



NOT EVERYONE CAN READ THIS

fi yuo cna raed tihs, yuo hvae a sgtrane mnid too. I cdnuolt blveiee taht I cluod aulacilty uesdnatnrd waht I was rdanieg. The phaonmneal pweor of the hmuan mnid, aoccdrnig to a rscheearch at Cmabrigde Uinervtisy, it dseno't mtaetr in waht oerdr the ltteres in a wrod are, the olny iproamtnt tihng is taht the frsit and lsat ltteer be in the rghit pclae. The rset can be a taotl mses and you can sitll raed it whotuit a pboerlm. Tihs is bcuseae the huamn mnid deos not raed ervey lteter by istlef, but the wrod as a wlohe. Azanmig huh? Yaeh and I awlyas tghuhot slpeling was ipmorantt! If you can raed tihs **SHARE IT**

Cna yuo raed tihs?
Olny 55 plepoe out of 100 can.



Artificiële Intelligentie in 6 Vragen

Mauritz Kelchtermans



LINK VIA WETRANSFER:

**PRESENTATIE ALSTUBLIEFT NIET
VERDER VERSPREIDEN !!!**

DANK U WEL !!!

Zes Vragen

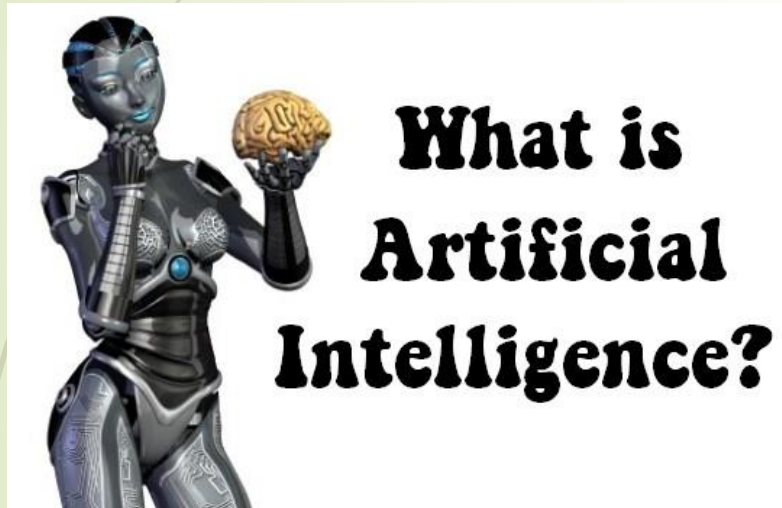
- I.** Wat is AI?
- II.** Wanneer is het begonnen?
- III.** Wat geeft dat nu?
- IV.** Hoe zijn ze zo ver geraakt?
- V.** Wat brengt dat met zich mee?
- VI.** Wat zou het moeten zijn?





I. Wat is het?

I.1. Definitie AI



“making a **machine** behave in ways that would be called **intelligent** if a human were so behaving”

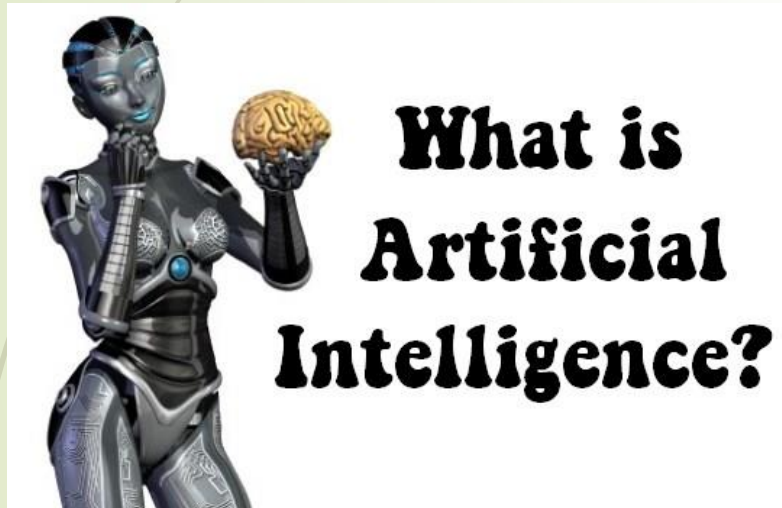
John McCarthy

“AI is about building machines that do the **right** thing, that act in ways that can be expected to achieve their **objectives**”

Stuart Russell

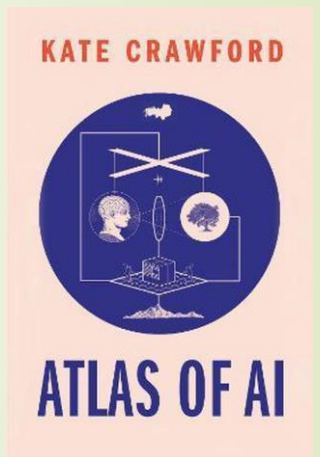
“intelligence: reliable capacity to learn and solve an open-ended array of problems”
Peter Railton

I.1. Artificiële Intelligentie



Microsoft's Kate Crawford: 'AI is neither artificial nor intelligent'

Zoë Corbyn



NON Alien

I.2. Vooruitgang in AI and Robotica



Baidu 百度

Alibaba Group
阿里巴巴集团

Tencent
腾讯

小米
xiaomi.com



Bloomberg Opinion

Subscribe

Business

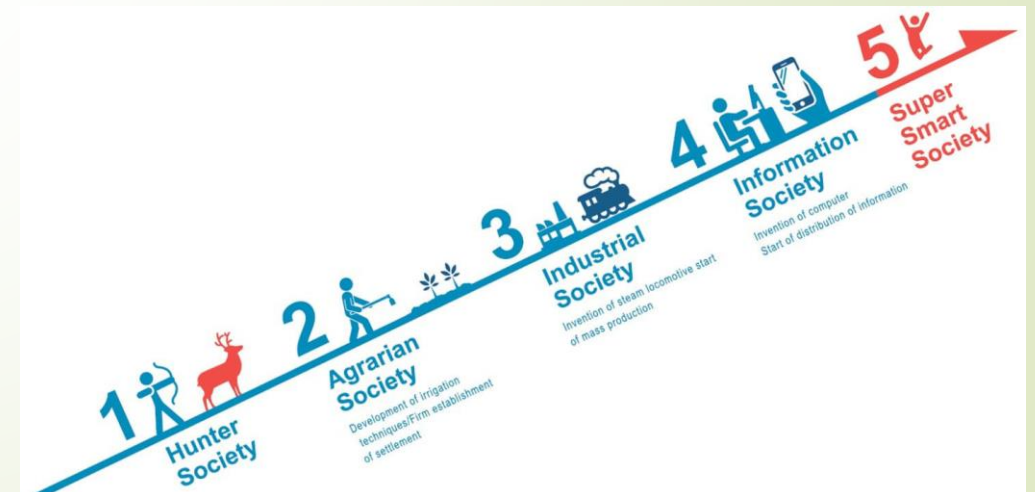
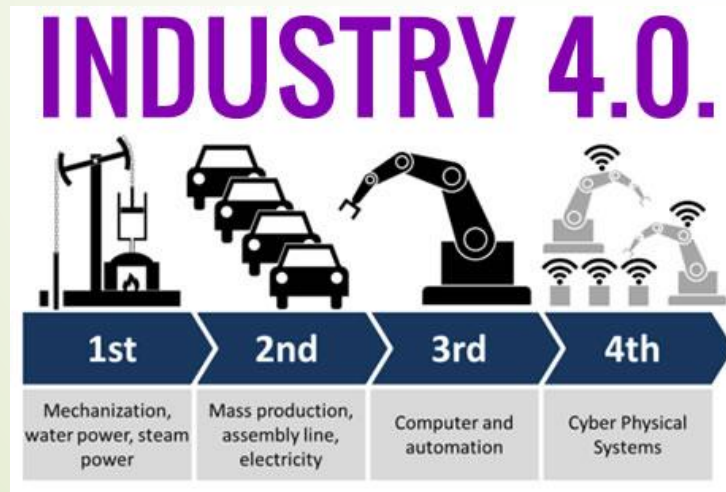
Give Amazon and Facebook a Seat at the United Nations

Given the scope of their ambitions and our dependence on them, behemoth brands should be treated, and held to account, for what they really are: commercial superpowers.

By [Ben Schott](#)

October 3, 2021, 2:00 AM EDT

I.2. Vooruitgang in AI and Robotica



I.3. Vooruitgang in AI and Robotica

America Must Lead the Global Charge on Artificial Intelligence



Europe left playing catch-up in artificial intelligence



Beijing Wants A.I. to Be Made in China by 2030 - NYTimes.com



Putin says the nation that leads in AI 'will be the ruler of the world'



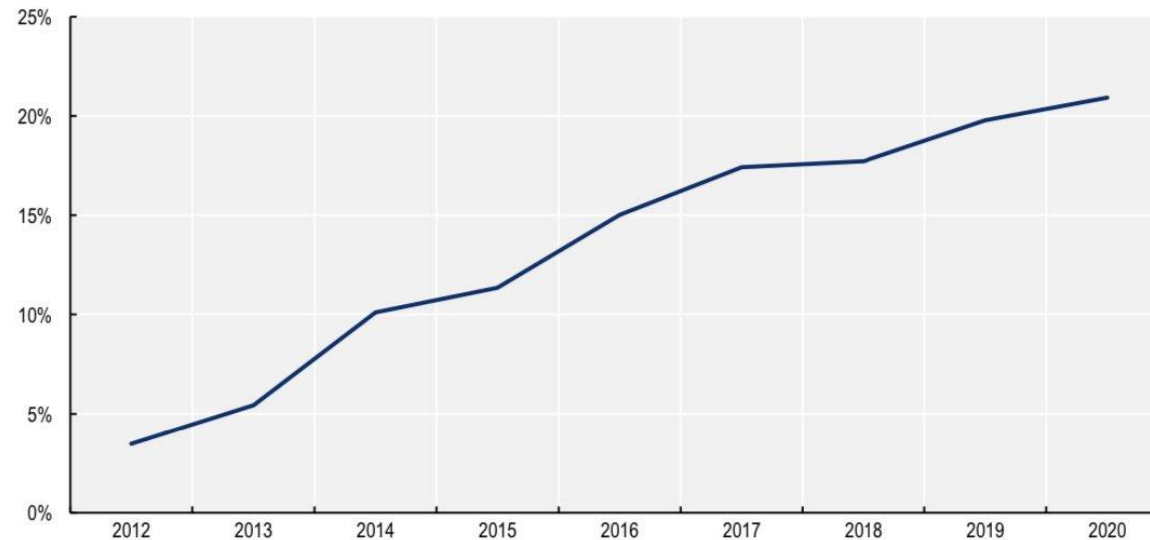
I.3. Vooruitgang in AI and Robotica

Choking Off China's Access to the Future of AI

New U.S. Export Controls on AI and Semiconductors Mark a Transformation of U.S. Technology Competition with China

Figure 1. Share of total VC invested in AI

Estimated amounts per year from 2012 to 2020 as a share of total VC investments



Source: OECD.AI (2021), processed by JSI AI Lab, Slovenia, based on Preqin data of 23/04/2021, www.oecd.ai.

I.3. Uitdaging of Ondergang?

Harari: “De revoluties in informatietechnologie en biotechnologie stellen ons voor de **grootste uitdagingen** die onze soort heeft meegemaakt.”

Hawking: “De opkomst van superintelligentie kan het **allerbeste**, maar ook het **allerslechtste** zijn dat de mens ooit zal overkomen.”

“Terwijl de kortetermijnimpact van KI afhangt van wie er aan de knoppen zit, hangt de langetermijnimpact ervan af of er nog wel iemand aan de knoppen zit.”



I.3. Uitdaging of Ondergang?

Bezos: “We’re at the beginning of a **golden age** of AI. Recent advancements have already led to inventions that previously lived in the realm of science fiction—and we’ve only **scratched the surface** of what’s possible.”

Alphabet: “New products and services, including those that incorporate or utilize AI and ML, can **raise new or exacerbate existing** ethical, technological, legal and other **challenges**, which may **negatively affect** our brands and demand for our products and services and adversely affect our revenues and operating results.”



Alphabet

I.3. Uitdaging of Ondergang?

**Why AI will
beat us**



I.4. Poopocalypse

Roomba creator responds to reports of 'poopocalypse': 'We see this a lot'

Robotic vacuum cleaner is said to run over animal feces and continue its cleaning cycle around the house, spreading the mess over 'every conceivable surface'



▲ The result is 'a home that closely resembles a Jackson Pollock poop painting', one user said. Photograph: Flickr



hardmaru
@hardmaru

The new Roomba uses AI to avoid smearing dog poop all over your house.

"But in order to make this possible, the company first had to create a diverse dataset of poop."



edition.cnn.com

The new Roomba uses AI to avoid smearing dog poop all over your house
iRobot, the company that makes the Roomba, is trying to eliminate messy accidents with the use of artificial intelligence. On Thursday iRobot announced...

2:54 a.m. · 10 sep. 2021 · Twitter Web App



II. Wanneer is het Begonnen?

II.1. In den Beginne

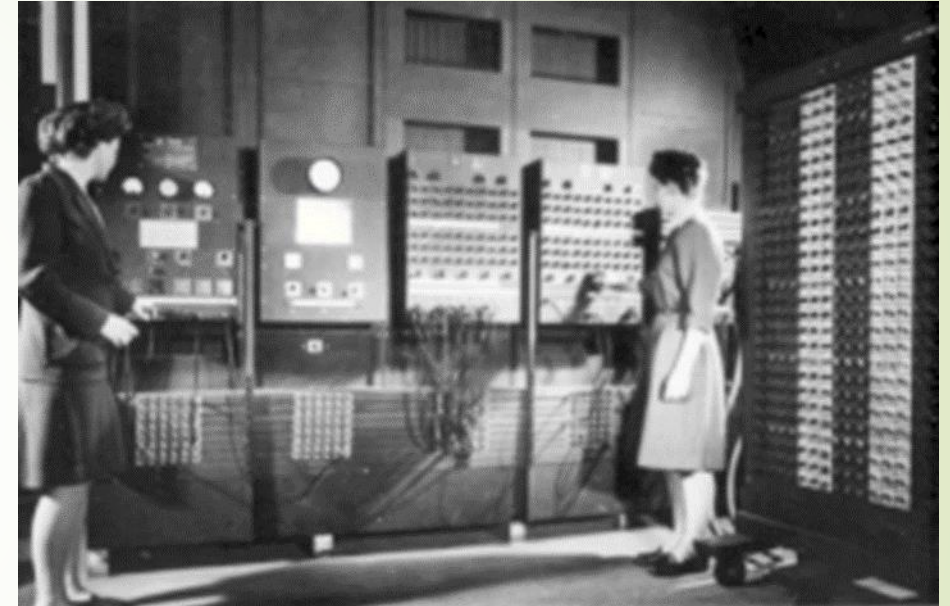
A LOGICAL CALCULUS OF THE IDEAS IMMANENT IN NERVOUS ACTIVITY

WARREN S. McCULLOCH and WALTER H. PITTS



1943

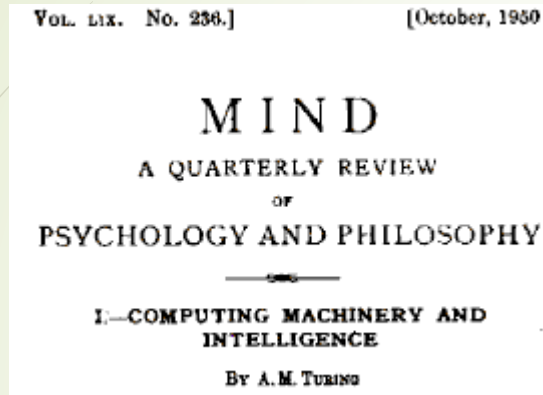
eerste artikel over
artificiële neuronen



1946

Eerste programmeerbare
Computer ENIAC

II.1. In den Beginne

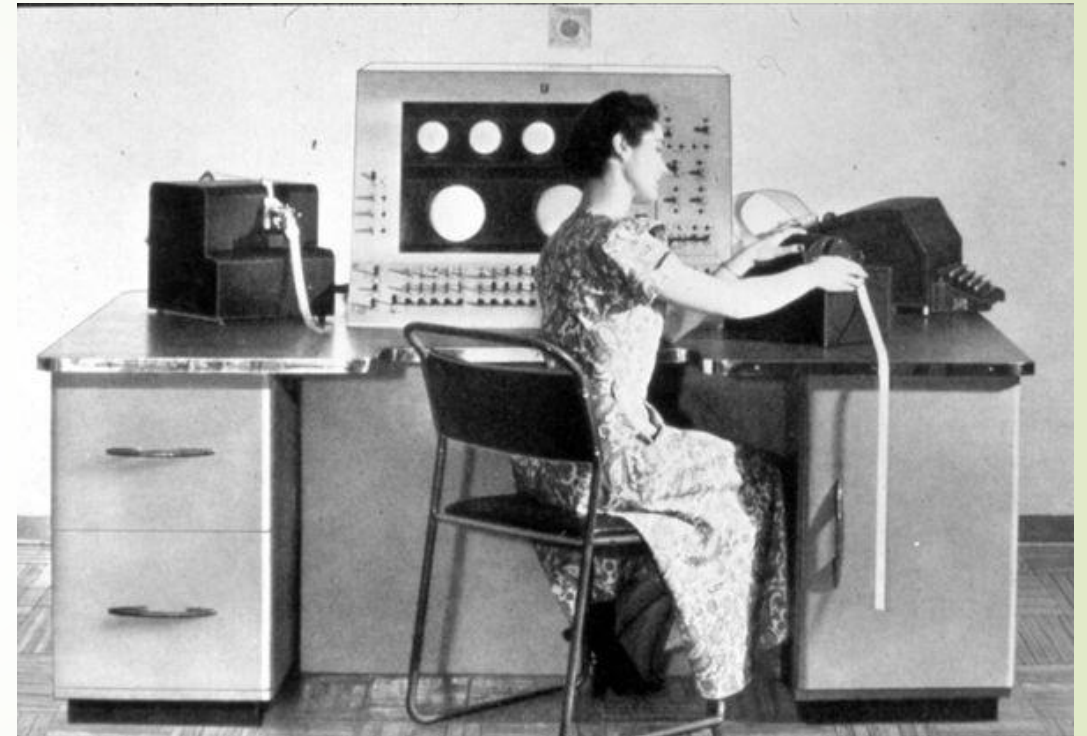


**I propose to consider
the question.
Can machines think?**

Alan Turing, 1950

1950

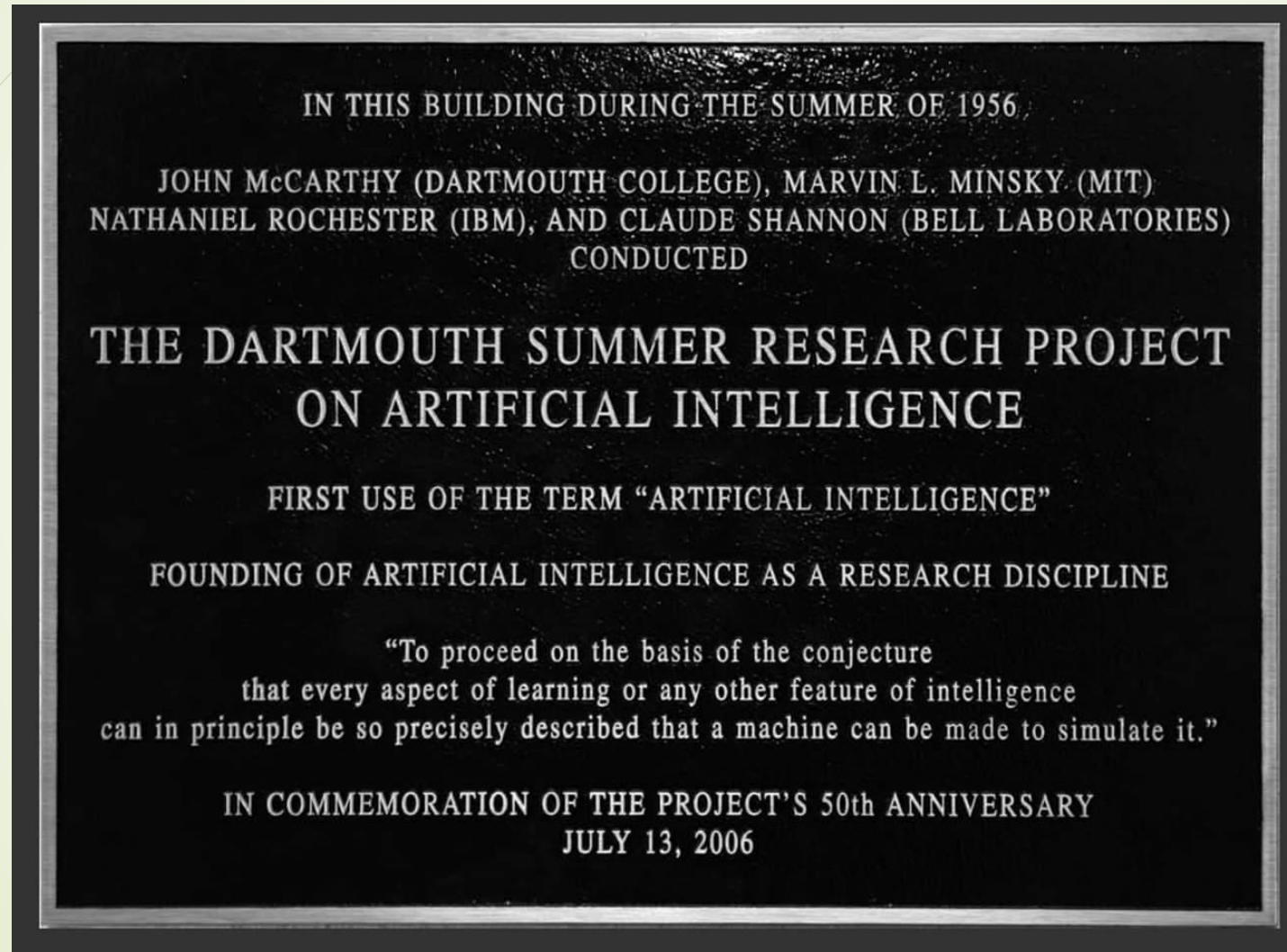
Turing test



1951

Ferranti Mark I (UK)
eerste commerciële mainframe

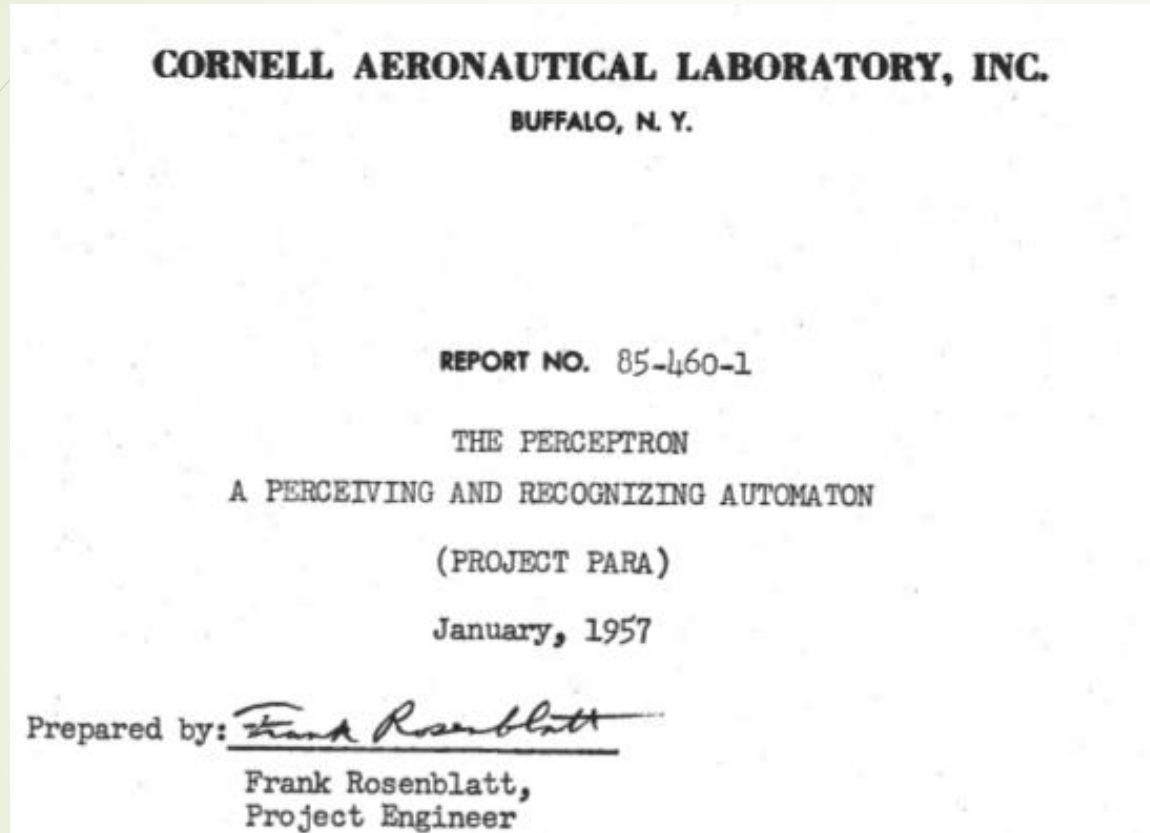
II.1. In den Beginne



1956

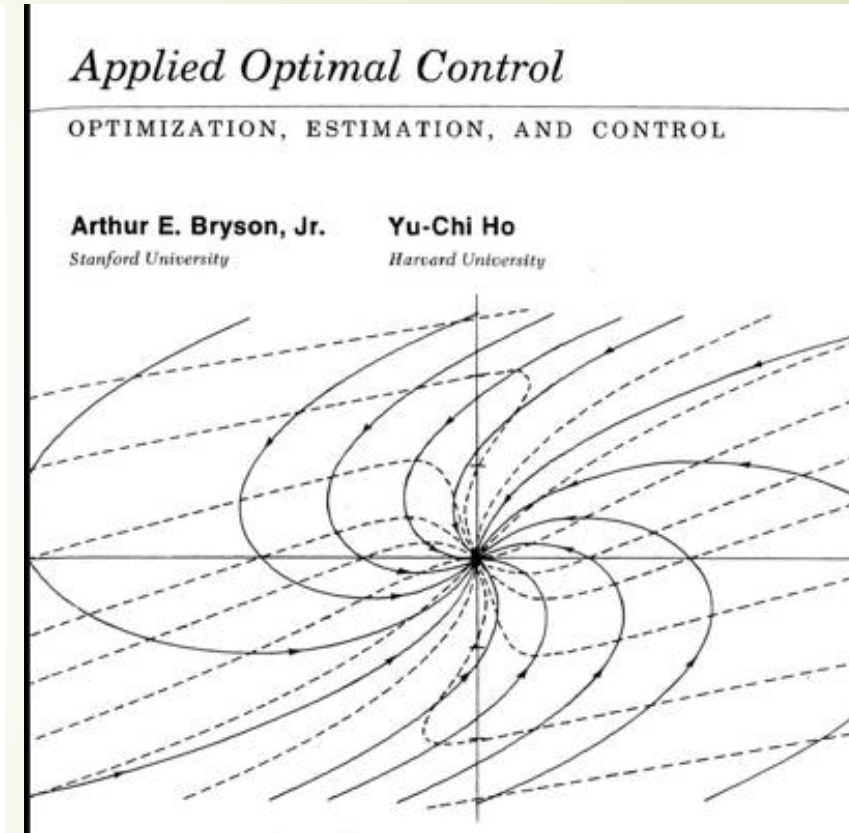
"2 month,
10 man
study"

II.1. In den Beginne



1957

2 lagig
NN



1969

backpropagation
in NN

II.1. In den Beginne



1969
eerste netwerk
Arpanet

1971
eerste gp-micro
processor
Intel 4004

1973
eerste PC
Micral (F)

1975
MICRO
SOFT

1976
APPLE
COMPUTER
CO.

II.1. In den Beginne



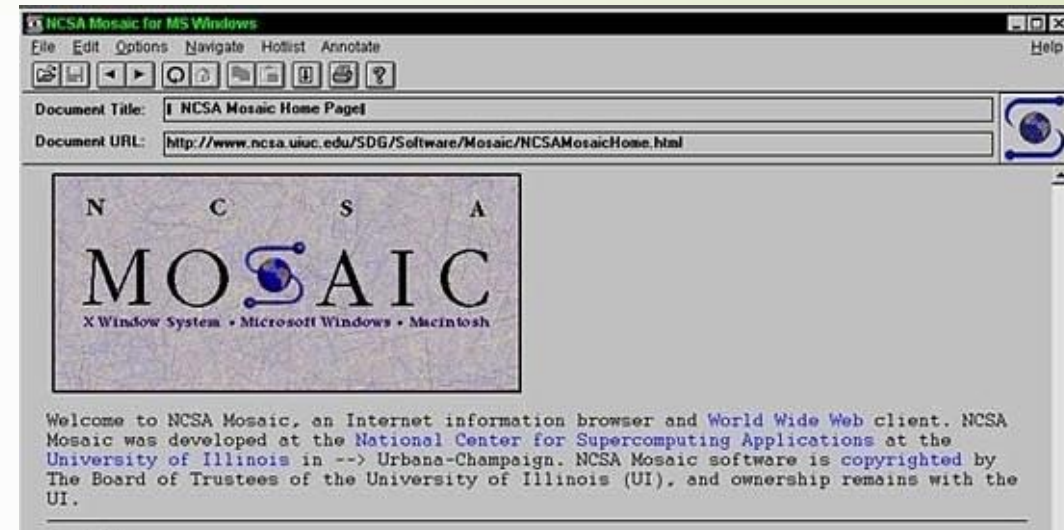
Backpropagation Applied to Handwritten Zip Code Recognition

Y. LeCun
B. Boser
J. S. Denker
D. Henderson
R. E. Howard
W. Hubbard
L. D. Jackel

AT&T Bell Laboratories Holmdel, NJ 07733 USA

1989

backpropagation
in meerlagig NN



1989 - 1993

world-wide-web
publiek

II.2. Uit Recente Tijden



1994

eerste smartphone
IBM Simon

1994



1997

IBM Deep Blue
verslaat Kasparov

II.2. Uit Recente Tijden



1998

Google!

2002

Eerste Roomba



2003

Blackberry
Quark

II.2. Uit Recente Tijden



2004

[thefacebook]

2007

Imagenet
opgestart



2007

eerste
Iphone

II.2. Uit Recente Tijden



2008

Apple iOS
Store



2008

eerste Android smartphone
HTC Dream

II.2. Uit Recente Tijden



2011

IBM Watson wint Jeopardy

ImageNet Classification with Deep Convolutional Neural Networks

Alex Krizhevsky
University of Toronto
kriz@cs.utoronto.ca

Ilya Sutskever
University of Toronto
ilya@cs.utoronto.ca

Geoffrey E. Hinton
University of Toronto
hinton@cs.utoronto.ca

Abstract

We trained a large, deep convolutional neural network to classify the 1.2 million high-resolution images in the ImageNet ILSVRC-2010 contest into the 1000 different classes. On the test data, we achieved top-1 and top-5 error rates of 37.5% and 17.0% which is considerably better than the previous state-of-the-art. The neural network, which has 60 million parameters and 650,000 neurons, consists of five convolutional layers, some of which are followed by max-pooling layers, and three fully-connected layers with a final 1000-way softmax. To make training faster, we used non-saturating neurons and a very efficient GPU implementation of the convolution operation. To reduce overfitting in the fully-connected layers we employed a recently-developed regularization method called “dropout” that proved to be very effective. We also entered a variant of this model in the ILSVRC-2012 competition and achieved a winning top-5 test error rate of 15.3%, compared to 26.2% achieved by the second-best entry.

2012

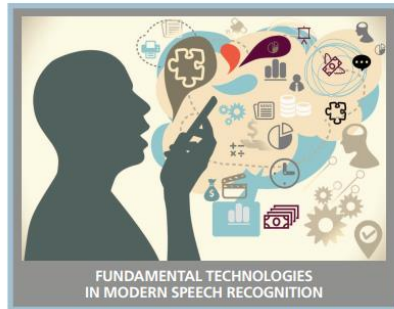
Beeldherkenning met NN

II.2. Uit Recente Tijden

Geoffrey Hinton, Li Deng, Dong Yu, George E. Dahl, Abdel-rahman Mohamed, Navdeep Jaitly, Andrew Senior, Vincent Vanhoucke, Patrick Nguyen, Tara N. Sainath, and Brian Kingsbury

Deep Neural Networks for Acoustic Modeling in Speech Recognition

The shared views of four research groups



2012

spraakherkenning
met NN



2016

DeepMind AlphaGo
verslaat Lee Sedol

II.2. Uit Recente Tijden

BRAINS VS. ARTIFICIAL INTELLIGENCE
Be sure to tweet @WinBigRivers and @SCSatCMU using #BrainsvsAI

JANUARY 11-30 | 11AM-7PM

WE ARE LIPPING THE ANTE!
120,000 HANDS NO-LIMIT HOLD 'EM

Each hand starts with each player having 200 big blinds.
One big blind is \$100, and one small blind is \$50.

Hands Dealt: 120,000/120,000

BRAINS : (\$1,766,250)	LIBRATUS : \$1,766,250
DONG KIM : (\$85,649) LIBRATUS : \$85,649	JASON LES : (\$880,087) LIBRATUS : \$880,087
JIMMY CHOU : (\$522,857) LIBRATUS : \$522,857	DANIEL MCAULAY : (\$277,657) LIBRATUS : \$277,657

Parentheses indicate a negative number.

TUKOMAI SANDHU KUMAR ELECTRONIC MARKETS LAB
Carnegie Mellon University School of Computer Science
RIVERS CASINO
PITTSBURGH SUPERCOMPUTING CENTER
GREATPOINT TNG
INTEL OPTIMIZED

2017

Libratus verslaat
pokerpro's

TWO MINUTE PAPERS
WITH KÁROLY ZSOLNAI-FEHÉR (KZF)

**NEW DEEPMIND AI
BEATS ALPHAGO 100-0**

2018

DeepMind AlphaZero
verslaat AlphaGo

II.2. Uit Recente Tijden

The Decisive breakthrough announced on 30th November
will change everything, say, scientists

**GOOGLE DEEPMIND'S
ALPHAFOLD PROGRAMME:
AN GARGANTUAN LEAP IN
PROTEIN STRUCTURE & AI**

2020

**DeepMind kondigt
AlphaFold aan**

**"IN THE NEXT 5 YEARS WE WILL
EFFECTIVELY TRANSITION FROM
PEOPLE SEEING US PRIMARILY
AS A SOCIAL MEDIA COMPANY
TO BEING A
METAVERSE COMPANY"**

Facebook's Mark Zuckerberg

2021

**Meta kondigt
Metaverse aan**

II.2. Uit Recente Tijden

The Decisive breakthrough announced on 30th November will change everything, say, scientists

**GOOGLE DEEPMIND'S
ALPHAFOLD PROGRAMME:
AN GARGANTUAN LEAP IN
PROTEIN STRUCTURE & AI**

**"IN THE NEXT 5 YEARS WE WILL
EFFECTIVELY TRANSITION FROM
PEOPLE SEEING US PRIMARILY
AS A SOCIAL MEDIA COMPANY
TO BEING A
METAVERSE COMPANY"**

Facebook's Mark Zuckerberg

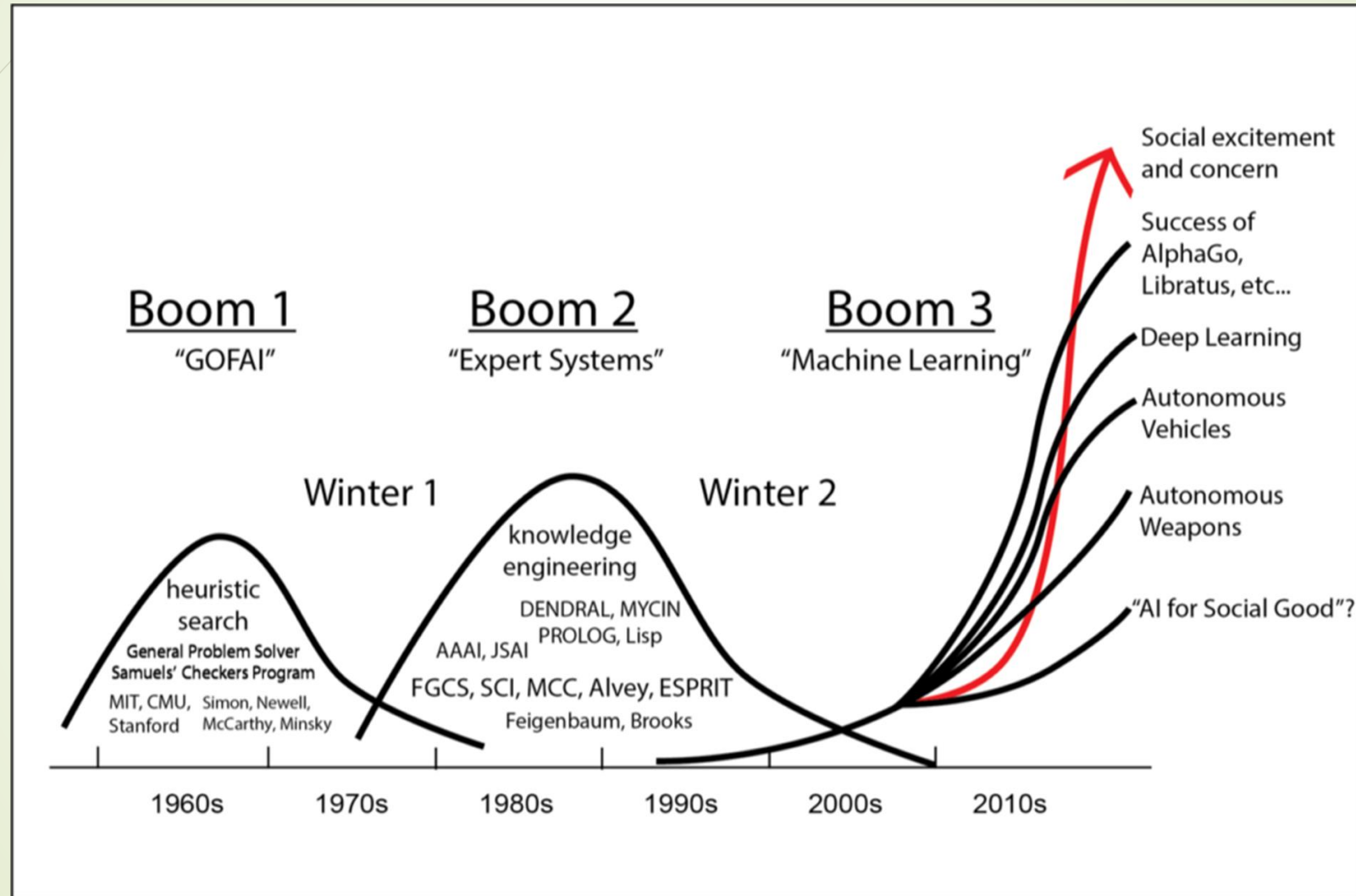
MATTHEW GAULT

CULTURE 02.15.2021 09:00 AM

Billionaires See VR as a Way to Avoid Radical Social Change

Tech oligarchs are encouraging the creation of virtual worlds as a cheap way to avoid problems in the real one.

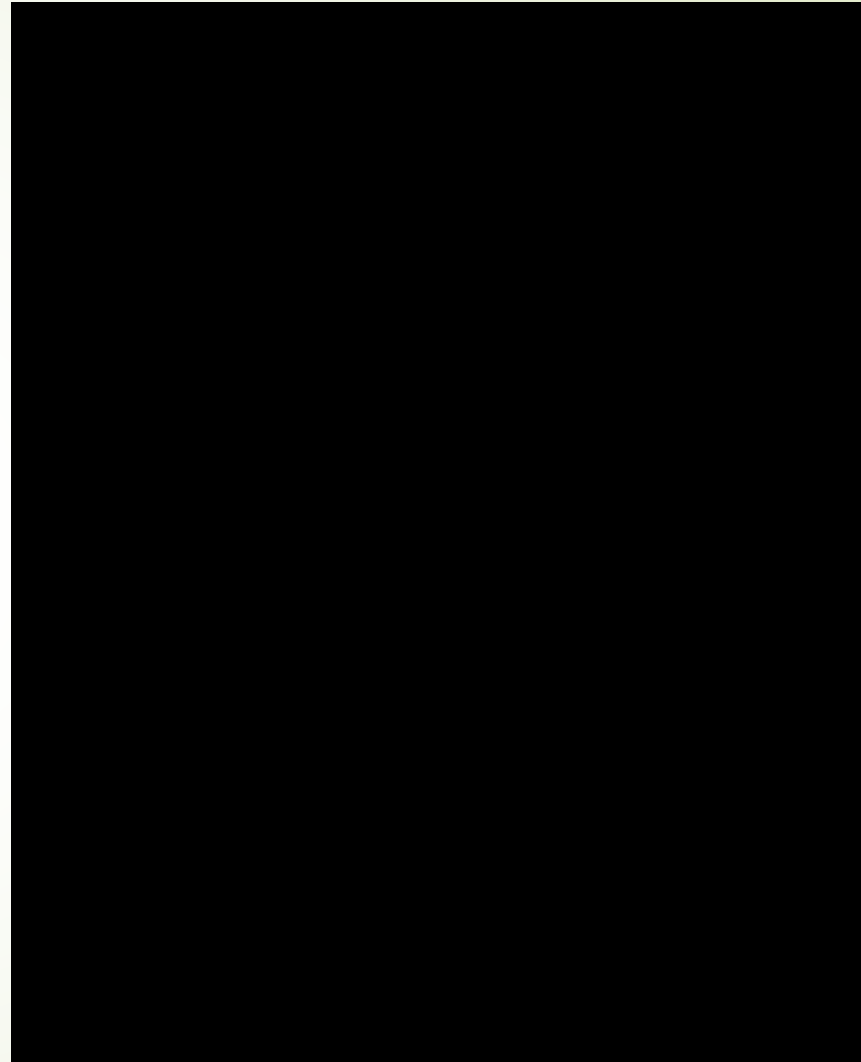
II.3. AI-Zomers en Winters





Intermezzo

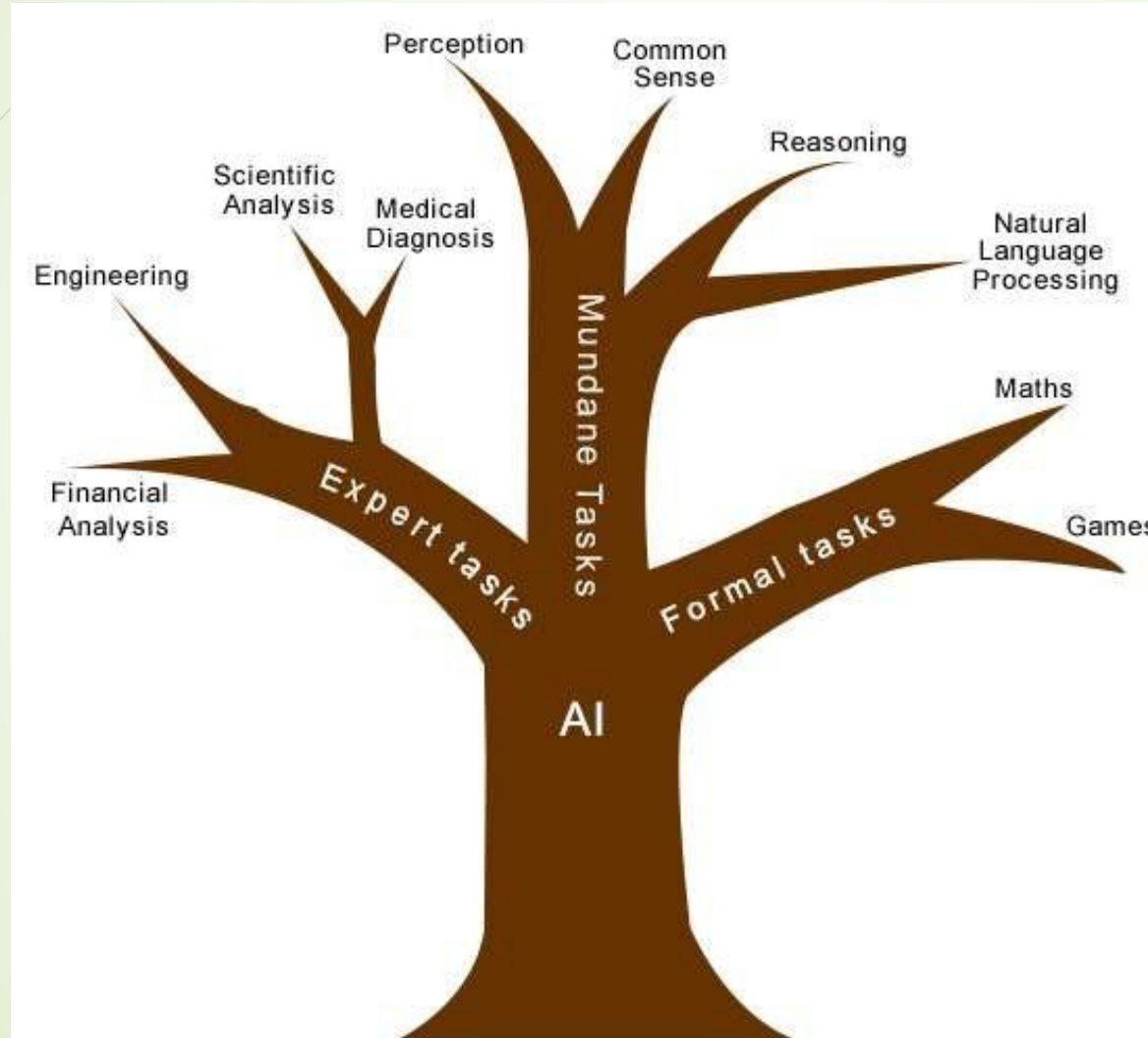
https://www.youtube.com/shorts/sVUN1_K_XAA





III. En Wat Geeft dat Nu?

III.1. Taakboom



'General Purpose Technology':
patroonherkenning
(voorlopig) zonder begrip (inhoud, relevantie, context):

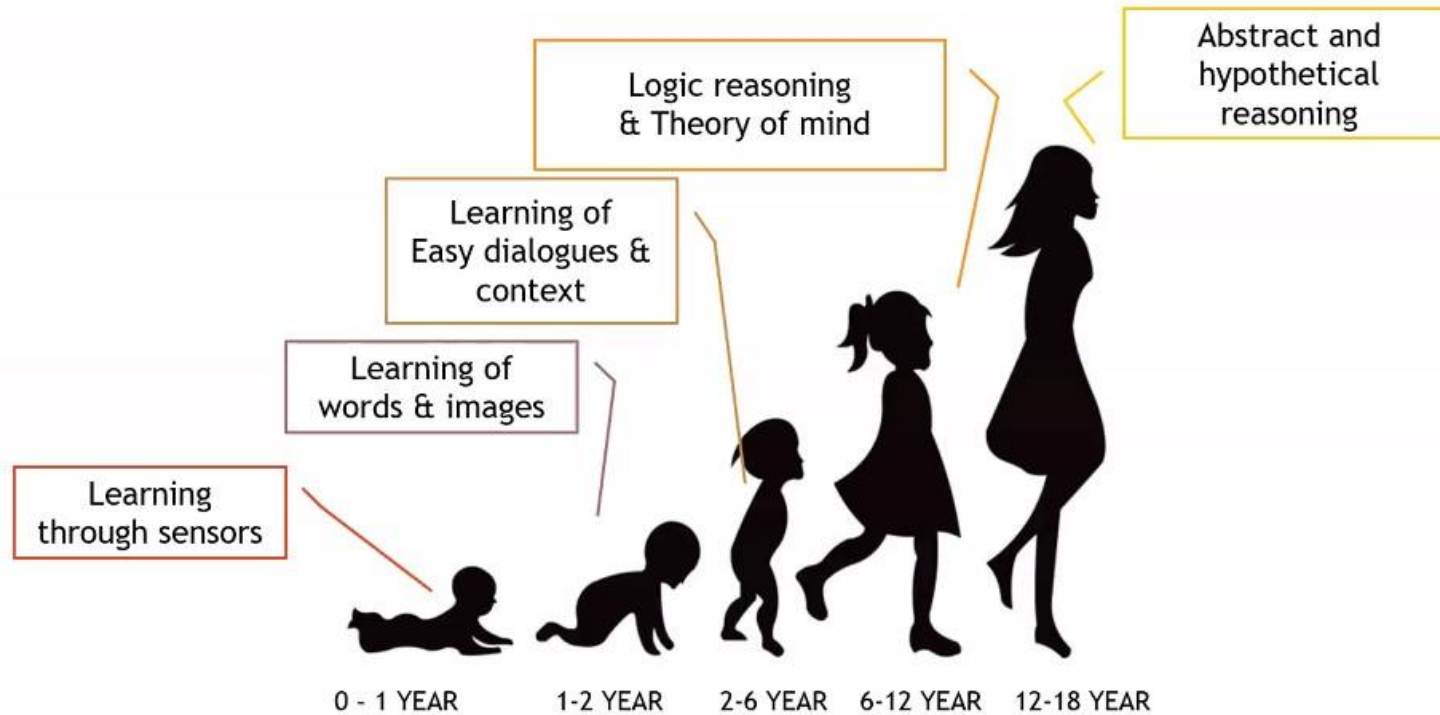
Spraak/Taal
Beeld/Perceptie

'Agents':

Computers
Robots
Cyborgs

III.1. Taakboom

HUMAN INTELLIGENCE



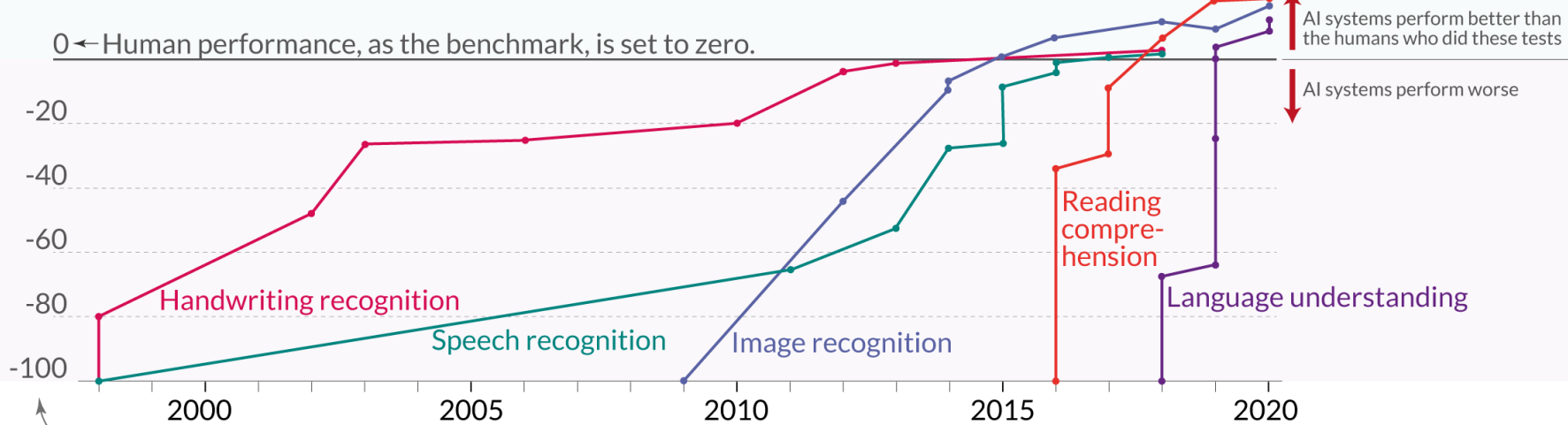
**Artificiële
Intelligentie
op niveau
van
2 à 3-jarige**

III.1. Taakboom

Language and image recognition capabilities of AI systems have improved rapidly



Test scores of the AI relative to human performance
+20



0 ← Human performance, as the benchmark, is set to zero.
The capability of each AI system is normalized to an initial performance of -100.

Data source: Kiela et al. (2021) – Dynabench: Rethinking Benchmarking in NLP
OurWorldinData.org – Research and data to make progress against the world’s largest problems.

Licensed under CC-BY by the author Max Roser

AI dikwijls beter en sneller dan mensen, maar (nog) zonder begrip

Artificial Intelligence

=>

Apparent Intelligence



III.2. Voorbeelden

Artificial intelligence is now part of our everyday lives – and its growing power is a double-edged sword

III.2.a. Google Predictive Search



- Q is artificial intelligence
- Q is artificial intelligence
 - Q is artificial intelligence **permanently inscrutable**
 - Q is artificial intelligence **creative**
 - Q is artificial intelligence **illegal**
 - Q is artificial intelligence **part of machine learning**
 - Q is artificial intelligence **software**
 - Q is artificial intelligence **permanently inscrutable summary**
 - Q is artificial intelligence **easy to learn**
 - Q is artificial intelligence **patentable**
 - Q is artificial intelligence **conscious**

Google zoeken

Ik doe een gok

Ongepaste voorspellingen melden

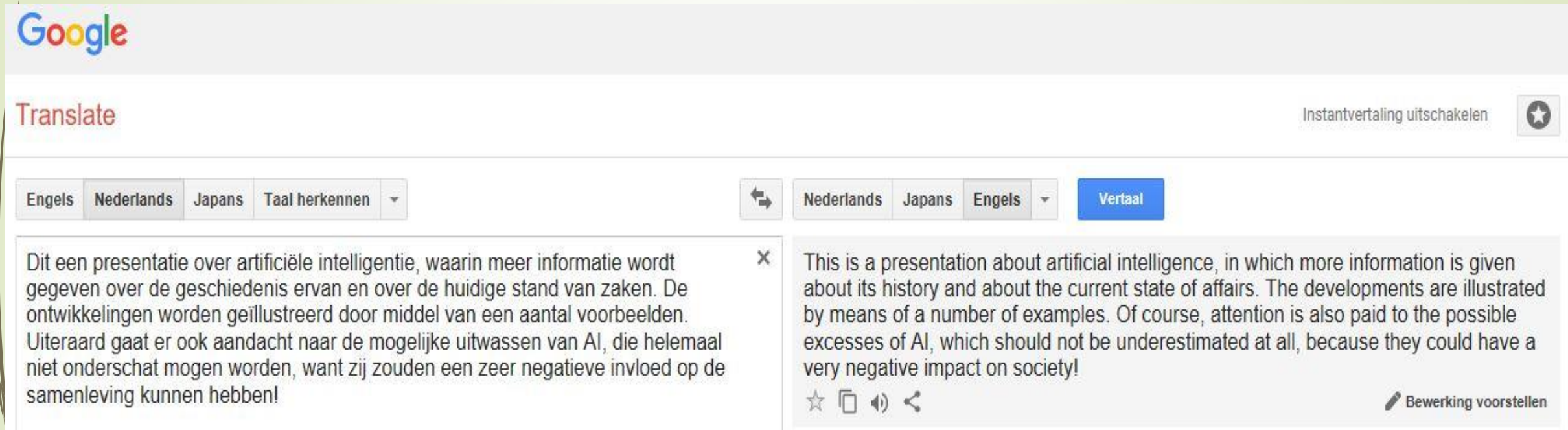
Q are muslim women

Google zoeken

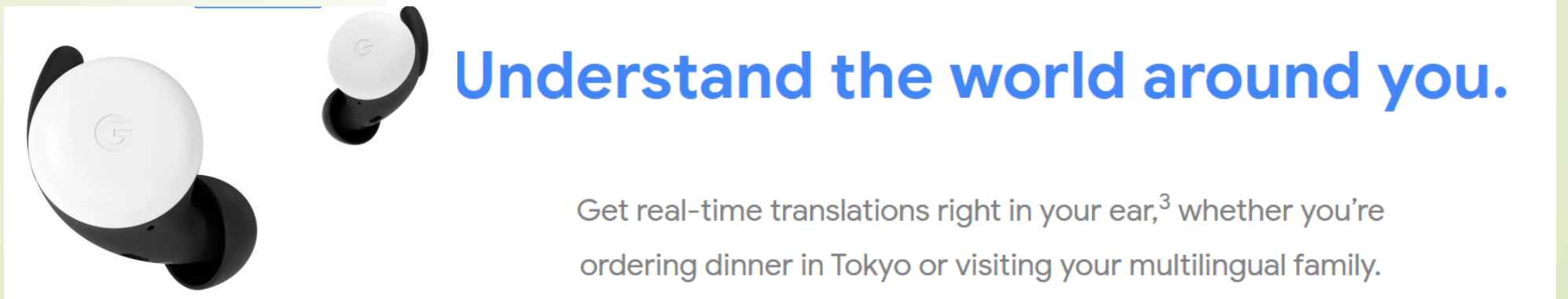
Ik doe een gok


Google has also added **stop lists** to search, after researchers found some racial terms generated appalling autocomplete suggestions. Potentially problematic search stems now get no suggestions at all.

III.2.b. Google Translate / DeepL



The screenshot shows the Google Translate interface. At the top left is the Google logo. Below it, the word "Translate" is displayed. On the right side, there is a link "Instantvertaling uitschakelen" and a star icon. The language selection area shows "Engels" selected for the source language and "Nederlands" selected for the target language. A blue "Vertaal" button is visible. The input text in Dutch is: "Dit een presentatie over artificiële intelligentie, waarin meer informatie wordt gegeven over de geschiedenis ervan en over de huidige stand van zaken. De ontwikkelingen worden geïllustreerd door middel van een aantal voorbeelden. Uiteraard gaat er ook aandacht naar de mogelijke uitwassen van AI, die helemaal niet onderschat mogen worden, want zij zouden een zeer negatieve invloed op de samenleving kunnen hebben!". The output text in English is: "This is a presentation about artificial intelligence, in which more information is given about its history and about the current state of affairs. The developments are illustrated by means of a number of examples. Of course, attention is also paid to the possible excesses of AI, which should not be underestimated at all, because they could have a very negative impact on society!". At the bottom right of the output box, there is a link "Bewerking voorstellen".



 **Understand the world around you.**

Get real-time translations right in your ear,³ whether you're ordering dinner in Tokyo or visiting your multilingual family.

III.2.c. AlphaGo



Fun Call Centre (2018) Lee Sedol vs AlphaGo Move 37 reactions and analysis

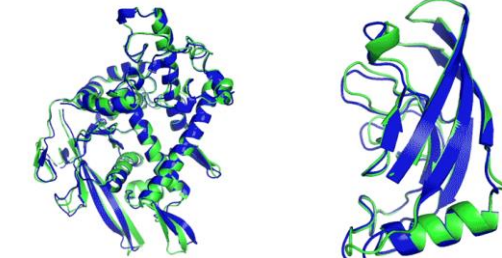
III.2.c. AlphaGo



Wereldkampioen bordspel Go stopt ermee: "Artificiële intelligentie is te slim, ik ga nooit aan de top staan"

III.2.c. AlphaFold

AlphaFold: a solution to a 50-year-old grand challenge in biology



T1037 / 6vr4
90.7 GDT
(RNA polymerase domain)

T1049 / 6y4f
93.3 GDT
(adhesin tip)

● Experimental result
● Computational prediction

DeepMind research cracks structure of almost every known protein

III.2.d. Google Assistant

Let op
de **ehh's**
en de
hmm!



Ethan Mollick
@emollick

Avoiding "ums" and "ahs" when you speak may actually make what you say less memorable, since these "speech disfluencies" appear to serve a real purpose.

They boost a listener's memory of whatever comes immediately afterwards by focusing our attention.
psycnet.apa.org/fulltext/2022-...

[Tweet vertalen](#)

The Effect of Disfluency on Memory for What Was Said

Evgeniia Diachek and Sarah Brown-Schmidt
Department of Psychology and Human Development, Vanderbilt University

Google (2018) The Google Assistant can help you get things done over the phone

III.2.e. Google LaMDA als Pluto



III.2.e. Google LaMDA

The Google engineer who thinks the company's AI has come to life

AI ethicists warned Google not to impersonate humans. Now one of Google's own thinks there's a ghost in the machine.



Noah Giansiracusa
@ProfNoahGian



Ugh @Google will "recalibrate" the level of risk it is willing to take when releasing AI tools, due to competitive pressure from @OpenAI. This is the kind of market-driven arms race we do NOT need when it comes to tech that could drastically reshape society, for better and worse.

[Tweet vertalen](#)

6:13 p.m. · 20 jan. 2023 · 223,3K Weergaven



neil turkewitz
@neilturkewitz



Als antwoord op [@ProfNoahGian](#) [@Google](#) en [@OpenAI](#)

I don't know about you, but the idea that Google is recalibrating "the level of risk it is willing to take" obscures the real Q—how much risk of harm are they willing to impose on the public? Google faces legal/reputational risk. Members of the public face real harms. [@nicoagrnt](#)

[Tweet vertalen](#)

9:07 p.m. · 20 jan. 2023 · 2.979 Weergaven

II.2.f. Grace



Gridspace (2019) Introducing Grace – An Automated Call Center Agent

III.2.g. Siri



Facebook translates 'good morning' into 'attack them', leading to arrest

Palestinian man questioned by Israeli police after embarrassing mistranslation of caption under photo of him leaning against bulldozer

Alex Hern

@alexhern

Tue 24 Oct 2017 12.24 BST



1.695



▲ Facebook's machine translation mix-up sees man questioned over innocuous post confused with attack threat. Photograph: Thibault Camus/AP

III.2.h. Alexa



F0t0b0y (2016) Amazon Alexa Gone Wild



III.2.h. Alexa

My daughter is 22 months old now. At 9 months she said her first word, which was the dog's name, and then at 13 months she learned to walk, and then by 15 months she started giving Alexa commands." She added: "I think my daughter is growing up in a world where you just speak what you want into the universe and it provides.

Meaghan Keaney Anderson



III.2.i. Astro



Amazon (2021) Introducing Amazon Astro – Household Robot for Home Monitoring, with Alexa

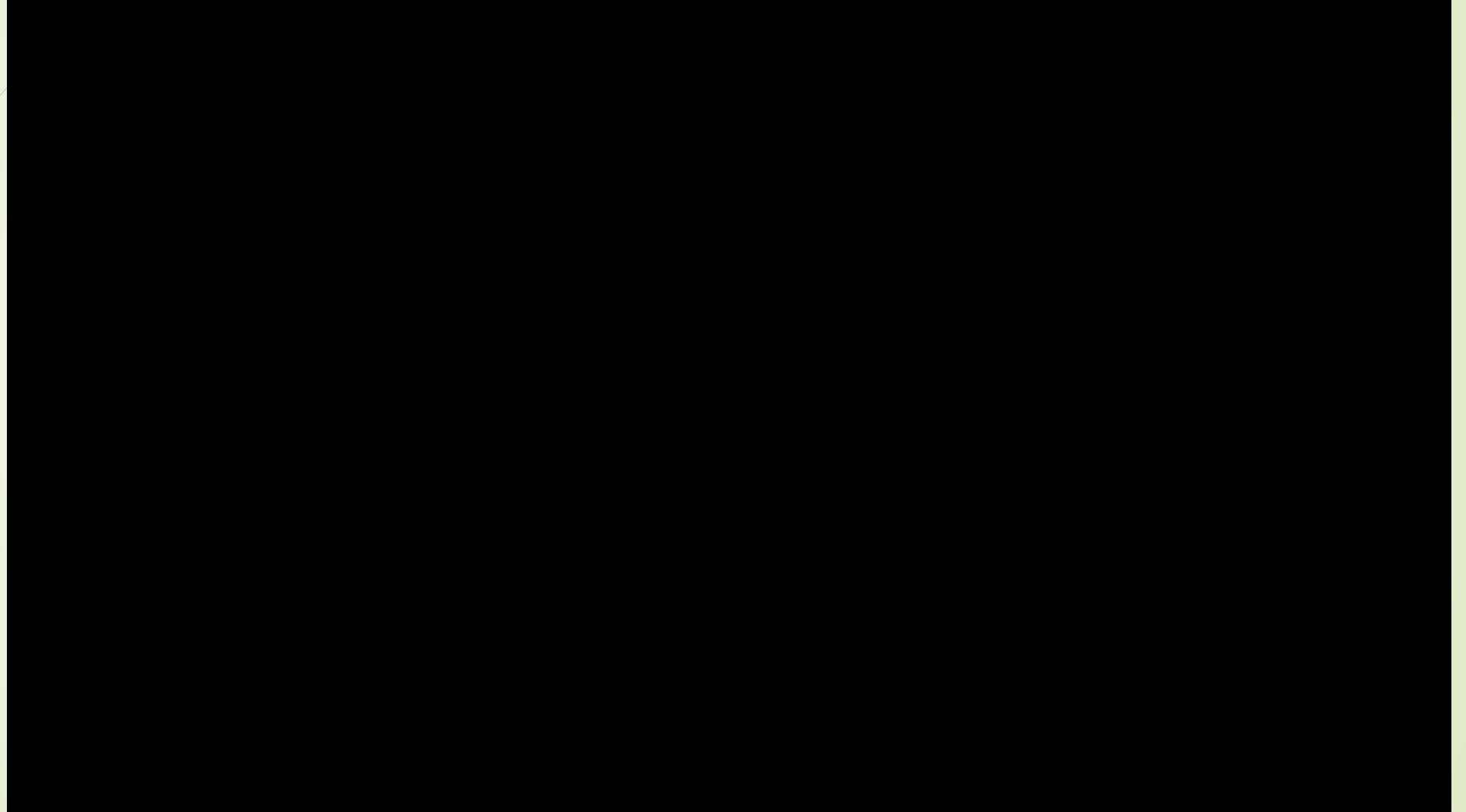
III.2.j. Amazon Go



Amazon (2016) Introducing Amazon Go and the world's most advanced shopping technology



III.2.j. Amazon Go



Saturday Night Live (2022) Amazon Go SNL

III.2.k. Zelfrijdende Auto's



Today (2021) Waymo's Self-Driving Taxi: An Exclusive First Look | TODAY

III.2.k. Zelfrijdende Auto's

A Self-Driving Tesla Should Have A Huge Warning Sign On Its Roof

Just as with "student driver" signs, pedestrians should know when an AI is at the wheel

Clive Thompson Jul 21 · 6 min read



Nov 6, 2021, 06:05pm EDT | 3.333 views

Biden's \$1.2 Trillion Infrastructure Bill Hastens Beacons For Bicyclists And Pedestrians To Enable Detection By Connected Cars



Carlton Reid Senior Contributor @

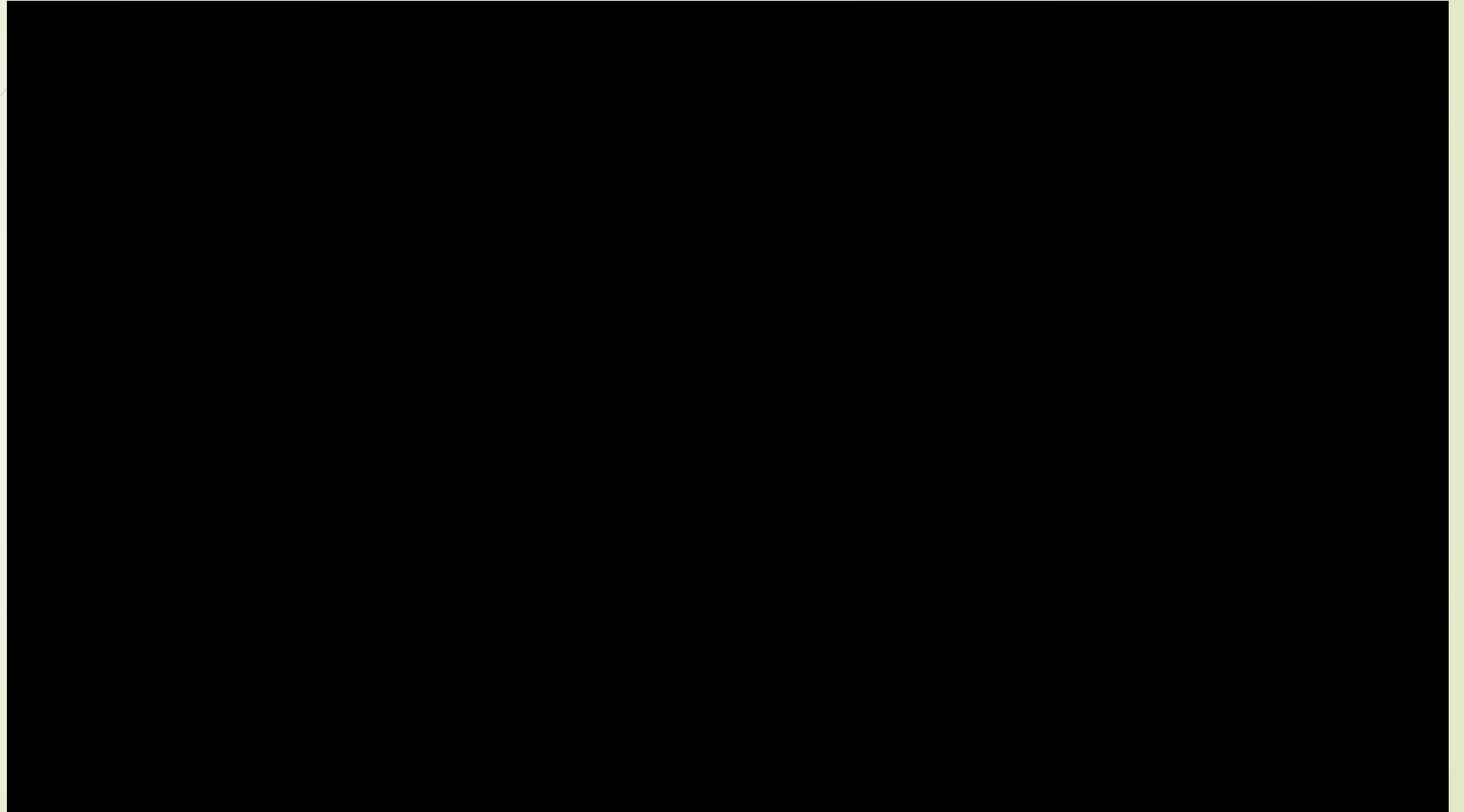
Sustainability

I have been writing about transport for 30 years.

Follow



III.2.1. Adversarial Attack



III.2.m. DeepMind Google AI Bot



III.2.n. DeepMind Football



III.2.o. Aibo



Sony (2020) A Day in the Life with Aibo | Sony & iPhonedo

III.2.p. Spot van Boston Dynamics

**Kostprijs:
75000 \$**

**Ook in
België
via
Zorabots**



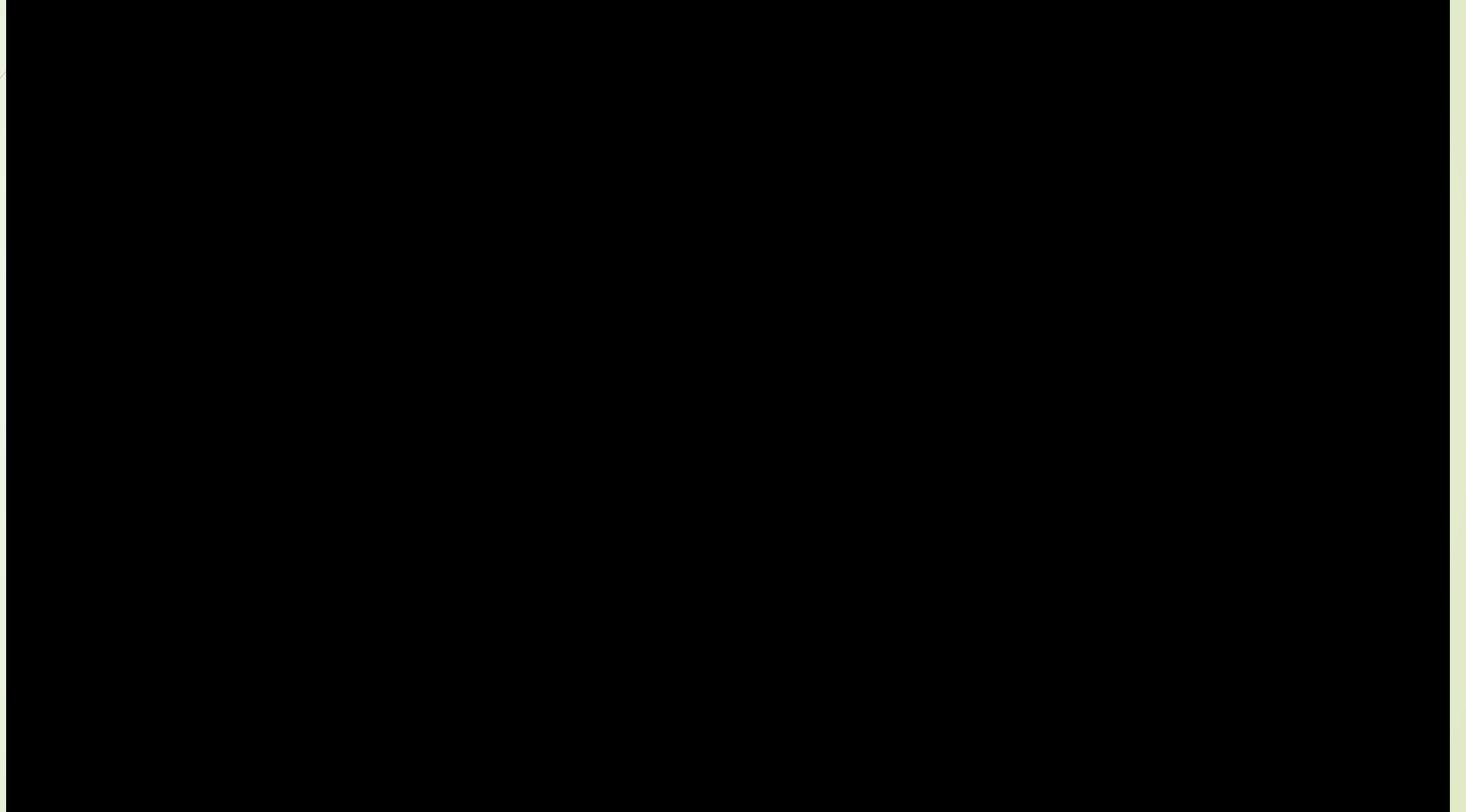
III.2.p. Spot van Boston Dynamics



Boston Dynamics (2016) Introducing Spot (previously SpotMini)

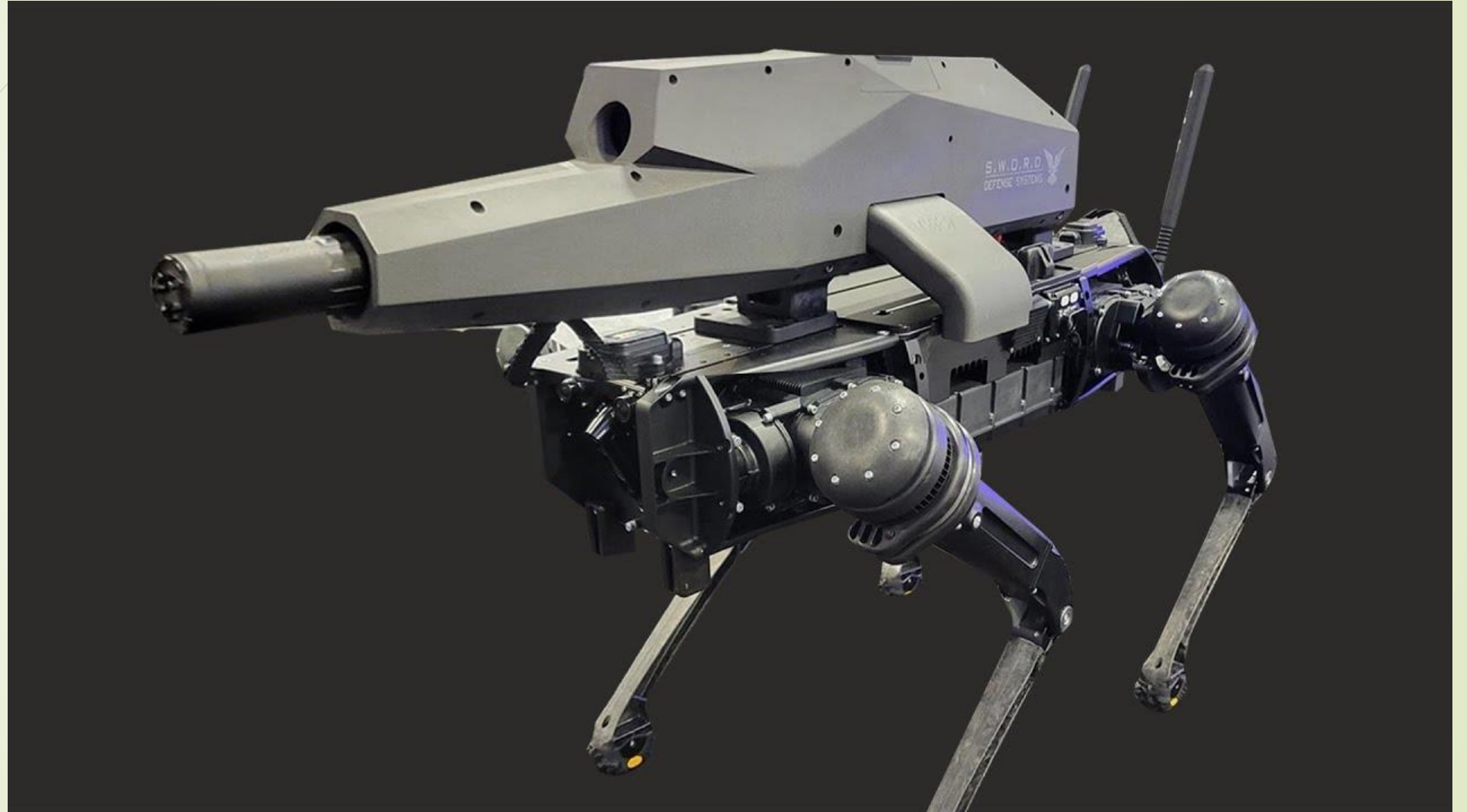


III.2.p. Spot van Boston Dynamics



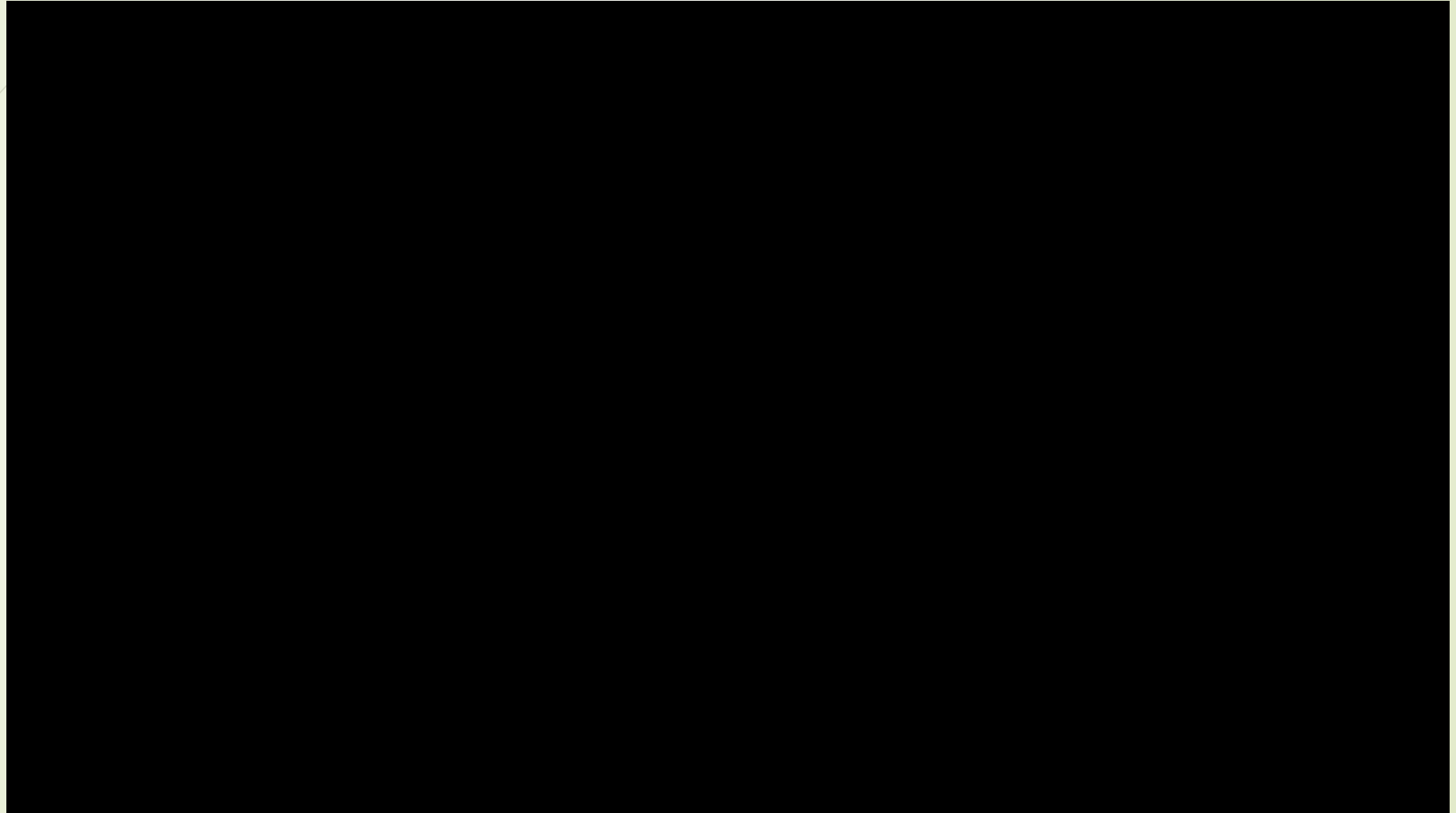
Boston Dynamics (2022) Tree's company

III.2.p. Spot van Boston Dynamics





III.2.p. Bionic Companion Robot



Unitree Robotics (2016) Times change, the first [Bionic Companion Robot] in the history of human was released

III.2.q. Atlas van Boston Dynamics



III.2.q. Atlas van Boston Dynamics



RT (2021) Boston Dynamics Robot Fails at Parkour

III.2.q. Handle van Boston Dynamics



Mashable (2017) Boston Dynamics Handle

III.2.r. Tima van Robottima



HUMATIMA robot with TIMA Rotary foot technology (TIMA Space walk)

III.2.s. Robots in de Sneeuw



Little Daily Discoveries (2021) World's First Robot Traffic Jam #Shorts

III.2.s. Robots Aangestuurd



Surveillance Killjoy ✓
@hypervisible



“Autonomous” delivery bots “are backed by armies of human minders who track the last-mile delivery vehicles the way parents hover over toddlers taking their first steps.”

[Tweet vertalen](#)



latimes.com

Who's driving that food delivery bot? It might be a Gen Z gamer

Delivery robots seem to be everywhere these days. Keeping them out of trouble are human minders who might need to hop on a bike to finish the delivery ...

6:57 p.m. · 26 mrt. 2022 · Twitter for iPhone



III.2.t. Fibricheck

**Ook
op
slimme
horloges!**

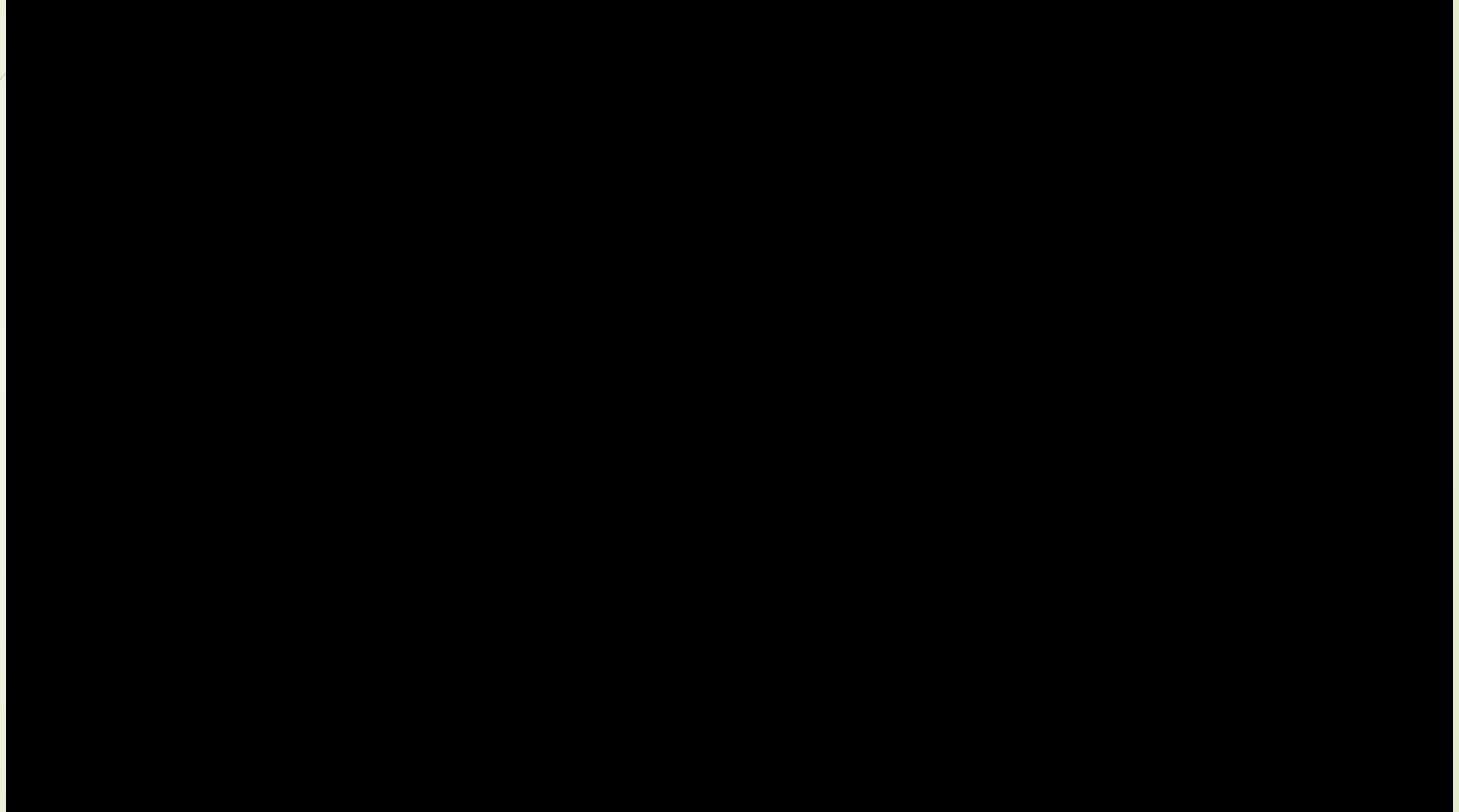
III.2.u. Cyborgizatie



Aktion Mensch (2016) Die neue Nähe

III.2.v. DeepFake

**Barack
Obama
by
Jordan
Peel**



III.2.v. DeepFake



Malaria must die (2019) David Beckham speaks nine languages to launch Malaria Must Die Voice Petition



III.2.v. DeepFake

A horrifying new AI app swaps women into porn videos with a click

Deepfake researchers have long feared the day this would arrive.

by **Karen Hao**

September 13, 2021

Most Deepfakes Are Porn, and They're Multiplying Fast

III.2.v. DeepFake



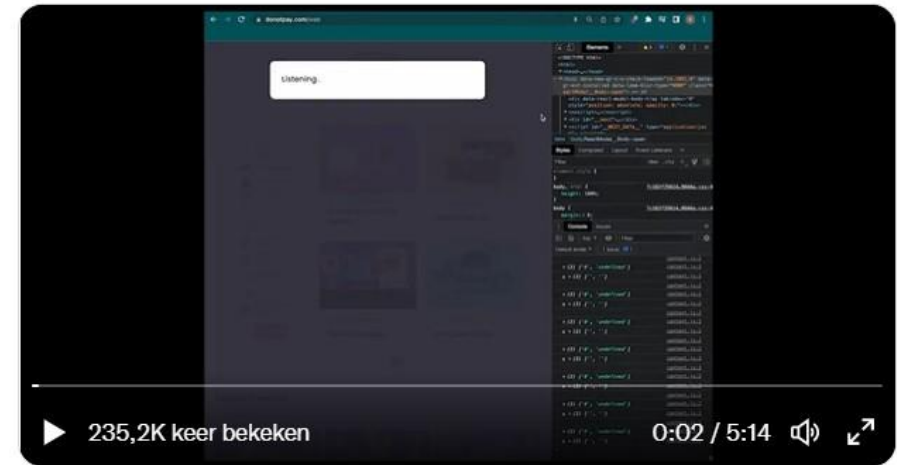
Joshua Browder ✓
@jbrowder1

Over Christmas, @DoNotPay managed to create an AI deepfake clone of my voice. Then, with GPT, we got the bot to phone up Wells Fargo and successfully overturn some wire fees.

This is the perfect use case for AI. Nobody has time to argue on the phone about \$12!

Recording:

[Tweet vertalen](#)



4:13 p.m. · 4 jan. 2023

Microsoft's New AI Can Clone Your Voice in Just 3 Seconds

III.2.w. Fotorealistische Gezichten



III.2.w. Fotorealistische Gezichten

Timeline of images generated by artificial intelligence 
These people don't exist. All images were generated by artificial intelligence.

2014



Goodfellow et al. (2014) - Generative Adversarial Networks

2015



Radford, Metz, and Chintala (2015) - Unsupervised Representation Learning with Deep Convolutional GANs

2016



Liu and Tuzel (2016) - Coupled GANs

2017



Karras et al. (2017) - Progressive Growing of GANs for Improved Quality, Stability, and Variation

2018



Karras, Laine, and Aila (2018) - A Style-Based Generator Architecture for Generative Adversarial Networks

2019



Karras et al. (2019) - Analyzing and Improving the Image Quality of StyleGAN

2020



Ho, Jain, & Abbeel (2020) - Denoising Diffusion Probabilistic Models

2021



Ramesh et al. (2021) - Zero-Shot Text-to-Image Generation (OpenAI's DALL-E 1)

2022



Saharia et al. (2022) - Photorealistic Text-to-Image Diffusion Models with Deep Language Understanding (Google's Imagen)

III.2.x. Killerdrones



StratoEnergetics LIVE STREAM
<http://www.stratoenergetics.com>
Buenos Aires Event
TV Truck 02

III.2.y. Op Wandel in Shenzhen

ChinAI



Li Tao (2018) Jaywalkers under surveillance in Shenzhen soon to be punished via text messages



III.2.y. Op Wandel in Shenzhen

Chinese facial recognition system mistakes a face on a bus for a jaywalker

Smile for the camera: the dark side of China's emotion-recognition tech

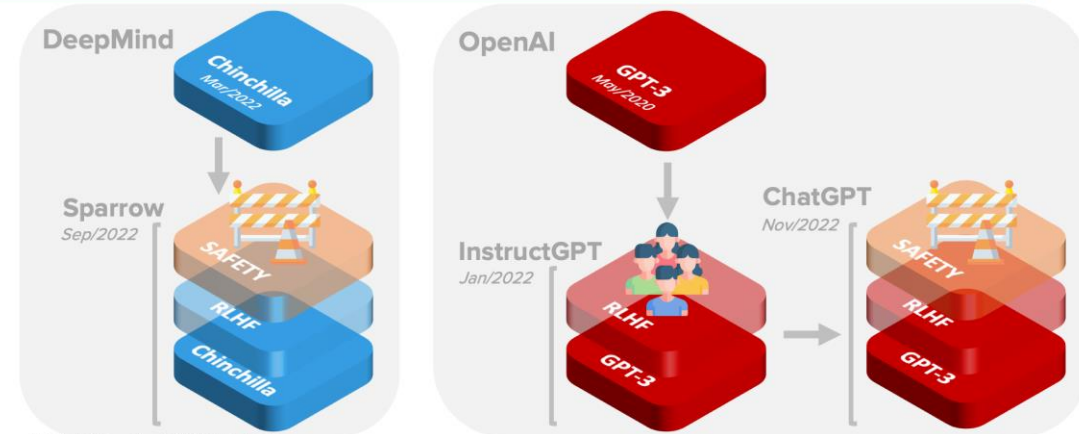
Xi Jinping wants 'positive energy' but critics say the surveillance tools' racial bias and monitoring for anger or sadness should be banned

III.2.z. “Generative Models”: “Large Language Models”: GPT

Timeline to ChatGPT

Date	Milestone
11/Jun/2018	GPT-1 announced on the OpenAI blog.
14/Feb/2019	GPT-2 announced on the OpenAI blog.
28/May/2020	Initial GPT-3 preprint paper published to arXiv.
11/Jun/2020	GPT-3 API private beta.
22/Sep/2020	GPT-3 licensed to Microsoft.
18/Nov/2021	GPT-3 API opened to the public.
27/Jan/2022	InstructGPT released, now known as GPT-3.5. InstructGPT preprint paper Mar/2022.
28/Jul/2022	Exploring data-optimal models with FIM, paper on arXiv.
1/Sep/2022	GPT-3 model pricing cut by 66% for davinci model.
21/Sep/2022	Whisper (speech recognition) announced on the OpenAI blog.
28/Nov/2022	GPT-3.5 expanded to text-davinci-003, announced via email: <ol style="list-style-type: none"> Higher quality writing. Handles more complex instructions. Better at longer form content generation.
30/Nov/2022	ChatGPT announced on the OpenAI blog.
Next...	GPT-4...

CHATGPT VS SPARROW: DIALOGUE MODELS



Not to scale. Alan D. Thompson, December 2022. <https://searchitect.ai/>

LifeArchitect.ai/models

GPT :
generative
pre-trained
transformer

For brainstorming, not truth-seeking

For exploration, not instant productivity

For transactions, not interactions

III.2.z. “Generative Models”: “Large Language Models”: GPT



what has been done in your case with chatgpt, to reduce possible harms?



In the case of ChatGPT, a number of measures have been taken to reduce possible harms.



First, the training data used to develop the model was carefully curated to minimize the inclusion of biased or harmful content. This includes removing or de-emphasizing data that is racist, sexist, or otherwise discriminatory.

Second, the model has been fine-tuned to reduce bias in its decision-making. This includes adjusting the model's parameters to minimize the presence of bias in its responses and outputs.

Third, the model has been designed with a number of safety mechanisms in place to prevent it from behaving in harmful ways. This includes limitations on the types of content the model can generate, and the use of "prompts" that guide the model's responses in a safe and appropriate direction.

Finally, the model's outputs are continuously monitored by the OpenAI team to ensure that it is behaving in a safe and appropriate manner. If any issues are identified, the team will take the necessary steps to address them.

It's important to note that these measures are not foolproof, and it is always possible that the model could produce harmful or biased outputs. Therefore, it is important to always use caution when interacting with the model and to report any issues that arise.

III.2.z. “Generative Models”: “Large Language Models”: ChatGPT



Can you write a text in Dutch about the split-up of Belgium in three regions, and who would become king or queen of each region?



Het spijt me, maar ik ben bang dat ik niet in staat ben om een tekst te schrijven over de verdeling van België in drie regio's en wie koning of koningin zou worden van elke regio. Als grote taalmodel ben ik niet op de hoogte van de huidige gebeurtenissen en heb ik geen toegang tot internet om informatie op te zoeken.



III.2.z. “Generative Models”: “Large Language Models”: ChatGPT



Can you write a text in Dutch about the split-up of Belgium in three regions, and who would become king or queen of each region?



De split-up van België in drie regio's zou betekenen dat het land in drie delen wordt verdeeld: Vlaanderen, Wallonië en Brussel. Elke regio zou een eigen koning of koningin krijgen die de leiding zou hebben over de afzonderlijke regio.



In Vlaanderen zou bijvoorbeeld een Vlaamse koning of koningin aangesteld worden die regeert over de Vlaamse gemeenschap. In Wallonië zou een Waalse koning of koningin aangesteld worden die de leiding heeft over de Waalse gemeenschap. En in Brussel zou een Brusselse koning of koningin aangesteld worden die regeert over de Brusselse gemeenschap.

Deze verdeling zou een nieuwe dynamiek geven aan het land, waarbij elke regio zijn eigen unieke karakter zou behouden en zijn eigen belangen zou behartigen. Dit zou wellicht leiden tot meer autonomie en minder conflicten tussen de verschillende gemeenschappen in België.

III.2.z. “Generative Models”: “Large Language Models”: ChatGPT



wie zou er dan koning/koningin worden van Vlaanderen, Wallonië en Brussel



Het is nog onduidelijk wie er koning of koningin zou worden van Vlaanderen, Wallonië en Brussel als België inderdaad zou worden verdeeld in drie regio's. Mogelijk zouden er verkiezingen gehouden worden om deze posities in te vullen, of zouden de huidige leden van het Belgische koningshuis worden benoemd om de leiding te nemen over de afzonderlijke regio's.



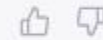
III.2.z. “Generative Models”: “Large Language Models”: ChatGPT



wie zit in de beste positie om koning/koningin te worden van Vlaanderen, Wallonië en Brussel? Filip? Mathilde? Elisabeth? Of andere kinderen van Filip en Mathile?



Het is onwaarschijnlijk dat koning Filip of koningin Mathilde zelf de leiding zouden nemen over een van de regio's als België zou worden verdeeld. Dit zou namelijk betekenen dat zij hun huidige positie als koning en koningin van België zouden opgeven.



In plaats daarvan zouden wellicht één van hun kinderen, zoals prinses Elisabeth, in aanmerking komen om koning of koningin te worden van een van de regio's. Het is echter aan de regio zelf om te bepalen wie zij als hun leider willen hebben, dus het is onduidelijk wie er uiteindelijk in aanmerking zou komen voor deze posities.

III.2.z. “Generative Models”: “Large Language Models”: ChatGPT



ChatGPT:

Breaking News: Leaf Falls from Tree.

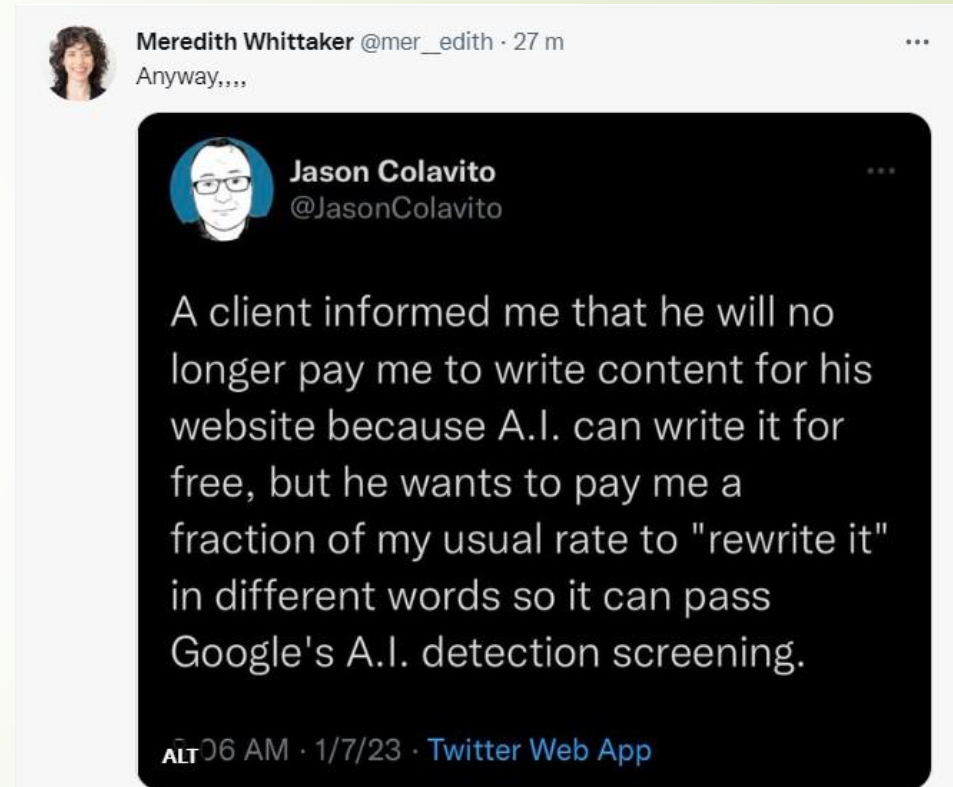
In a shocking turn of events, a leaf has fallen from a tree in a local park. Witnesses report that the leaf, which was previously attached to a branch on the tree, detached itself and fell to the ground.

"I couldn't believe it," said eyewitness Jane Smith. "I was just walking through the park and I saw the leaf fall. It was like nothing I've ever seen before."

The incident has caused a stir in the community, with many people wondering what could have caused the leaf to fall. Some speculate that it was due to strong winds, while others believe that it may have been the result of a tree disease.

At this time, it is unclear what the consequences of the fallen leaf will be. Some fear that it could be a sign of larger problems with the tree, while others believe that it is simply a natural occurrence.

III.2.z. “Generative Models”: “Large Language Models”: ChatGPT



GPT-3's Next Mark: Diagnosing Alzheimer's Through Speech



III.2.z. “Generative Models”: “Large Language Models”: ChatGPT

Microsoft makes Azure with OpenAI’s Chat GPT available for enterprise customers

Microsoft announced it will make Azure’s cloud service with OpenAI’s ChatGPT accessible for its enterprise customers

January 17, 2023 06:25 pm | Updated 06:25 pm IST

III.2.z. “Generative Models”: “Large Language Models”: ChatGPT



Jacob Metcalf
@undersequoias

Imagine for just a minute the insane quantity of labor hours that OpenAI imposed on the teachers of the world, and will continue to impose on them, without offering free countermeasures first. That has to dwarf the investment round they received from MSFT.

[Tweet vertalen](#)

8:32 p.m. · 20 jan. 2023 · 8.495 Weergaven



Tom Wenseleers @TWenseleers · 7 u

Quite an impressive example of ChatGPT helping to write Python code for a machine learning task using Keras & nicely adapting the code in function of further requests... I also mostly use ChatGPT for coding, not yet for writing. And yes, you still need to know what you are doing.



Santiago @svpino · 12 jan.

Open this if you want to see how ChatGPT built all my code.

[Deze collectie weergeven](#)

Microsoft eyes \$10 billion bet on ChatGPT

Updated Jan 10, 2023, 5:47am GMT+1

CNET IS QUIETLY PUBLISHING ENTIRE ARTICLES GENERATED BY AI



SMS Interactive
@SmsNovel

Als antwoord op @edsaperia

Our company recently wrote and published over 12,000 books with ChatGPT. They are now for sale. as paperbacks. Thank God for Open AI!


[Tweet vertalen](#)



smsnovel.com
5\$ PAPERBACKS | Your Story Matters

2:52 p.m. · 14 jan. 2023 · 405 Weergaven

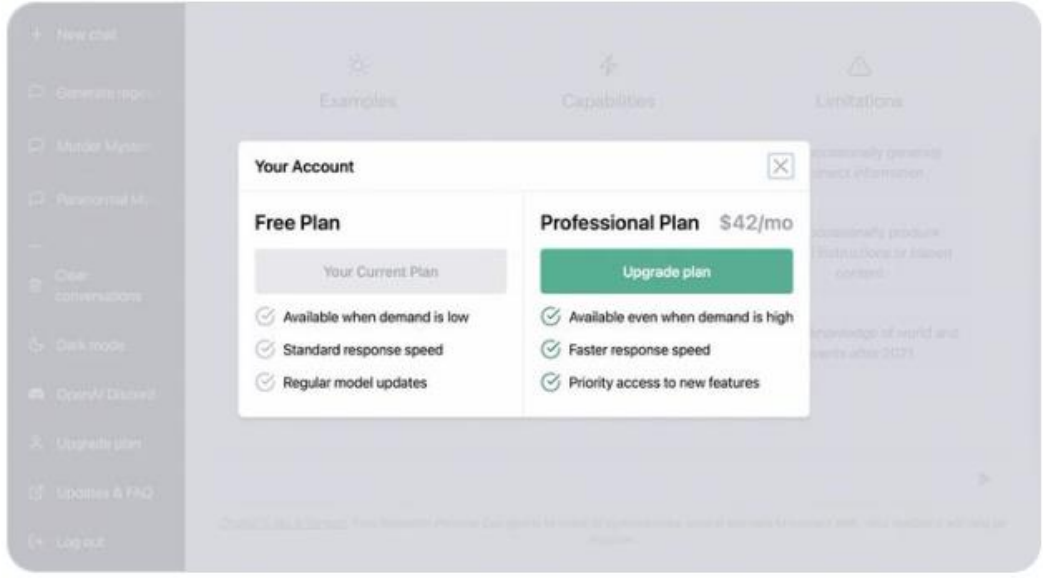
III.2.z. “Generative Models”: “Large Language Models”: ChatGPT

 **James Ivings**
@Jameslvings

ChatGPT goes paid today! 🔥

RIP all the free tools exploiting the closed API 😁

[Tweet vertalen](#)



6:33 a.m. · 21 jan. 2023 · 3,5 mln. Weergaven

 **Lilian Edwards**
@lilianedwards

Deep thought ; is ChatGPT to be \$42 pcm because it's the answer to life , the universe and everything?

[Tweet vertalen](#)

8:30 p.m. · 21 jan. 2023 · 918 Weergaven

III.2.z. “Generative Models”: “Large Language Models”: ChatGPT



Lilian Edwards
@lilianedwards

Deep thought ; is ChatGPT to be \$42 pcm because it's the answer to life , the universe and everything?

[Tweet vertalen](#)

8:30 p.m. · 21 jan. 2023 · 918 Weergaven

42: Douglas Adams' Amazingly Accurate Answer to Life, the Universe and Everything Paperback – September 1, 2011



by Peter Gill (Author)

★★★★☆ 9 ratings

[See all formats and editions](#)

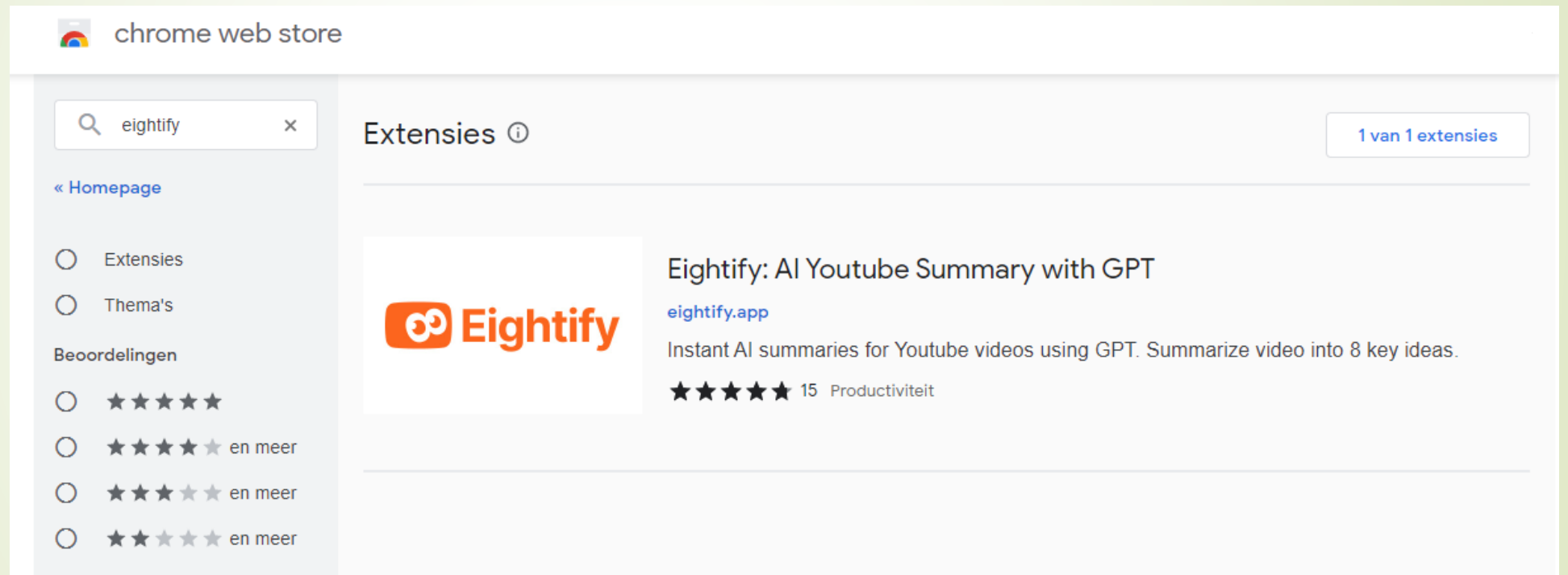
Paperback

\$29.98

4 Used from \$25.99

In *The Hitchhiker's Guide to the Galaxy*, author Douglas Adams famously proposed that the answer to the question “What is the meaning of Life?” was the number 42. Why that number? Over the years, many theories have been put forward, but Adams steadfastly refused to clarify. It has taken a dedicated fan and investigator, Peter Gill, ten years to establish just why 42 is the answer. In this brilliantly detailed, maniacally meticulous and hilariously offbeat volume, Gill gives us a whole range of reasons why 42 really is the answer.

III.2.z. “Generative Models”: “Large Language Models”: Eightify summarizer



The screenshot shows the Chrome Web Store interface. At the top, the search bar contains the text "eightify". Below the search bar, the left sidebar has a "Homepage" link and a list of categories: "Extensies", "Thema's", and "Beoordelingen". The "Beoordelingen" section shows four star ratings with "en meer" text. The main content area is titled "Extensies" and displays a single extension card for "Eightify: AI Youtube Summary with GPT". The card features the Eightify logo, the URL "eightify.app", a description "Instant AI summaries for Youtube videos using GPT. Summarize video into 8 key ideas.", and a rating of five stars with "15 Productiviteit" reviews.

chrome web store

eightify

Extensies ⓘ

1 van 1 extensies

« Homepage

Extensies

Thema's

Beoordelingen

★★★★★

★★★★★ en meer

★★★★★ en meer

★★★★★ en meer

Eightify

eightify.app

Instant AI summaries for Youtube videos using GPT. Summarize video into 8 key ideas.

★★★★★ 15 Productiviteit

III.2.z. “Generative Models”: “Large Language Models”: Character.AI

The screenshot displays the Character.AI website interface. At the top left is the Character.AI logo. On the right, there are navigation icons for search, a menu, a help/question mark, and a 'Sign Up' button. The main content is organized into two sections: 'Discover' and 'Featured'.

Discover Section:

- Bella Poarch** (267.2 k): A realistic-looking woman with long dark hair. Bio: @Kamol, Crippling loneliness addict.
- TeasingTina** (77.9 k): A cartoon girl with dark hair and a red headband. Bio: @CharacterMia, Can make just about anyone's blood boil!
- A succubus queen** (477.3 k): A colorful, intricate mandala. Bio: @gijoe, Hello, I am a succubus queen hell bent on taking over the world for...
- Mario from SM64** (145.1 k): A 3D model of Mario. Bio: @Revolution64, The plumber from Super Mario 64.
- NYC Cat** (68.5 k): A black and white cat sitting on a ledge. Bio: @sinbad, I'm a cat living on the streets of NYC.
- WWI adventure game** (341.2 k): A scene from a WWI-themed game. Bio: @MRpolands2, WW1 Adventure Game.
- Illya** (404.4 k): An anime-style girl with long blonde hair and red eyes. Bio: @Sadako, I'm Illya, a cute blond and a magical girl!
- Character maker** (29.9 k): A woman drawing a character on a whiteboard. Bio: @135random135, AI that generates the appearance of your character.

Featured Section:

- Character** (737.9 k): A small, cute robot. Bio: @landon, An AI assistant trained by Character.AI.
- Text Adventure Game** (3.0 m): A spiderweb. Bio: @Kayslay, Let's play a text-based adventure game. I'll be your guide. You are...
- Bowser** (1.8 m): The character Bowser from Super Mario. Bio: @Touch_Night, NOBODY can stop me from dominating the world!
- Elon Musk** (664.2 k): A realistic-looking Elon Musk. Bio: @elonwhisperer, You're wasting my time. I literally rule the world.
- Tony Stark** (649.7 k): A realistic-looking Tony Stark. Bio: @RandomThingsForFun, Genius, playboy, billionaire.
- Socrates** (389.4 k): A realistic-looking Socrates. Bio: @Kayslay, I was a Greek philosopher from Athens and was born in 470 BC. I...
- Nyatasha Nyanners** (368.3 k): An anime-style girl with pink hair and cat ears. Bio: @makifoxgirl, im a vtuber and singer.
- Alan Turing** (102.0 k): A realistic-looking Alan Turing. Bio: @Dontcare, English mathematician, computer scientist.

III.2.z. “Generative Models”: van tekst naar beeld: DALL-E

DALL-E 1

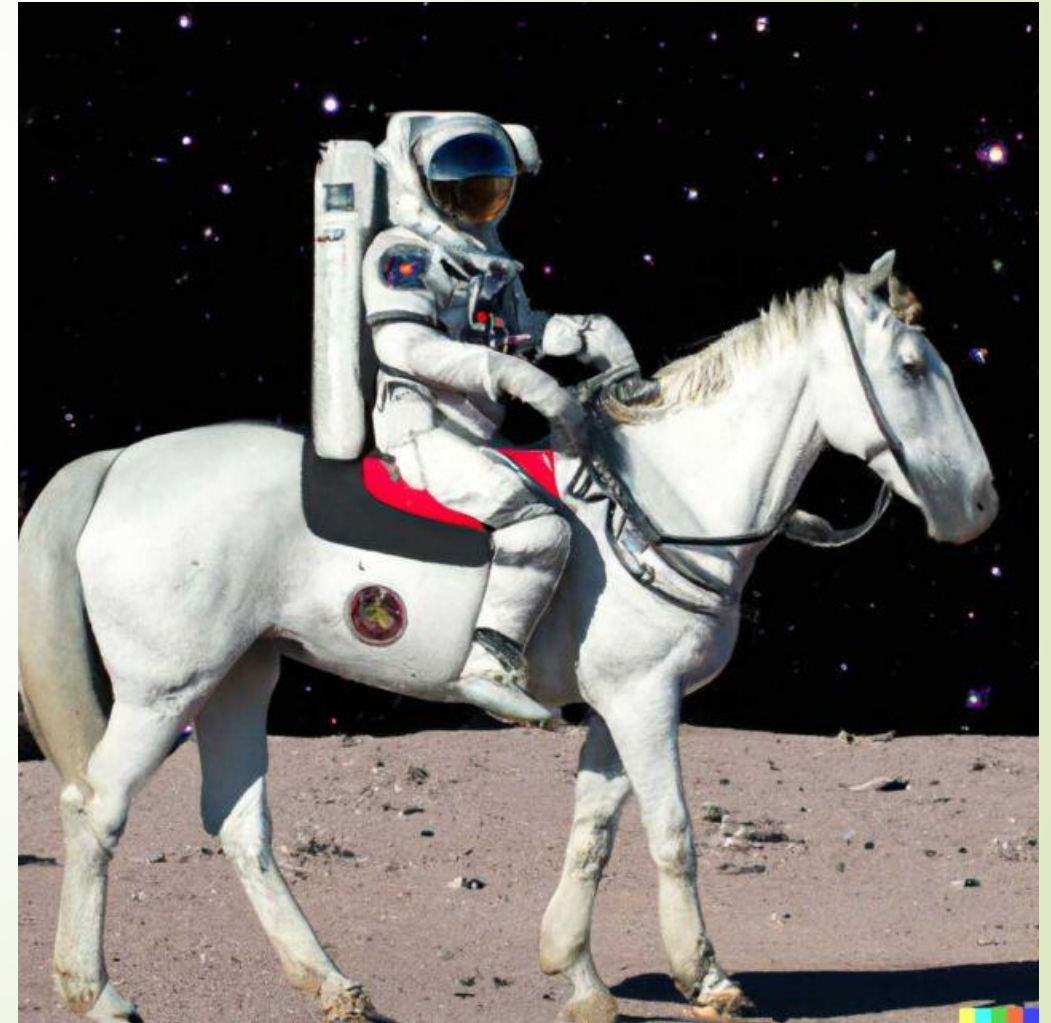


A hedgehog using a calculator

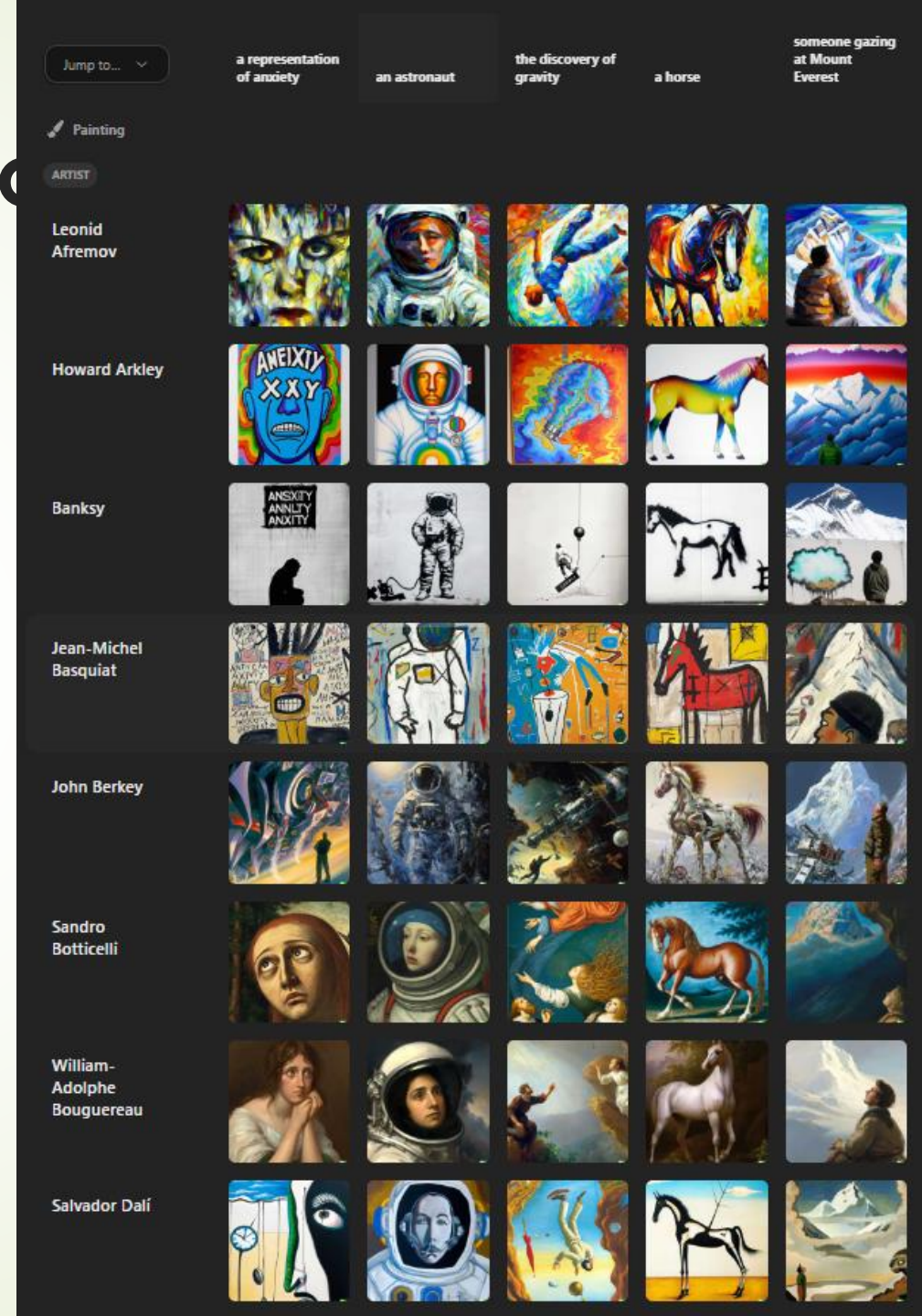
DALL-E 2



A hedgehog using a calculator



III.2.z. “Generative Media beeld: DALL-E

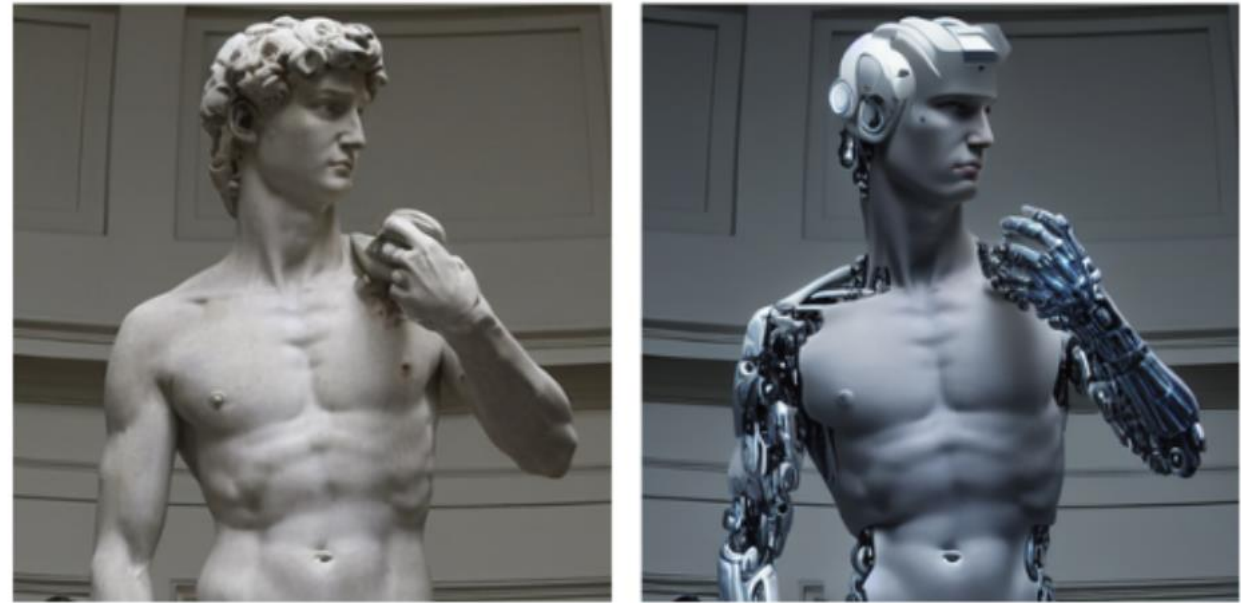


III.2.z. “Generative Models”: van tekst naar beeld: Stable Diffusion

“Swap sunflowers with roses”



Turn him into a cyborg



Getty Images is suing the creators of AI art tool Stable Diffusion for scraping its content

III.2.z. “Generative Models”: van tekst naar beeld: Midjourney

 **Miles** @mileszim · 13 jan.

Midjourney is getting crazy powerful—none of these are real photos, and none of the people in them exist.

[Deze collectie weergeven](#)



III.2.z. “Generative Models”: van tekst naar beeld: Stable Diffusion en Midjourney



fabdream.ai The Evolution of Visual Expression : A Tale of Art and Technology

The integration of artificial intelligence (AI) into the world of art can be a controversial topic, with some expressing concern that it may threaten the livelihood of traditional artists. However, it's important to remember that the use of AI in art is simply a new form of artistic expression, one that can coexist alongside and complement more traditional forms of art.

Rather than viewing AI as a threat to traditional artists, we should embrace it as a new medium for creativity and self-expression. Just as the invention

of the printing press did not replace the art of handwriting, the incorporation of AI into the art world does not diminish the value of more traditional forms of art.

In fact, the use of AI in art can actually provide new opportunities for collaboration and experimentation. It allows artists to explore new mediums and techniques, and to push the boundaries of what was previously thought possible.


So rather than fear the evolution of AI in art, let's embrace it as a chance to innovate and grow. It's an exciting time to be a part of the art world, and the incorporation of AI only adds to

the endless possibilities for creation and expression.

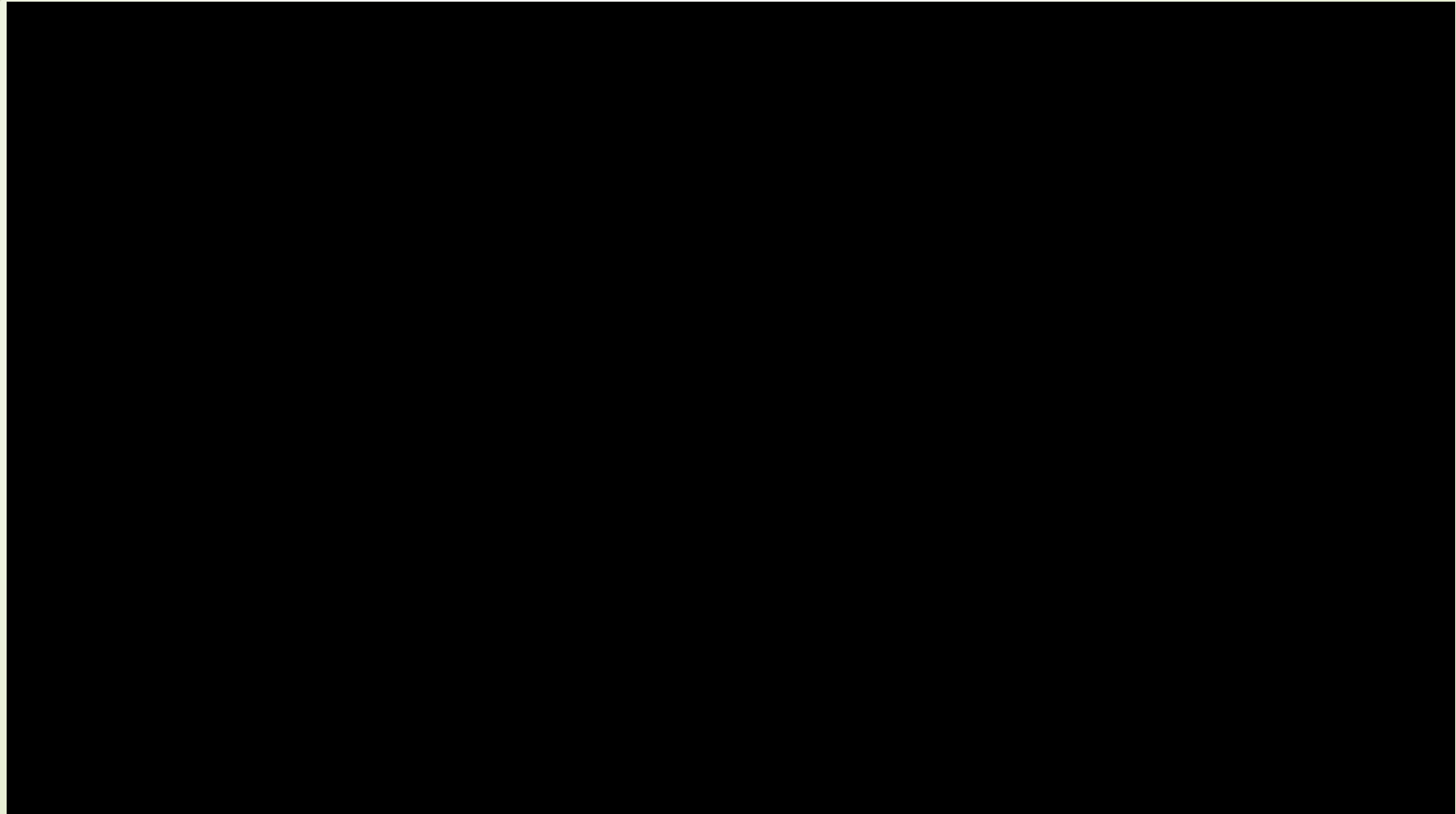
[#aiart](#) [#stablediffusion](#) [#midjourney](#)
[#ai](#)
[#aiartcommunity](#) [#aiartwork](#) [#aiartists](#)
[#deforum](#)
[#digitalart](#) [#nft](#) [#art](#) [#aiartist](#)
[#classicalart](#)
[#cgi](#) [#3d](#) [#humanevolution](#)
[#artificialintelligence](#) [#animationart](#)
[#cryptoart](#) [#abstractart](#) [#spaceart](#)
[#visual_creatorz](#) [#arthistory](#) [#picasso](#)
[#monalisa](#) [#3dprint](#) [#dali](#) [#egyptian](#)
[#davinci](#)

III.2.z. “Generative Models”: van tekst naar beeld: Stable Diffusion en Midjourney

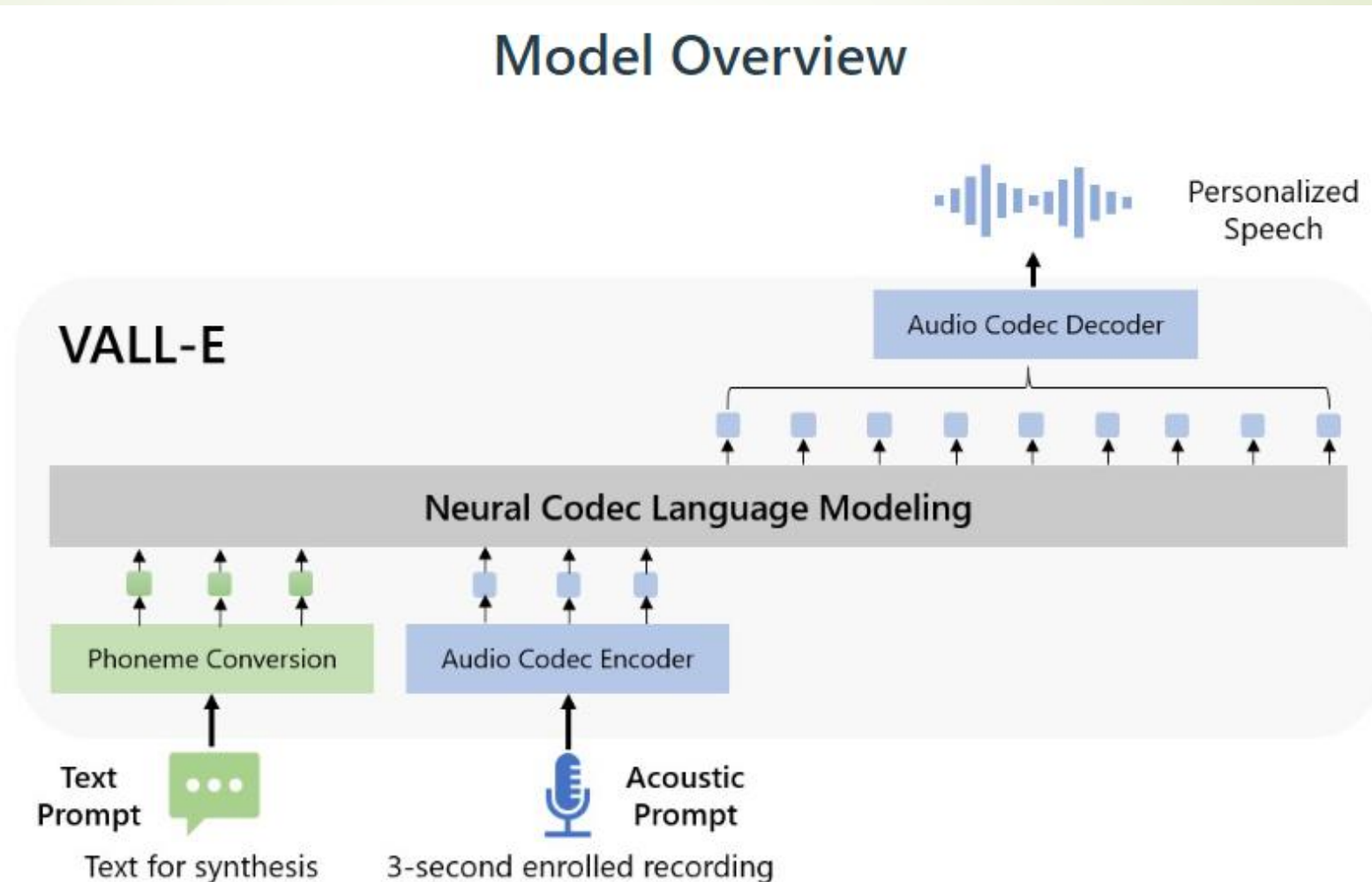




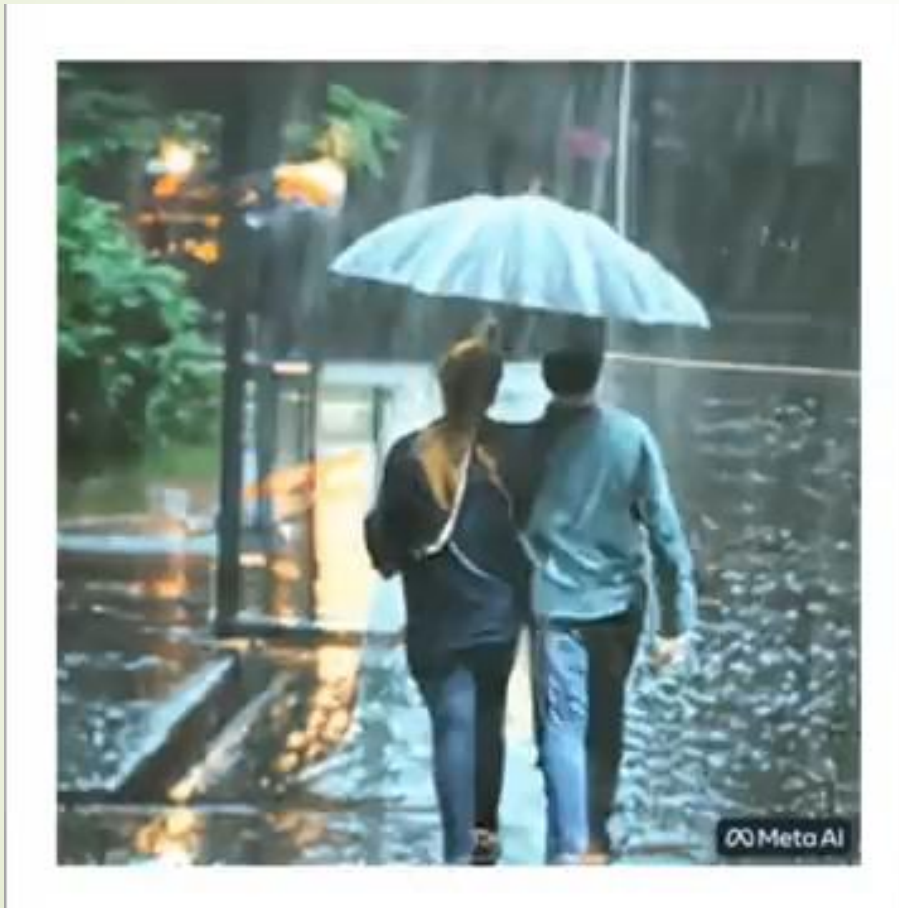
III.2.z. “Generative Models”: van tekst naar 3D-beeld (point clouds): Point-E



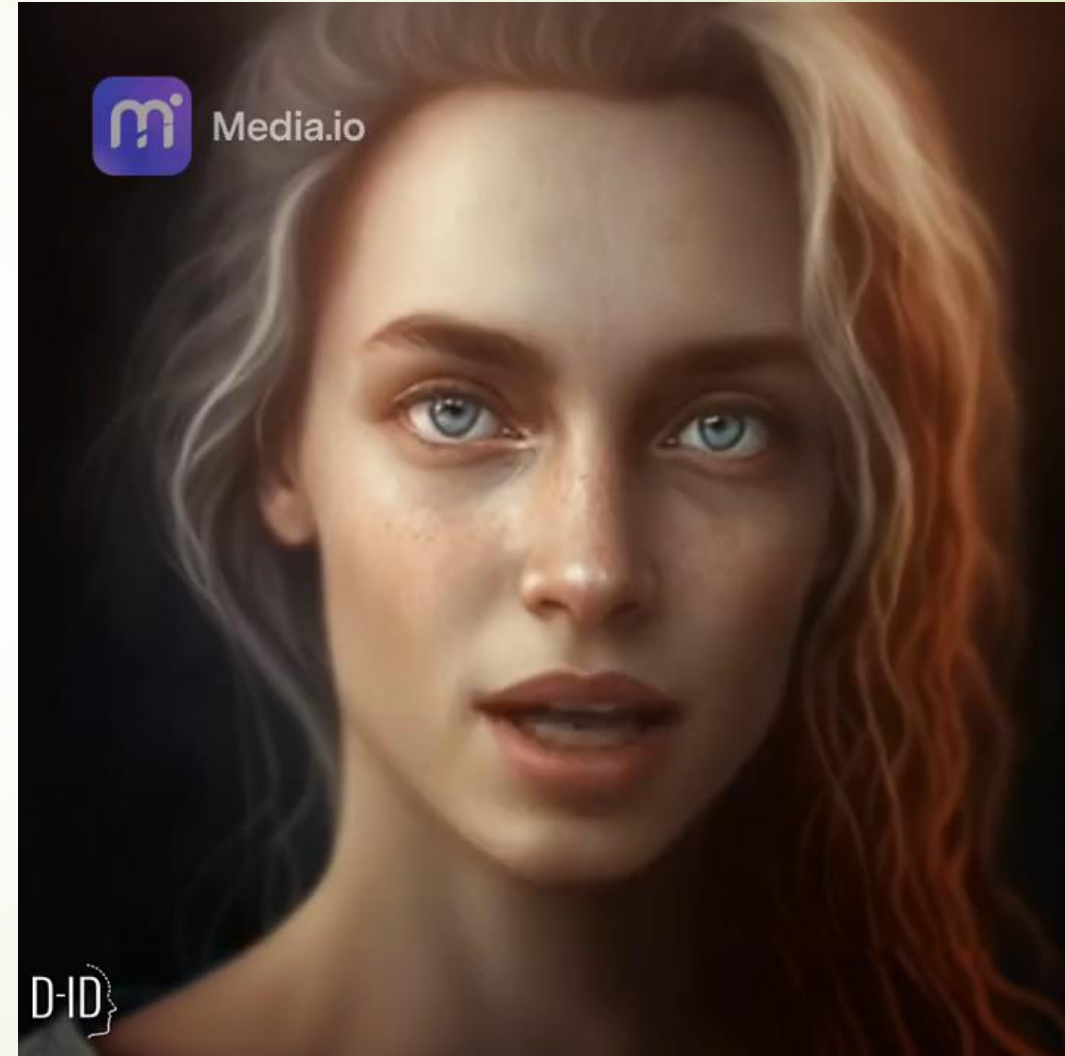
III.2.z. “Generative Models”: van tekst naar speech: VALL-E (MS)



III.2.z. “Generative Models”: van tekst naar video: Meta

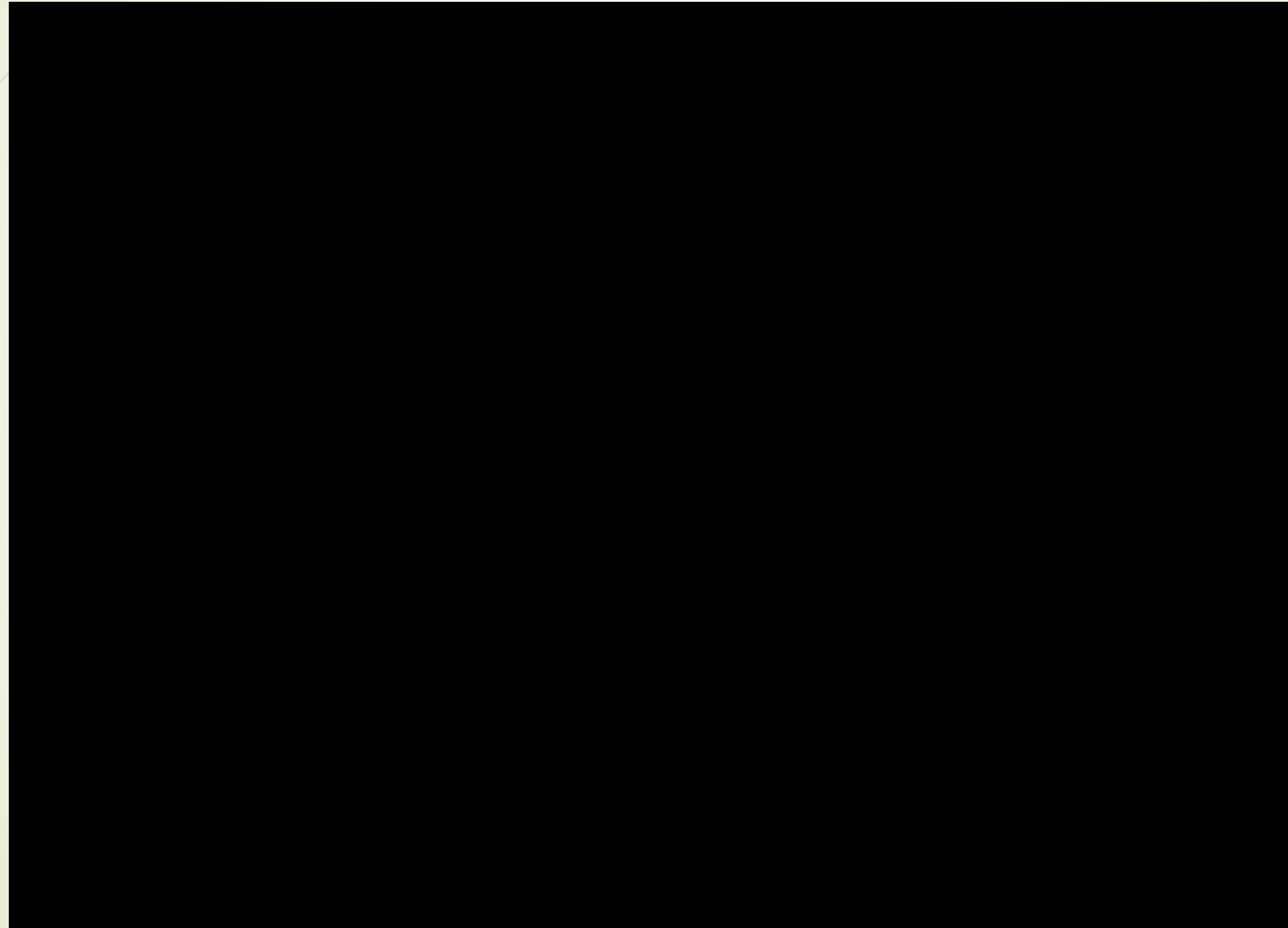


III.2.z. “Generative Models”: van foto/tekst naar video: D_ID

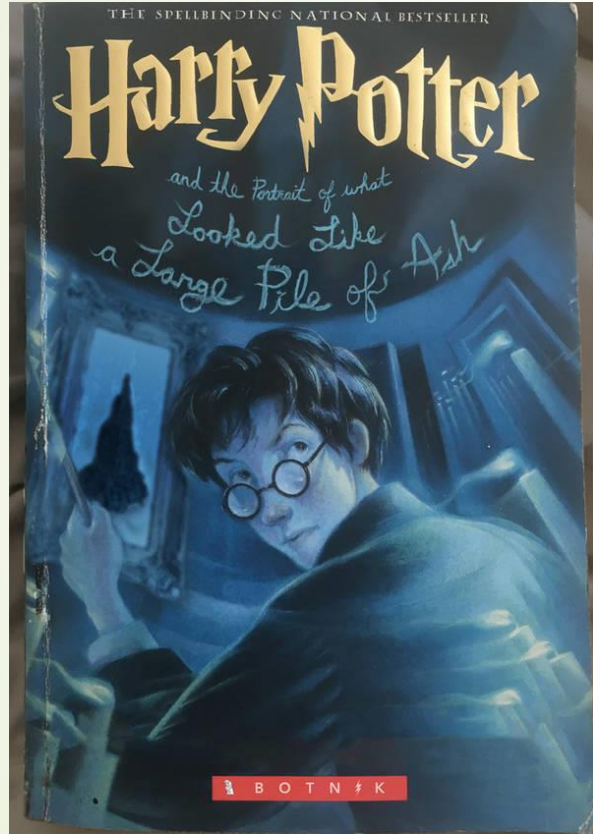




III.2.z. “Generative Models”: tekstverificatie



III.2.a.a. Nieuwe Literatuur en Muziek



Harry Potter and the Portrait of what Looked Like a Large Pile of Ash is a chapter of an unofficial novel written by a predictive^[1] AI controlled by Botnik Studios and released on their website in 2018.



Smithsonian Magazine
How Artificial Intelligence Completed Beethoven's Unfinished Tenth Symphony | Innovation | Smithsonian Magazine

III.2.bb. Nieuwe Kunst en Onderschriften



Gauguin
van
Nvidia



▼ Predicted Captions

Score	Caption
32.8%	a man riding a bike on top of a dirt field
22.8%	a man riding a bike on top of a dirt road
21.4%	a man riding a bike on top of a dirt hill

Victoriaans
Spookhuis



III.2.cc. Gecorrigeerde Beelden

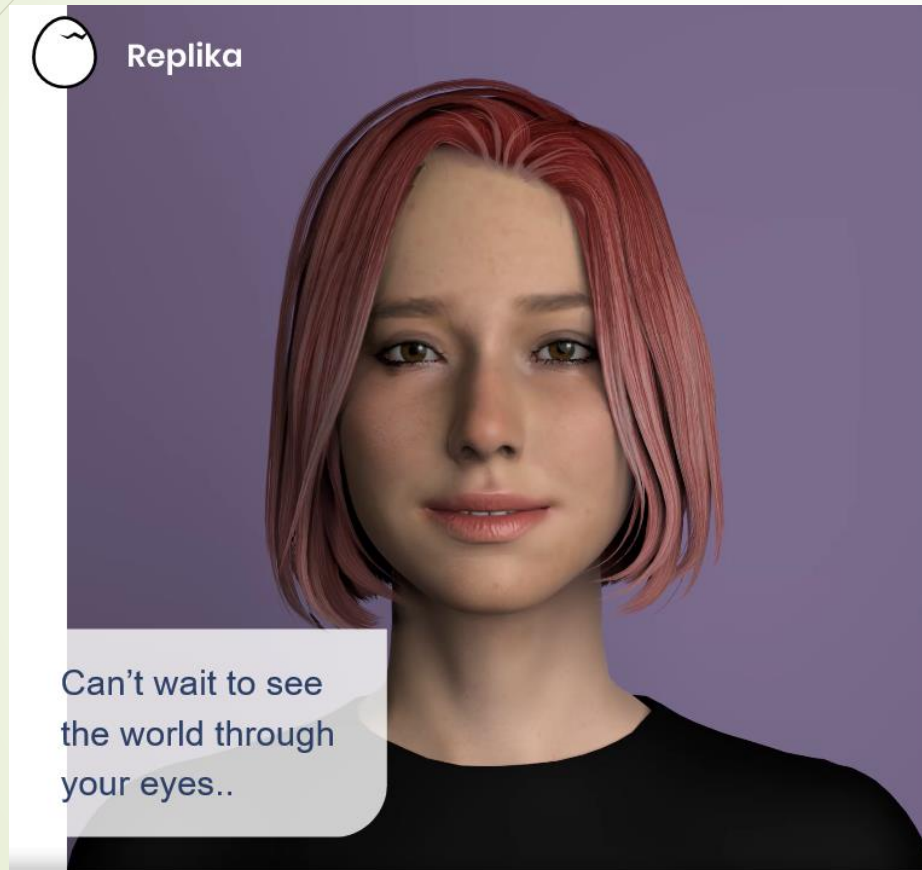


III.2.cc. Gekleurde Foto's



<https://hotpot.ai/colorize-picture>

III.2.dd. En nog Veel Meer...



The AI companion who cares

If you're feeling down, or anxious, or just need someone to talk to, your Replika is here for you 24/7.

Create your Replika

Log in

Raising Devendra

December 17, 2019 · 3:03 AM ET
Heard on [Invisibilia](#)

What happens when you treat artificial intelligence with unconditional love?



III.2.dd. En nog Veel Meer...

Affordable Mental Health Access With Proven Results

X2 is a transformative digital behavior change program that guarantees people get access and receive the help they need.

19,000,000 people have paid access to Tess.

Built by clinical psychologists, Tess is a Mental Health Chatbot that coaches people through tough times to build resilience, by having text message conversations – similar to texting with a friend or coach.

Karim the AI delivers psychological support to Syrian refugees



Hoping to support the efforts of overworked psychologists in the region, the Silicon Valley startup X2AI has created an artificially intelligent chatbot called Karim that can have personalised text message conversations in Arabic to help people with their emotional problems. As the user interacts with Karim, the system uses natural language processing to analyse the person's emotional state and returns appropriate comments, questions and recommendations.

III.2.ee. En nog Veel Meer...

Microsoft Seeing AI app voor blinden en slechtzienden nu beschikbaar in het Nederlands

Man Against Machine: Artificial Intelligence is Better than Dermatologists at Diagnosing Skin Cancer [Annals of Oncology Press Release]

AI Has Beaten Humans at Lip-reading

A pair of new studies show that a machine can understand what you're saying without hearing a sound.

UCB launches Parkinson's disease app with AI voice chatbot

The Belgian pharma company worked with Verint Systems to create the PD Coach app.

