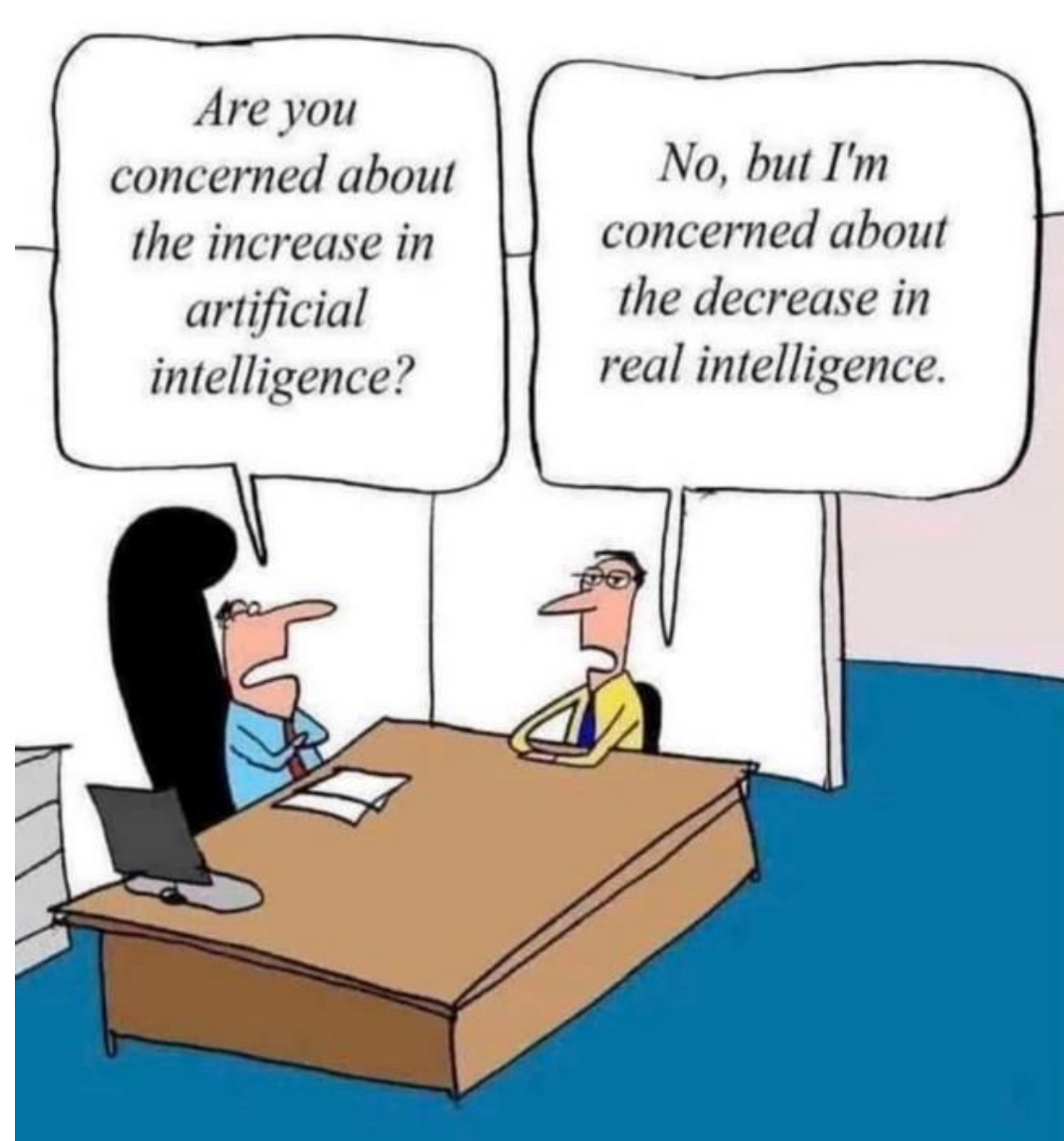




# WHAT IS A.I.?



# Artificial Intelligence

## **What is intelligence?**

Human intelligence is the ability of the brain to perceive and store information and use that information to reason, create, solve, deduce, and manipulate.

## **What is Artificial Intelligence (AI)?**

AI refers to the simulation of human intelligence in machines that are programmed to perform tasks that would typically require human intelligence.

# How does AI work? - An Oversimplification

- As with human intelligence, AI is dependent on available information or data. Information can be from internal storage or from the internet.
- The information can then be sorted and arranged -- based on models, algorithms, and instructions programmed into the application -- to achieve the desired result.

# AI Goals

- Reasoning, problem-solving
- Knowledge representation
- Learning
- Natural language processing
- Perception
- Social intelligence
- General intelligence

# Tools

- Search and optimization
- Logic
- Probabilistic methods for uncertain reasoning
- Classifiers and statistical learning methods
- Artificial neural networks
- Specialized languages and hardware

# Risks

- Technological unemployment
- Bad actors and weaponized AI
- Algorithmic bias
- Existential risk
- Copyright
- Ethical machines
- Regulation

# Applications

- Search engines
- Recommendation systems
- Web feeds and posts
- Targeted advertising and increasing internet engagement
- Virtual assistants
- Spam filtering
- Language translation
- Facial recognition and image labeling



# Areas of use

- Games
- Economic and social challenges
- Agriculture
- Cyber security
- Education
- Finance
- Government
- Health
- Chemistry and biology

- Astronomy, space, and UFOlogy
- Services
- Media
- Utilities
- Manufacturing
- Transport
- Environmental monitoring
- Computer science
- Business

# What AI Cannot Do Today

- Use common sense
- Learn continuously and adapt on the fly
- Understand cause and effect
- Reason ethically
- Create, conceptualize, or plan strategically
- Exercise free will or choose its own goals
- Possess high emotional intelligence or feel empathy and compassion
- Solve everything or think across domains
- Explain itself or its decisions
- Relate with the world like humans or apply common sense
- Multitask or handle different types of tasks at once
- Make moral judgments or be free from bias
- Grill a steak