

A human brain is shown in a light brown color, centered in the background. Overlaid on the brain is a complex, glowing digital circuit or network pattern in shades of blue, green, and yellow. The pattern consists of numerous interconnected lines and nodes, resembling a neural network or a computer circuit.

# Artificial Intelligence: The Risks and Opportunities

Dr Bruno Voisin

Irish Centre for High-End Computing

University of Galway

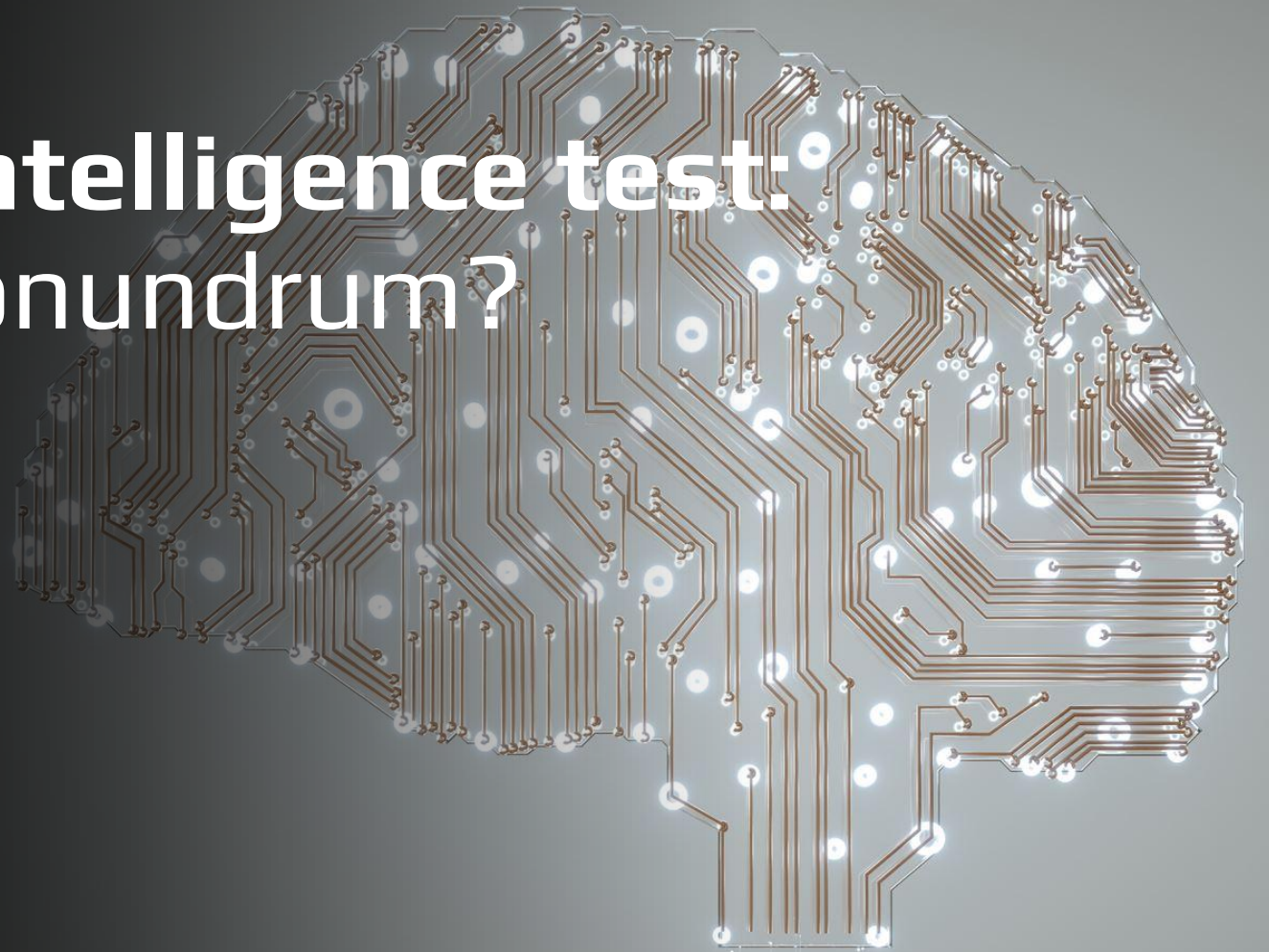
The background of the slide features a stylized brain shape formed by intricate circuit board traces. At the base of the brain, a microchip is depicted with lines extending upwards, suggesting a connection to the neural structure. The overall color palette is dark and monochromatic, with shades of grey and black.

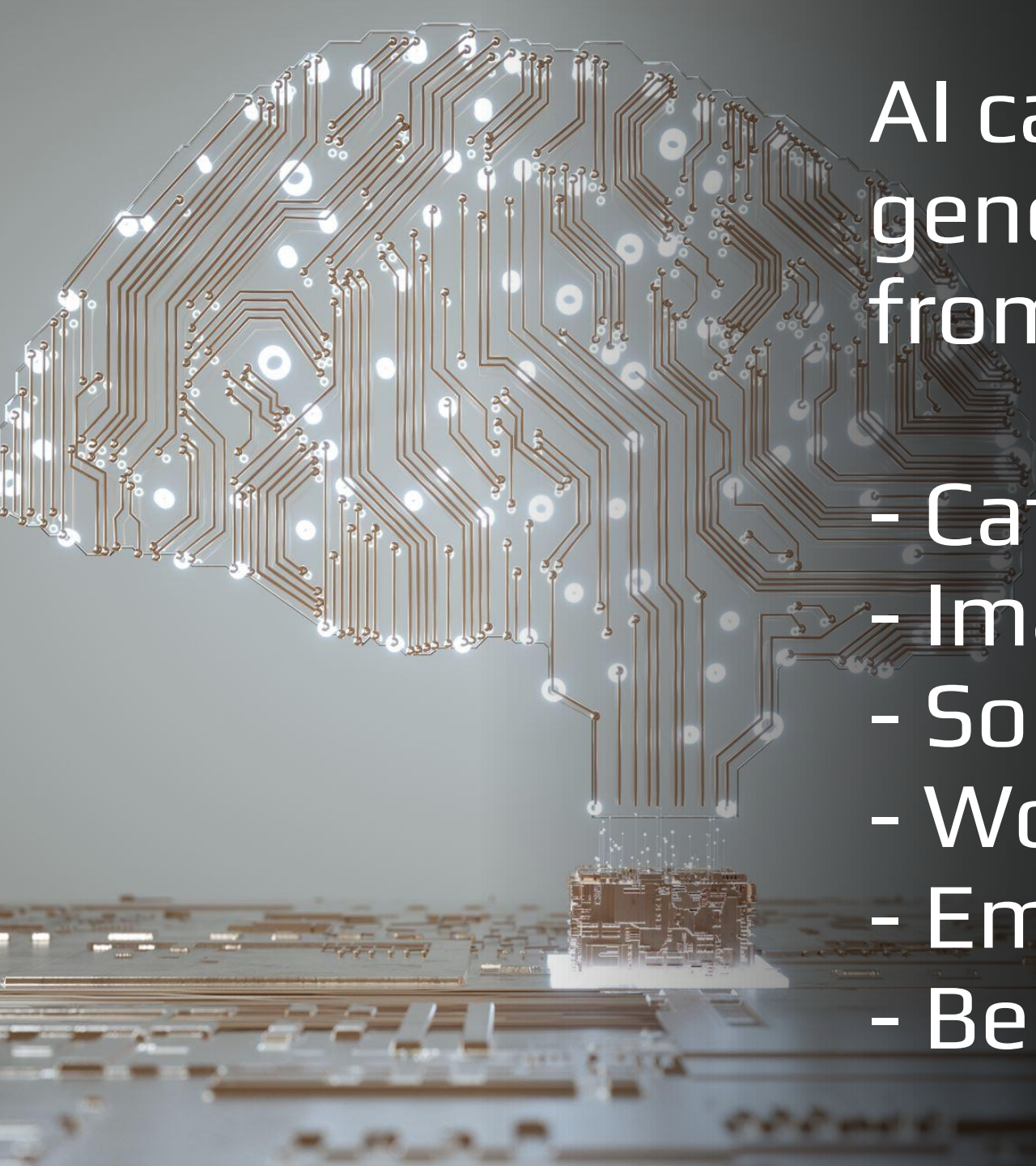
First things first...

What *\*is\** Artificial  
Intelligence?



**The Non-artificial Intelligence test:**  
Can you solve this conundrum?





AI can only  
generate numbers  
from numbers, but...


- Categories are numbers
- Images are numbers
- Sounds are numbers
- Words are numbers
- Emotions are numbers
- Behaviour is numbers



# Compute Power and Data



- Training AI is compute intensive.
- Training AI requires *lots* of data.
- Right now, *data* is often the limiting factor.
- OSH-related data tends to be personal.

The background of the slide features a dark, moody image of a city skyline at night, with lights reflecting on water. Overlaid on this is a large, semi-transparent graphic of a human brain. The brain's interior is filled with a complex network of glowing circuit lines and nodes, resembling a printed circuit board (PCB) or a neural network diagram. The text is centered over the brain graphic.

# AI Risks & Opportunities

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## Use Case 1: People Analytics



# Understanding workers through numbers and removing human bias: People Analytics

"The use of big data tools to measure, report and understand employee performance, aspects of workforce planning, talent management and operational management."

*Qualifies as AI under EU law*



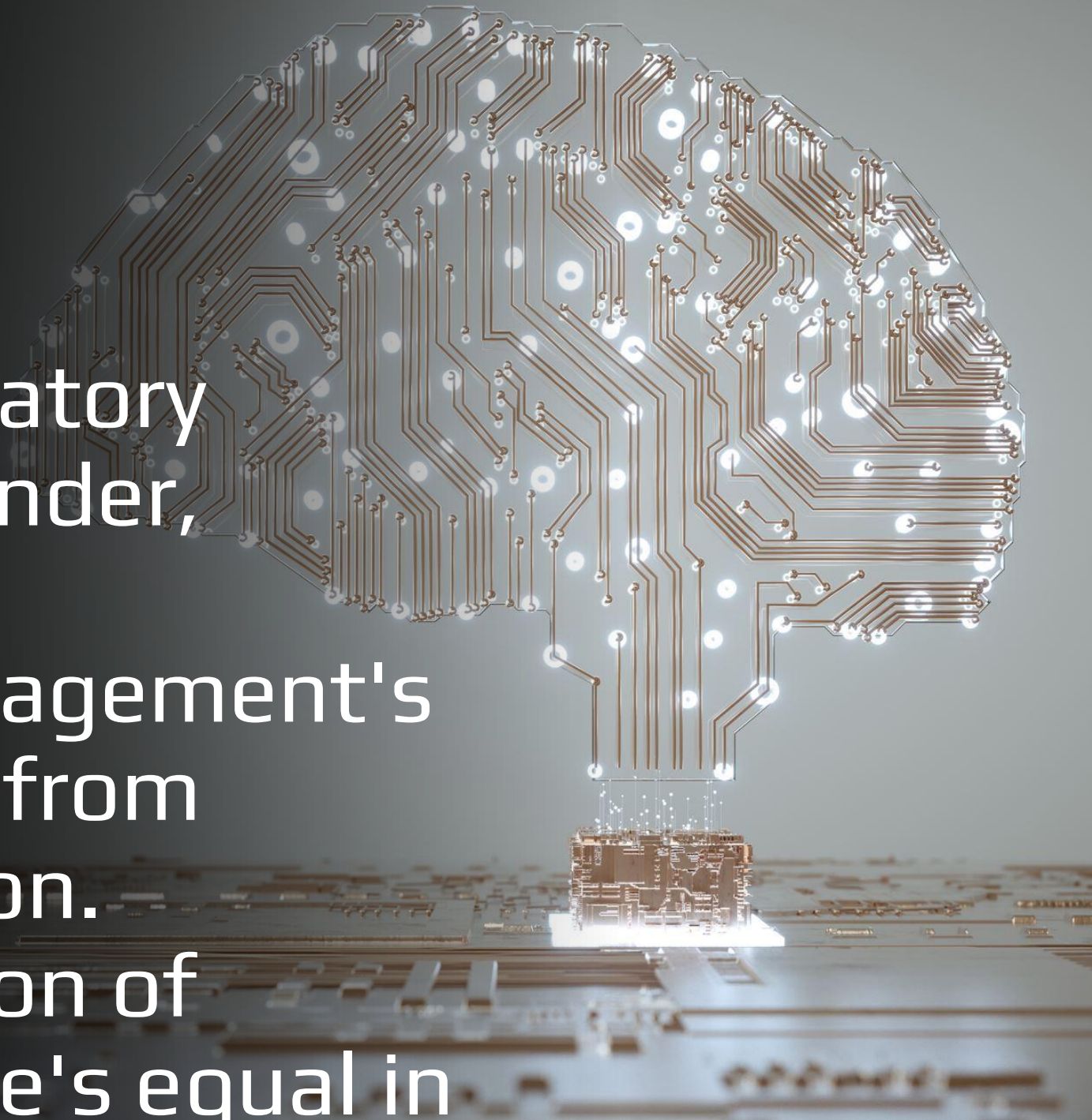
# Removing human bias as a source of worker stress

- Recruitment
- Performance reviews
- Promotions
- Career opportunities



# Removing bias

- Removing potentially discriminatory information: age, gender, ethnicity...
- Removing line management's personal perception from employee's evaluation.
- Removing perception of favouritism: everyone's equal in

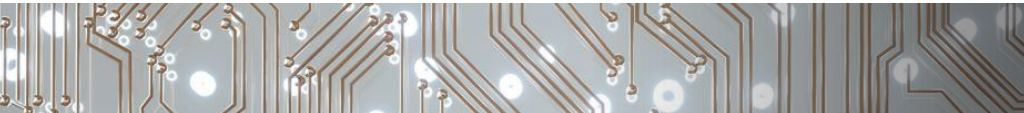




# Removing Bias: the data

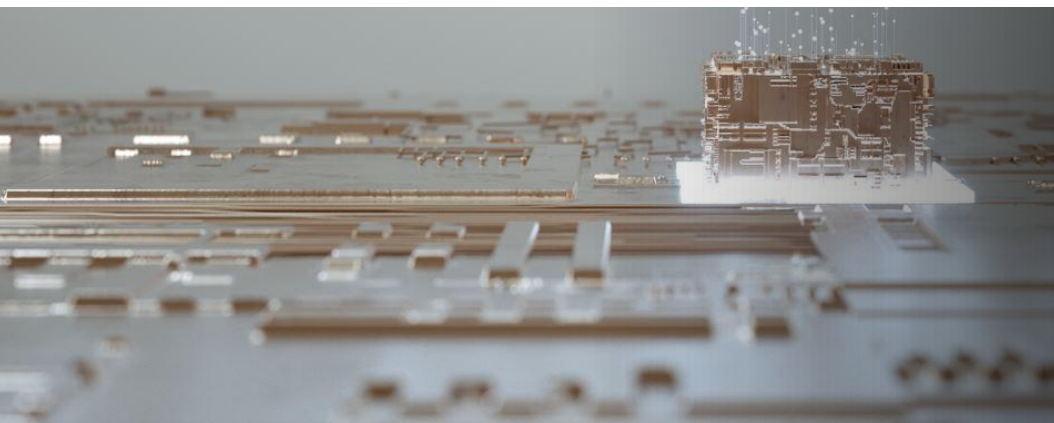
 algorithm shows prestigious job ads to men, but not to women. Here's why that should worry you.

July 6, 2015



## 3. Racial bias

All the images returned for terms such as “journalist”, “reporter” or “correspondent” exclusively featured light-skinned people. This trend of assuming whiteness by default is evidence of racial hegemony built into the system.



Insight -  scraps secret AI recruiting tool that showed bias against women

## Predictive policing is still racist—whatever data it uses

Training algorithms on crime reports from victims rather than arrest data is said to make predictive tools less biased. It doesn't look like it does.

By Will Douglas Heaven

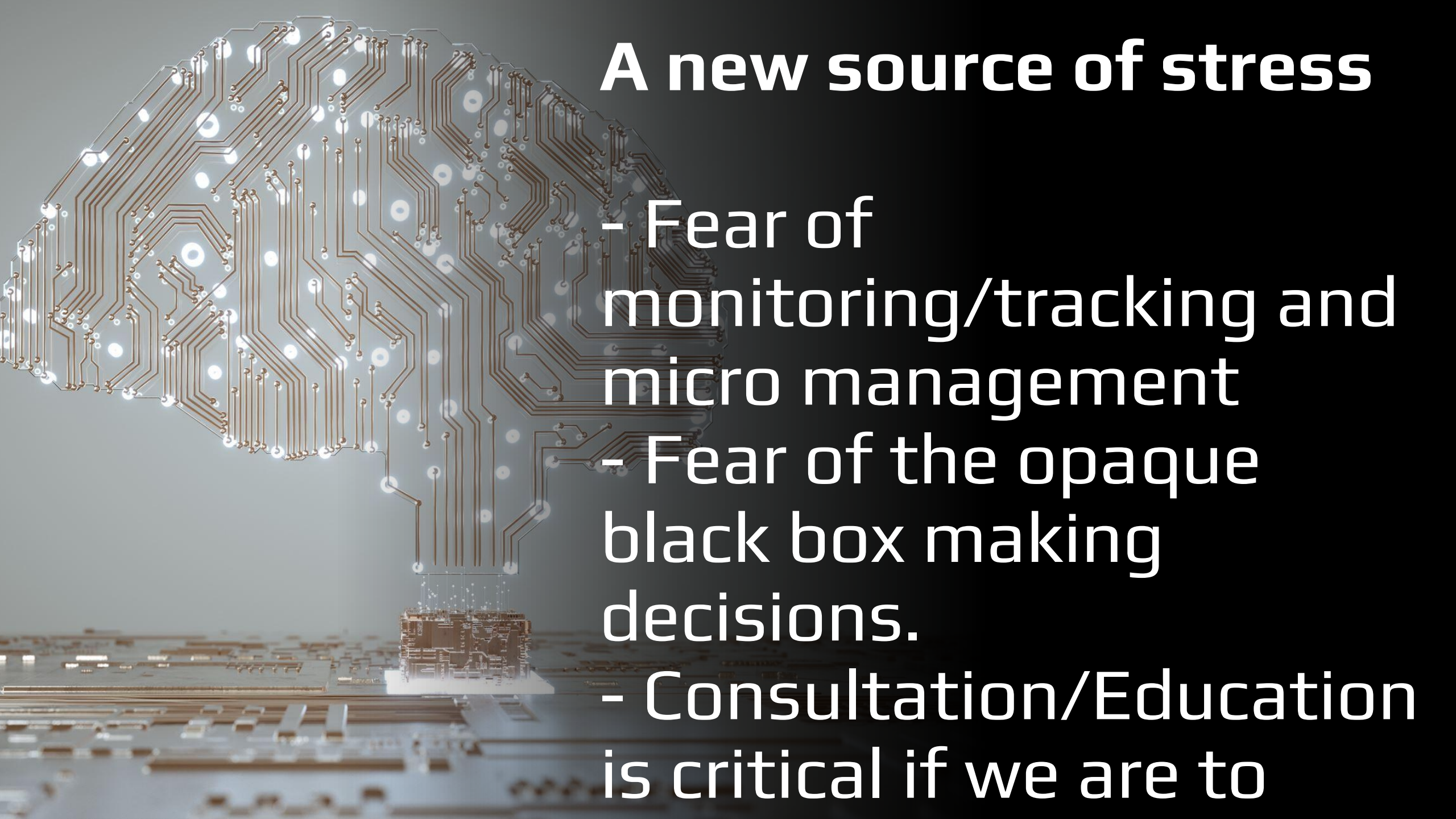
February 5, 2021



# ***Bias* is bad, but *Context* is good**

- A worker's performance could have been impacted by gender-specific problems.
- Line management might be aware of personal factors to take into account.
- AI will never have *all* the data, therefore Human Resources should probably remain *Humane*.






# A new source of stress

- Fear of monitoring/tracking and micro management
- Fear of the opaque black box making decisions.
- Consultation/Education is critical if we are to





# AI Risks & Opportunities

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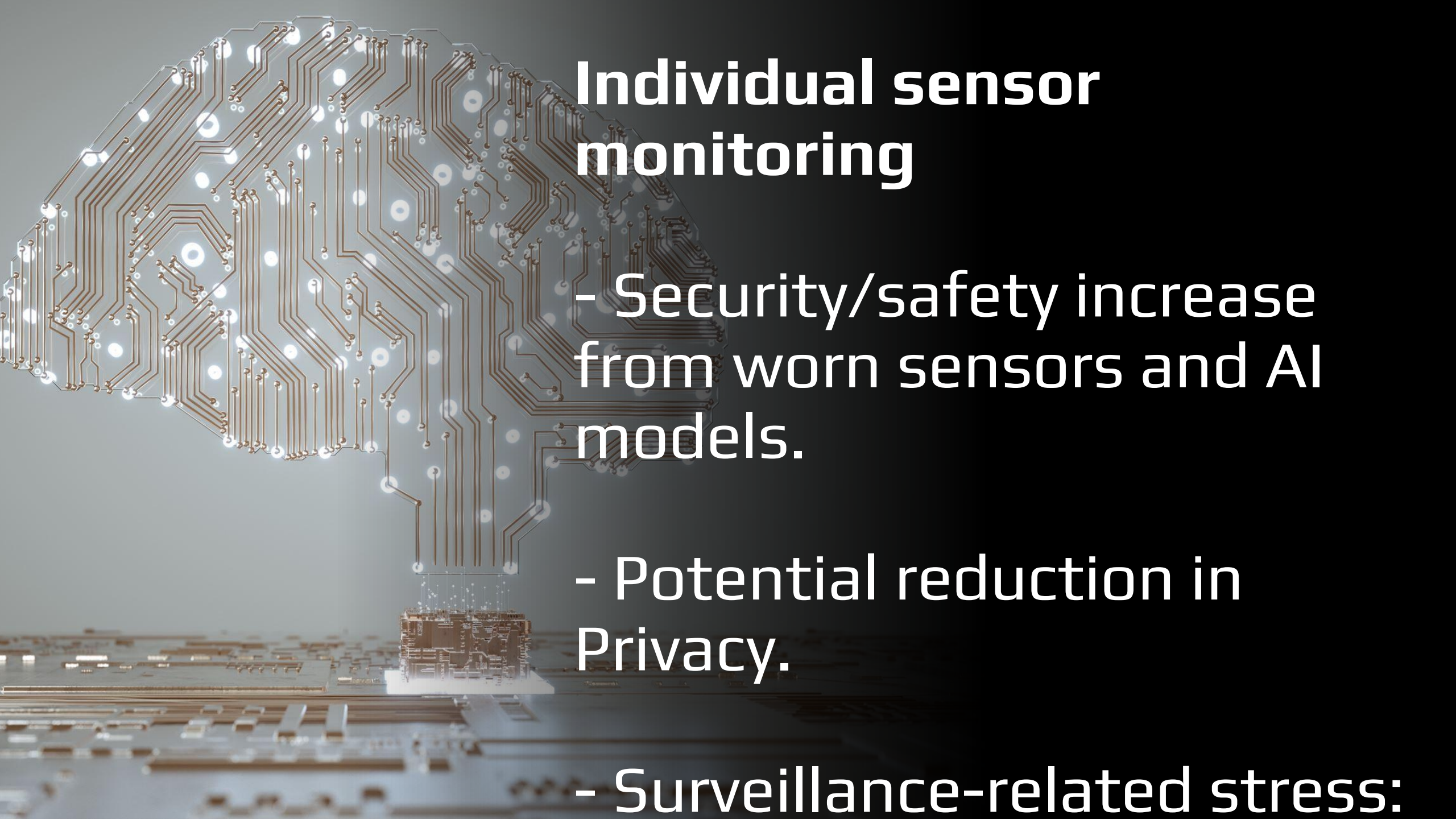
## Use Case 2: Wearable Devices

# Workplace Wearables

- Location tracking
- Health monitoring
- Exposure monitoring
- Augmented Reality assistants





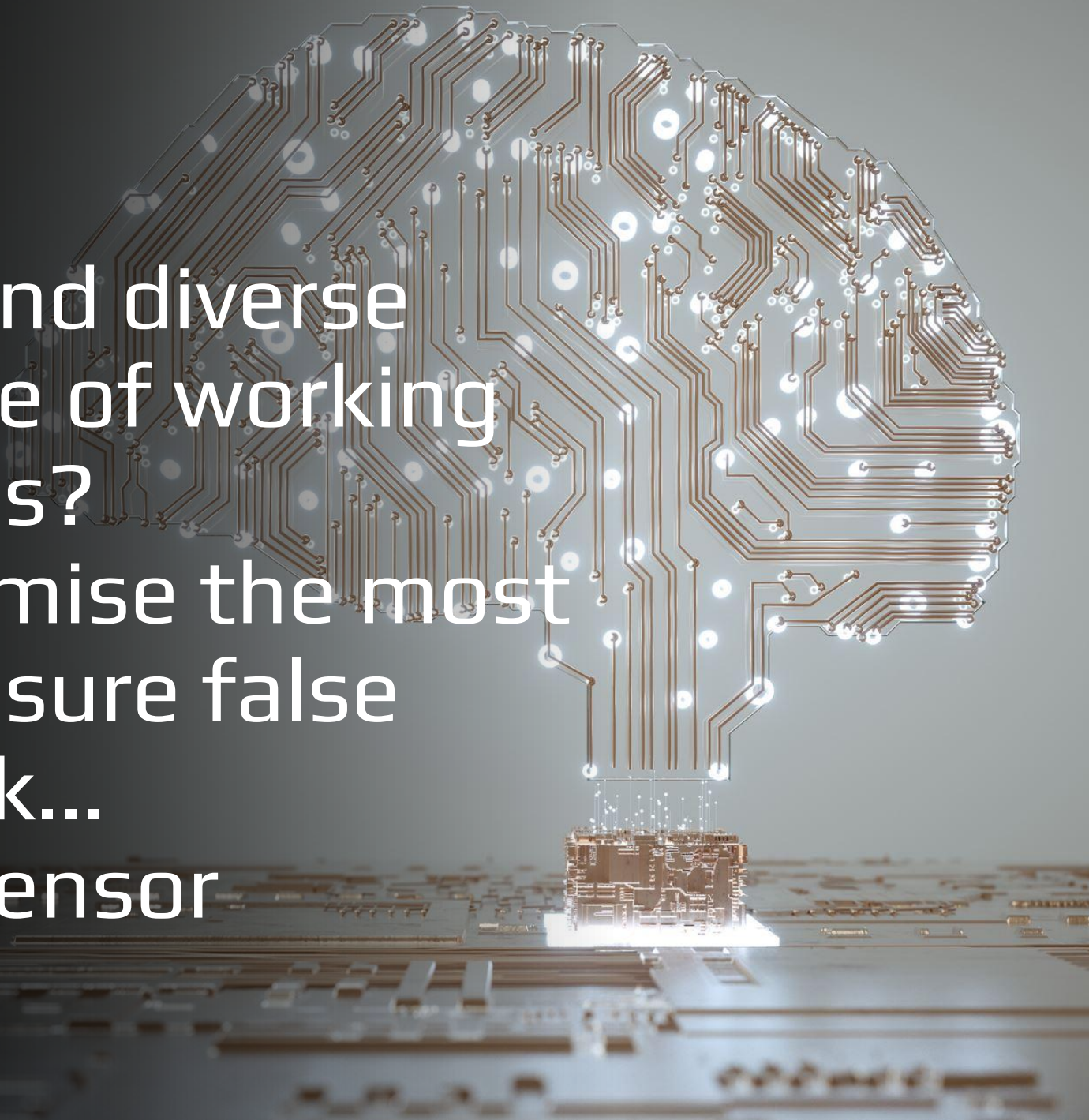


# Individual sensor monitoring

- Security/safety increase from worn sensors and AI models.
- Potential reduction in Privacy.
- Surveillance-related stress:

# Improving safety

- Training data large and diverse enough to be reflective of working conditions and hazards?
- Model tuned to minimise the most costly errors? An exposure false negative is a life at risk...
- Model tolerance to sensor malfunction?







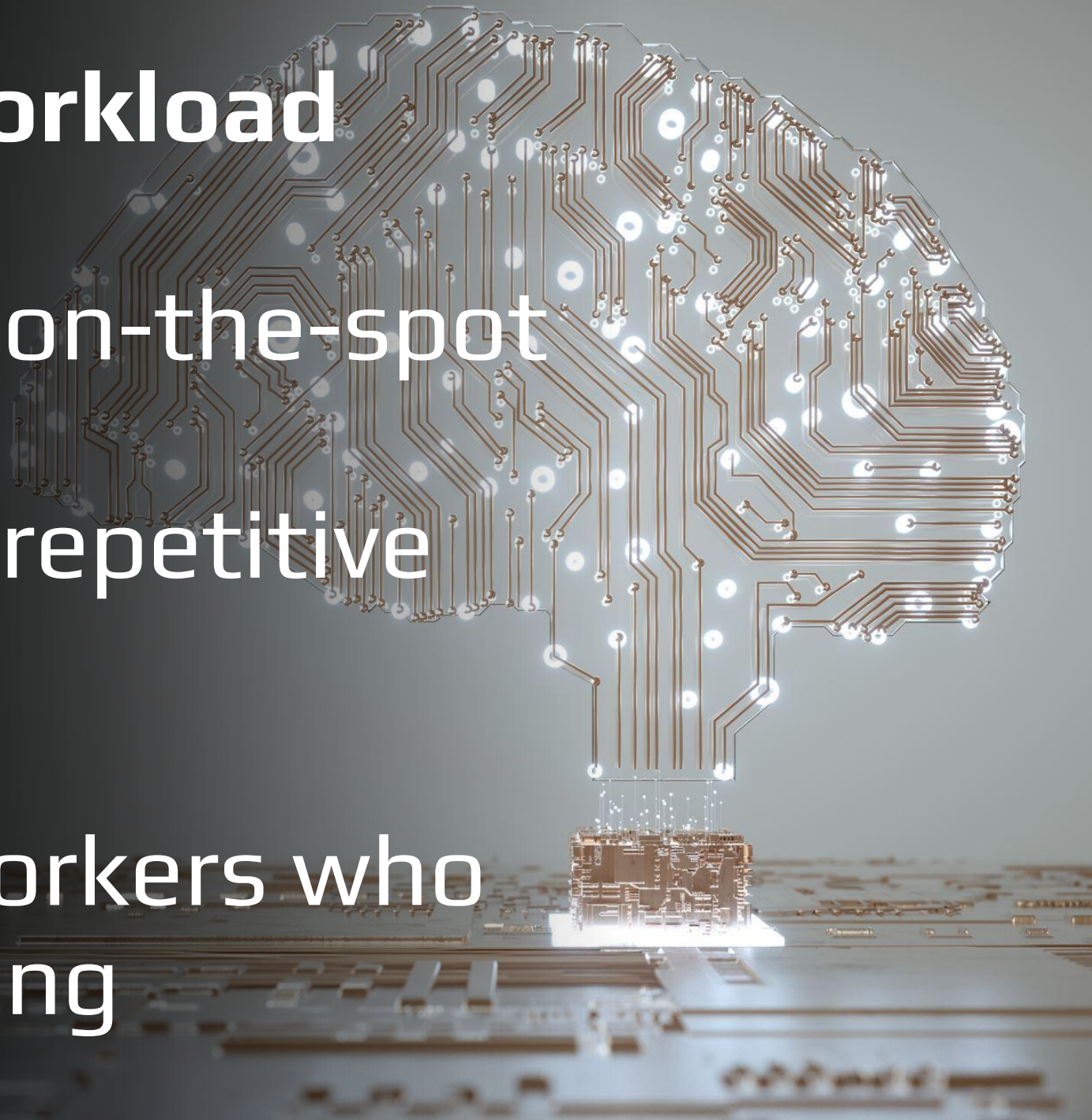
# Reducing stress

- Training data storage and anonymisation.

- GDPR compliance:  
*purpose* of data collection.

# Manufacturing workload

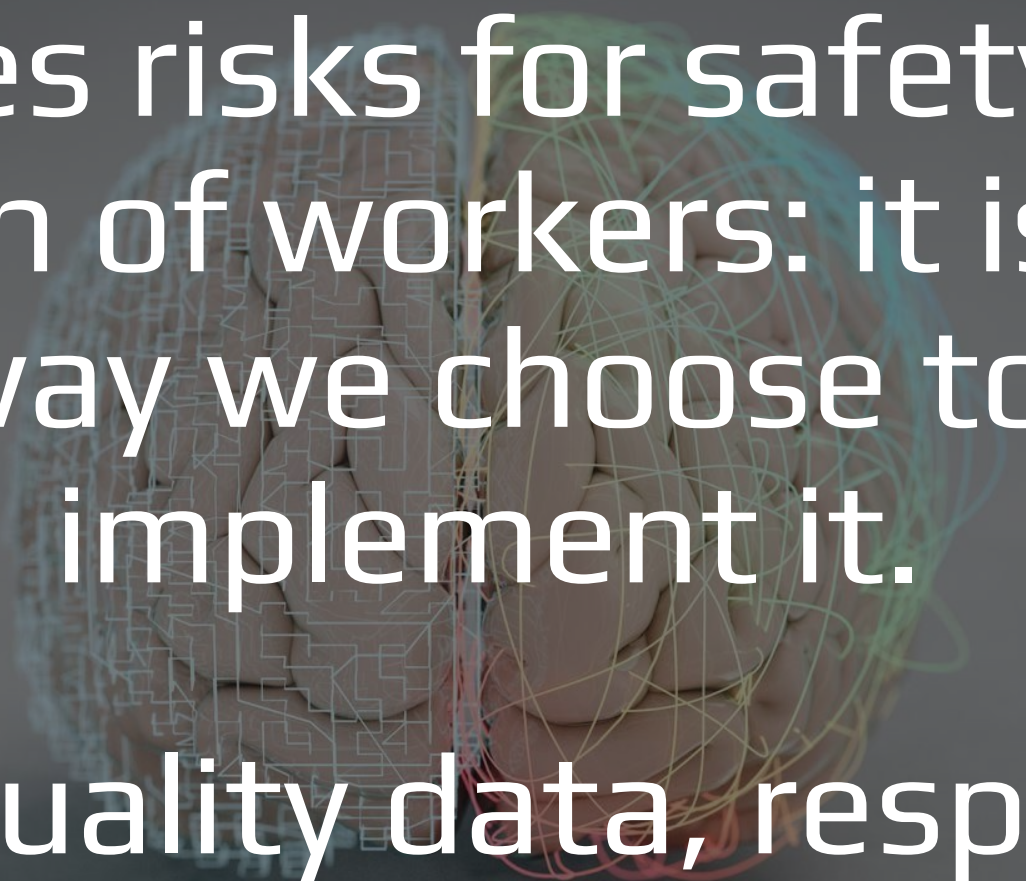
- AR devices allow on-the-spot training.
- Move away from repetitive tasks.
- But can deskill workers who end up just following instructions...







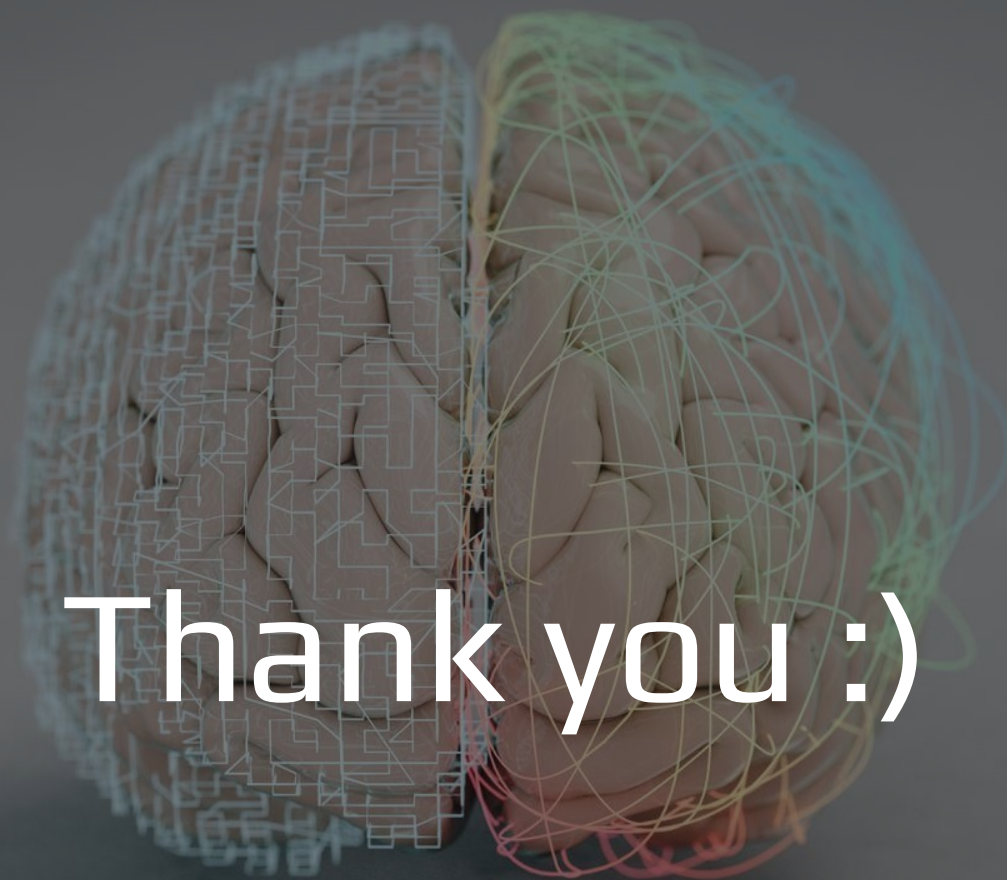
In summary...

A human brain is shown in a light brown color, centered in the background. Overlaid on the brain is a complex network of thin, glowing lines in blue, green, and red, resembling a digital circuit or neural network. The lines are more dense in some areas, particularly around the center and back of the brain.

It is not AI technology that  
creates risks for safety and  
health of workers: it is the  
way we choose to  
implement it.

High quality data, respect of  
privacy and worker  
consultation/education will  
be key.





Thank you :)