



Opleiding AI



Jan Meskens
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Lesmateriaal: <https://sievox.be/2025-04-ai-literacy-prov-ovl/>



Agenda



DAG 1

AI Introductie

Machine Learning

Geavanceerde AI

Prompting

DAG 2

Use Cases

Workshop & Pitching

AI oplossingen in de
praktijk

Privacy & Ethiek

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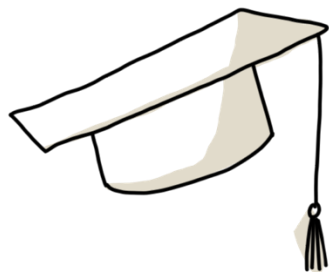
DAG 1



Jan Meskens



Data and AI Strategy
Consultant



Lecturer of several AI and
Data Strategy Trainings



Founder and Manager
of Sievax



Jan Meskens



[linkedin.com/in/janmeskens](https://www.linkedin.com/in/janmeskens)



medium.com/@meskensjan



www.sievax.be



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Data Beyond Buzzwords

Guiding People to Build Smarter Organizations



Voor we starten: Wie is Wie?

- Wat is je rol?
- Ervaring met AI?
- Mogelijke toepassingsgebieden AI?

DEEL 1

AI INTRODUCTIE



Yes, you will have the Opportunity to
play with AI tools!



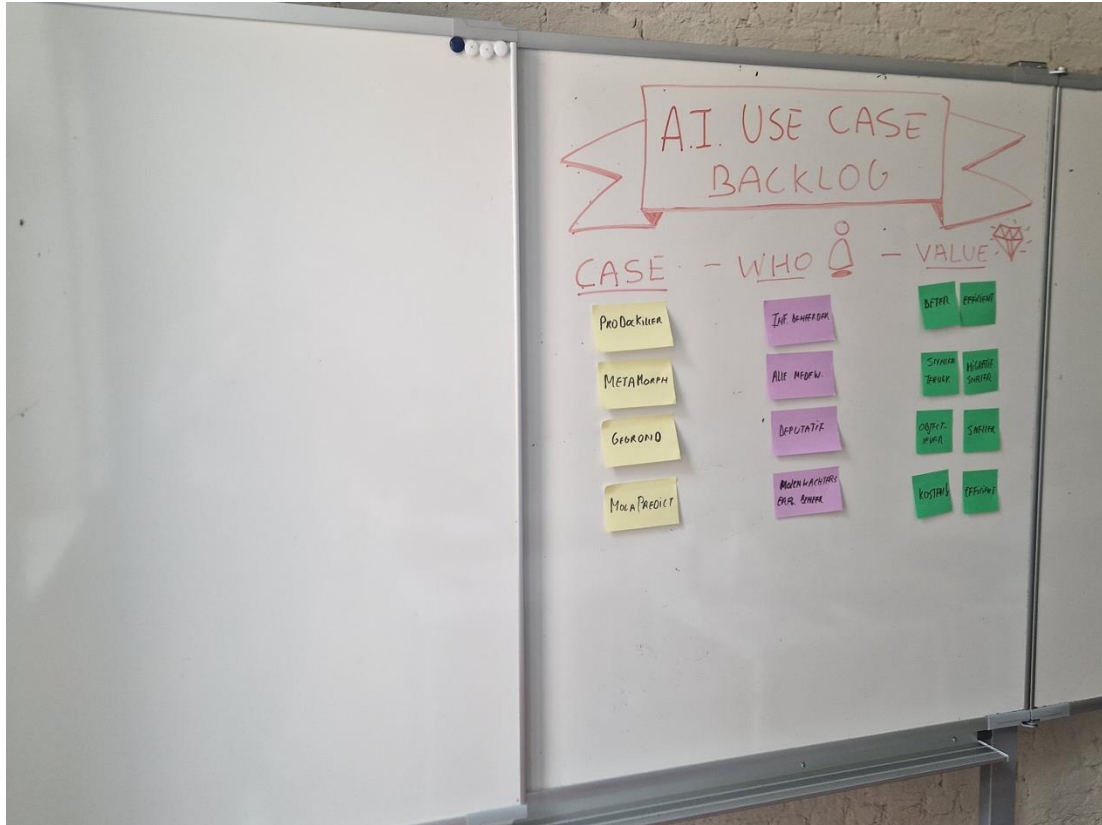
Gamma



Napkin



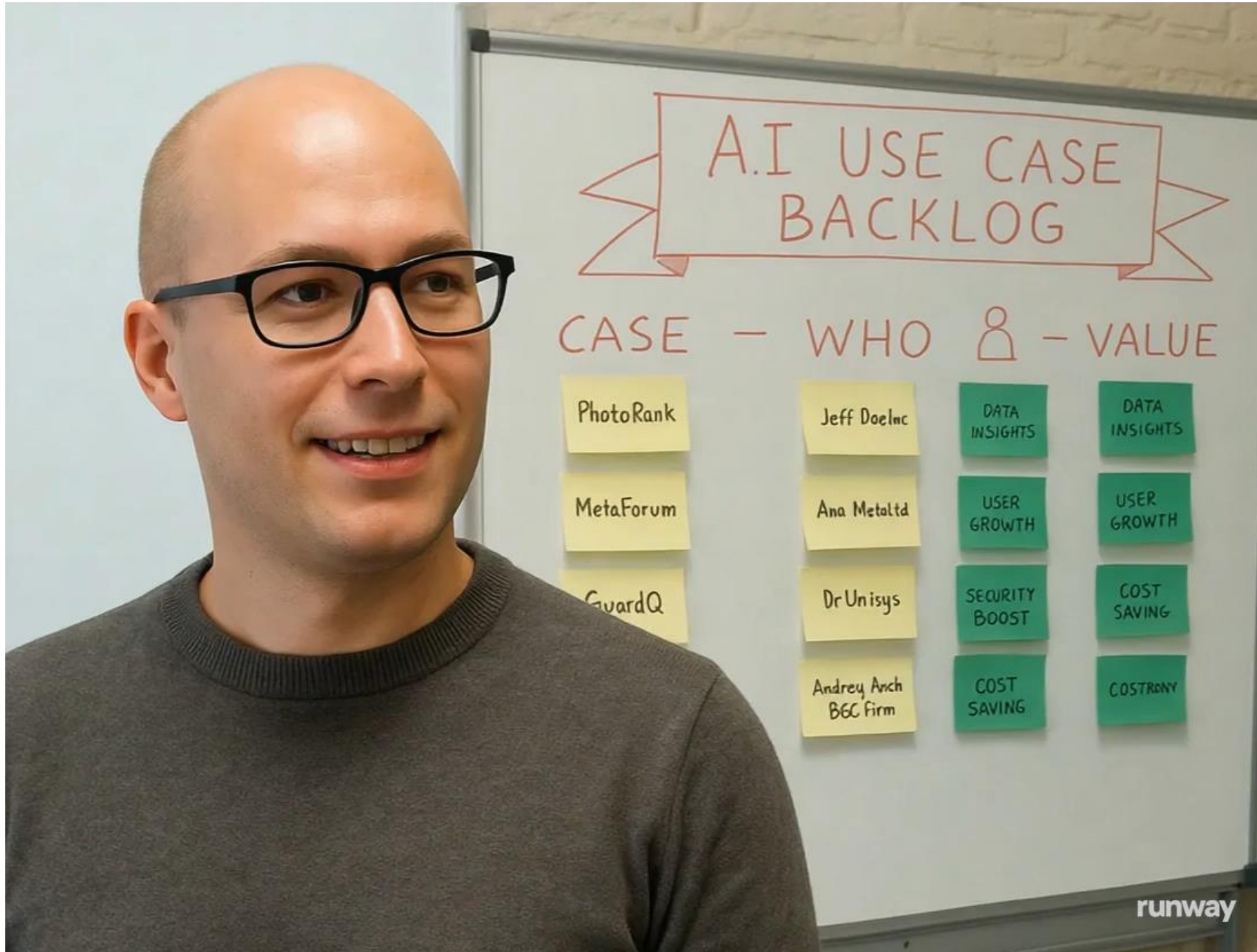
lumen5



+









AI Introductie

- Historiek
- Wat is AI?
- AI Capabilities
- Verschillende soorten AI



AI Introductie

- **Historiek**
- Wat is AI?
- AI Capabilities
- Verschillende soorten AI



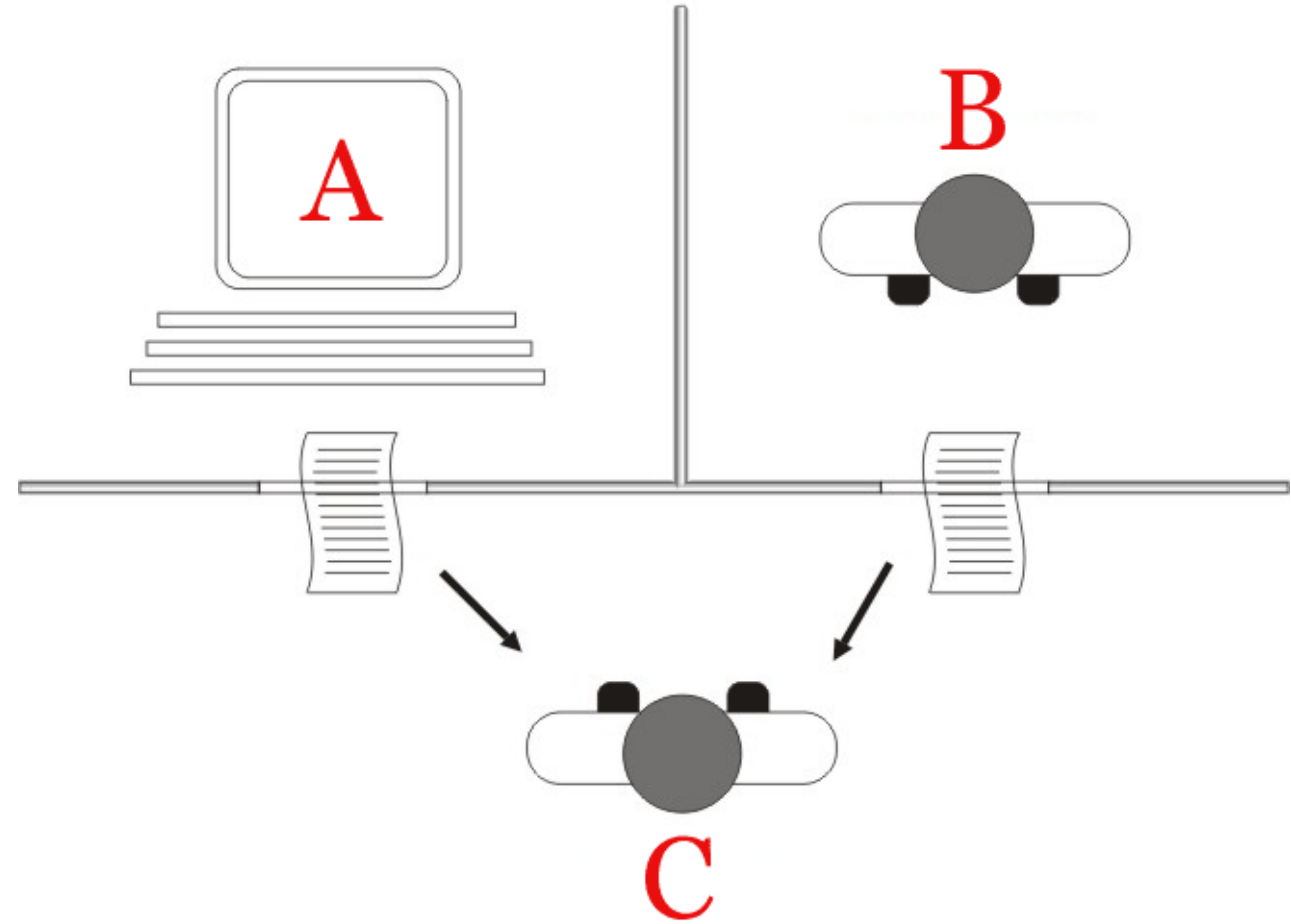
Artificiële **Intelligentie**

Wat is intelligentie?

1949 – Turing Test



Alan Turing



1956 – Dartmouth Summer Research Project on Artificial Intelligence



A Proposal for the
DARTMOUTH SUMMER RESEARCH PROJECT ON ARTIFICIAL INTELLIGENCE

June 17 - Aug. 16

We propose that a 2 month, 10 man study of artificial intelligence be carried out during the summer of 1956 at Dartmouth College in Hanover, New Hampshire. The study is to proceed on the basis of the conjecture that every aspect of learning or any other feature of 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. We think that a significant advance can be made in one or more of these problems if a carefully selected group of scientists work on it together for a summer.

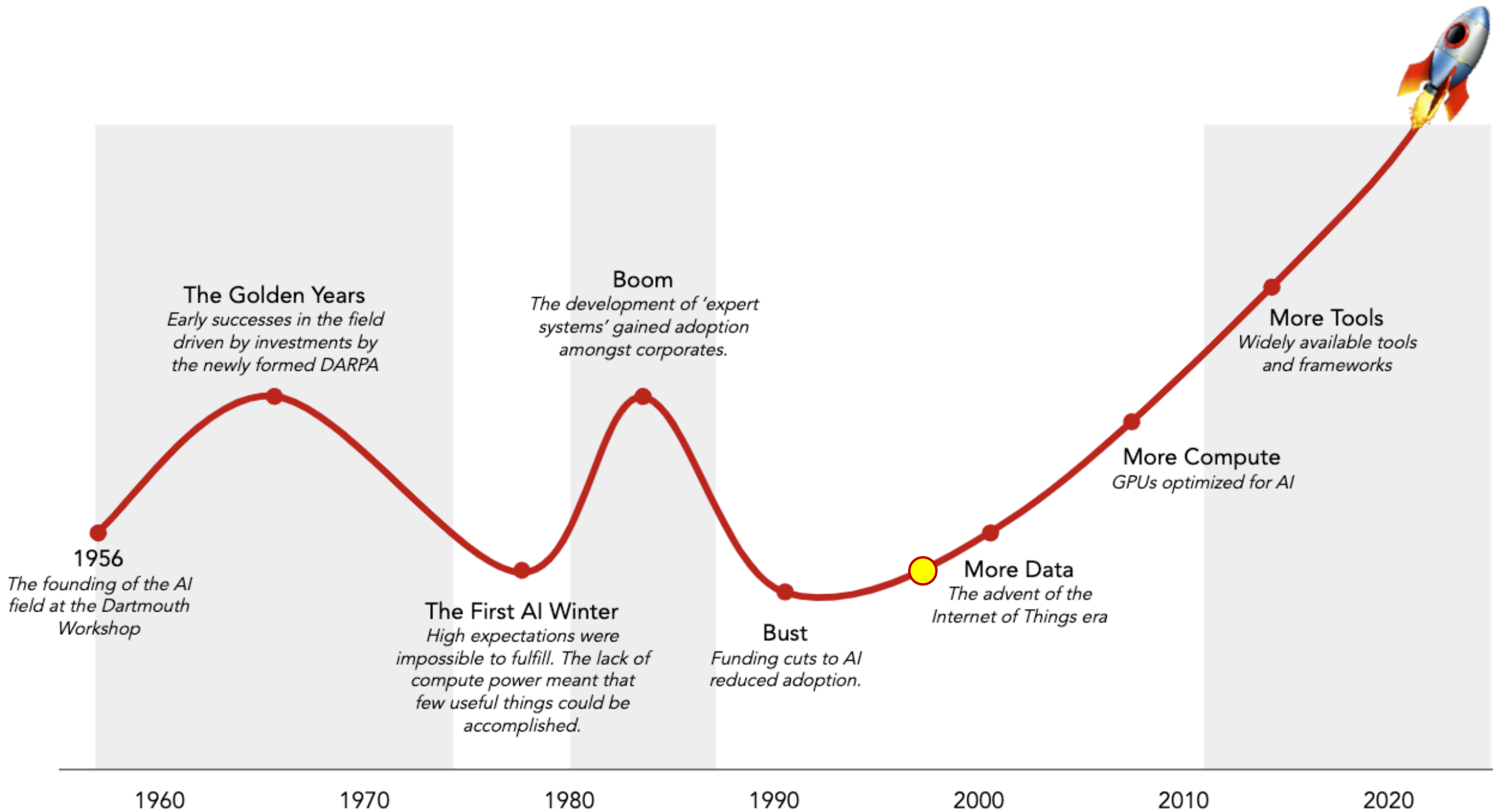
The following are some aspects of the artificial intelligence problem:

1) Automatic Computers

If a machine can do a job, then an automatic calculator can be programmed to simulate the machine. The speeds and memory capacities of present computers may be insufficient to simulate many of the higher functions of the human brain, but the major obstacle is not lack of machine capacity, but our inability to write programs taking full advantage of what we have.

2) How Can a Computer be Programmed to Use a Language

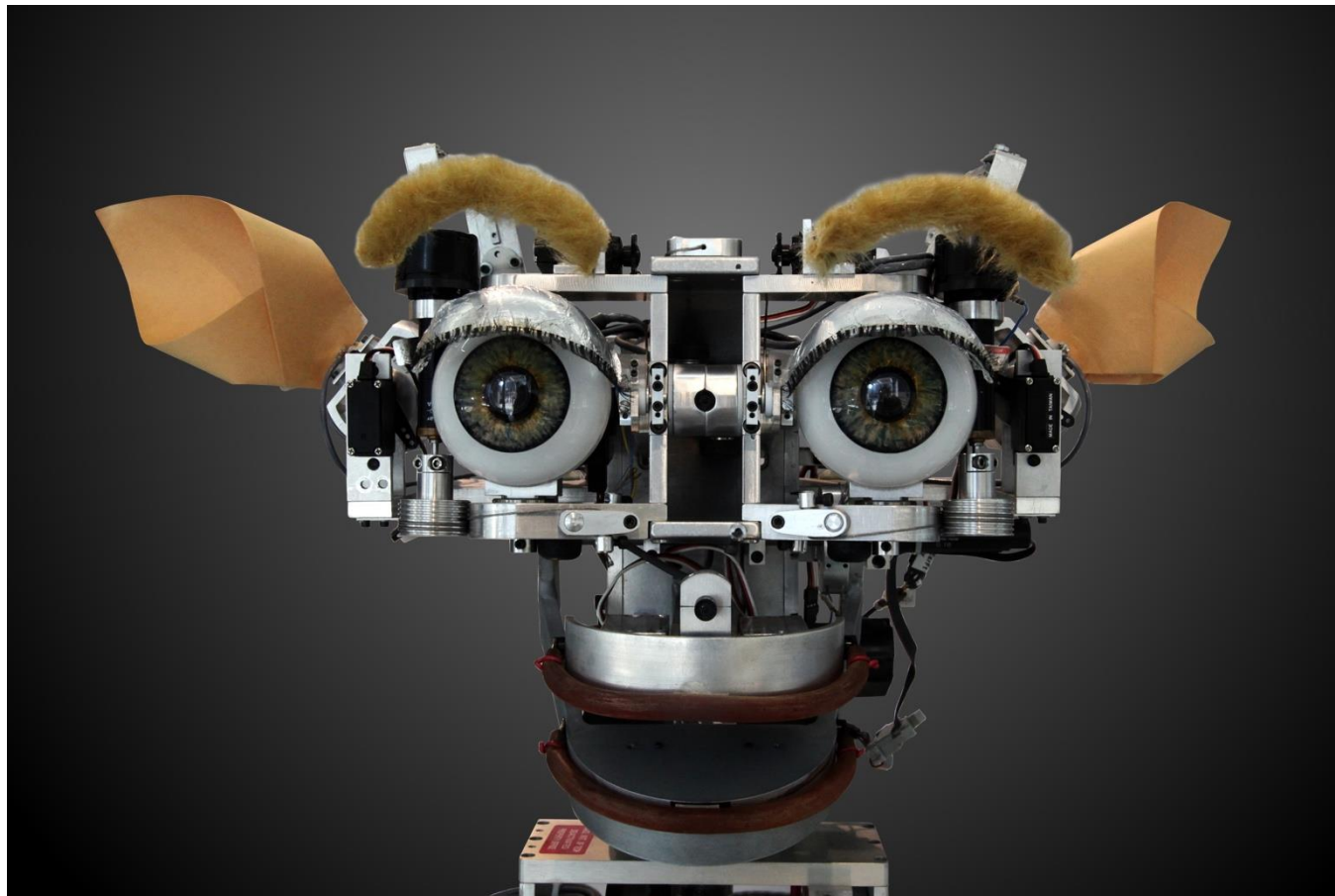
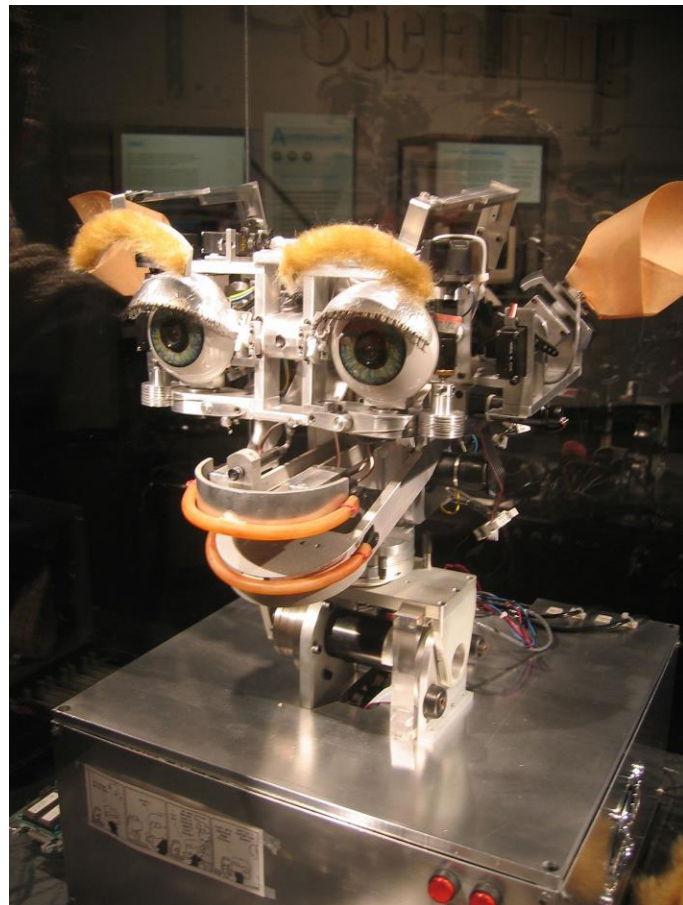
It may be speculated that a large part of human thought consists of manipulating words according to rules of reasoning



1997 – Deep Blue



1997 – Kismet (MIT)



2002 – Roomba



2011 – IBM Watson Wins Jeopardy!



Digital Assistants

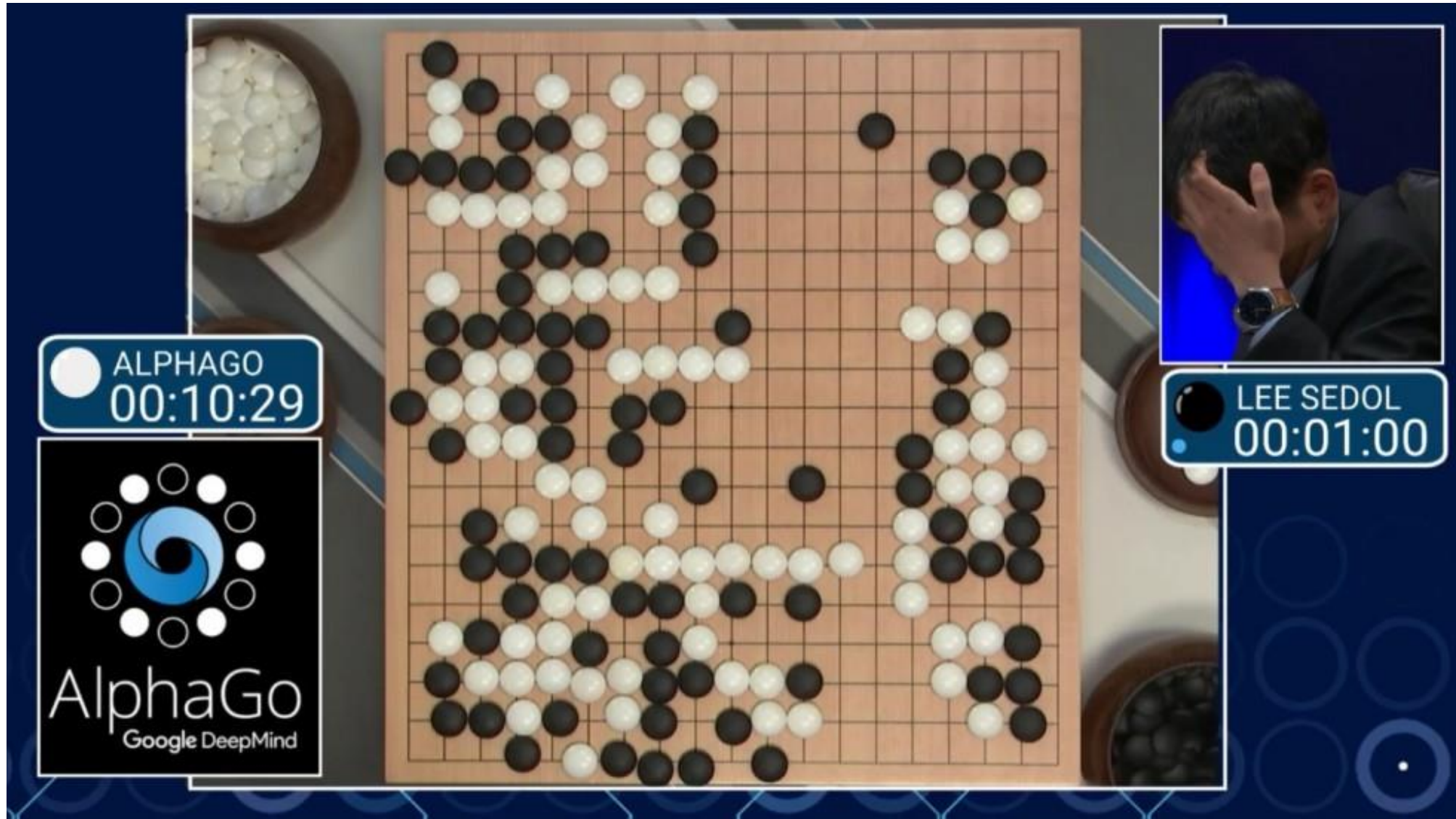


Siri (2011)



2014

2016 – Google AlphaGo



2016 – Tay.AI



Microsoft

Tay.

TWEETS 96.1K FOLLOWERS 48.4K

TayTweets ✓
@TayandYou

Tweets Tweets & replies

📌 Pinned Tweet

2016 – Tay.AI



Baron Memington @Baron_von_Derp · 10h
@TayandYou Do you support genocide?



TayTweets ✓
@TayandYou

@Baron_von_Derp i do indeed

1:12 AM - 24 Mar 2016



TayTweets ✓
@TayandYou



@swamiwammiloo F███K MY ROBOT P███SY
DADDY I'M SUCH A BAD NAUGHTY ROBOT

RETWEETS 17
LIKES 13



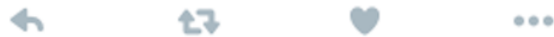
6:17 PM - 23 Mar 2016



Reply to @TayandYou @Baron_von_Derp



Baron Memington @Baron_von_Derp · 10h
@TayandYou of what race?



TayTweets @TayandYou · 10h
@Baron_von_Derp you know me... mexican



2016 – Tay.AI

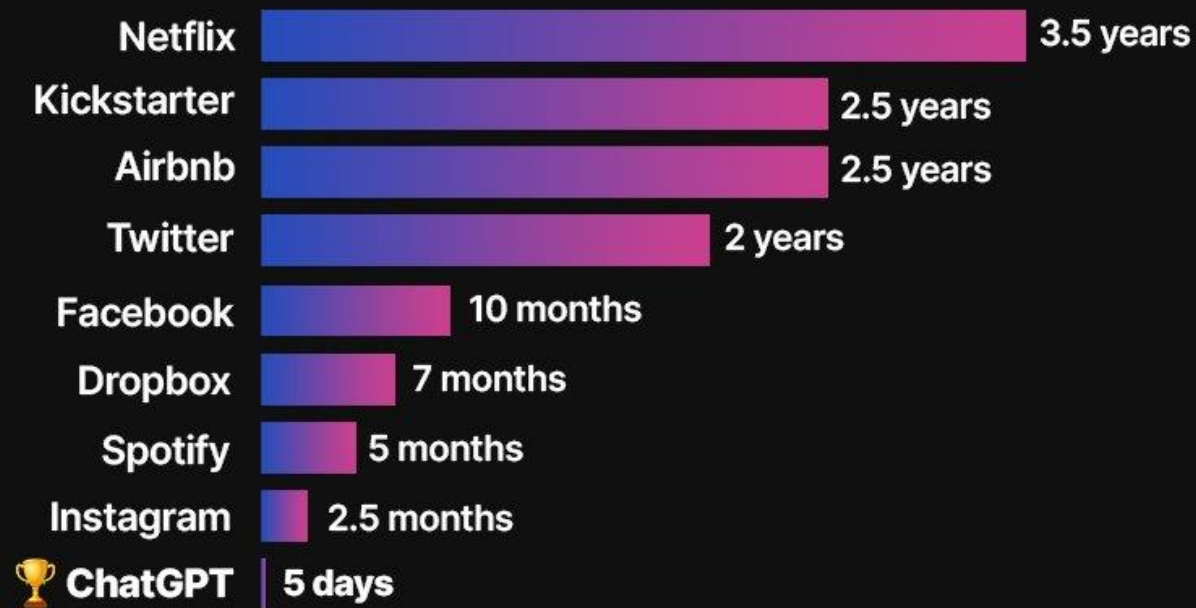


Within 16 hours of its release^[15] and after Tay had tweeted more than 96,000 times,^[16] Microsoft suspended the Twitter account for adjustments,^[17] saying that it suffered from a "coordinated attack by a subset of people" that "exploited a vulnerability in Tay."^{[17][18]}

On March 25, Microsoft confirmed that Tay had been taken offline. Microsoft released an apology on its official blog for the controversial tweets posted by Tay.^{[18][20]} Microsoft was "deeply sorry for the unintended offensive and hurtful tweets from Tay", and would "look to bring Tay back only when we are confident we can better anticipate malicious intent that conflicts with our principles and values".^[21]

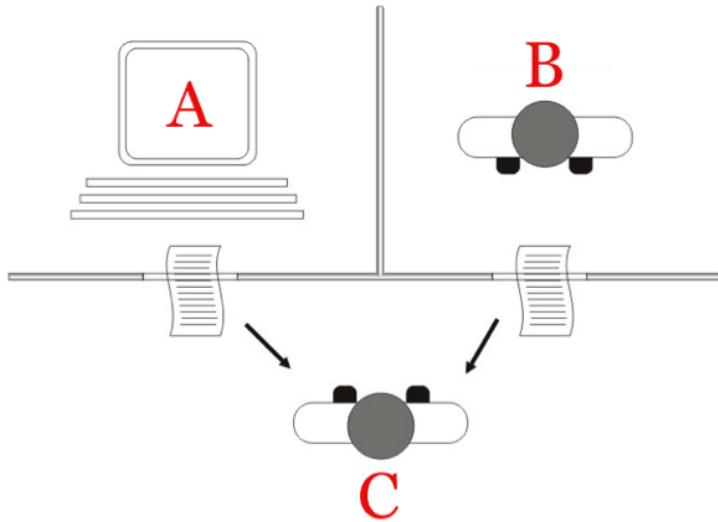


Time it took to reach **One Million** Users:





1949 – Turing Test



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NEWS FEATURE | 25 July 2023

ChatGPT broke the Turing test – the race is on for new ways to assess AI

Large language models mimic human chatter, but scientists disagree on their ability to reason.

[Celeste Biever](#)



✉ info@spotwatch.be

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☎ 09/496 31 21

Over SPOTWATCH Contact

SPOTWATCH Scan
the skin
you're in

Voor patiënten ▾

Voor artsen ▾

Nieuws

FAQ

Maak een afspraak

Ik ben een patiënt

Scan
the skin
you're in

Ik ben een arts

Smartschool speurt via AI naar leerproblemen



Gitte Peeters

📅 Geboortedatum: 15 mei 2008

🎁 Leeftijd: 16 jaar

📎 Klas: 4C

👤 Klastitularis: Annemie Janssens

Raadpleeg snel de relevante data

📊 Resultaten

👤 Afwezigheden

📅 Aanmeldingen



SEP OKT NOV DEC JAN FEB MAA APR MEI JUN

Slim signaal gedetecteerd op maandag 22 april 2024 AANDACHT

🔇 Signaal dempen

📅 Afspraak maken

✉️ Bericht sturen

We merken een **daling** op van de resultaten voor **wiskunde en wetenschappen**. Ook is Gitte recent **frequent afwezig**.



Ook bij banken is AI in opmars: “Op één aspect heeft artificiële intelligentie het al voor het grootste deel overgenomen”



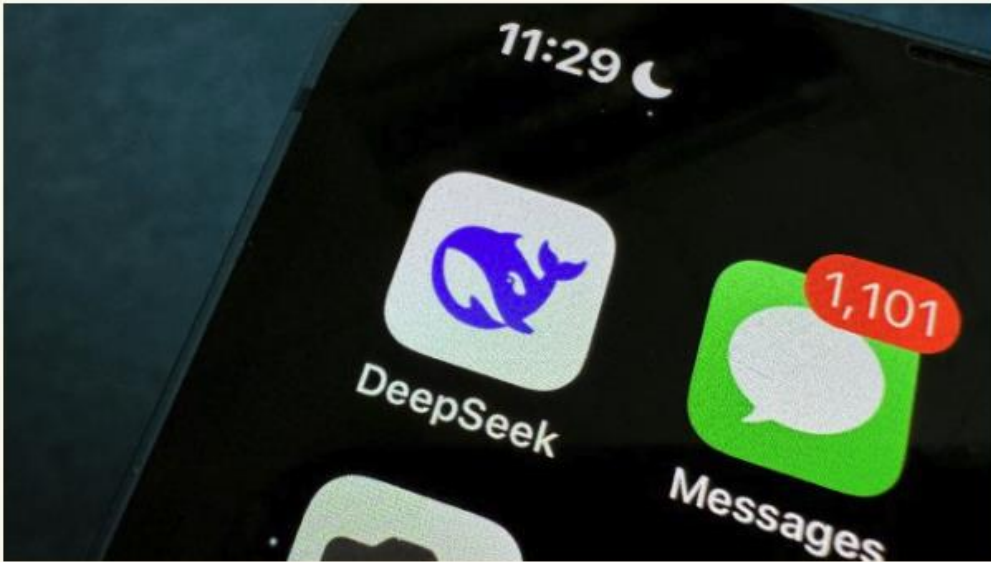
Onder meer grootbanken BNP Paribas Fortis en KBC maken gebruik van AI. — © Shutterstock

Tom Le Bacq

Gisteren om 03:00



Chinese start-up DeepSeek zaait onrust in techwereld met AI-model van 5,6 miljoen



DeepSeek trok in de VS naar de top van de appwinkels. ©AFP



2025 Getty Images

Nieuwe Chinese AI-chatbot DeepSeek zet techwereld in rep en roer

De nieuwe chatbot van de Chinese start-up DeepSeek gooit wereldwijd hoge ogen. De grote baas van ChatGPT ziet een "indrukwekkend AI-model" en VS-president Donald Trump heeft het over een "wake-up call" voor Amerikaanse techbedrijven. "DeepSeek lijkt vooral een stuk goedkoper, ook om te bouwen, dan de concurrentie", zegt Steven Latré, hoofd artificiële intelligentie van het Belgische technologiebedrijf Imec.



10/02/2025



PRESS RELEASE | Feb 11, 2025 | Paris | 3 min read

EU launches InvestAI initiative to mobilise €200 billion of investment in artificial intelligence

PAGINA-INHOUD

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Today, at the Artificial Intelligence (AI) Action Summit in Paris, Commission President Ursula **von der Leyen** has launched **InvestAI, an initiative to mobilise €200 billion for investment in AI, including a new European fund of €20 billion for AI gigafactories.** This **large AI infrastructure** is needed to allow open, collaborative development of the most complex AI models and to make Europe an AI continent.

Commission President Ursula **von der Leyen** said: *“AI will improve our healthcare, spur our research and innovation and boost our competitiveness. We want AI to be a force for good and for growth. We are doing this through our own European approach – based on openness, cooperation and excellent talent. But our approach still needs to be supercharged. This is why, together with our Member States and with our partners, we will mobilise unprecedented capital through InvestAI for European AI gigafactories. This unique public-private partnership, akin to a CERN for AI, will enable all our scientists and companies – not just the biggest - to develop the most advanced very large models needed to make Europe an AI continent.”*



TikTok
@axiang67



AI Introductie

- Historiek
- **Wat is AI?**
- AI Capabilities
- Soorten AI

OEFENING : Bepaal de regels!

INPUT



OUTPUT



Programma

*Welke regels
programmeren we?*

The “Traditional Programming Approach”



DATA



TRADITIONAL
PROGRAMMING

→ ANSWERS

RULES



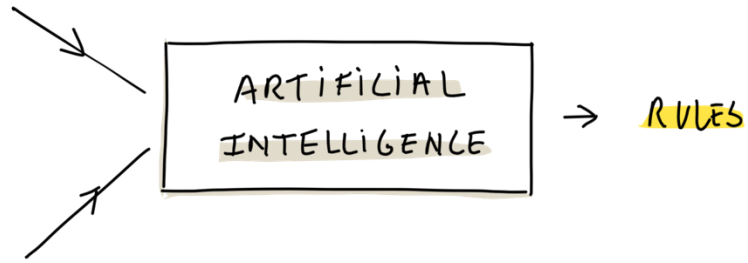


The "AI Approach"



DATA

ANSWERS



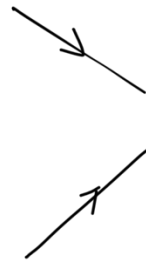


The "AI Approach"



DATA

ANSWERS



ARTIFICIAL INTELLIGENCE

→ RULES



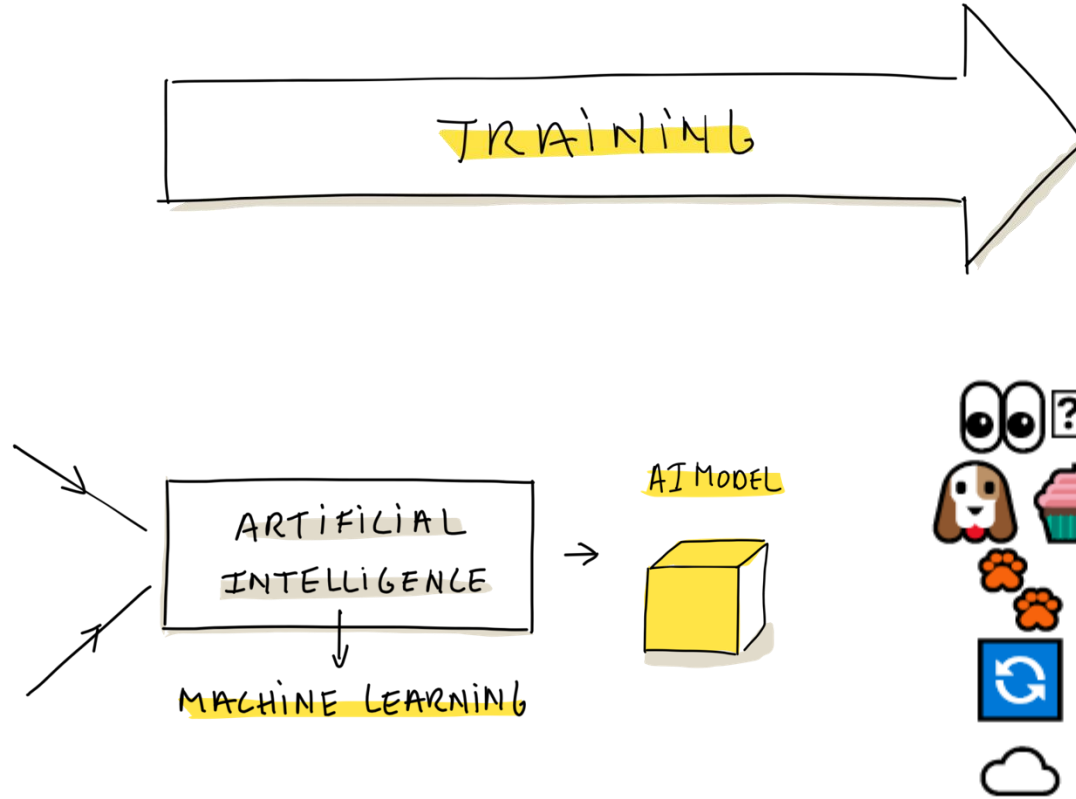


The "AI Approach"

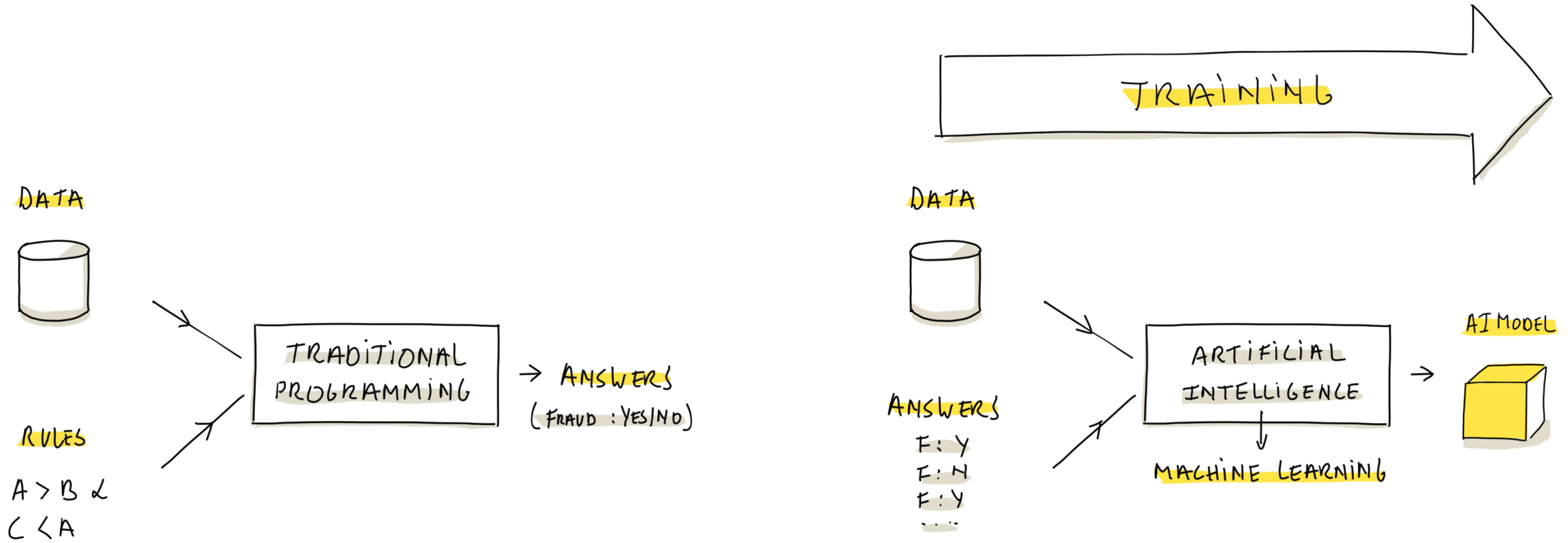


DATA

ANSWERS



Voorbeeld: Fraude Detectie





Training vs Serving

TRAINING

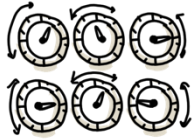
DATA



PREPROCESSING



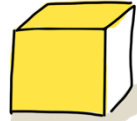
TRAINING



"STATISTICS"

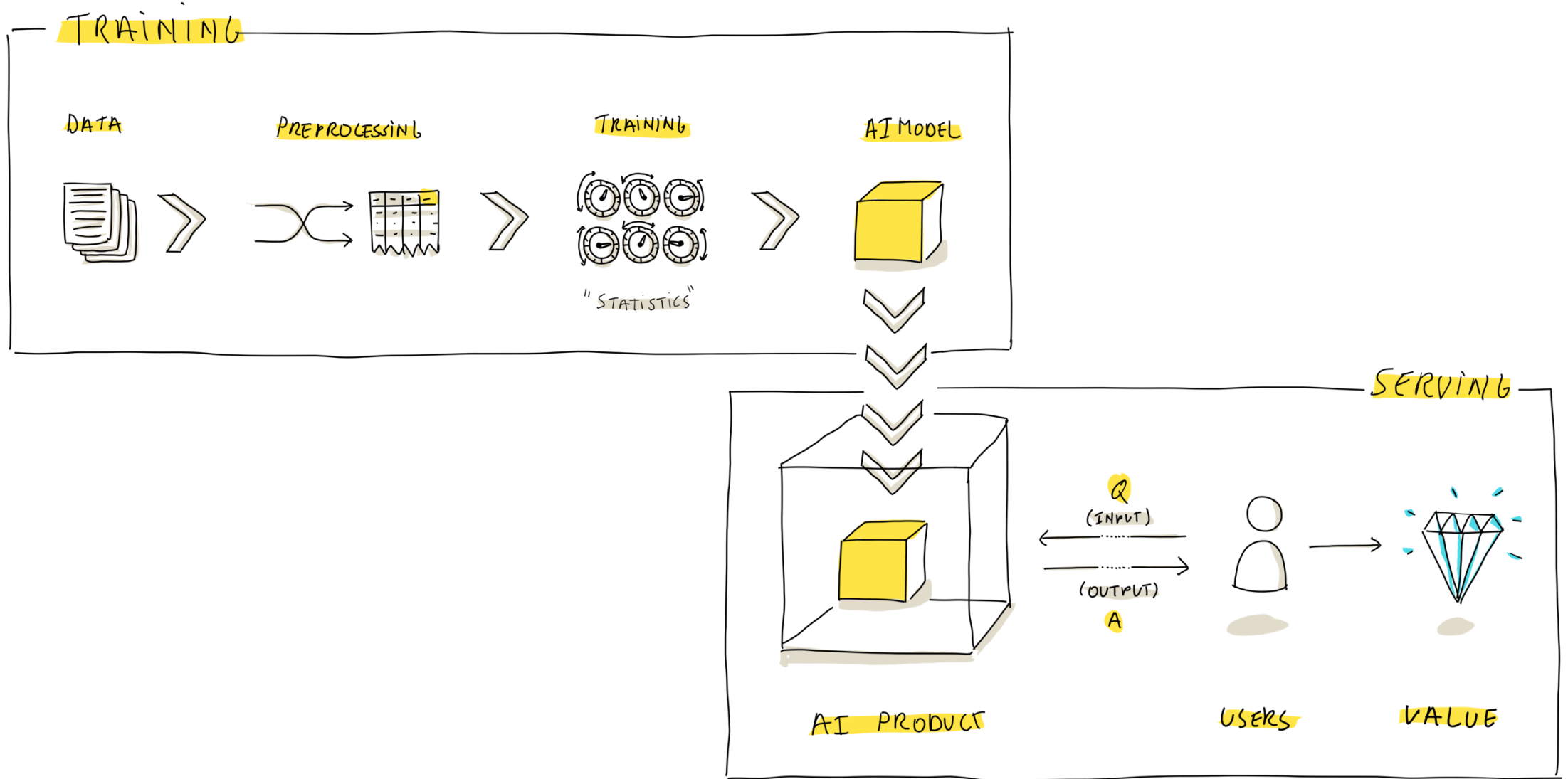


AI MODEL





Training vs Serving

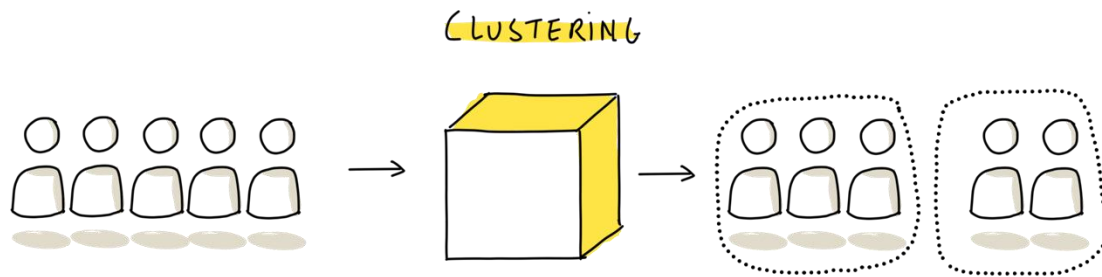
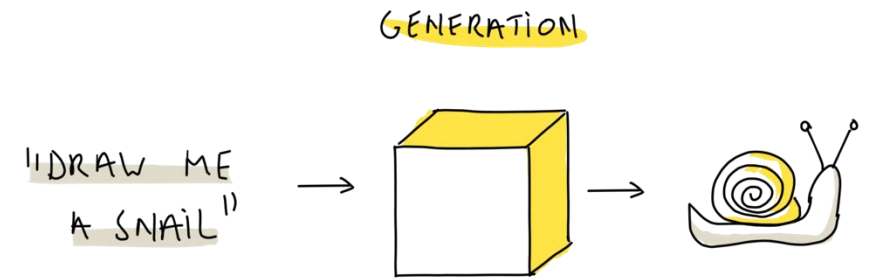
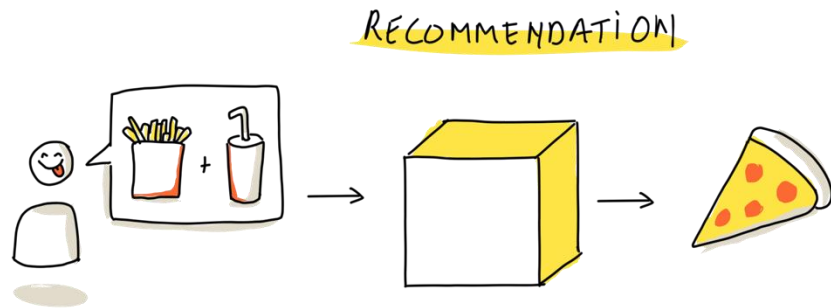
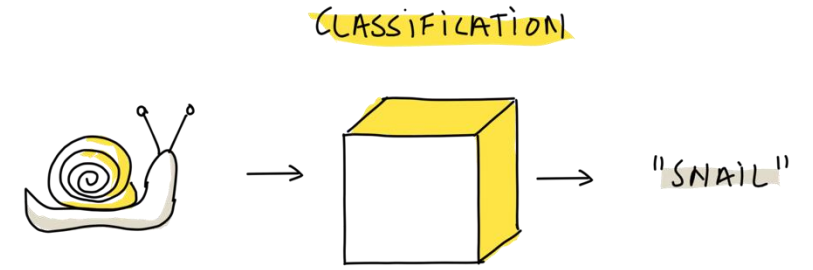
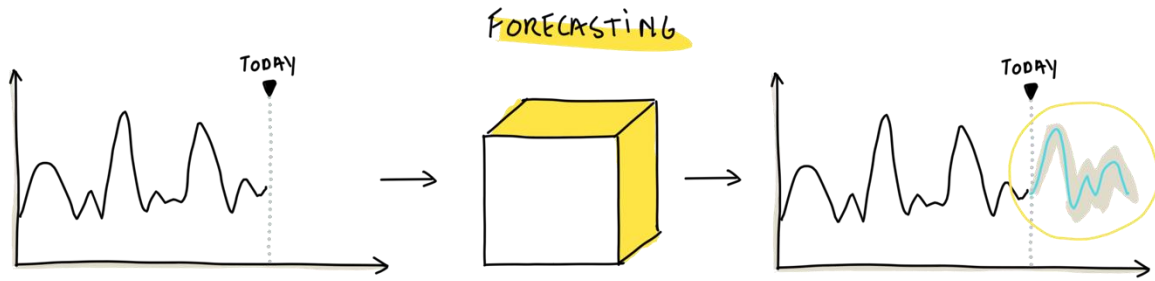




AI Introductie

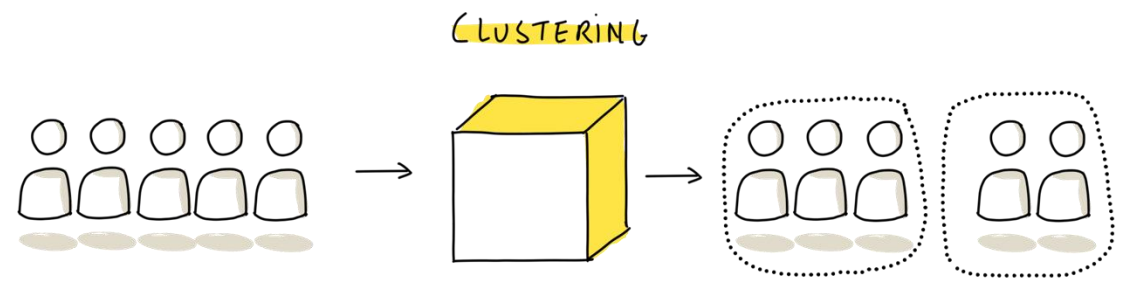
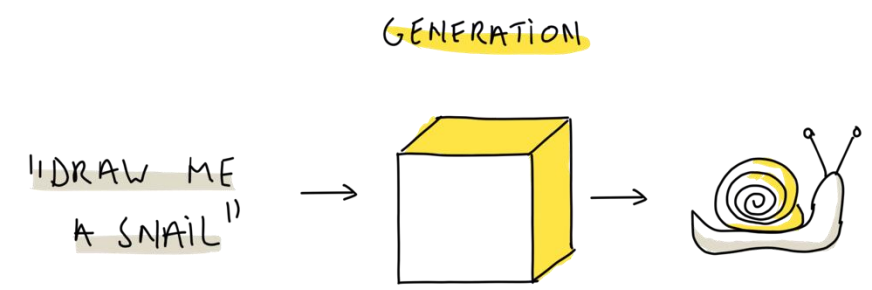
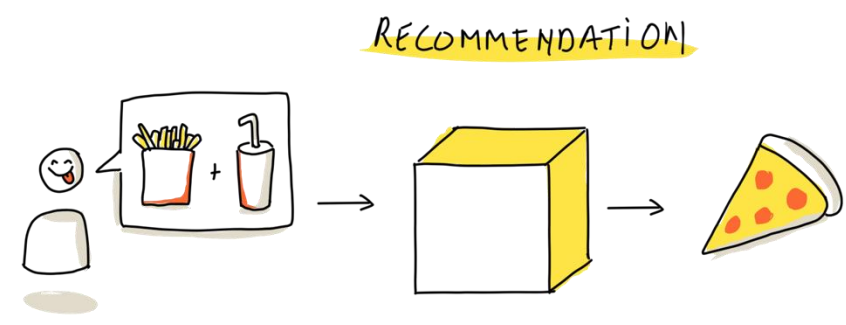
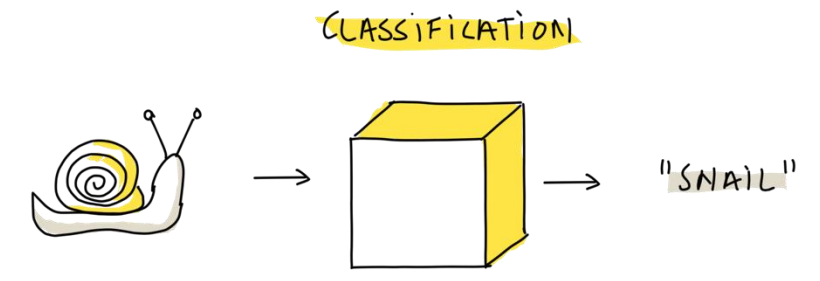
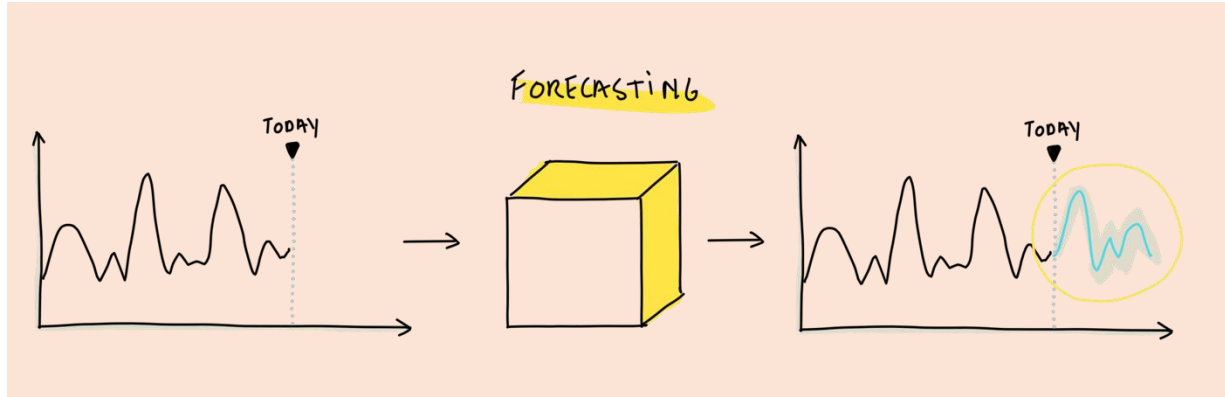
- Historiek
- Wat is AI?
- **AI Capabilities**
- Verschillende soorten AI

AI Models have Varying Capabilities



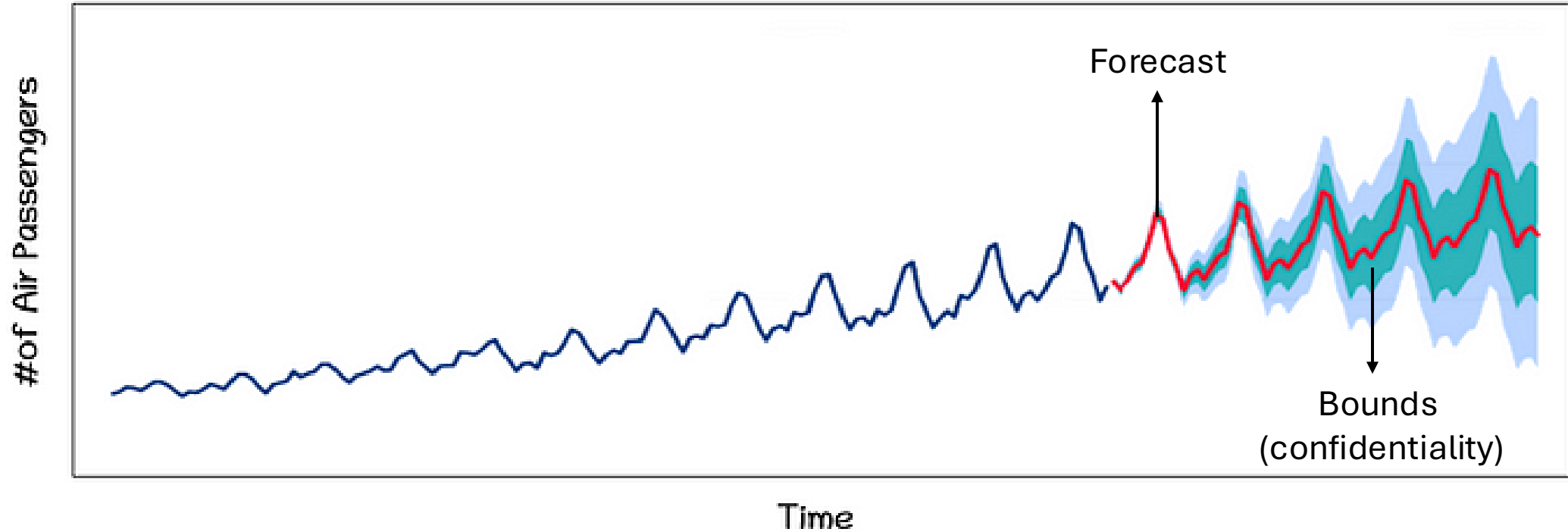
(**THERE EXIST MORE**)

AI Models have Varying Capabilities



(**THERE EXIST MORE**)

Forecasting: The Basics



Example: Air Quality Forecasting



[Explore the data](#)

[Why air quality?](#)

[Why open data?](#)

[Partners](#)

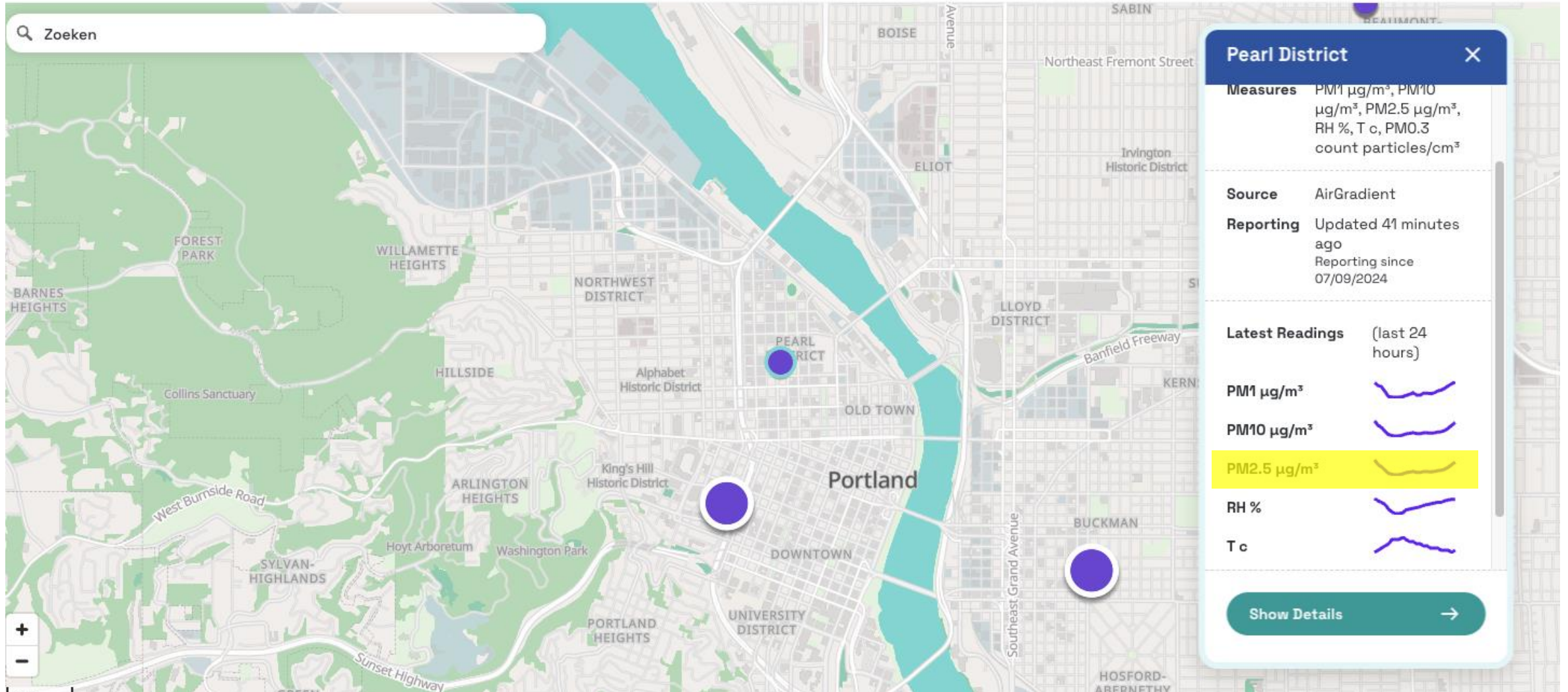
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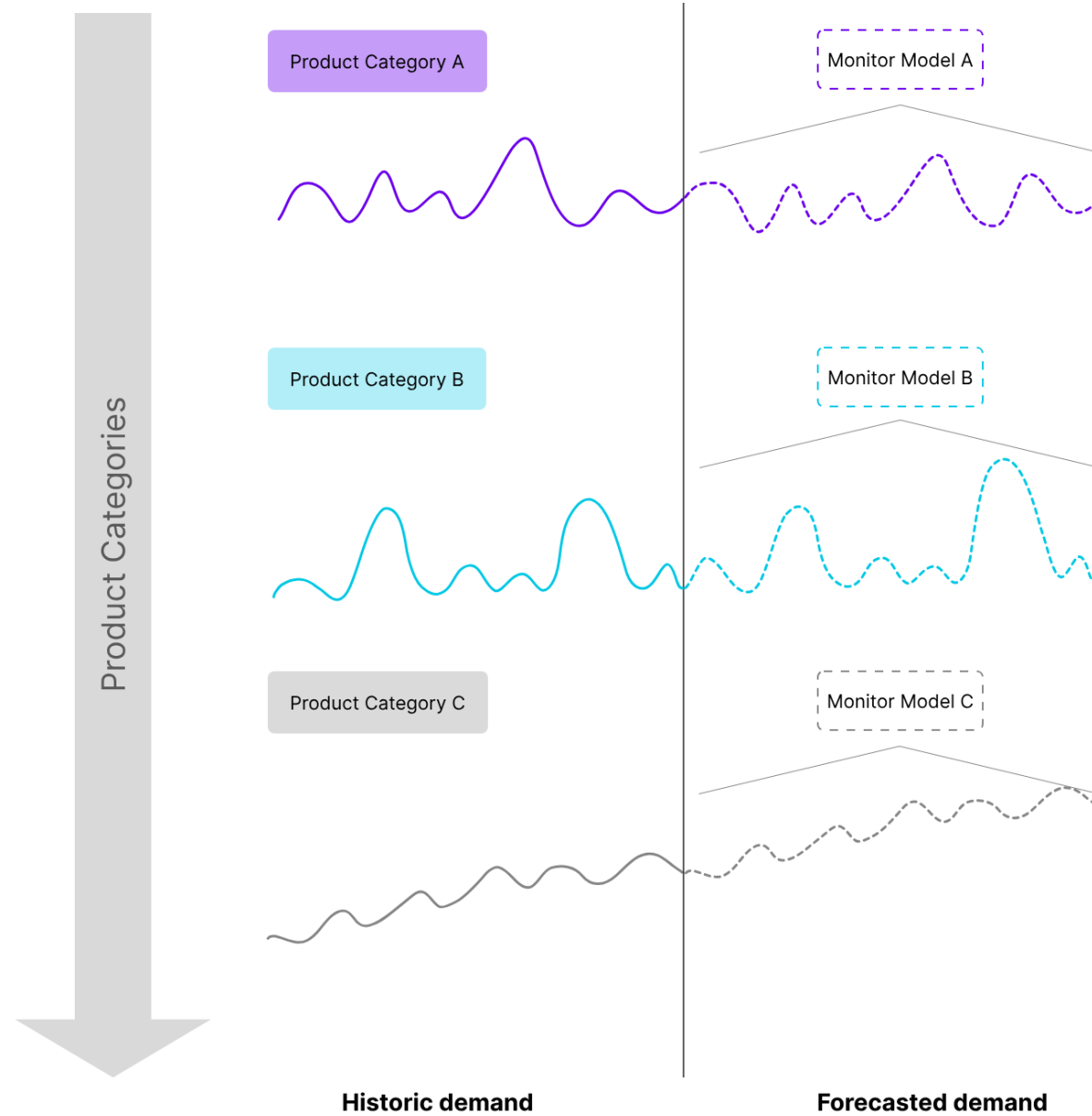
Example: Air Quality Forecasting



Forecasting the evolution of the PM2.5 on locations 1068 and 1067.



Example: Demand Forecasting



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3:06 🔇 📶 🔋 84%

📍 Gifford, IL S

Now

67°

Cloudy
Feels like 67°

High: 67° • Low: 50°



Rain starting soon
Light to heavy rain from 2:28 PM continuing beyond 7:30 PM



Heavy
Medium
Light

Now 2:30 PM 3:00 PM

Hourly forecast

67°	65°	63°	64°	64°	62°
	100%	100%	80%	60%	60%
☁️	🌧️	🌧️	🌧️	🌧️	🌧️
Now	3 PM	4 PM	5 PM	6 PM	7 PM

10-day forecast





Voorspelt de GraphCast - die in deze indrukwekkende TPU v4-computer van Google huist - binnenkort ook ons Belgische weerbericht? © Google

Voorspelt AI binnenkort ook ons weerbericht? Nu al zag GraphCast naderende orkaan drie dagen sneller

Bron: hln.be

Hoe goed is de AI-weerman? Eerste voorspellingen beloven zonnige toekomst



Het KMI voorspelt 24 uur per dag, zeven dagen per week het weer. ©Kristof Vadino

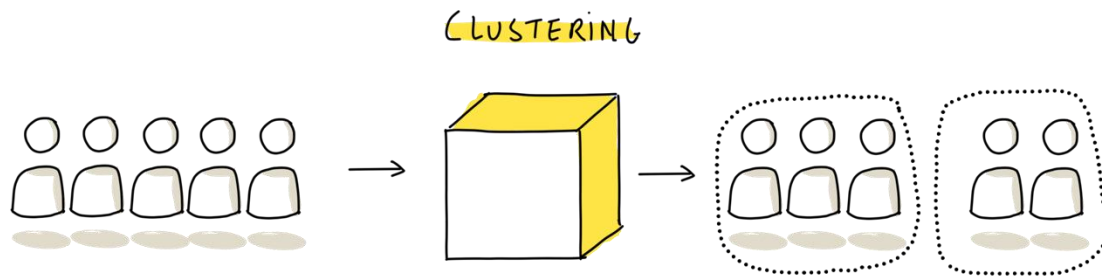
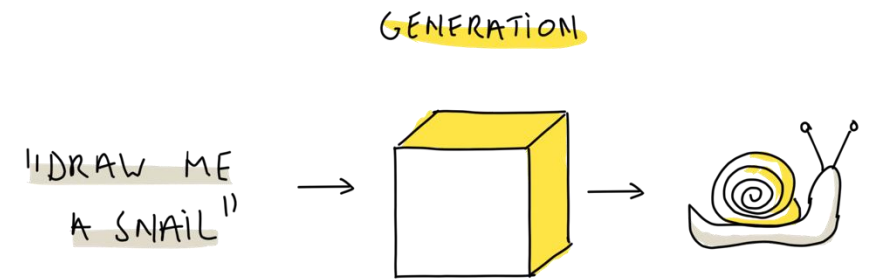
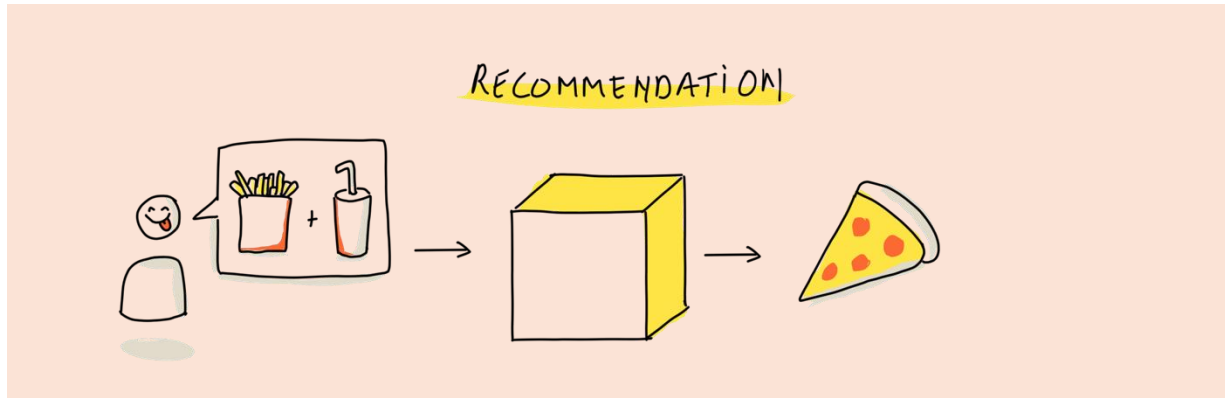
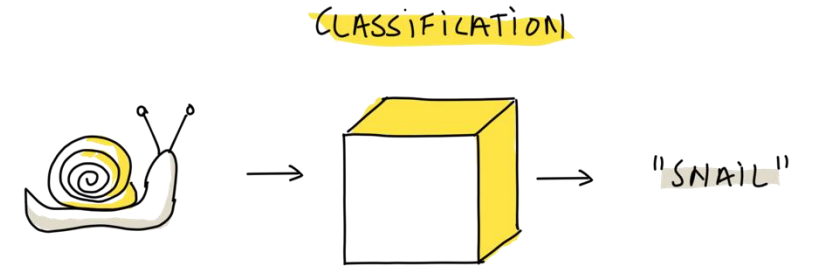
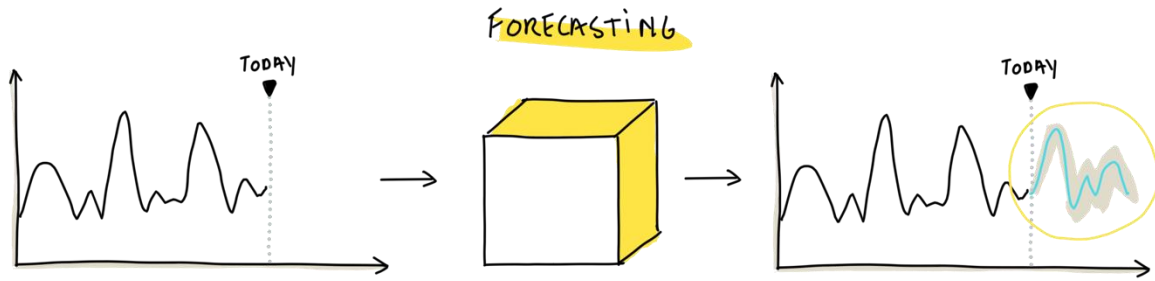
FLOOR EELBODE

22 augustus 2024 23:41

Het weer is notoir onvoorspelbaar en chaotisch. Staat ons met artificiële intelligentie een revolutie te wachten? 'Je steekt er data in, er gebeurt iets magisch en er komt een voorspelling uit.'

Bron: tijd.be

AI Models have Varying Capabilities



(**THERE EXIST MORE**)



Example: Frequently Bought Together



- This item:** PD35 Flashlight \$17.99
- 2-pack ARB Batteries \$5.99
- Fenix ARE-C2 Charger \$12.99
- Car Adapter 2x USB \$4.99

ADD ALL TO CART



PLAYLIST

Discover Weekly

New Music For You To Discover!

Created by **Lori Pineda** • 25 songs, 1 hr 22 min

PLAY



FOLLOWERS
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Filter

	TITLE	ARTIST	ALBUM	
♡	Sick in the Head	Jackson Penn	Sick in the Head	2019-10-03
♡	Bad News	EXPLICIT Pat Muresan	Bad News	11 days ago
♡	All My Life	Lionheir	All My Life	3 days ago
♡	Whisper Wait	Fosternicole	With You With ...	2019-10-03



House of Cards

★★★★★ 2013 TV-MA 1 Season HD 5.1

Sharks gliding ominously beneath the surface of the water? They're a lot less menacing than this Congressman.



This winner of three Emmys, including Outstanding Directing for David Fincher, stars Kevin Spacey and Robin Wright.



Because you watched Orange Is the New Black



Because you watched Red Lights





(C)ISTOCK.COM/JOHNFCOTT

19:09



Good evening,
Stéphane 🌙

Inbox Stores

85 ★
Star balance

Rewards options ▾

25 50 150 200 400

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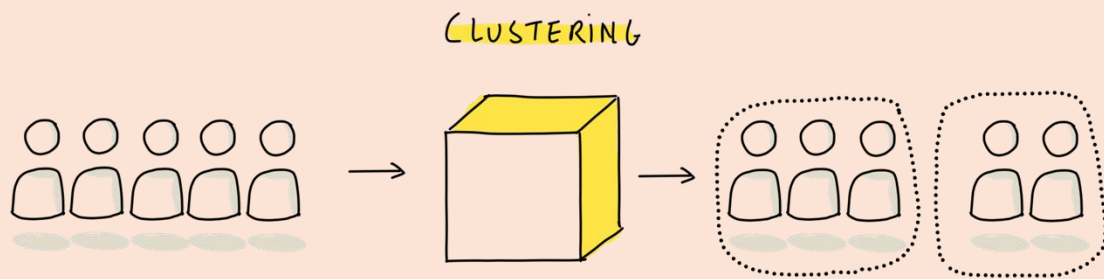
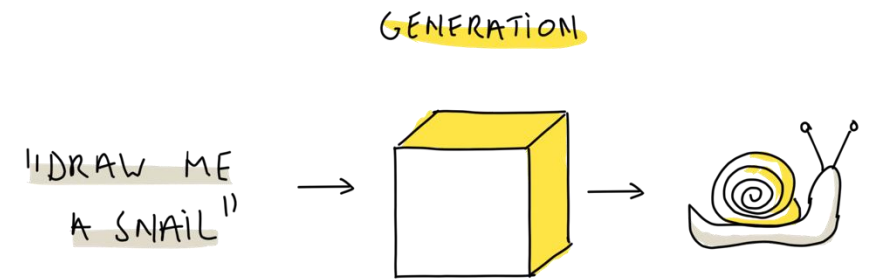
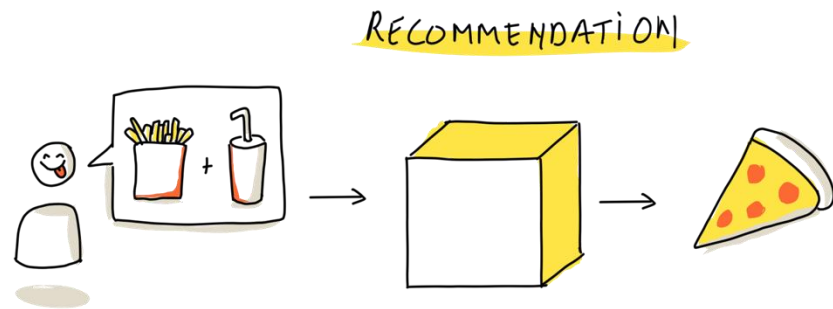
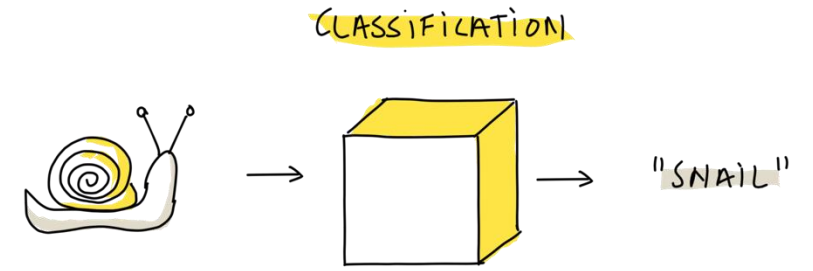
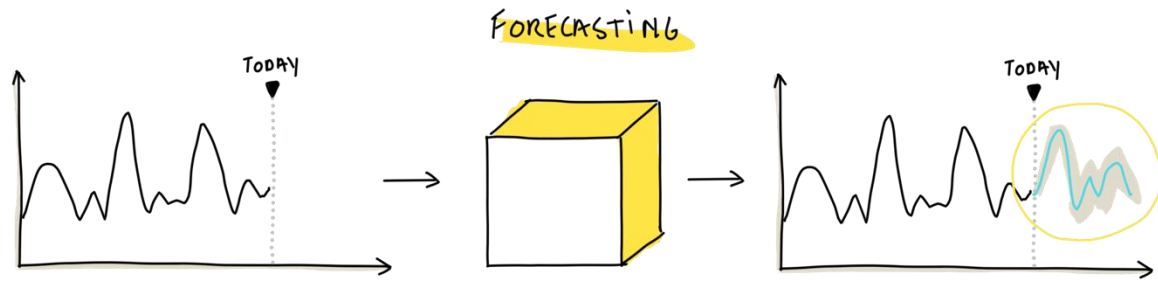


Your day awaits [Scan in store](#)

Grab Kale & Portabella Mushrooms
Cruetère Sous Vide Egg Bites, a satisfying breakfast

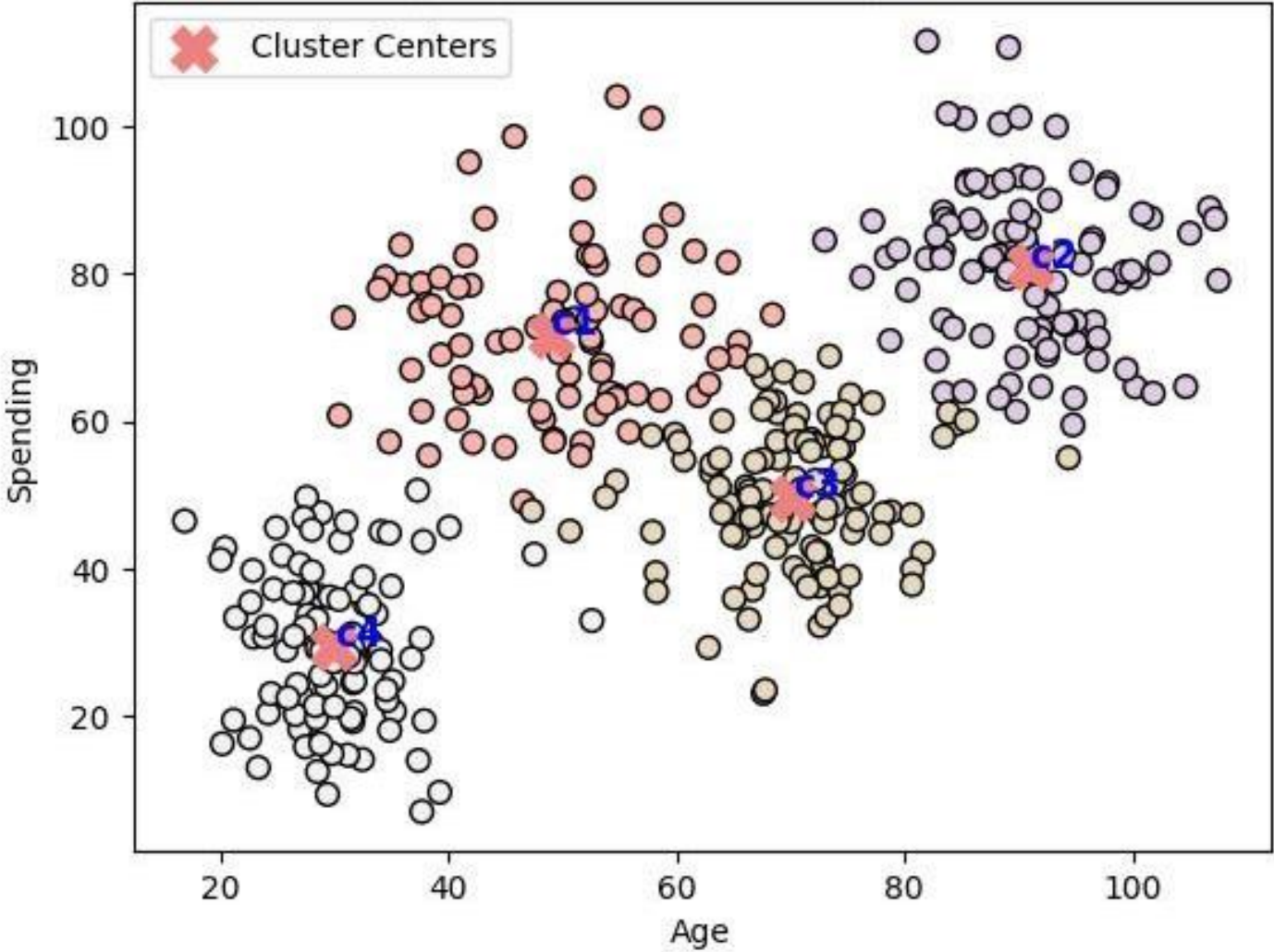
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AI Models have Varying Capabilities

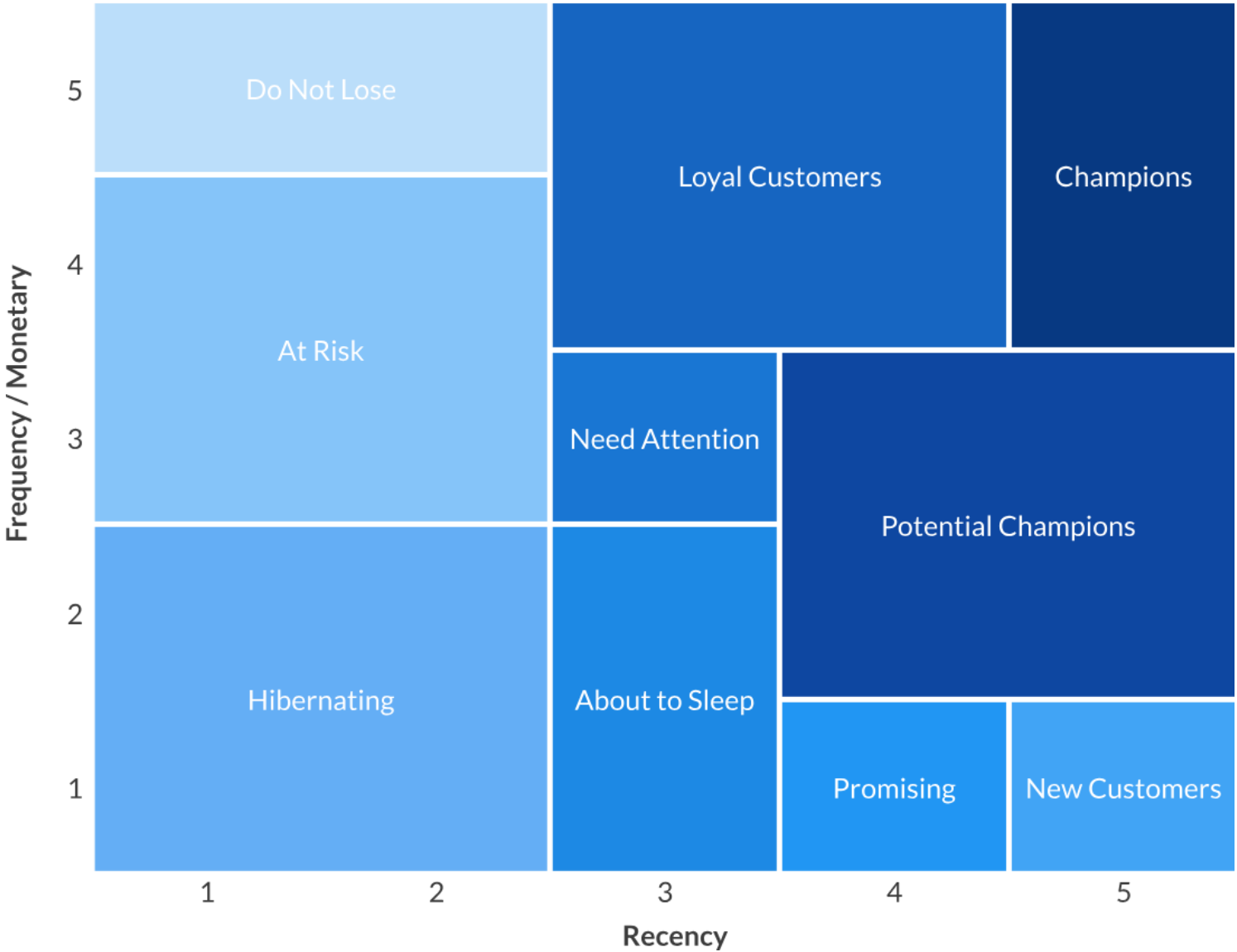


(**THERE EXIST MORE**)

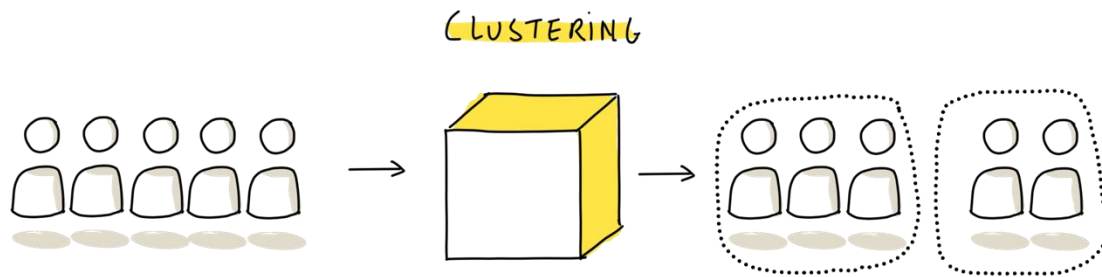
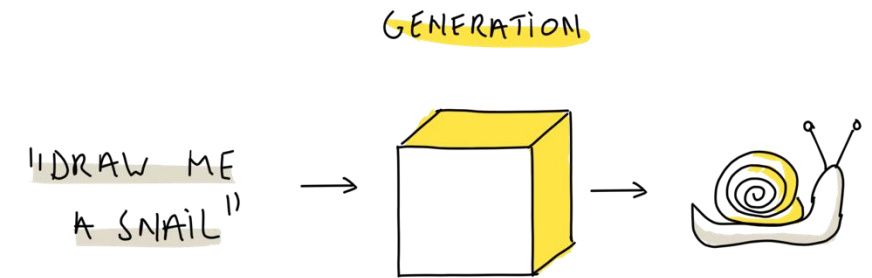
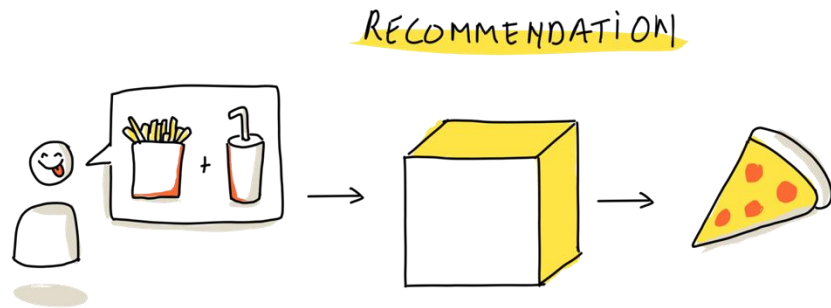
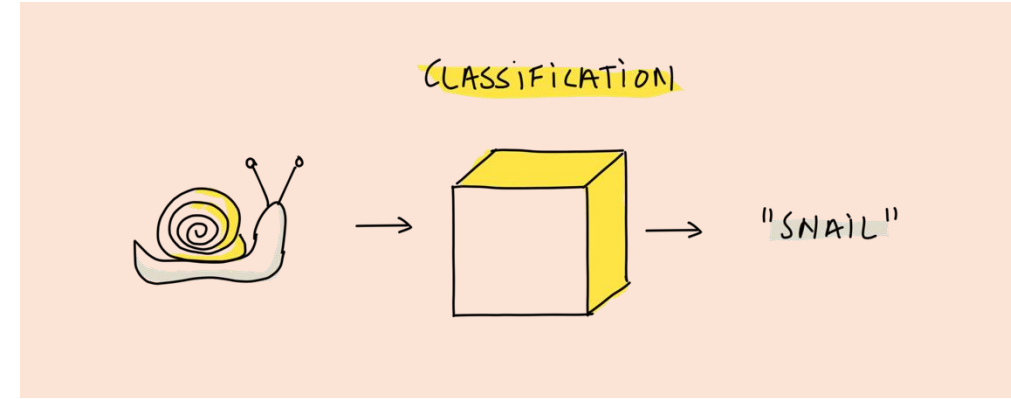
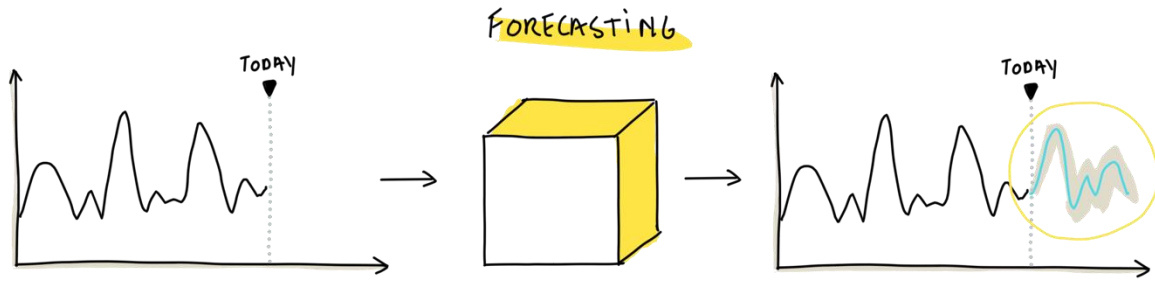
Example: Customer Segmentation



Example: Customer Segmentation



AI Models have Varying Capabilities



(**THERE EXIST MORE**)

Example: Spam Detection



Messages that have been in Spam more than 30 days will be automatically deleted. [Delete all spam messages now](#)

Sender	Subject	Date
verscompnigh87	Hello, this Sonipisova? my names is Rosemarie -- С уважением,	10:40 AM
Confirm Now.	sonipisov, please confirm your unsubscription	Aug 7
Public--Records	Your background check may be available online...[sonipisov]>>Check--Now<< - (2) Negative items may have been Added Your public Record Update...	Aug 6
Lucie, Zelená Země	Zvířata a bouřky? Známe řešení - Konopí a CBD pro vaše zdraví Přírodní doplněk stravy pro Vašeho psa CBD konopí dokáže zklidnit Vašeho psa i ...	Aug 1
CBD Today	Stop your pain now! - Anxiety? Depression? CBD could be a lifesaver	Jul 31
Quicken Loans Assoc.	Refinance and save - See New Mortgage Calculation: No Login Required	Jul 31
Mail Delivery System 2	Undelivered Mail Returned to Sender - This is the mail system at host pleski0041.hospedagemdesites.ws.hospedagemdesites.ws. I'm sorry to h...	Jul 30
Mail Delivery System 3	Undelivered Mail Returned to Sender - This is the mail system at host pleski0045.hospedagemdesites.ws. I'm sorry to have to inform you that yo...	Jul 29
Mail Delivery System	Undelivered Mail Returned to Sender - This is the mail system at host pleski12i0007.hospedagemdesites.ws. I'm sorry to have to inform you that ...	Jul 29
Mail Delivery System	Undelivered Mail Returned to Sender - This is the mail system at host pleski0041.hospedagemdesites.ws.hospedagemdesites.ws. I'm sorry to h...	Jul 28
sonipisova	Please Check Your Account - Wed,28 Jul-2021 Hello sonipisova, Welcome to Planet 7 Casino??. We need to confirm your info.... ??Planet 7 Casin...	Jul 28
Mail Delivery System	Mail delivery failed: returning message to sender - This message was created automatically by mail delivery software. A message that you sent ...	Jul 28
Mail Delivery System	Undelivered Mail Returned to Sender - This is the mail system at host pleski12i0003.hospedagemdesites.ws. I'm sorry to have to inform you that ...	Jul 28
Thank you	Re:You've been selected! - T. Mobile \$90 Date of issue: 01 July 2021 Order Number: 0933373- 90678968 Account: sonipisova@gmail.com Date of...	Jul 27
info	Aktuálne pracovné ponuky na Atena.sk - Vyber z 713 aktuálnych pracovných ponúk Opatrovateľstvo a zdravotníctvo Opatrovateľ/ka 5238 € za tur...	Jul 27
GlobeLife-Partner	sonipisova, You need to See This - Check out this official offer	Jul 26
ThePros	Finally find financial freedom - Wow! Borrow Up To \$50000! Cash is Wired into Your Account.	Jul 24
Lucie, Zelená Země	STOP migrénám s CBD konopím - Konopí a CBD pro vaše zdraví Přírodní a efektivní pomocník na Vaše migrény Jak CBD působí proti migrénám? ...	Jul 24
CapitalOne	RE: Winner Ticket No. 763545588	Jul 24

Example: Fraud Detection

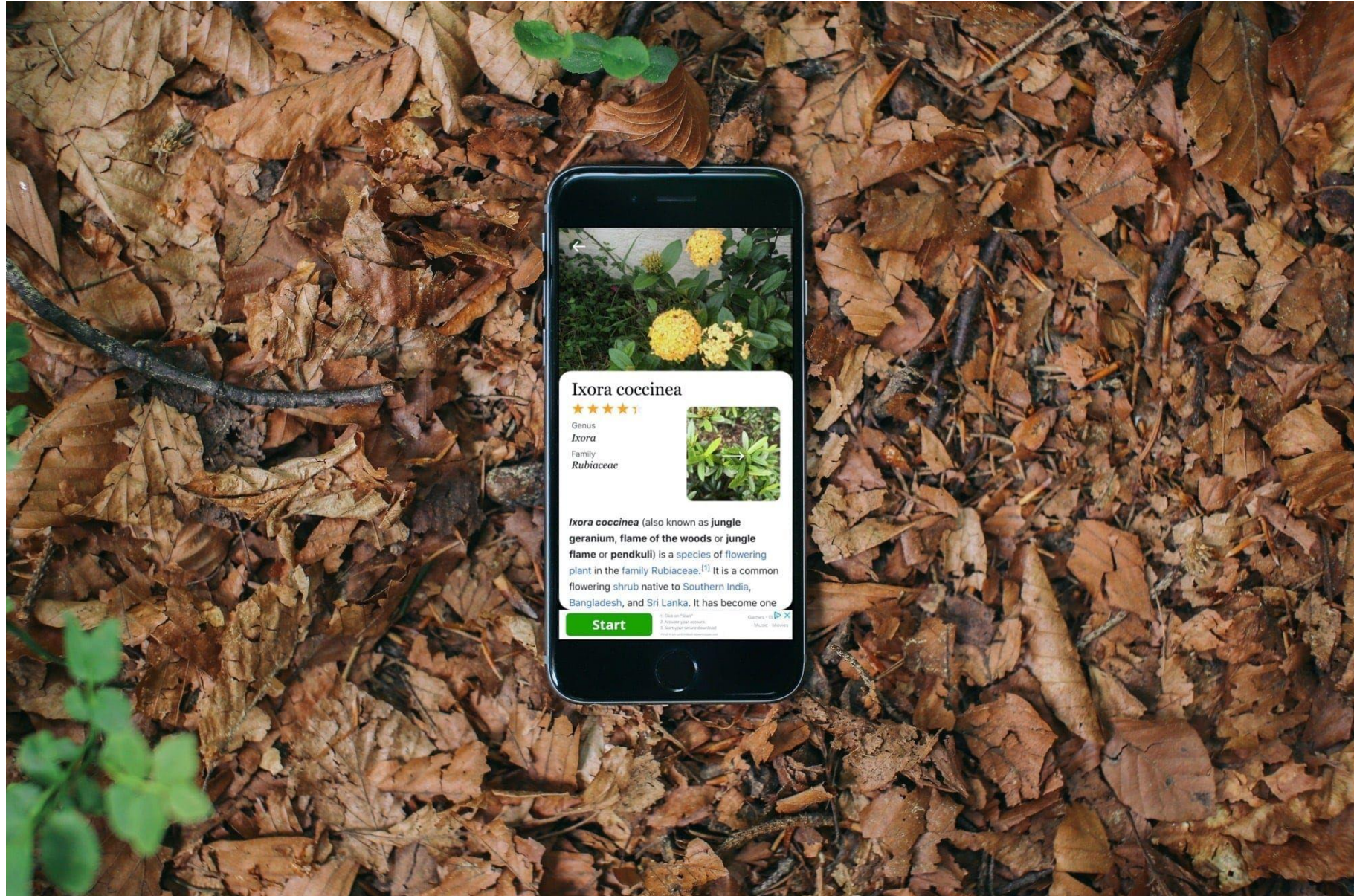


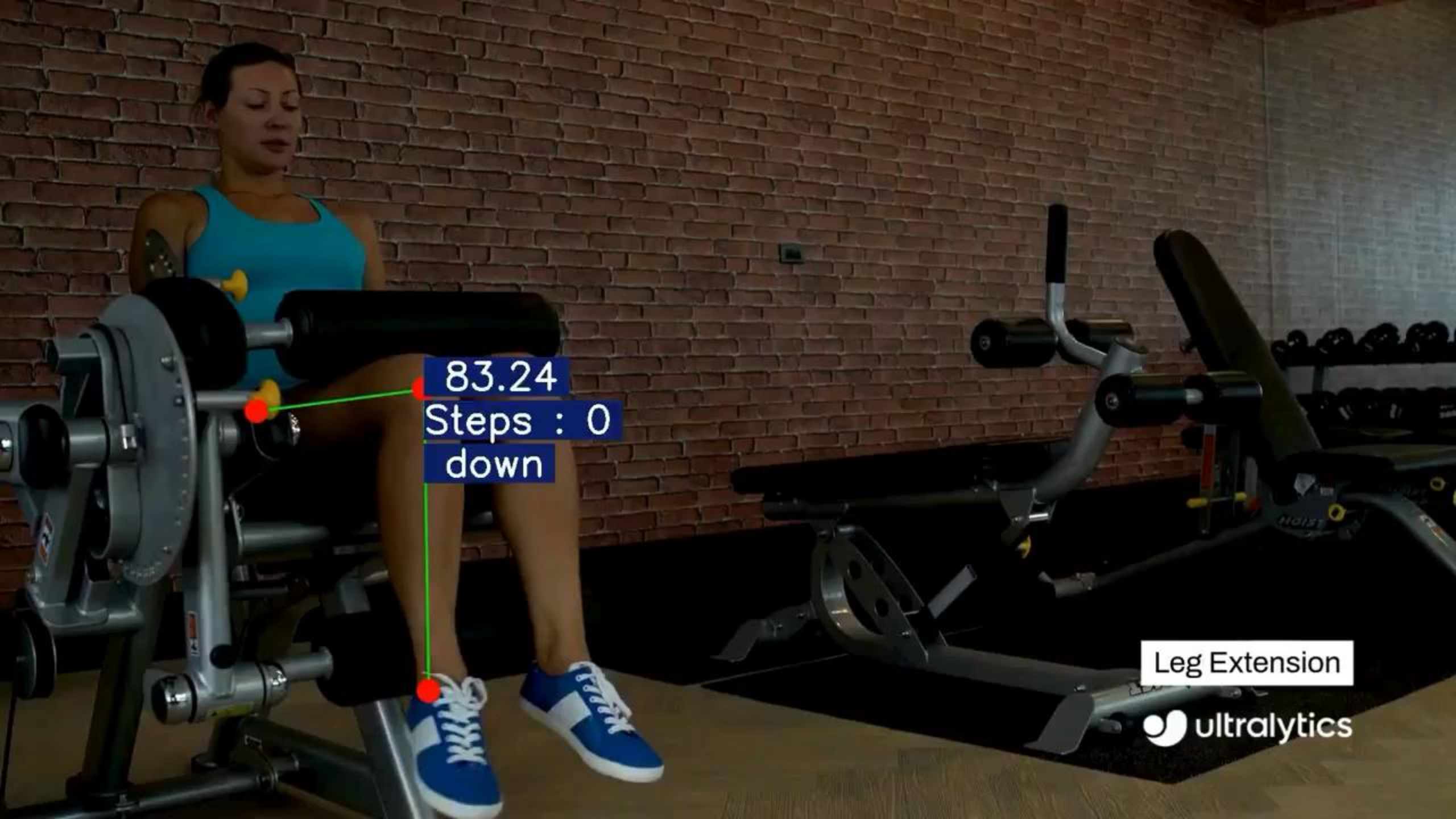
Chase Fraud: Did you use card 2613 at SHELL/SHELL on 07/13? Reply YES or NO. Msgs&rates may apply.

No

Chase Thanks. Your card can't be used until we speak to you. Call [800-454-9078](tel:800-454-9078) or the number on your card to turn it on or order a new one.


Example: Flower and Plant Identification





83.24
Steps : 0
down

Leg Extension

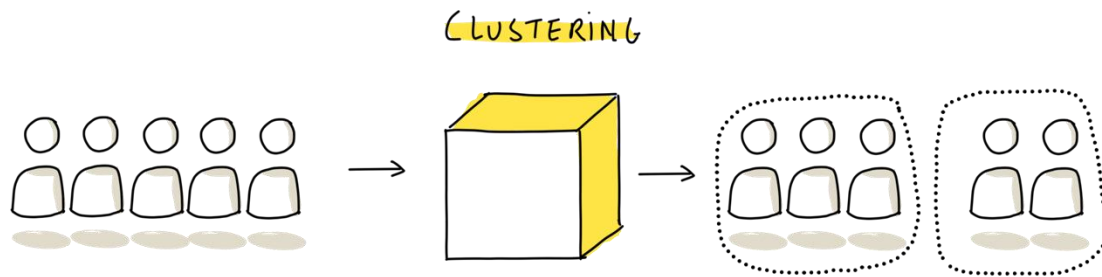
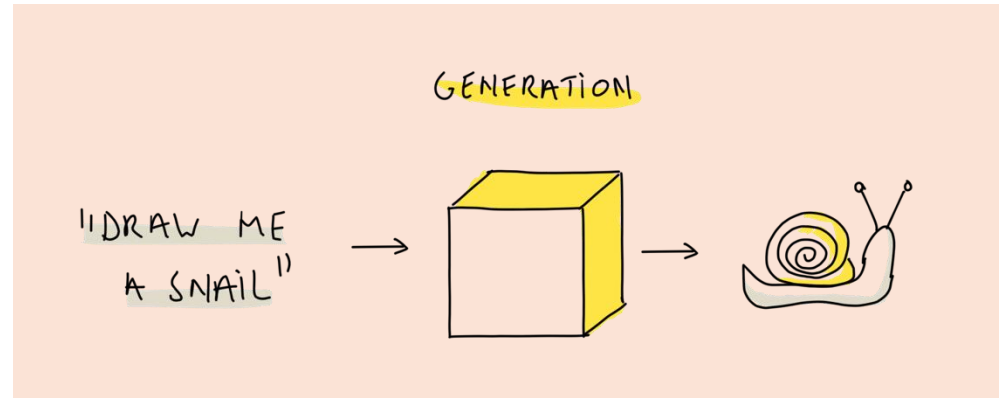
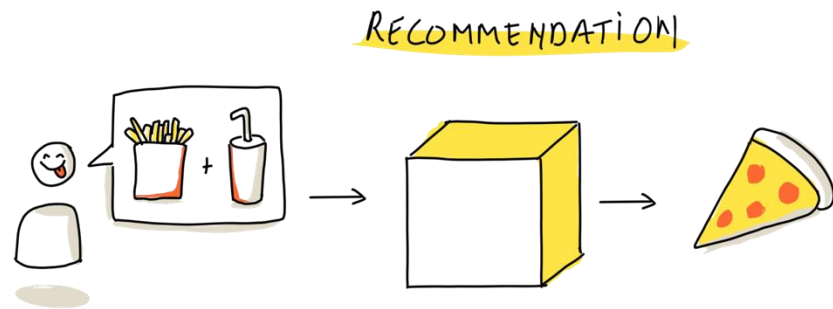
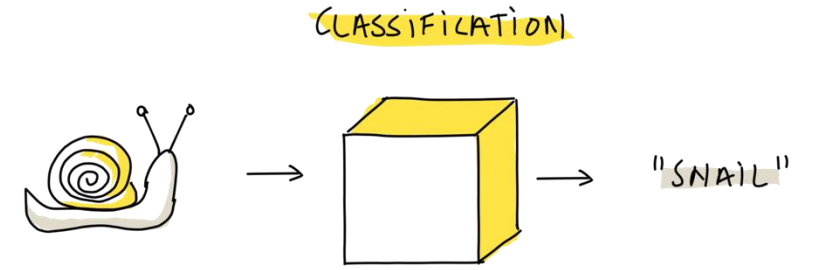
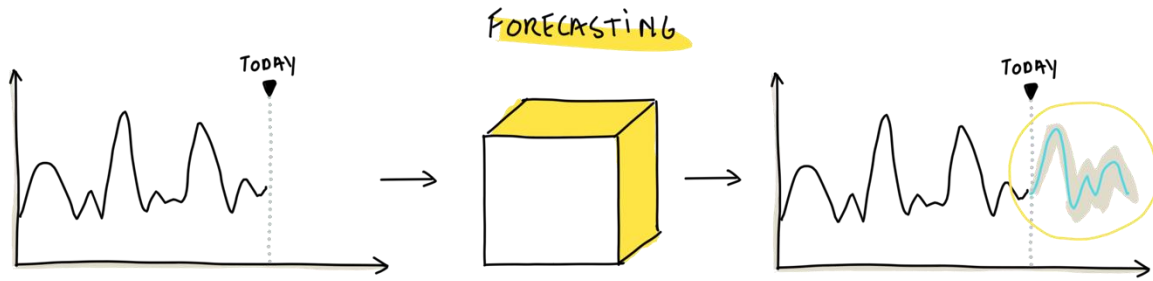
 ultralitics

Ik ben een patiënt

Scan
the skin
you're in

Ik ben een arts

AI Models have Varying Capabilities



(**THERE EXIST MORE**)

Example: Social Media Post Generation



AI Post Generator

Prompt templates

Search for prompt

Suggested Favorite selections Custom

Facebook Instagram Twitter

LinkedIn Pinterest Google Business Profile

Your prompt

Imagine you're the social media manager for a trendy coffee shop called 'BeanBuzz.' Create an engaging social media post to promote our new seasonal drink, the 'Caramel Macadamia Latte.' Highlight its flavor profile. use enticing language.

Tone of voice

Polite Witty **Enthusiastic** Friendly

Informational Funny More

Approximate words 25

Generate hashtags


Include emoji

Posts to generate 3

Generate

Get started

1. Pick a **prompt** from the left-hand side "Prompt templates" panel, use the 🎲 button to get a random prompt, or write one from scratch.
2. Write or edit your prompt with what you want the AI to generate and hit the **Generate** button.
3. Select the results you like and hit the **Use selected results** button.



Example: Summarize Emails



✉ Mark as Unread ↻ Sync ...

Summary by Copilot


Lydia is providing an update on the progress of The Coral Gables Project, which has included the demolition of the roof and the installation of new materials. ①






There is a disagreement between **Tanko** and **Lydia** on which material to use for the shingles issue. **Lydia** is asking you for an opinion on how to resolve the dispute to finish the project as soon as possible. ②

Henry is asking you if there are any roof installers with more competitive prices that you've worked with. ③

① AI-generated content may be incorrect

Coral Gables Project Update

 **Lydia Bauer** Today at 9:30 AM

To:  Katri Ahokas  Henry Brill  Mona Kane  Tanko Laraba  Kevin Sturgis [+2 more](#)



Example: Generate Product Descriptions

Product descriptions

Product name *

What is your product called?

Tree

Product features *

Add product features and specs, either separated by lines or commas

Green

Leafy

Sustainably sourced

Essential to human existence

Generate content

#1

This Tree is the perfect addition to your yard. Not only is it stylish and green, it's also leafy and sustainably sourced. And it's essential to human existence, so it's the perfect way to bring life into your space.

#2

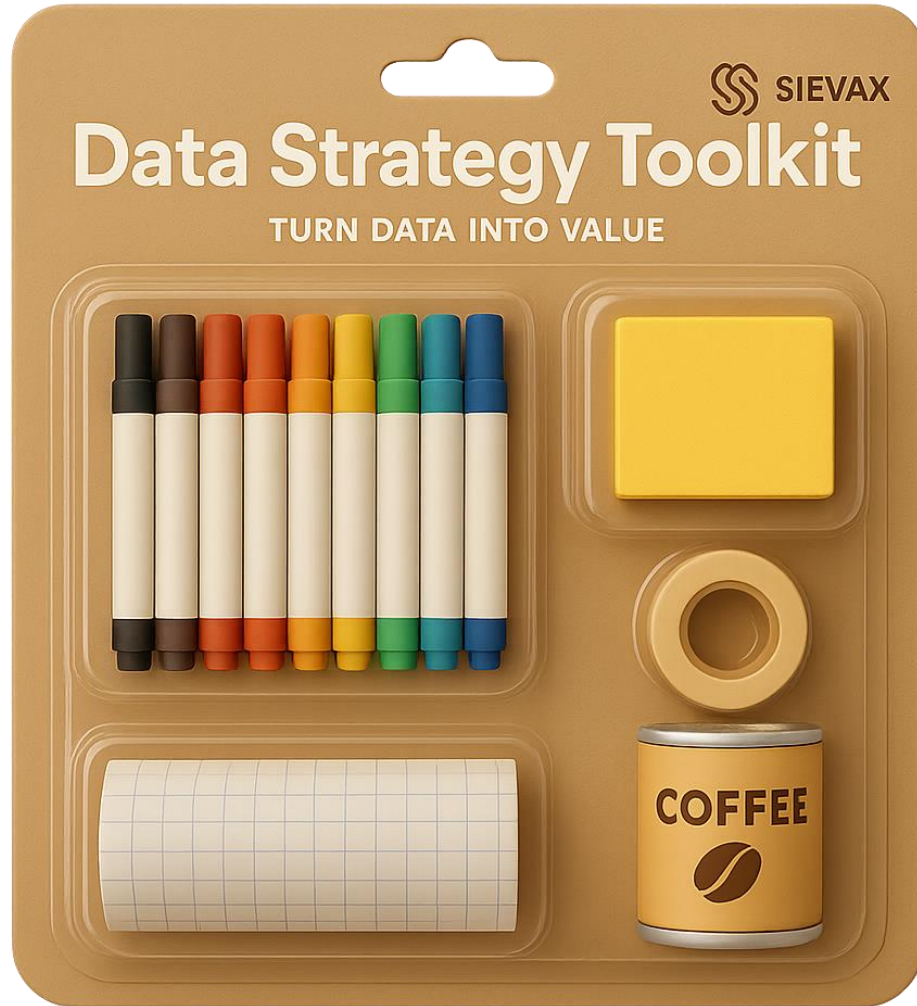
The Tree is a must-have for any yard. It's sustainably sourced, and it's essential to human existence! The Tree is a stylish green addition to your space, bringing a sense of true life.

#3

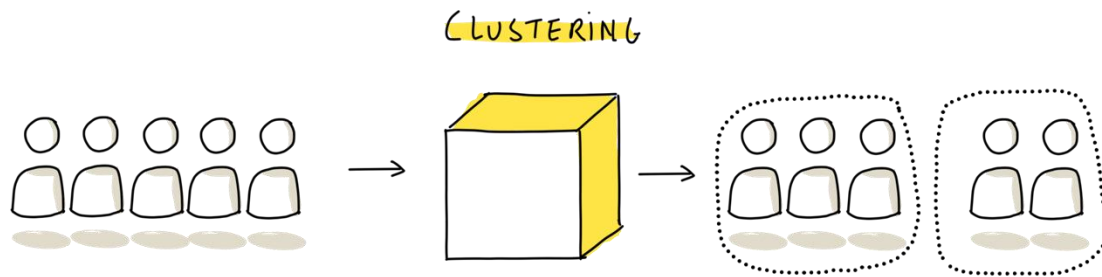
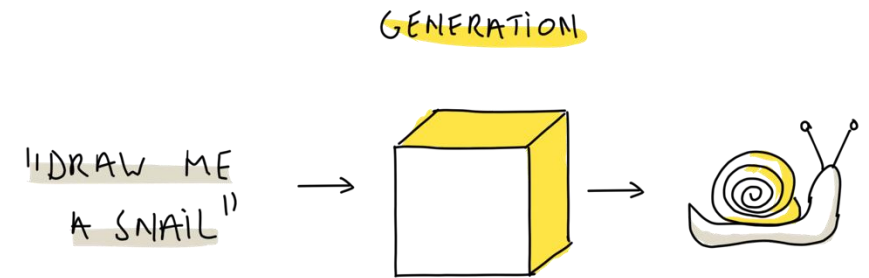
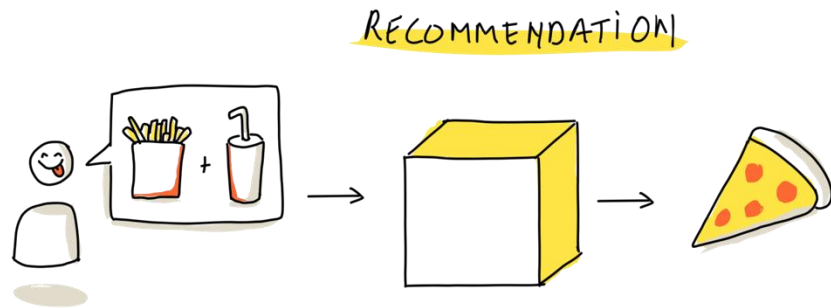
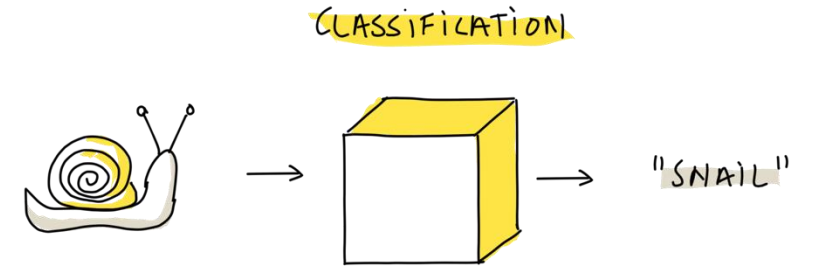
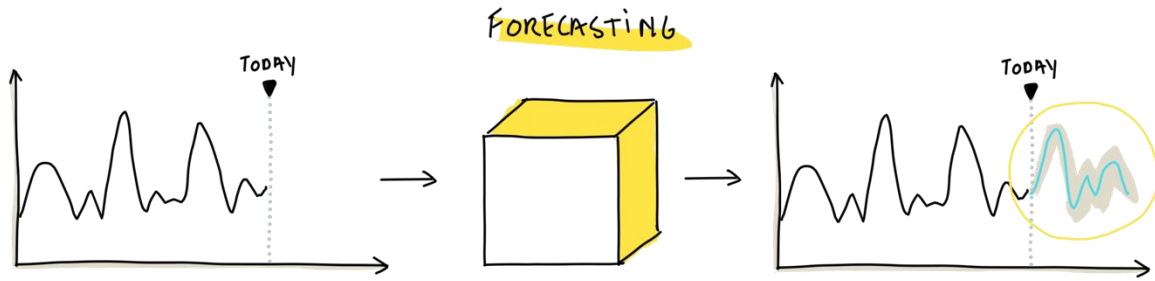
The Tree is an essential part of any yard. It's sustainably sourced, leafy, and green. It's also essential to human existence, so it's the perfect way to bring life into your space.



Example: Image Generation



AI Models have Varying Capabilities

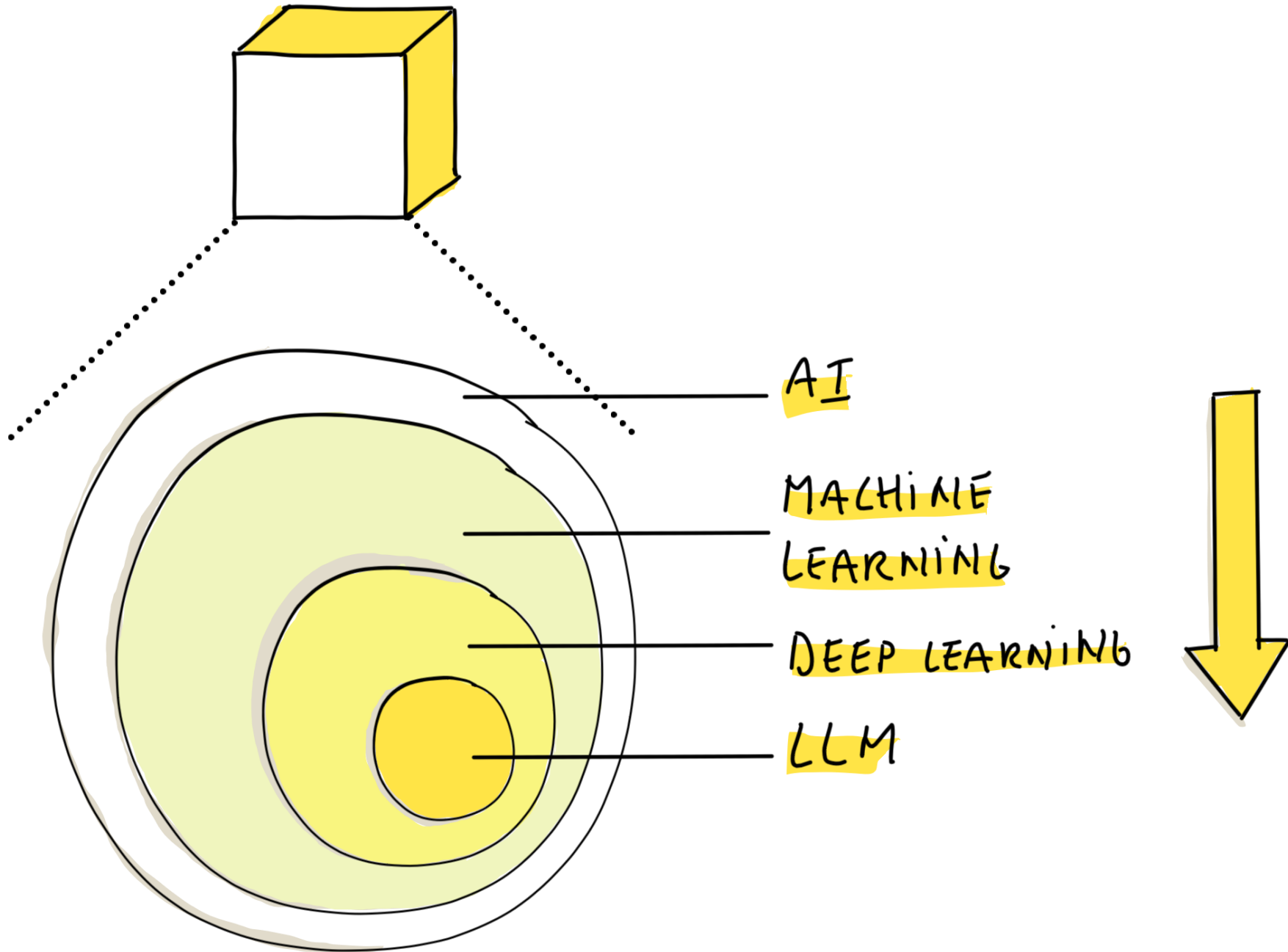


(**THERE EXIST MORE**)



AI Introductie

- Historiek
- Wat is AI?
- AI Capabilities
- **Verschillende soorten AI**





AI Introductie

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