AI: trends in technology

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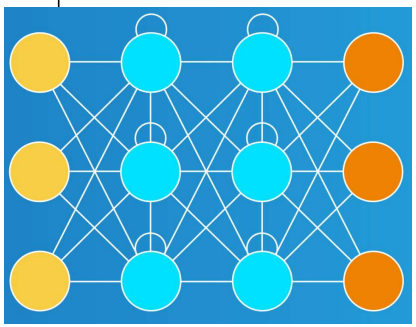
AI technieken — overzicht

1956

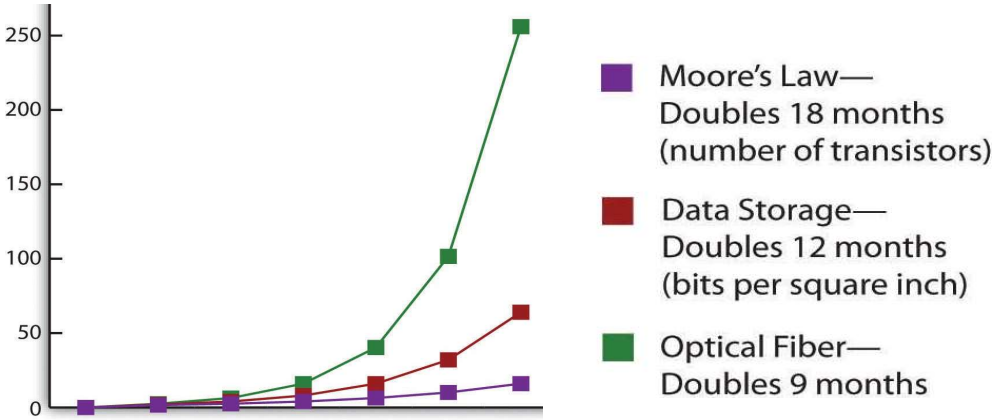


1969

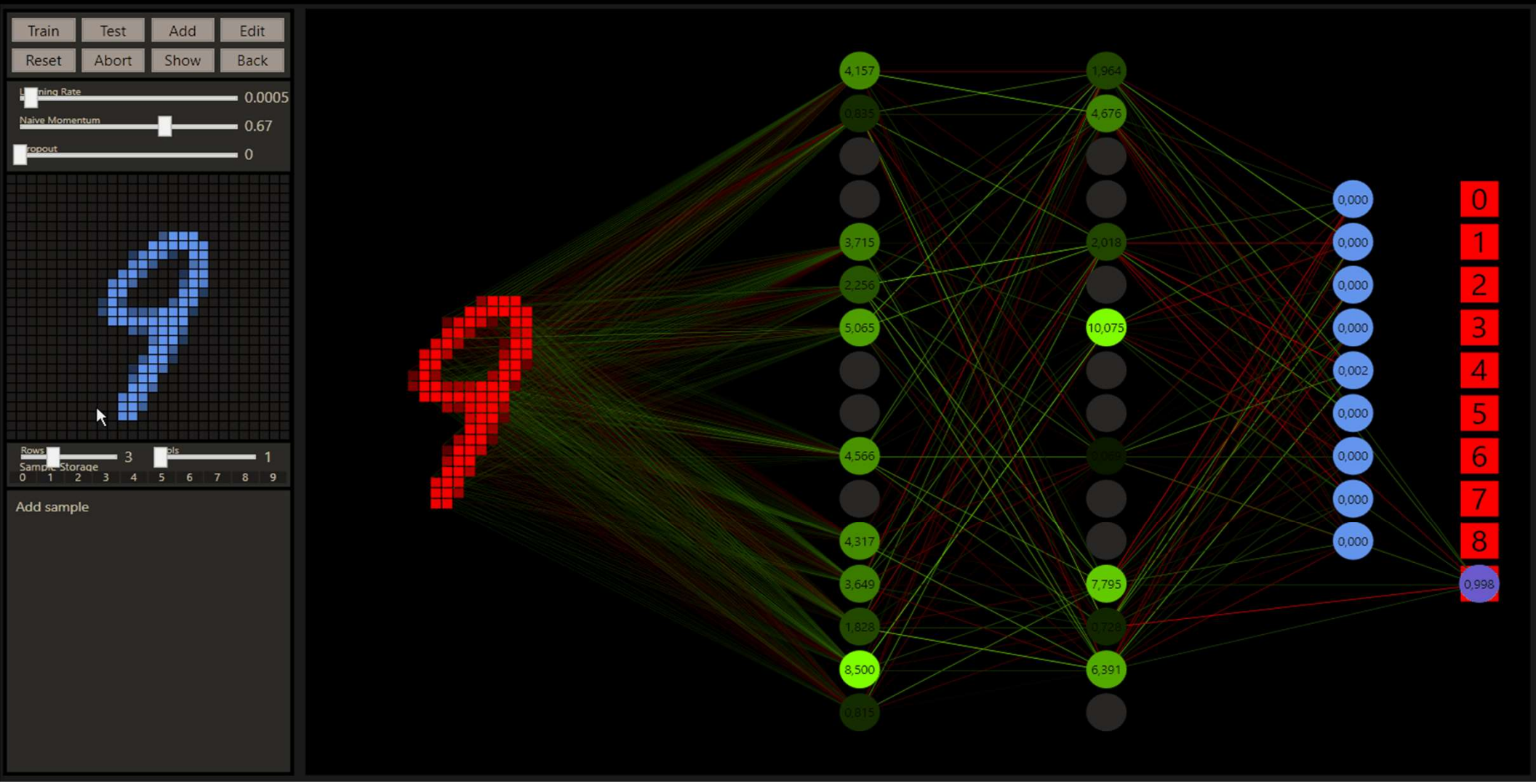
1990

2013

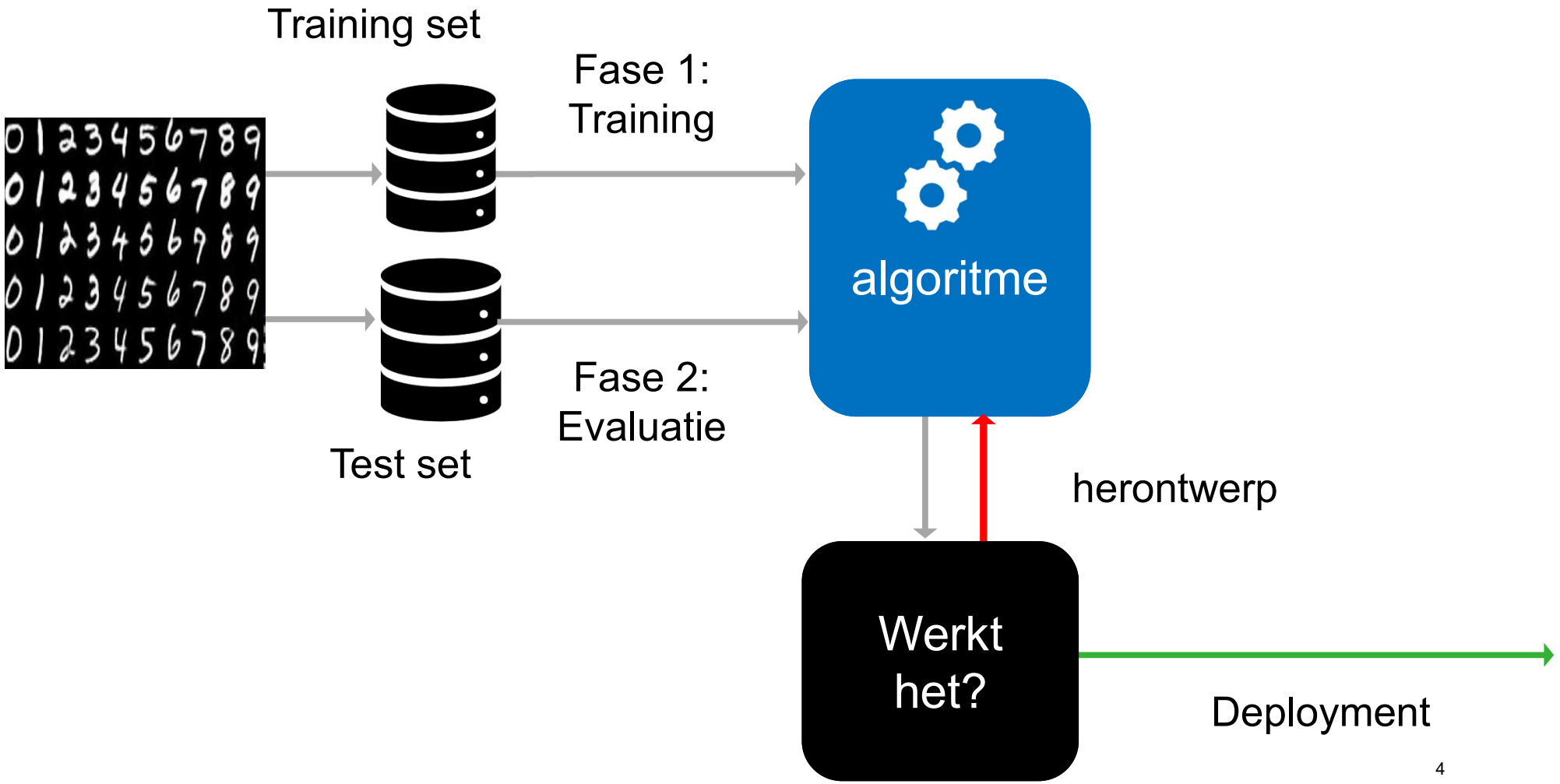
2023



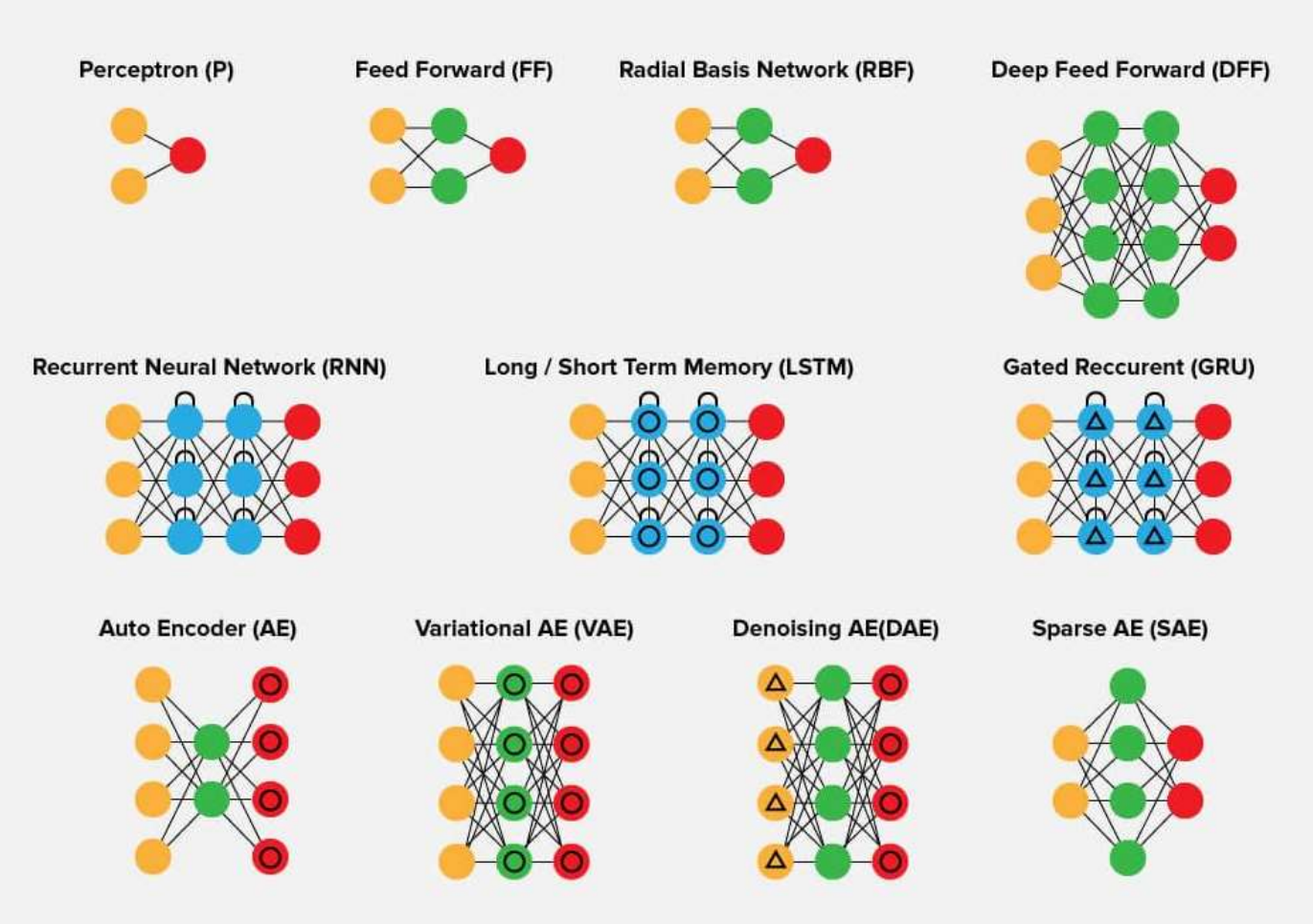
Neuraal netwerk voor herkennen digits



Training neurale netwerken



Trend 1: Advanced architectures



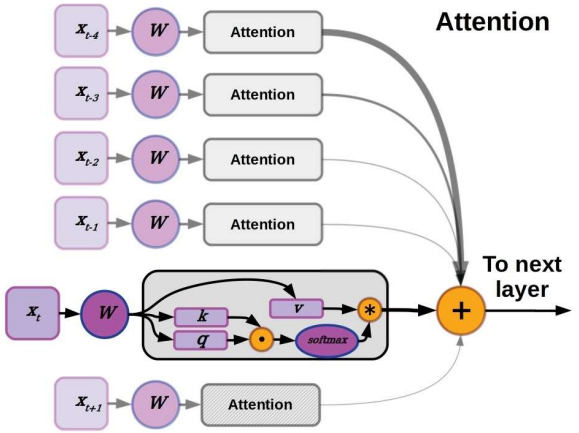
TensorF

PyTorch

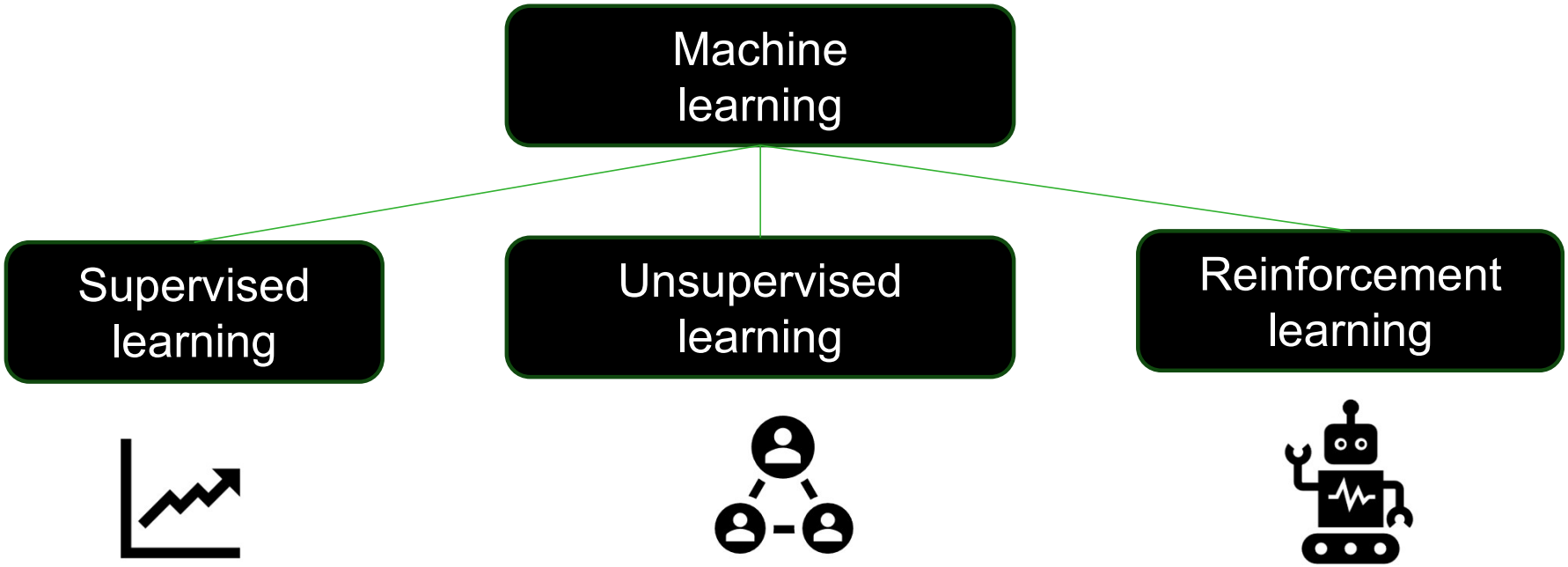
Keras

Trend 2: Advanced architectures

- Generative AI: AI die content produceert
  - tekst: ChatGPT
  - muziek: Amper Music
  - plaatjes: Dall-e
- Wederom
  - Nog meer data
  - Nog geavandeerdere NN architecturen
- Prompt engineering



Trend 3: Reinforcement learning



gelabelede data
data bevat correcte output

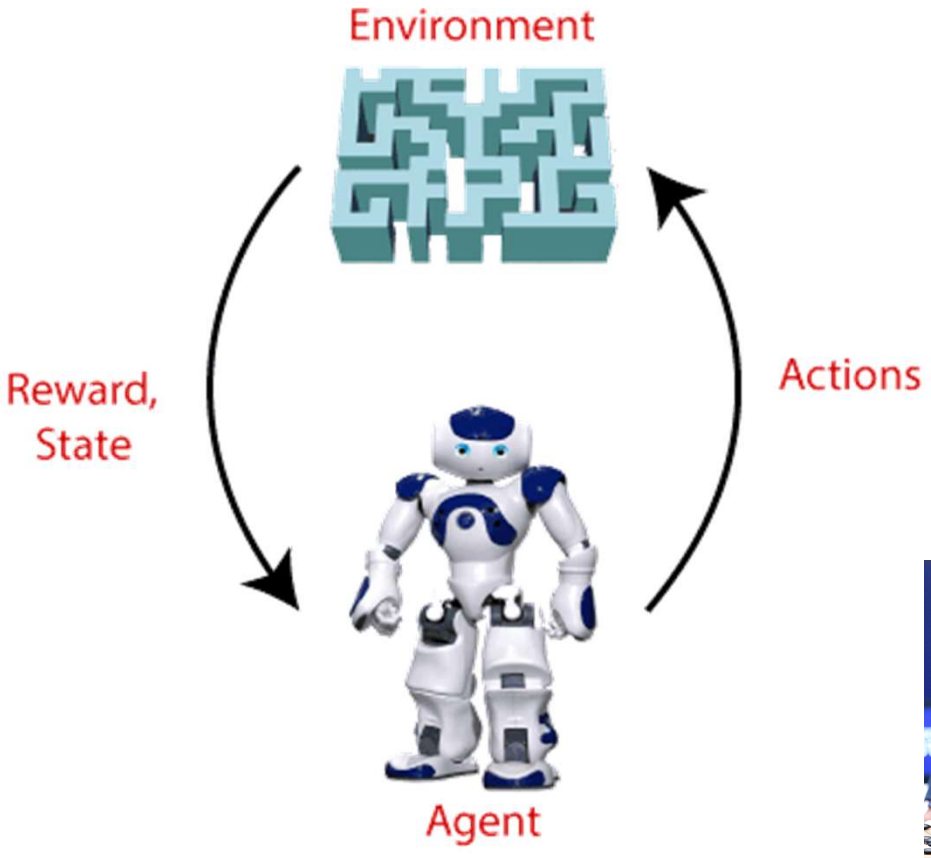
bv cijfer bij geschreven tekst

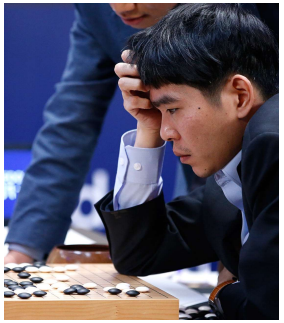
ongelablede data
data bevat correcte output

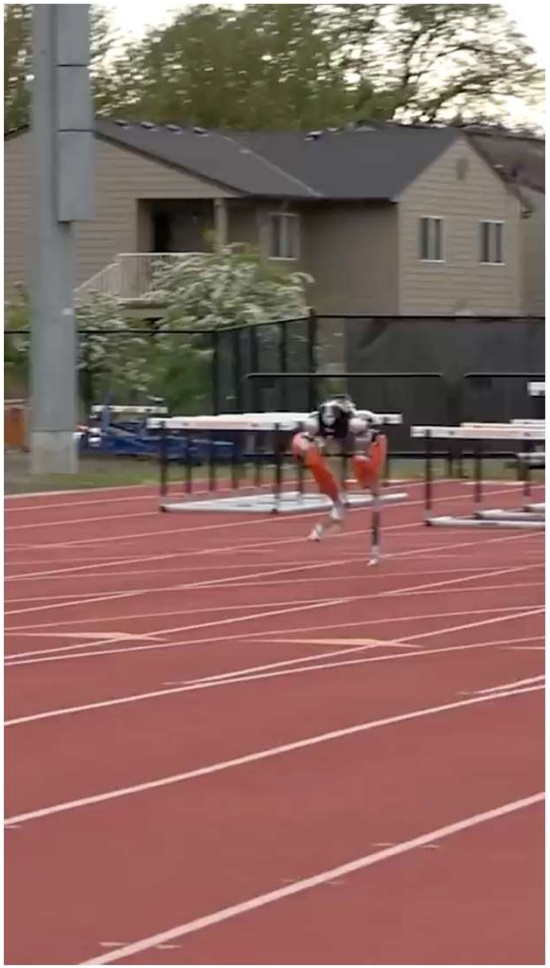
bv klusteren van klantprofielen obv aankoop data

Continue interactie
Leren van successen en falen

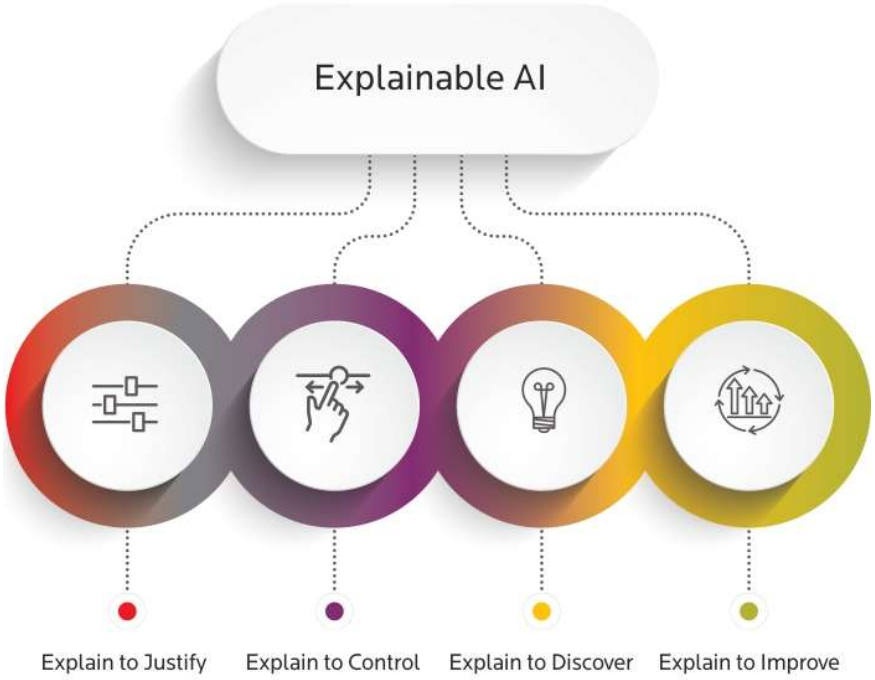
Trend 3: Reinforcement learning

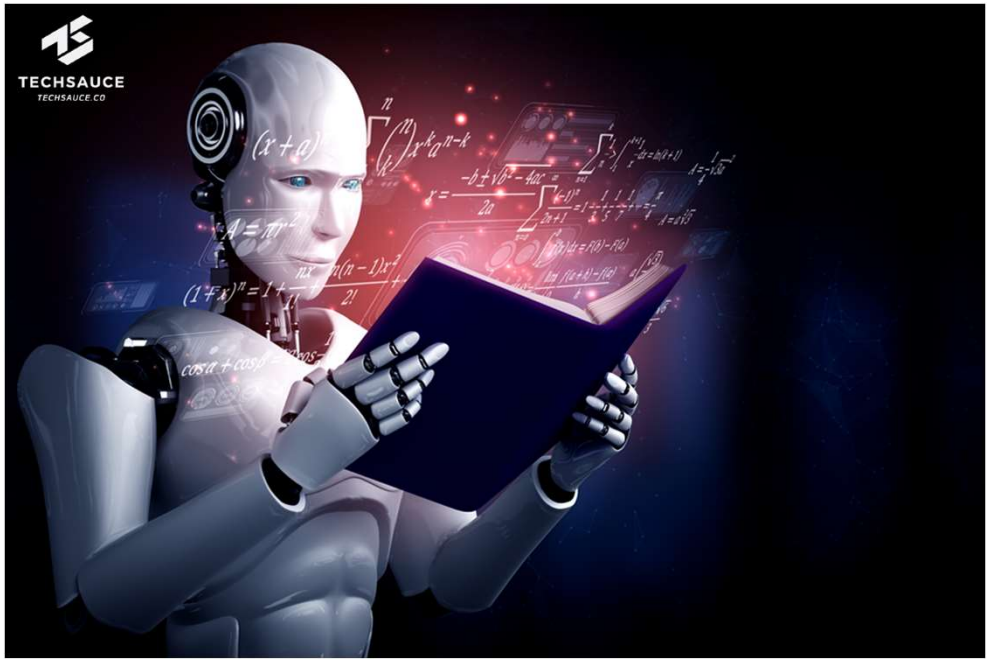






Next steps





Explainable AI
- Geen blackbox
- Correlatie vs causatie

General AI
- Nieuw training voor iedere taak
- Transfer learning

Kansen voor industrie

Kansen (KPMG)

- meest impactvolle emerging technology
- verhoogde productiviteit
- Competitive advantage

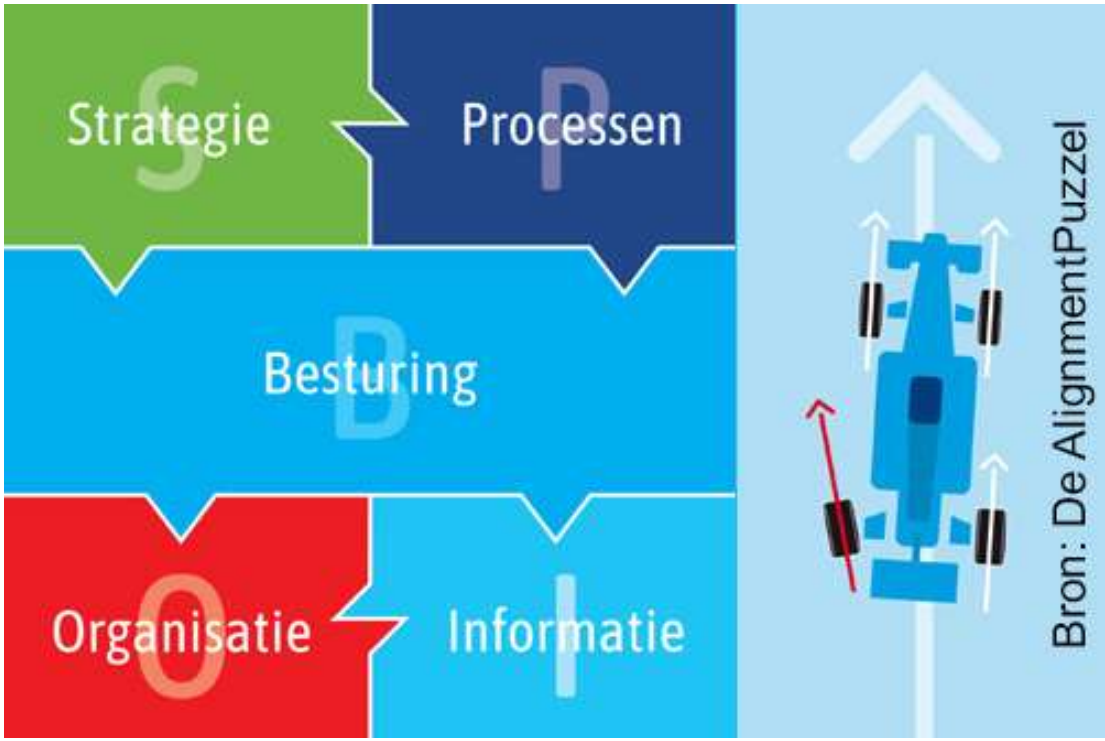
Concerns

- War for talent
- Business case onduidelijk
- Risico's, mn Cybersecurity & data privacy

Maar: adapt or die

Where to start?

- Digital strategy (incl risks)
- Alignment
- Talent management



Toepassing: predictive maintenance

Lessons learnt

JUST DO IT.


Lorentz center
Workshop @Oort
Predictive Maintenance
Let Data Maintain the Model
30 October - 3 November 2023, Leiden, the Netherlands
Topics
• Data Processing
• Prognostics
• Maintenance Optimization
The yellow chair illustrates the principle of predictive maintenance: perform maintenance only when it is truly necessary, but not too late. Photo by Ricardo Gomez Angel. Poster design: SuperNova Studios .NL
www.lorentzcenter.nl


De Dataloog
SEIZOEN 8
AFLEVERING 14
PREDICTIVE MAINTENANCE, DEEL 8
PRIMAVERA: HET HOE EN WAAROM VAN DATA-GEDREVEN ONDERHOUD
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