

AI Risk or Opportunity

Preparing for the Unexpected

July 2025

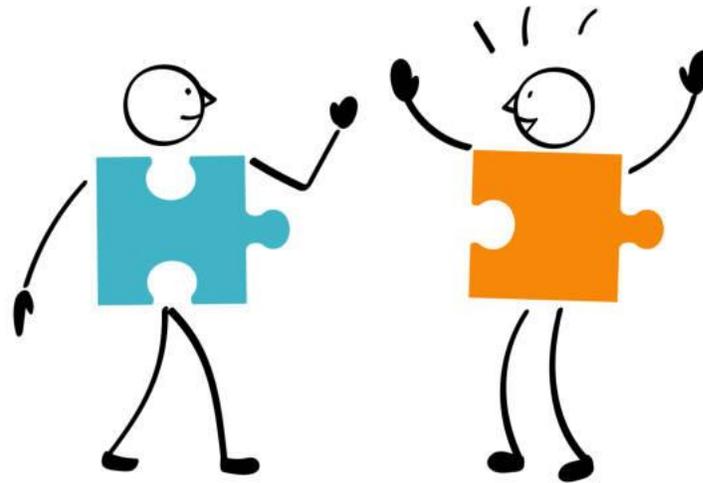




Two parts for today's session

Part 1: AI Risk vs. Reward

- Do we even need to manage it?
- Who manages it?
- How can you manage it?
- Can AI help us manage AI Risk?
- Will we all (you) lose our jobs?



Part 2: Lotto NZ Case Study

(Applied in practice)

- How we manage it?
- Who we assign accountabilities to?
- Responsibilities of oversight?
- How we help the business with oversight?
- How we use AI to help?
- What has happened to our headcount?





Part 1: AI 'Risk vs. Reward' equation



Preparing for the unexpected

	Key shifts in Human History	Overview / Description	Average Work week [Hours]
	 Hunter-gatherers (pre-10,000 BCE)	Hunter-gatherer societies, which represent <u>the vast majority</u> of human history, had notably different work patterns compared to later eras	reportedly worked as little as 15 hours per week , spending the rest of their time on leisure and social activities.
	 Agricultural Revolution approx. 10,000BCE – 1700s)	Around 10,000 BCE, societies shifted from hunting and gathering to farming and animal domestication. This led to settled communities, surplus food production, and the rise of cities.	Estimated average: ~15–30 hours per week agricultural societies had a more intermittent work schedule .
	 Industrial Revolution (late 1700s – early 1900s)	4 Key Industrial Revolutions 1st (Steam Power) 2nd (Mass Production / Electrification)	Estimated average: ~70–100 hours per week workers often endured long, grueling hours
	 Information Age (1970s – present)	3rd (Digital / Automation) Emerging in the late 20th century, this era is defined by rapid advancements in computers, digital communication, and the internet . Access to information and automation have transformed industries, social interactions, and global connectivity.	Estimated average: ~35–45 hours per week (in developed countries)
	 'Age of Intelligence' (2020s–present)	4th – IoT, BioTech, AI We are increasingly moving away from the Information Age and into what we could call the Age of Intelligence as we move deeper into the 21st century. Widespread integration of artificial intelligence (AI), machine learning, and advanced automation into nearly every aspect of life and work.	Estimated average: ~37–45+ hours per week (AI-augmented roles, paradox of longer hours) Contrary to expectations, AI has not significantly reduced working hours for many employees... or at least not yet!



AI – Keys risks...

Word cloud illustrating key risks associated with AI:

- Bias
- Privacy
- Surveillance
- Job Displacement
- Misinformation
- Equity
- Fairness
- Security
- IP
- Infringement
- Physical
- National
- Political
- Safety
- Stability



AI Risk vs. Reward

• **Bias and Discrimination:** AI models may perpetuate or amplify existing biases affecting fairness.

• **Data Privacy & Security:** Handling sensitive data poses privacy threats and potential breaches.

• **Misuse & Malicious Use:** AI could be exploited for unethical purposes or cyberattacks.

• **Operational Dependence:** Over-reliance on AI systems can lead to vulnerabilities if failures occur.

• **Regulatory & Legal Risks:** Evolving policies may impose compliance challenges and penalties.

• **Enhanced Decision-Making:** AI enables rapid analysis of large datasets for better insights.

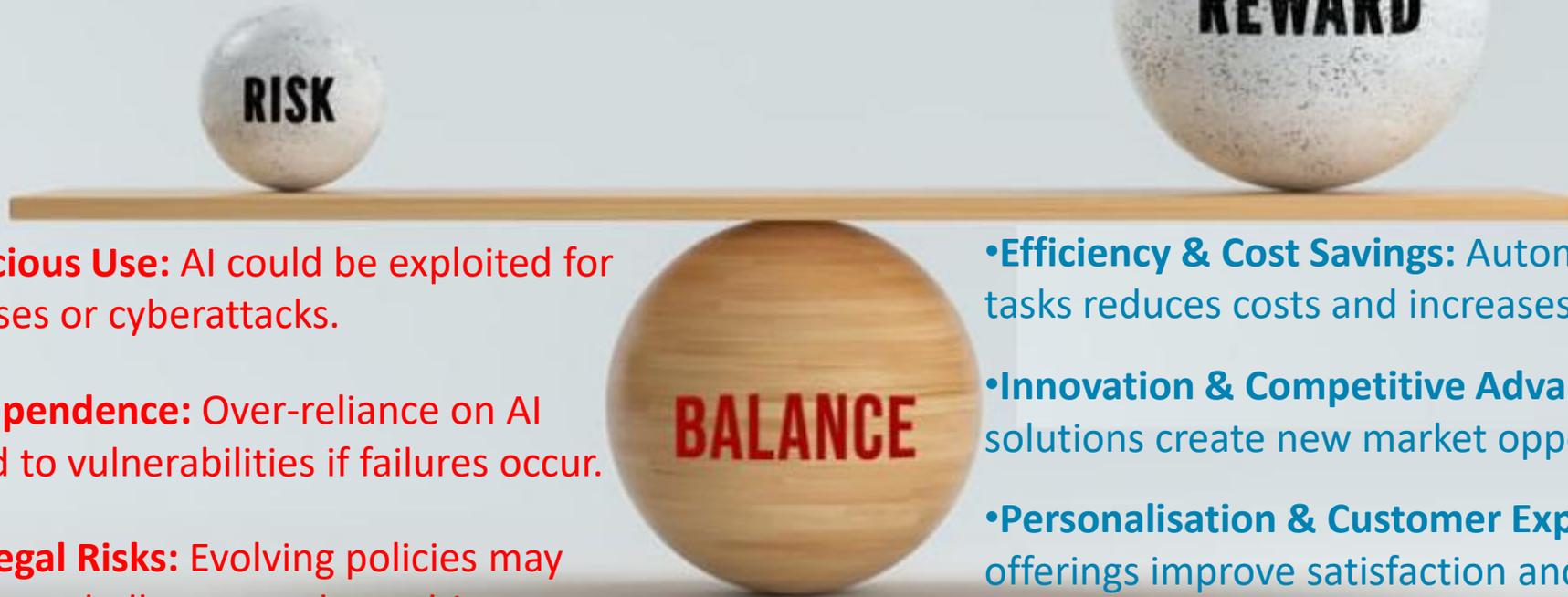


• **Efficiency & Cost Savings:** Automating repetitive tasks reduces costs and increases productivity.

• **Innovation & Competitive Advantage:** AI-driven solutions create new market opportunities.

• **Personalisation & Customer Experience:** Tailored offerings improve satisfaction and engagement.

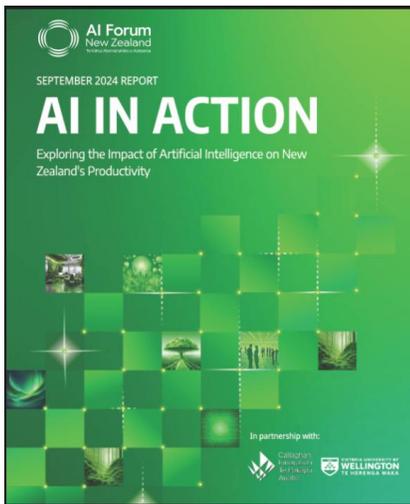
• **Risk Detection & Prevention:** AI can identify potential risks proactively, improving resilience.





AI – risk or opportunity?

- ❑ Gaining a clear understanding of risks and opportunities that AI currently presents to NZ organisations



1st Report (Sep 2024)



2nd Report (Mar 2025)

3rd Survey – In-progress

Trends:

- ❑ Uplift of 17% in AI usage (82% now using some form of AI) – w/in 6 months!
- ❑ 72% using off the shelf AI
- ❑ Key business functions providing immediate ROI: *'Administration', 'Marketing', 'Design' and 'Software Development'*.
- ❑ Minimal job displacements, but is impacting 'new hiring'

¹ The AI Forum, in partnership with Callaghan Innovation and Te Herenga Waka Victoria University of Wellington, is advancing its research into the impact of AI on productivity in Aotearoa New Zealand

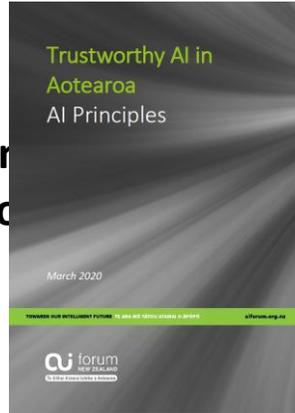


What is AI Risk Management

AI is a vast topic in itself and there is a growing plethora of content now (some technical and some not so technical) explaining AI ... This presentation is focussed on AI “Risk Management”.

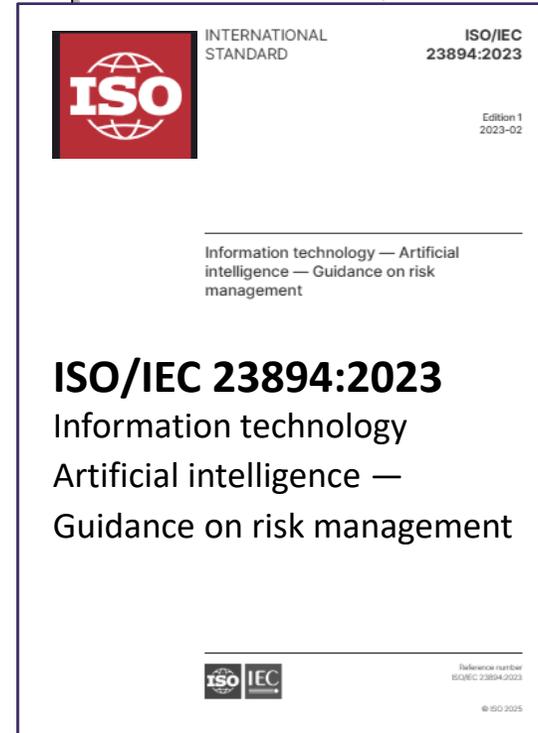
Focus here is on AI Risk Management:

- Do we even need to manage it?
- Who manages it?
- How can you manage it?
- Can AI help us manage AI Risk?
- Will all (some) of us lose our jobs? ...



[Link to AI Principles](#)

1. Fairness and Justice
2. Reliability, Security and Privacy
3. Transparency
4. Human Oversight and Accountability (HITL)
5. Wellbeing



[Link to ISO AI standard](#)

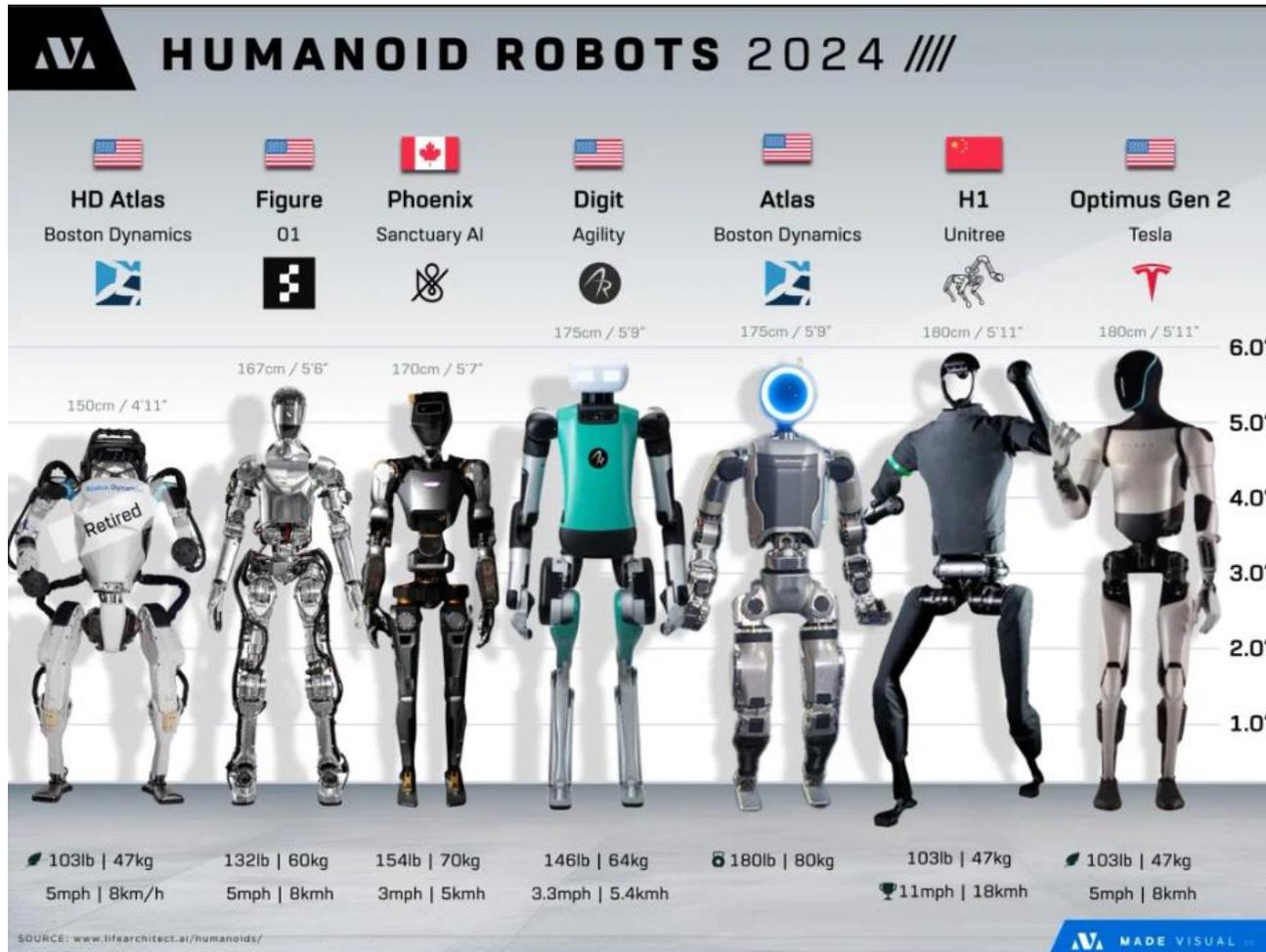


Hot off the press!
AI could add \$76B to GDP by 2038.

[Link to NZ Government AI Strategy](#)



Coming to a home [office] near you!



We will need to think about some serious concerns:





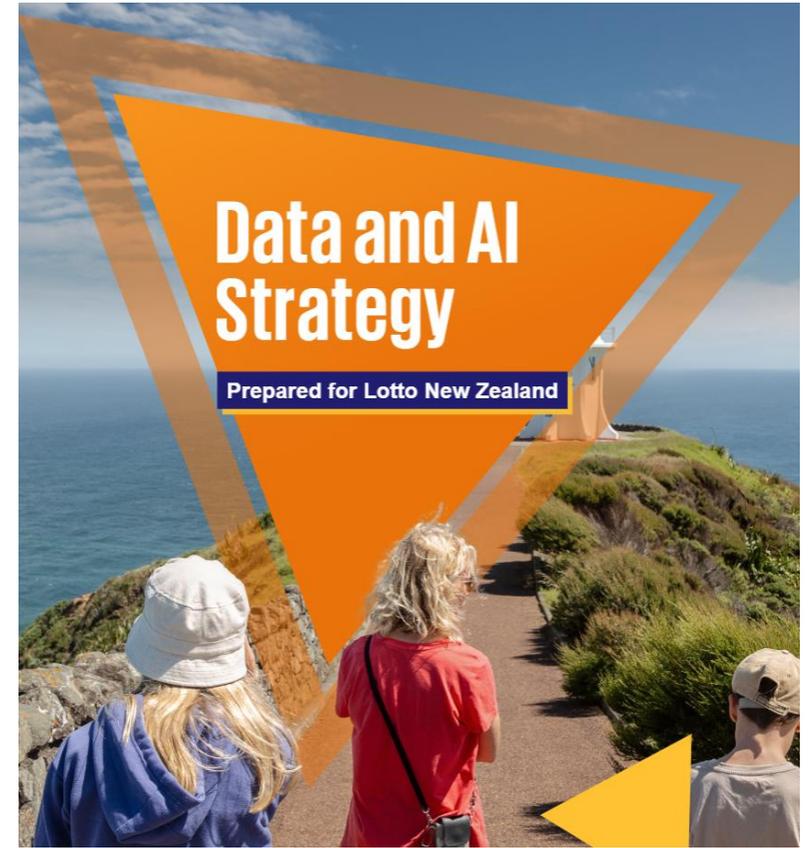
Part 2:

Lotto NZ Case Study (applied in practice)



Part 2: Lotto NZ Case Study

- Lotto NZ has opted to leverage and adapt existing ERM framework to accommodate AI (including Generative AI) risks rather than completely re-design ERM frameworks.





ERM AI – Applied in Practice



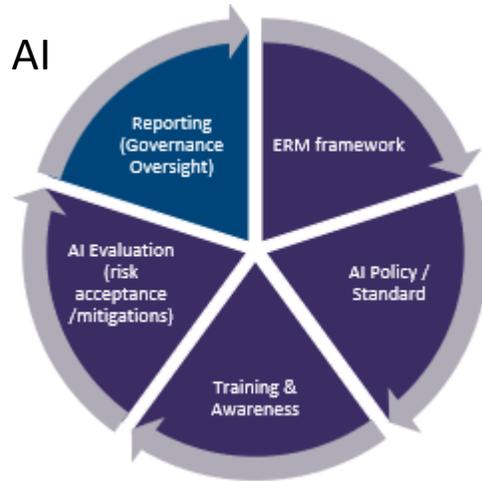
- ✓ AI Inventory:
 - ✓ You should have a list of your AI tools/applications

✓ Risk is the “effect of uncertainty on objectives”.

✓ So with Generative AI think about the ‘risk profile’ it creates e.g. data security and privacy risks

- ✓ Then apply controls to mitigate against those specific risks.

✓ *Example: Instead of ChatGPT (public version), we have opted to only permit use of Microsoft Co-pilot*



- ✓ All staff comm’s and workshops to help understand AI and risks



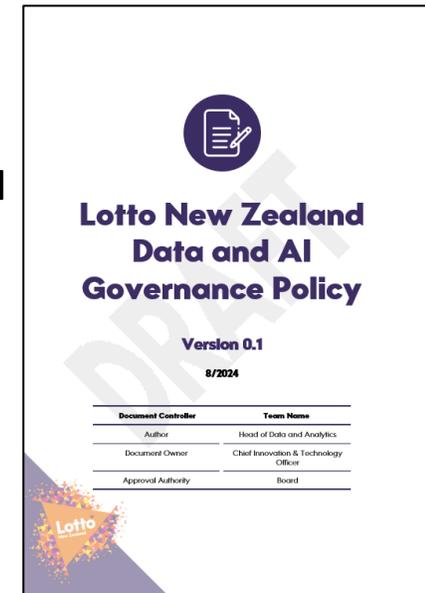
- ✓ Ideally the Board can help set a ‘Risk Appetite’ for AI
- ✓ Risk Management Policy risk types need to cover AI risk
- ✓ Assign an Executive as owner for the AI risk type
- ✓ Identify any synergies with AI risk and any other associated domains e.g. Data Governance.

Technology - Use of technology solutions fit-for-purpose to deliver against our strategy. This entails addressing technology obsolescence (outdated technology that is no longer maintained or supported) and adoption of new emerging technologies e.g. use of AI, shift to Cloud



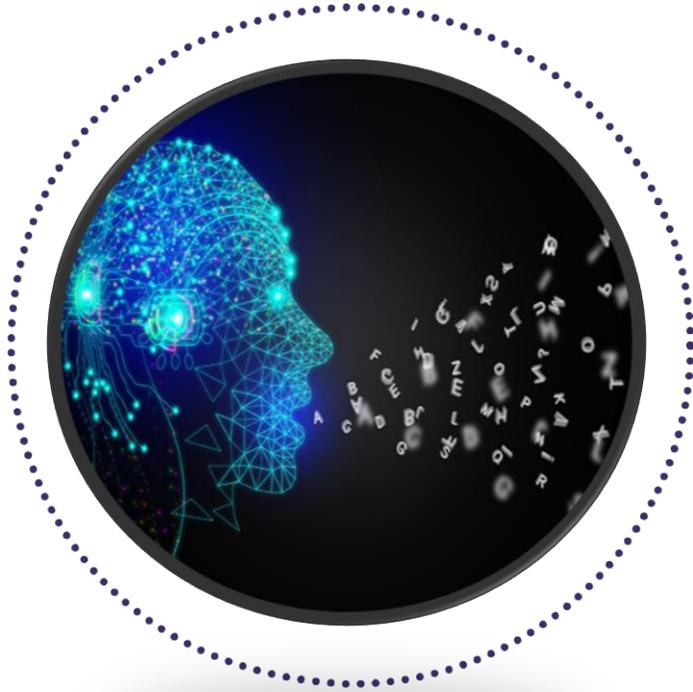
Under the overall ERM framework create a specific ‘policy and/or standard’ which covers details for AI

- ✓ We have also started to use #AI [tagging] in our ERM system





Key principles



———— Making a ————
meaningful difference
and having fun while doing it!

- Take a holistic ERM approach to manage AI / Generative AI risks within your organisation. 
- Adapt and refine based on your organisational needs. 
- Consider drivers e.g. FOMO, efficiency etc. 
- Risk vs. Reward (Opportunity) 
- Data is king! (quality and accuracy) 
- Risk of getting it wrong vs. Opportunity of getting it right 😊 



Practical tips



— Making a —
meaningful difference
and having fun while doing it!

- **AI Committee**
(develop guidelines for AI use and educate users) 
- **Establish risk analysis / assessment process for deployment of Gen AI / AI tools** 
- **Identify what data can be used in AI platforms** 
- **Apply data security controls to any external facing AI tools** 
- **Ensure Data Loss Prevention tools are in place** 
- **Assign an Executive role as responsible for AI** 



Final thoughts...

- AI/Generative AI tools aren't perfect
- The real use cases for AI are still being developed.
 - The pace of development for AI is impressive.
- It's not a race!.... Innovation travels borders

- Amara's law:
 - “The impact of technology is often underestimated in the long run, despite being frequently overestimated in the short term”*



Appendix: AI Real World Case Studies



Duolingo's AI Damage Control



- Duolingo is a free language-learning platform that offers courses in over 40 languages.
- In April, Luis von Ahn (CEO and Cofounder) announced ideas to make company 'AI first' and go 'all in'
 - *phasing out contractors if AI could do their work; and*
 - *giving a team the ability to hire a new person only if they were not able to automate their work through AI.*
- Unexpected push back from **customers**
- CEO forced to essentially walk back his comments...

“They’ve been getting absolutely cooked on every social media platform I’ve seen them on...”
– Reddit User

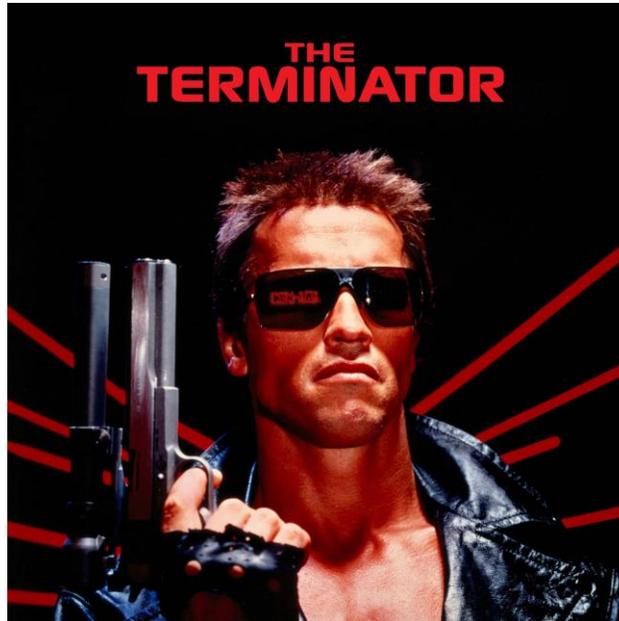


Car Manufacturer (Marketing problem)

- When did self driving cars start?
- Manufacturer had it working back in **1986!**



- Released in 1984!
- 'Judgement Day' – machines are **self-aware**



- So **who** is really driving your AI vehicle?

