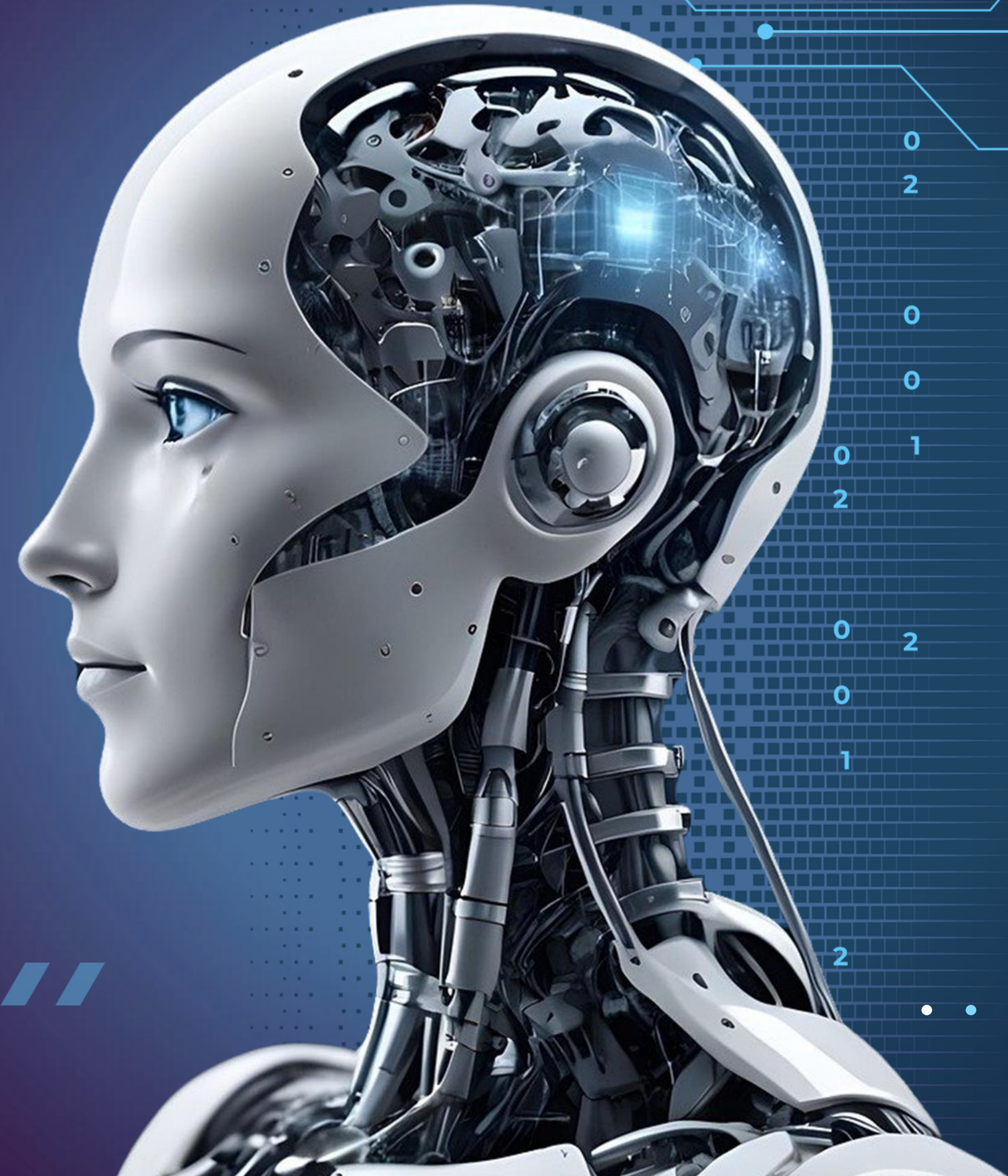


ARTIFICIAL INTELLIGENCE

Luke Thompson
Head of Data Protection & Legal Services



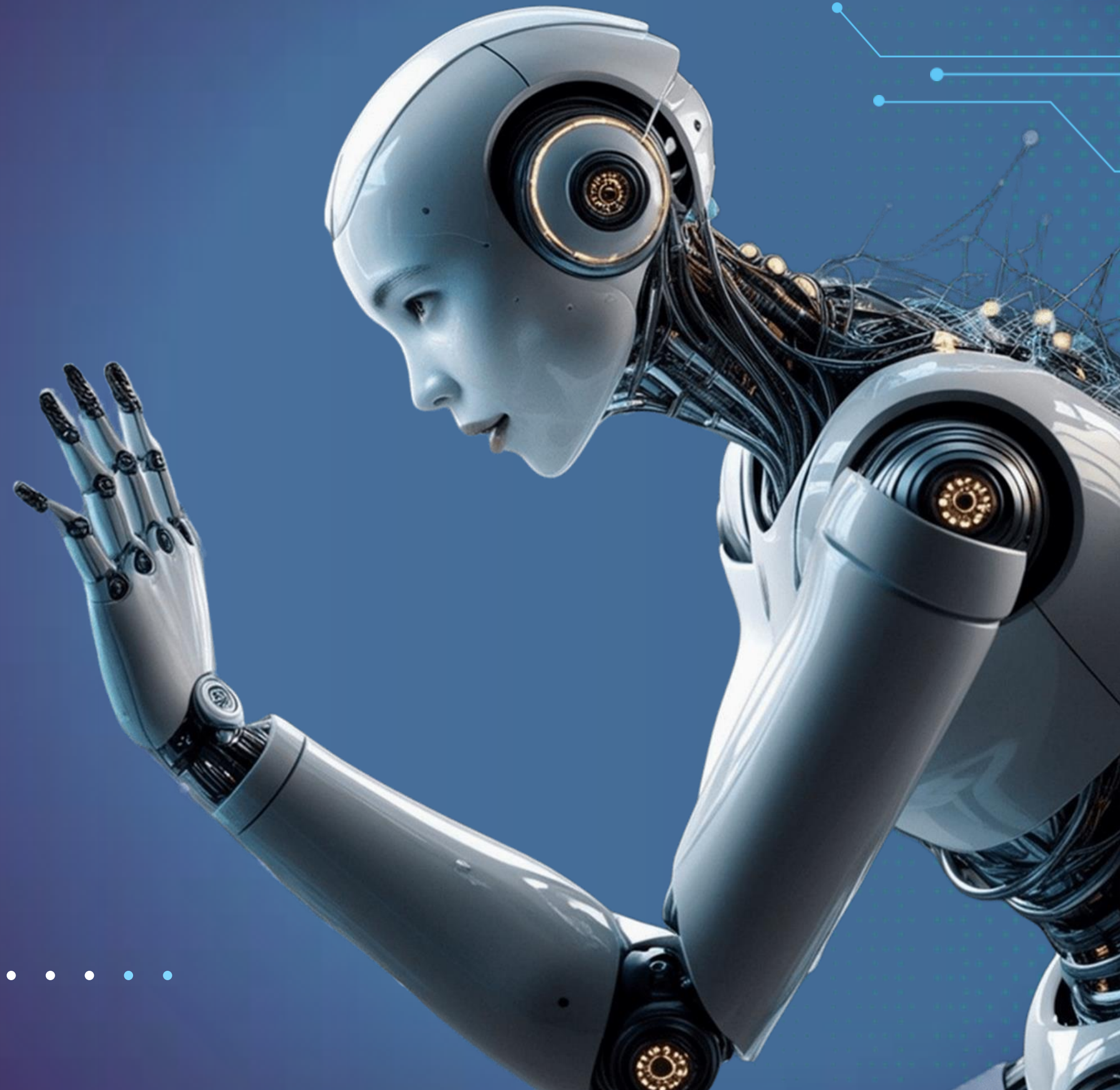


Learning outcomes

1. Difference between AI, AGI and ASI
2. Key risks of using AI in education for staff and students
3. How to use AI safely in Education – what does good practice look like
4. What is in the pipeline for Data Protection and AI?
5. The process for getting AI tools approved and what we are doing at Sheffield
6. Real word examples of AI being used

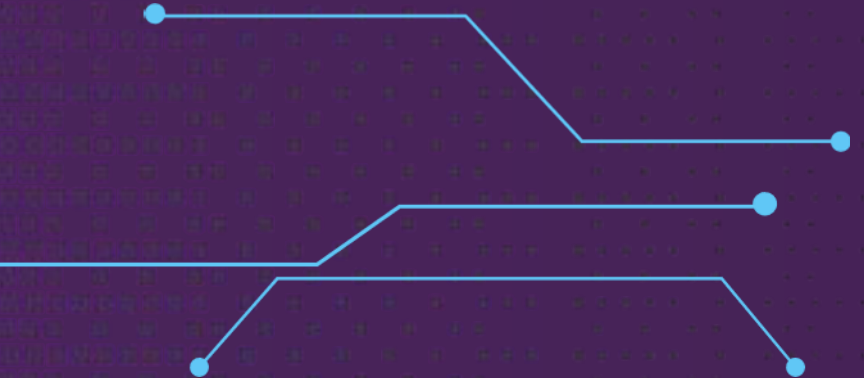
INTRODUCTION:

The difference between AI, AGI and ASI

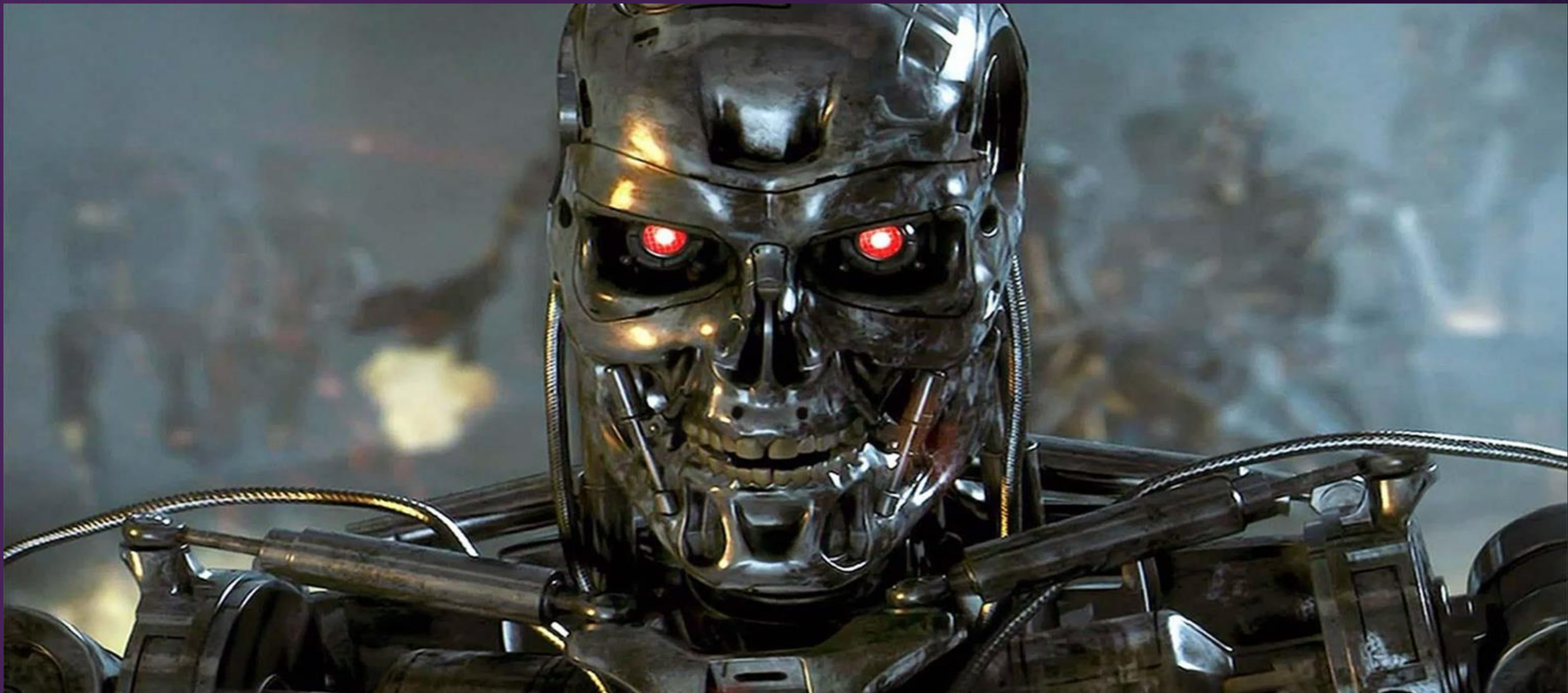


AI, AGI & ASI

- AI (ANI Artificial narrow intelligence) – Designed to perform a single or narrow set of tasks at a high level of proficiency
 - Operates under a narrow set of constraints and limitations
- AGI: Intended to closely mimic human intelligence will likely have the ability to learn.
- ASI: Capable of outperforming humans, self-aware, understanding and evoking human emotions and experiences.



Key risks to using AI:



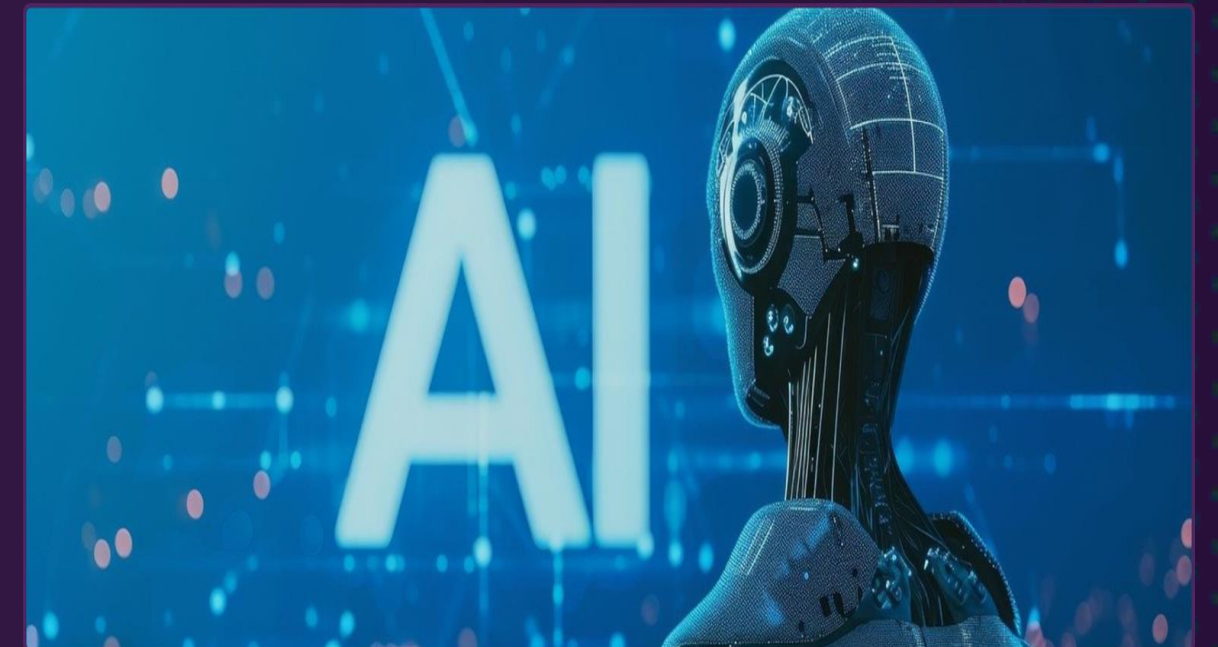
Key risks to using AI:

Inaccurate data – NOYB!

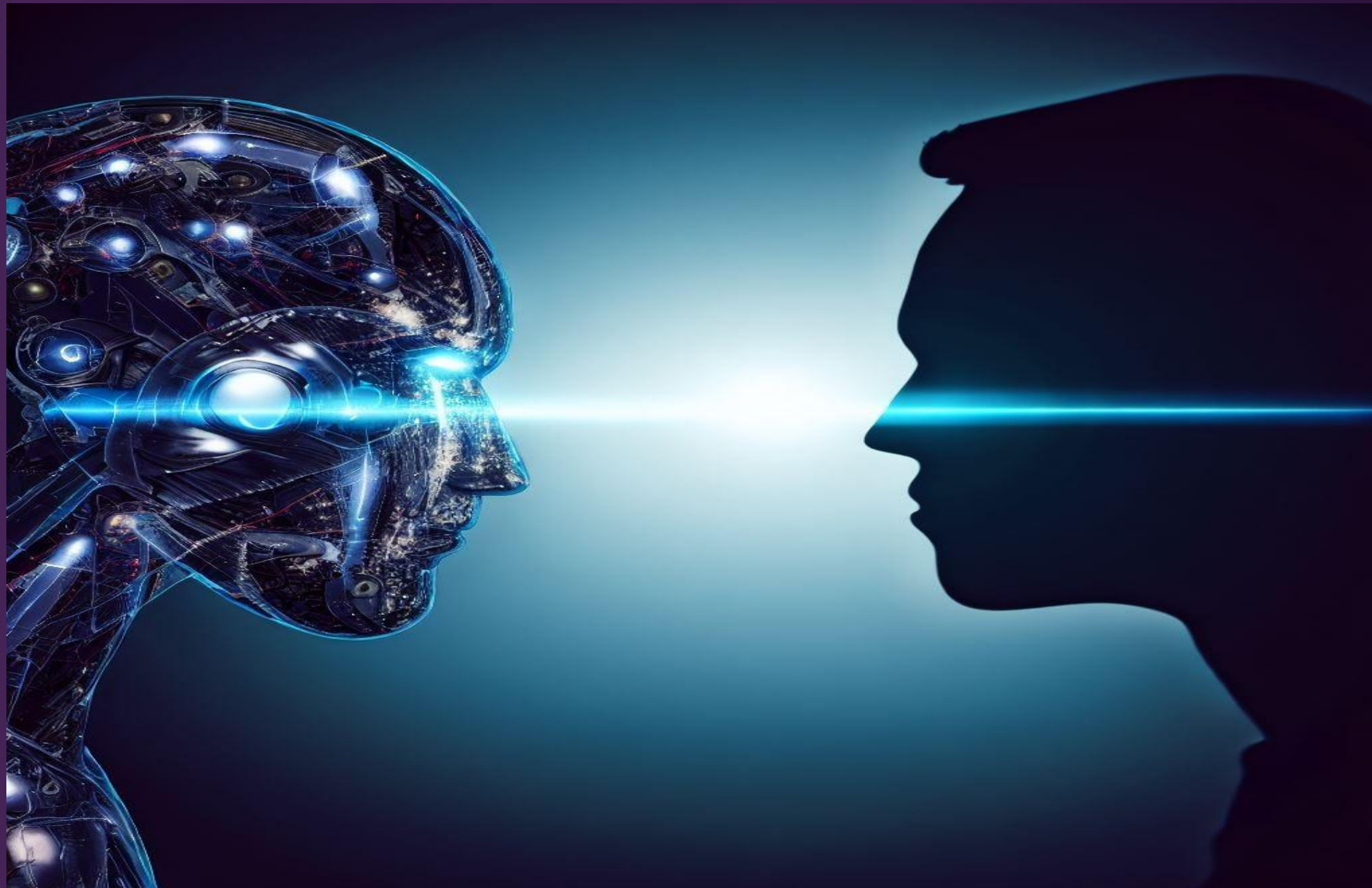
Spear phishing !

What are you consenting to?

Sometimes it acts how it wants to! (Amazon – Detroit police)



AI vs Humans



AI vs Human

Question 1: What is the molecular formula for tetrachlorocobaltate?

AI vs Human

Question1 AI Answer:

 ChatGPT 4o mini 

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chemical formula for tetrachlorocobaltate

 The chemical formula for the **tetrachlorocobaltate** ion is $[CoCl_4]^{2-}$.

This refers to a coordination complex where a **cobalt** (Co) ion is surrounded by four **chloride** (Cl) ions in a **tetrahedral arrangement**. The cobalt ion typically has a +2 oxidation state, and the overall complex carries a 2- charge due to the four chloride ions, each with a -1 charge.

So, the formula is written as:

$$[CoCl_4]^{2-}$$

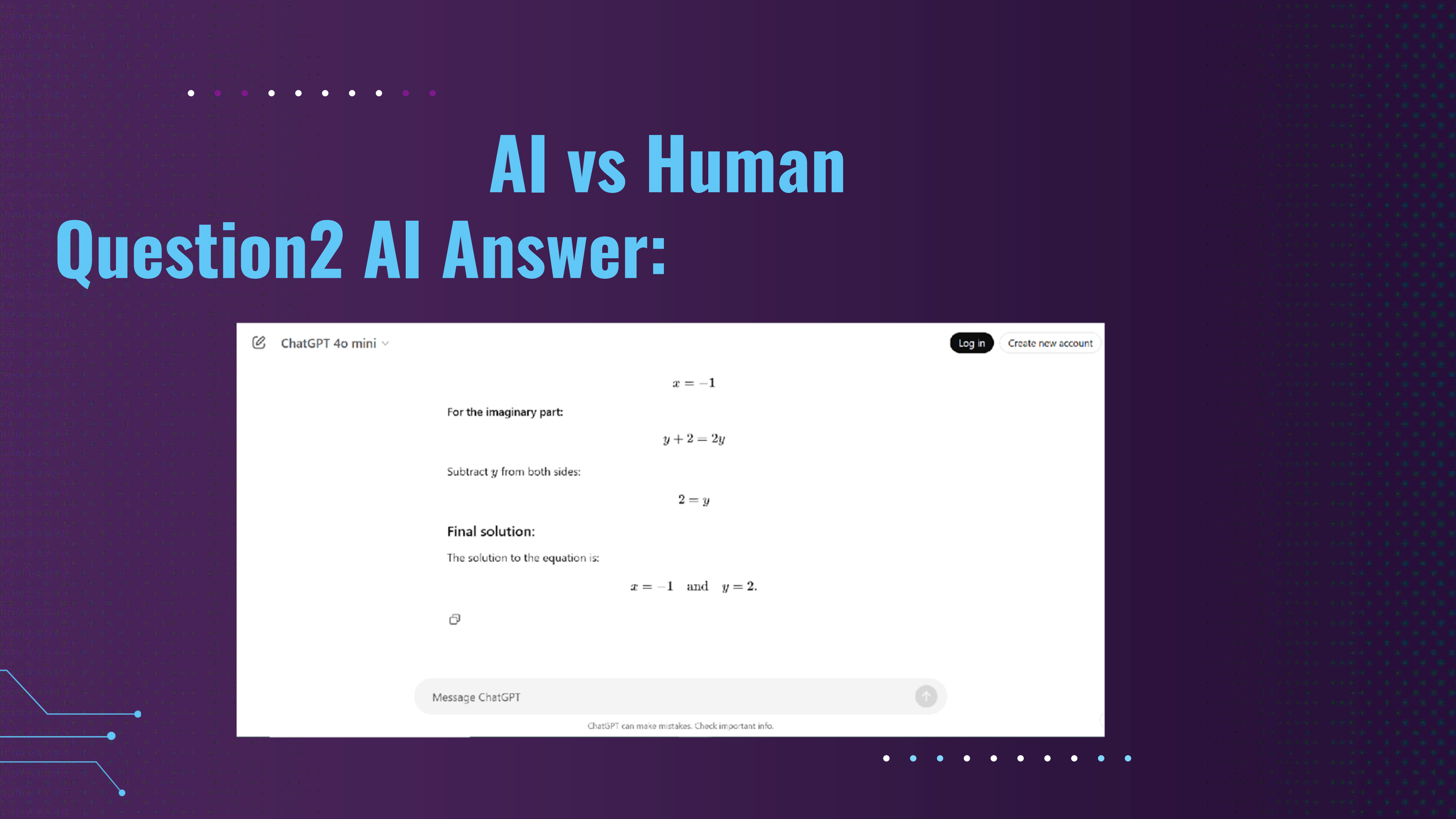


Message ChatGPT 

AI vs Human

Question 2: Solve for x and y

$$3x + 1 + (y + 2)i = 2x + 2yi.$$



AI vs Human

Question2 AI Answer:

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$$x = -1$$

For the imaginary part:

$$y + 2 = 2y$$

Subtract y from both sides:

$$2 = y$$

Final solution:

The solution to the equation is:

$$x = -1 \quad \text{and} \quad y = 2.$$



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ChatGPT can make mistakes. Check important info.



AI vs Human

Question 3: I placed a diamond in a cup then placed the cup upside down on my bed, I then put the cup in the fridge, where is the diamond?



AI vs Human

Question3 AI Answer:



Based on the information provided, the diamond should still be in the cup, which is now in the fridge. Placing the cup upside down on the bed would not have caused the diamond to fall out of the cup, and moving the cup to the fridge would not have caused the diamond to disappear. Therefore, the diamond should still be safely inside the cup, now located in the fridge.

How to use AI safely and what good looks like

1. Don't use personal data unless your sure it is appropriate to do so
2. Don't use commercially sensitive data
3. Be cautious when using the information you are provided with

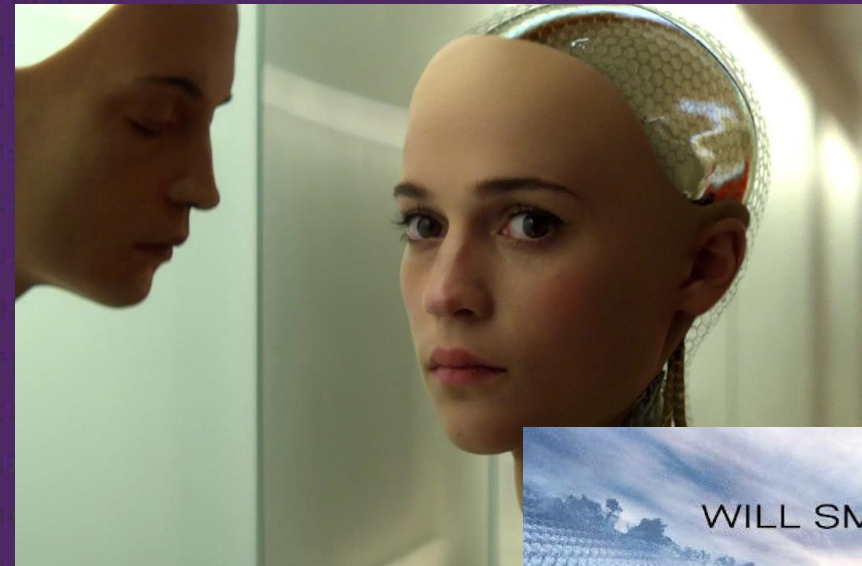
A roadmap for Data Protection and AI and what is in the pipeline that is relevant for staff who teach and support learning?

1. A reactive University
2. EU AI Act
3. UK AI Regulation

The process for getting AI tools approved and how we work at Sheffield

1. Data Protection Impact Assessment (DPIA) or DMP
2. Information Security Assessment
3. Check out the DP pages on the University website for guidance on AI!
4. Talk to your DPO!

When AI gets it wrong



When AI gets it wrong

1. Poorly prepared lawyer
2. Trolley problem
3. Starting a business in NYC
4. Look out sports stars
5. Bing AI is not friendly!

Questions