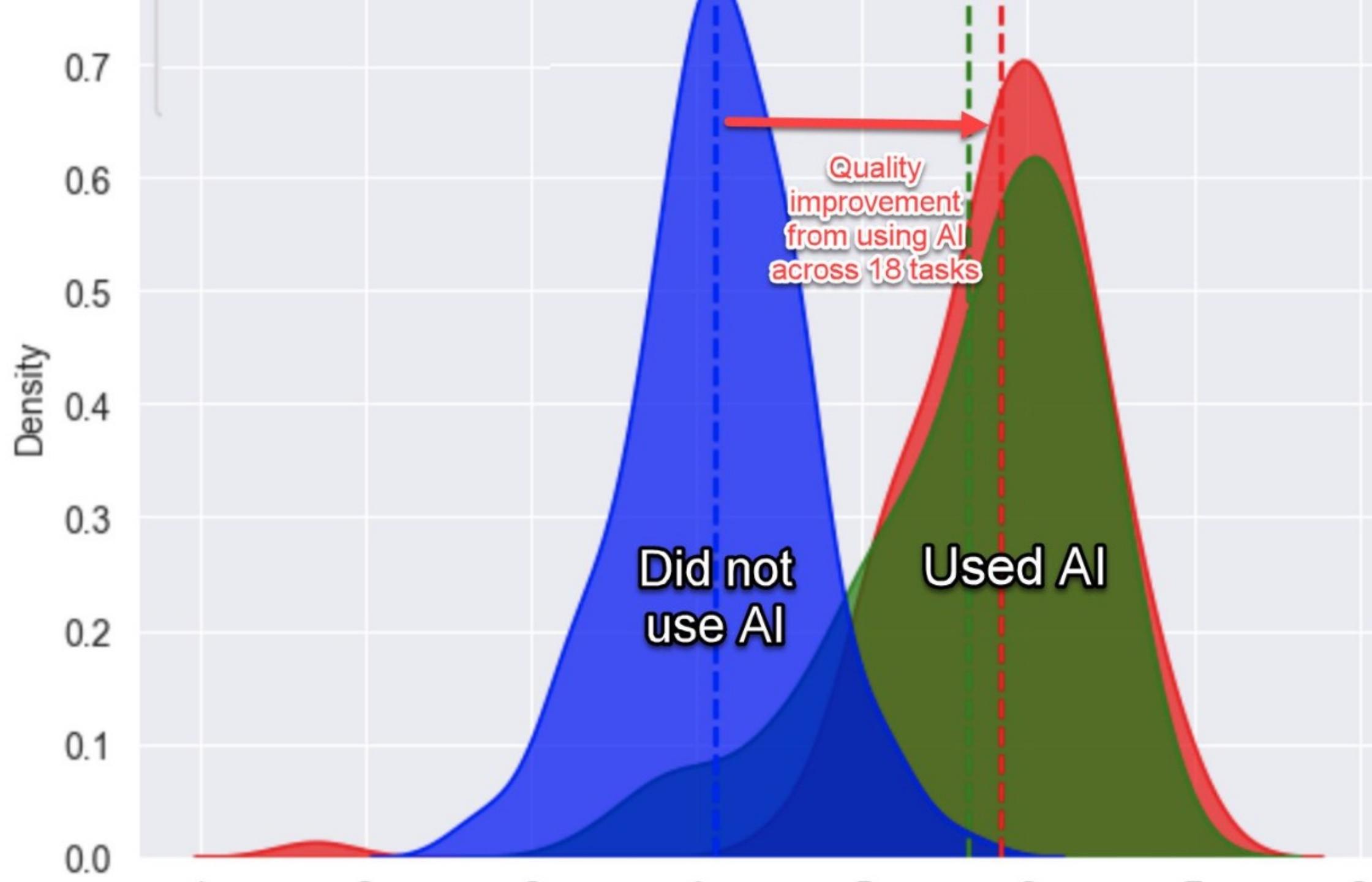
AI's Contributions

- Diagnose disease from scans with fewer false positives and false negatives
- Predict the 3D structure of proteins
- Adaptive learning for students in China
- Diagnose plant diseases and pests using their smartphone cameras.
- Compose original music for various genres, moods, and purposes
- Make better credit decisions using machine learning
- Detect and respond to cyberattacks using self-learning technology.
- Locate and alert authorities of gunfire incidents using acoustic sensors.
- Generate natural language texts on various topics, including entertainment. It can also answer questions, write summaries, create essays, stories, poems, songs, celebrity parodies, and more
- Master complex games such as Go and chess without human guidance. It can also apply its learning to other domains such as protein folding and quantum chemistry

AI Magic

Demo

- <https://www.google.com/search?q=photo+or+roadsigns+IN+chinese&oq=photo+or+roadsigns+IN++chinese&qs=chrome..69i57j33i10i160i2j33i10i22i29i30.i35i2j0j15&sourceid=chrome&ie=UTF-8&bshm=rime/1#vhid=SbVSTZmxSZnK0M&vssid=1>



AI: Wat is het?

Artificial Intelligence

Machine Learning

Deep Learning

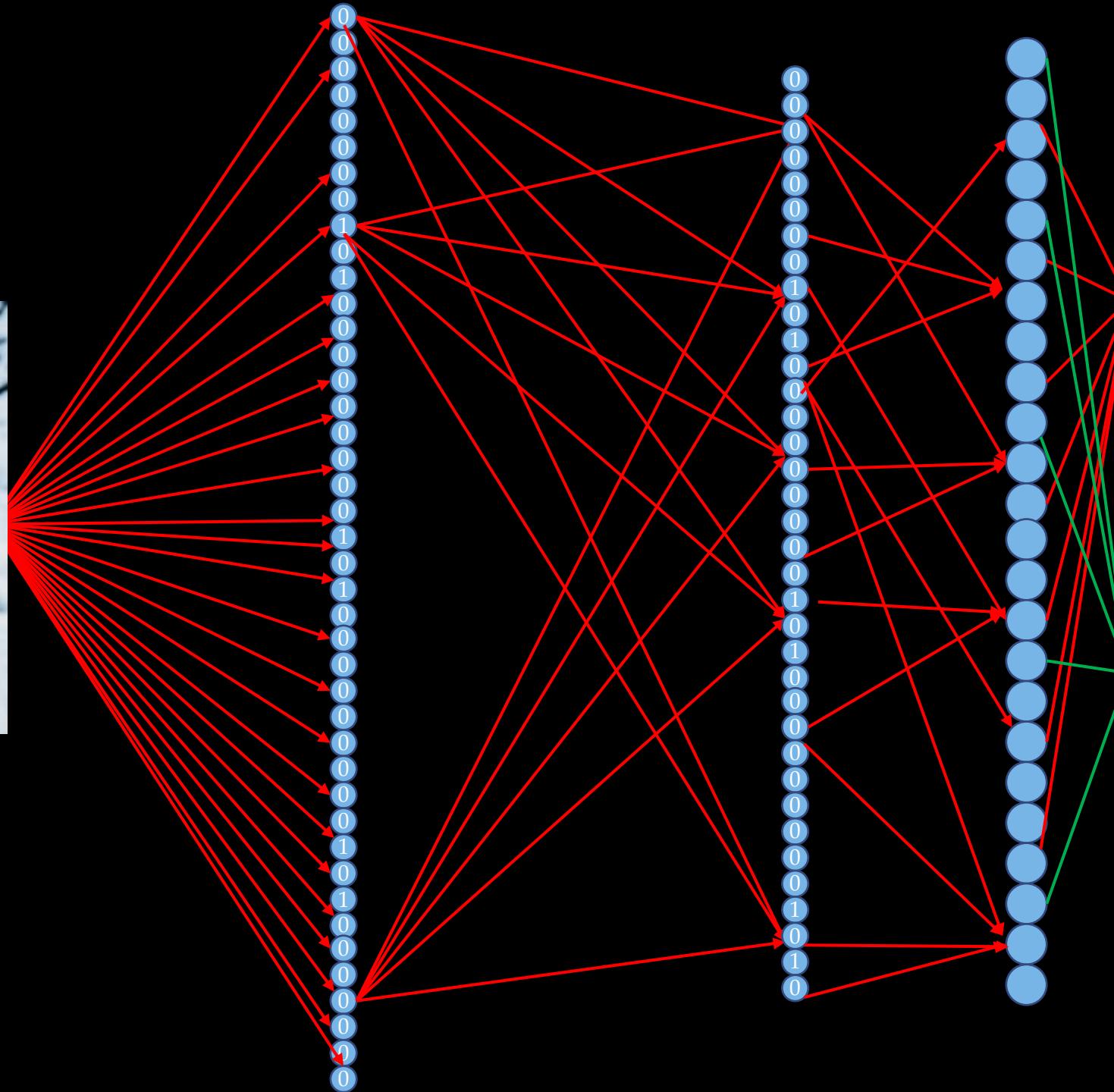
The subset of machine learning composed of algorithms that permit software to train itself to perform tasks, like speech and image recognition, by exposing multilayered neural networks to vast amounts of data.

A subset of AI that includes abstruse statistical techniques that enable machines to improve at tasks with experience. The category includes deep learning

Any technique that enables computers to mimic human intelligence using logic, if-then rules, decision trees, and machine learning

Artificiële Intelligentie // 3 niveaus

- Programmatie & Expert systemen
- Machine Learning = Leren
 - Met supervisie → menselijk toezicht → labels
 - Zonder supervisie → zonder menselijk toezicht → groeperen
- Deep Learning → wanneer het complexer wordt
 - Neural networks = neurale netwerken → statistiek
 - Moeilijkheid voor de mens om te begrijpen hoe dat werkt.



Artificial Intelligence

Machine Learning

Deep Learning

The subset of machine learning composed of algorithms that permit software to train itself to perform tasks, like speech and image recognition, by exposing multilayered neural networks to vast amounts of data.

Generative AI

A subset of AI that includes abstruse statistical techniques that enable machines to improve at tasks with experience. The category includes deep learning

Any technique that enables computers to mimic human intelligence using logic, if-then rules, decision trees, and machine learning

AI

Generative AI

- Stochastic based models (LLM's)
- Foundation Models ("safe" versions of LLM's)
- GPT : Generative Pretrained Transformers
 - **Generative** - The model can generate new content like text, code, images etc based on the prompts it receives. This generation of new, original output is a key capability.
 - **Pretrained** - The model is trained on a huge dataset in advance to build its core capabilities. For example, GPT-3 was trained on hundreds of billions of words from web pages and books.
 - **Transformer** - This refers to the neural network architecture used in GPT models, first proposed in the paper "Attention is All You Need". Transformers use an attention mechanism to process input text and generate relevant output.
 - I,2,3,4 ...

AI

ATTENTION

- CHECK for hallucinations
- Data dates from 2021 (use plugins for info beyond this date)
 - But we are the last generation that has GPTs mainly trained on human data
 - With GPT the quantity of new data generated $>^\infty$ human generation
 - Hallucination on hallucination
- AI Ethics
 - = Defined by the User // No law ever stopped thieves

AI: De Disruptie

THE RISE OF AI

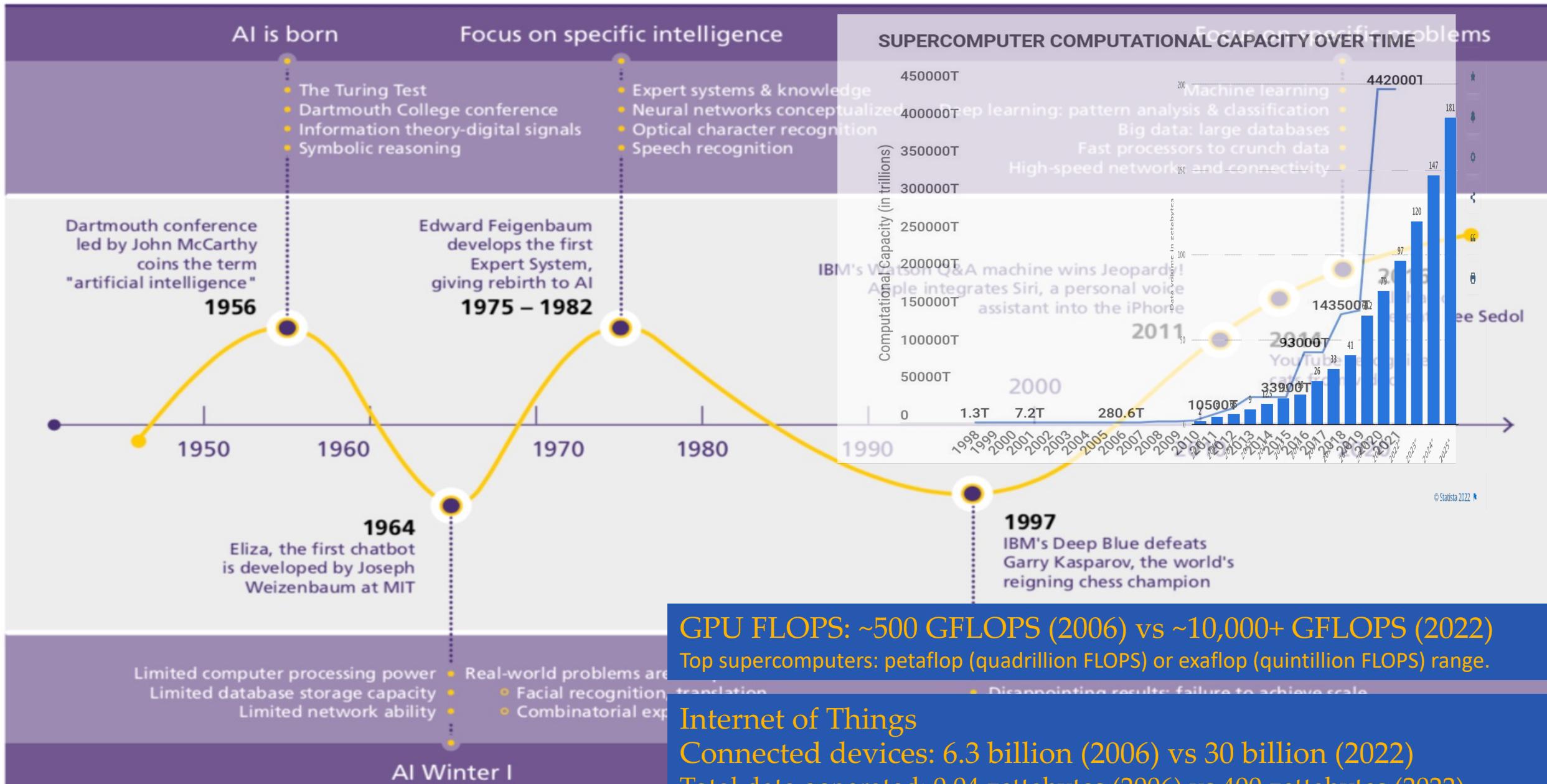
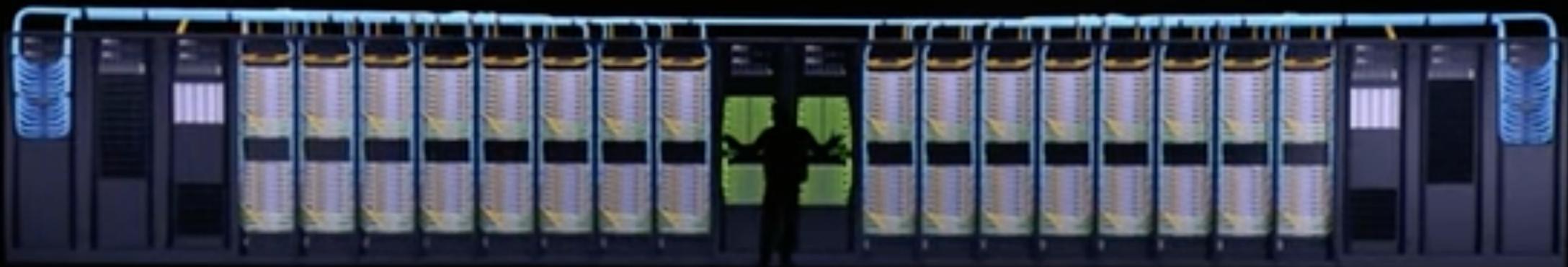


Figure 1: An AI timeline; Source: Lavenda, D./Marsden, P.

Grace Hopper AI Supercomputer for the Era of Generative AI



Disruptie

- Wat is nu eigenlijk die disruptie?
 - Er is de snelheid van rekenen en de hoeveelheid data
 - Het 'Internet of things' maakt alles beschikbaar
 - Dit is exponentieel
- Vandaag zijn er 2 disrupties
 - Het verdwijnen van de 'muur' tussen mens en machine
 - Programmeren wordt vervangen door spreek en schrijftaal
 - Explosief aantal 'programmeurs'
 - Het einde van puur mensgemaakte bronnen
 - Het laatste LLM getraind met hoofdzakelijk menselijke input is ChatGPT 2021
 - Hallucinaties op hallucinaties, of noem het grenzeloze creativiteit
 - Het einde van bewijsmateriaal, foto, video, audio, ...

Disruptions

- iTunes : Music industry // UBER : taxi wereld /// Airbnb - vacantielocaties
- Netflix: Movie industry and the TV world
- Journalism - GPT-3 & 4 created articles for The Guardian, showing AI's ability to automate content creation.
- Visual Arts - DALL-E 2 and Midjourney can generate high quality art, expanding creative possibilities.
- Music/Entertainment - AI like Jukebox can create original songs and performances on demand.
- Finance - AI is automating data analysis, trading, fraud detection and other tasks, transforming workflows.
- Healthcare - AI is aiding diagnosis, drug discovery and personalized care, improving patient outcomes.
- Legal - Contract review, legal research and predictive analytics by AI is changing legal services.
- Retail - AI informs supply chains, product recommendations and customer service interactions.
- Education - AI tutors like GPT-3 are delivering personalized learning and feedback for students.
- Customer Service - Chatbots and virtual assistants are automating customer interactions.
- Manufacturing - Generative design, predictive maintenance and quality control by AI is optimizing production.
- Development & Implementation & Technology

Prompting is revolutionizing AI application development

Supervised learning



Prompt-based AI



Andrew Ng



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Matt's Picks Special Offer



Showing 2192 of 2192 Total Tools.

Sort (Default - Newest) ▾

Jongeren en AI

Jongeren en AI

- Studenten en AI op school → Hoe spring je daar mee om?
- Snapchat → opzoeken documentatie/informatie
- Welke AI –driven tools gebruiken de jongeren vandaag?
- Practisch voor hen
 - Opzoeken op een gestructureerde manier van info
 - Lezen/samenvatten van documenten en documentatie
 - Opzoeken van info over bepaalde problematieken
- De rekenmachine heeft niemand gedood ... maar we zijn wel onze “hoofdrekenkunde” verloren

Waarom de rol van begeleiders zo belangrijk is Jong zijn in the “Age of AI”

- Wanneer ik jong was was de klassieke vraag
 - Wat wil je worden wanneer je groot bent?
 - Van pompier tot goochelaar
- Wat is de vraag vandaag?
 - Doelen stellen ... waar naartoe?
 - Er zijn maar weinig technologische disrupties geweest van de magnitude van AI
 - Enkele belangrijke momenten
 - Beheersing van het vuur, Geschrift, Boekdrukkunst, Digitalisering, Maanlanding, Exaflops computers ...
 - Voor de meeste heeft de mens tijd gehad om zich aan te passen,
 - Gedreven door een zeer langzaam evoluerende menselijke intelligentie
 - Vandaag wordt de evolutie gedreven door een exponentieel versnellende AI
 - Met een menselijke geest die nog steeds zeer langzaam evolueert
 - Een menselijke geest die extreem minder snel evolueert dan zijn omgeving

Waarom is PARKOUR zo belangrijk

Jong zijn in the “Age of AI”

- Bovenop alle functionele kwaliteiten waar we nog veel zullen over communiceren ...
- PARKOUR als veilige haven voor jongeren, alle jongeren.

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