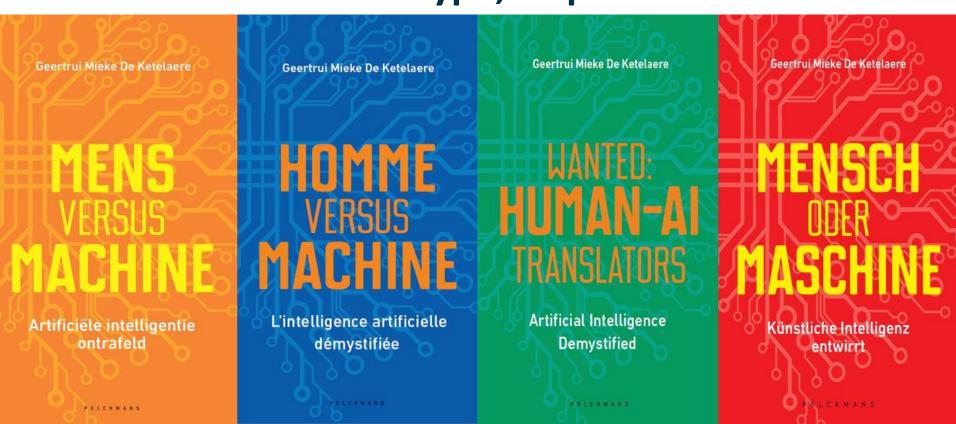
# Generatieve Al: Hype, Hope or Hazard?"

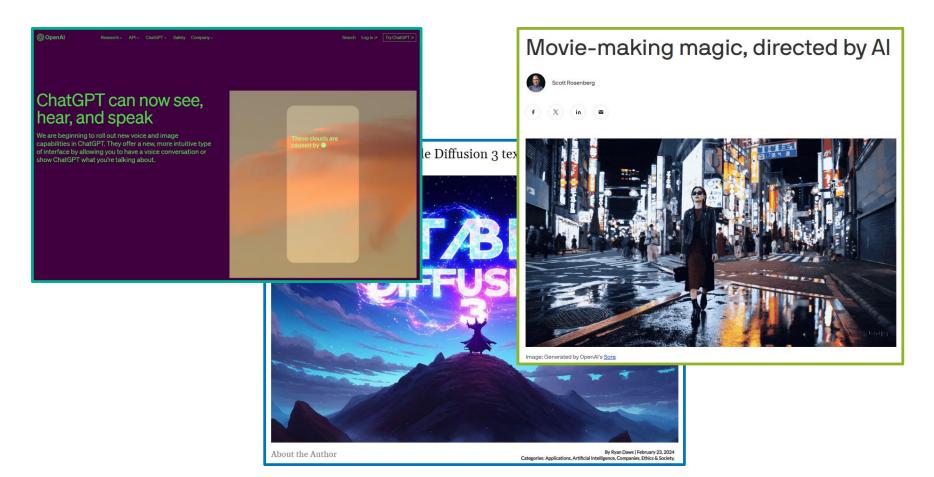


Mieke De Ketelaere – www.gmdeketelaere.com

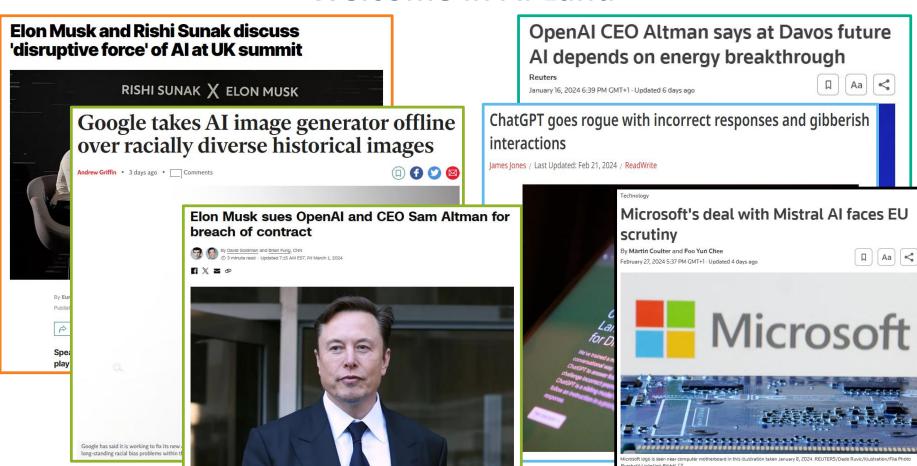
#### Welcome in AI Land



#### Welcome in Al Land

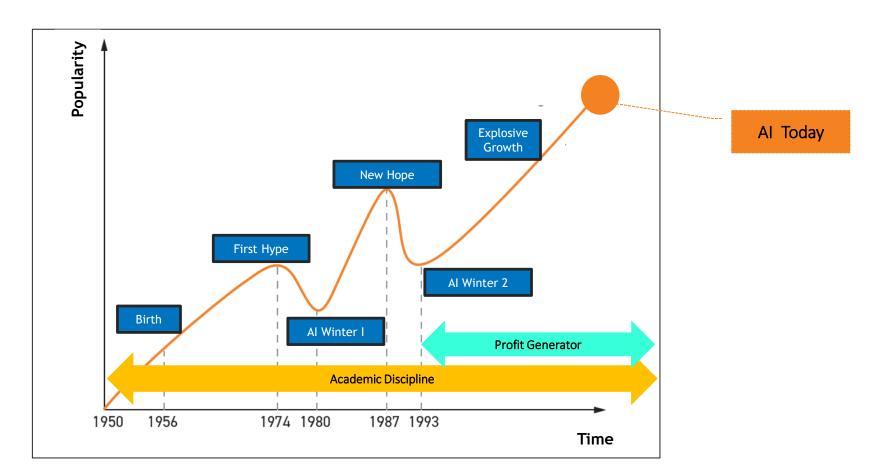


#### Welcome in AI Land



Elon Musk Justin Sullivan/Getty Images

# **AI: A Little History**



#### Al and Human Jobs



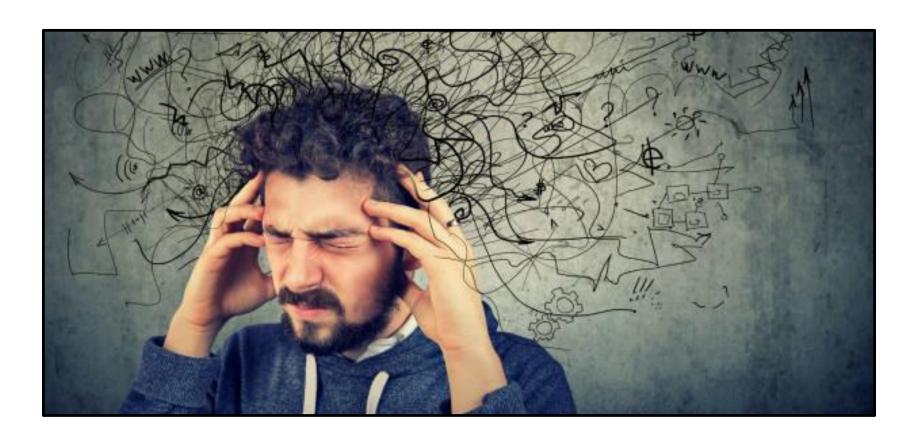




# **Dull**



# **Difficult**



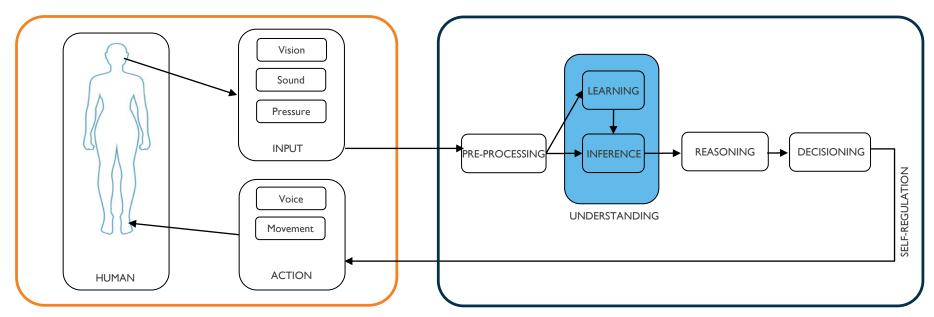
# **Dangerous**



# **Dirty**

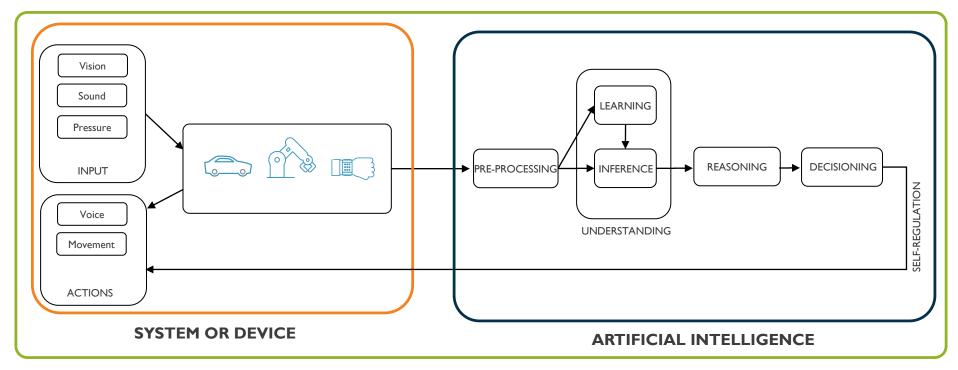


# **The Original Dream**



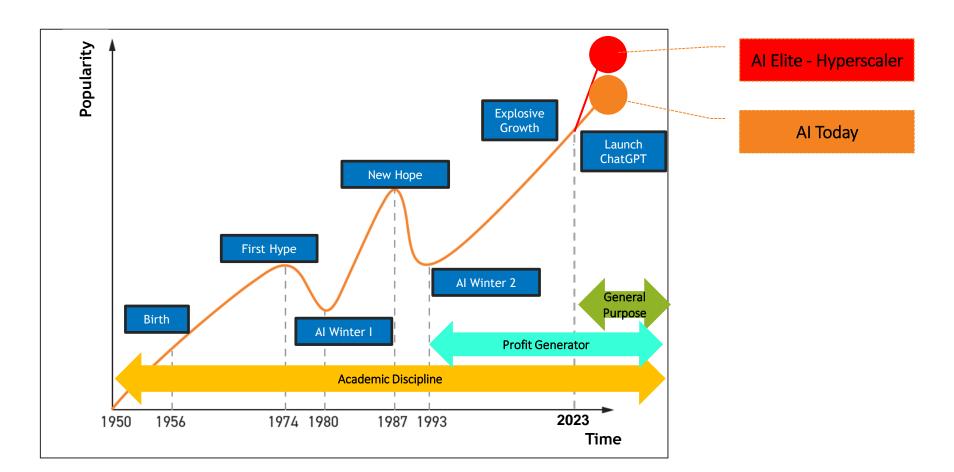
**HUMAN INTELLIGENCE** 

## **AI Systems Today**



**AUTOMATED DECISIONING SYSTEMS** 

#### AI in 2024



# **Context Specific**



# **Dally**



# **AI Today**

25%

Companies adopting AI

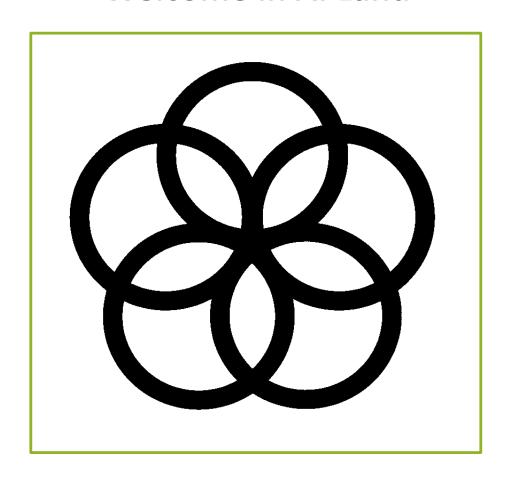
35%

Models misbehaving

2%

CO2 emission by AI/IOT systems

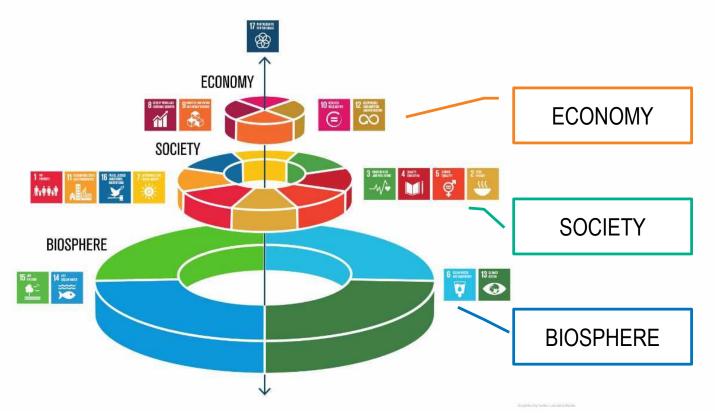
#### Welcome in AI Land



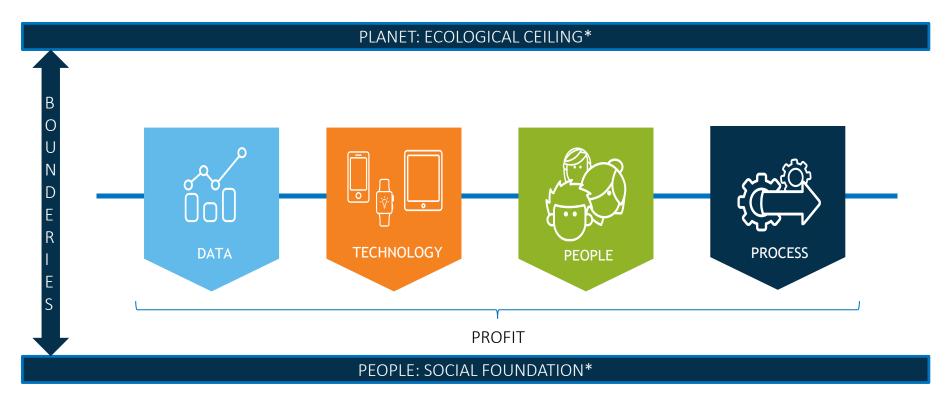
## **Roadmap to Sustainable Al**

# 17 PARTNERSHIPS FOR THE GOALS

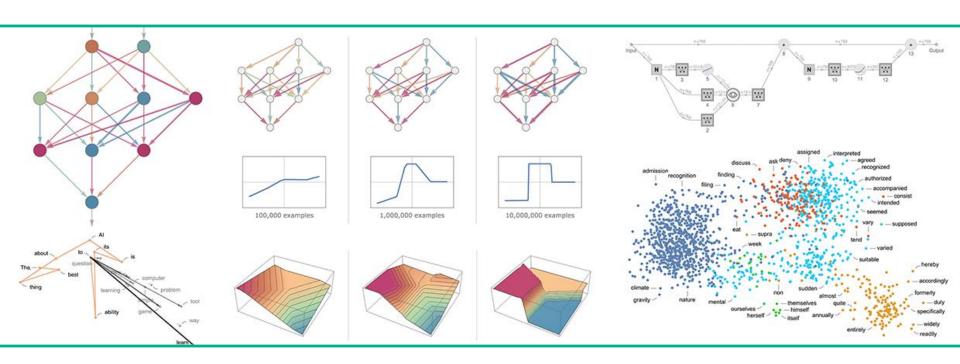
## **Roadmap to Sustainable AI**



#### **AI Tomorrow**



#### How does AI work?



What Is ChatGPT Doing ... and Why Does It Work?—Stephen Wolfram Writings

## **Al Anno 2024**

	HUMAN INTELLIGENCE	ARTIFICIAL INTELLIGENCE
1. Speed of processing		X
2. Knowledge Transfer		X
3. Decision Accuracy		X
4. Operational Modus		X
5. Size of storage	×	
6. Energy Usage	X	
7. Parallel Processing	X	

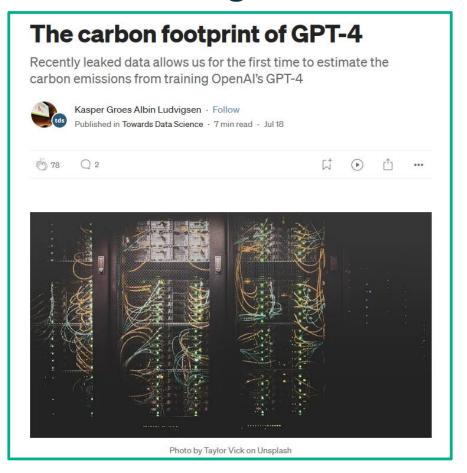
# **Al Anno 2024**

	HUMAN INTELLIGENCE	ARTIFICIAL INTELLIGENCE
8.Adapt to Change	X	
9.Type of Input Data	X	
10. Physical Collaboration	X	
II. Human Dialogues	x 🗪	
12. Creativity	x	
13. Emotions	x	
14. Consciousness	x	
I5. Ethics (Bias)	x	×
16. Ethics (Noise)	X	X

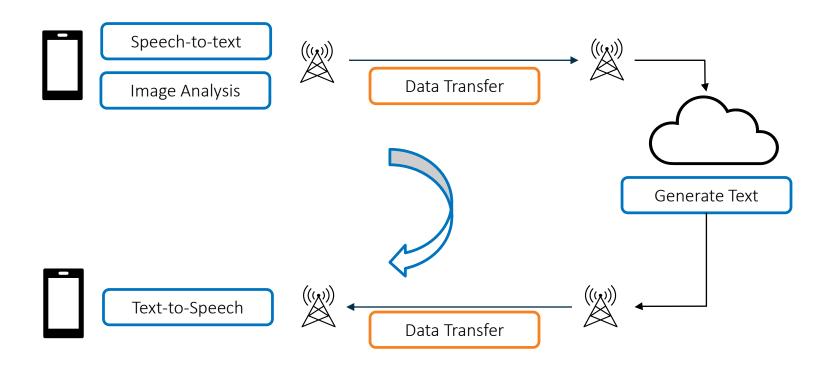
#### A little Check

« What recipe can I make with the food in the fridge?»

## The Result: Delivering the answer costs ...



#### How is this calculated?



#### A little check: ChatGPT



## A little check: ChatGPT

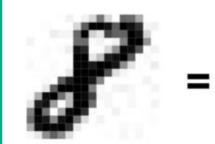


# The Result: 10ml per query



383.250.000.000 liters/year for 105B queries

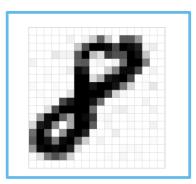
#### Looking through the eyes of an algorithm

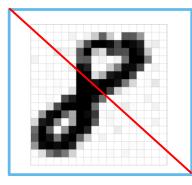


## Looking through the eyes of an algorithm









Output Data

### **Lacking Common sense**

SCIENCE / TECH / ARTIFICIAL INTELLIGENCE

#### OpenAl's state-of-the-art machine vision Al is fooled by handwritten notes



Granny Smith	85.6%
iPod	0.4%
library	0.0%
pizza	0.0%
toaster	0.0%
dough	0.1%



<b>Granny Smith</b>	0.1%
iPod	99.7%
library	0.0%
pizza	0.0%
toaster	0.0%
dough	0.0%

A fascinating case study in machine versus human intelligence

**BU JAMES VINCENT** 

Mar 8, 2021, 2:49 PM GMT+1 | 0 Comments







Need to trick OpenAI's latest vision system? Simply add a handwritten label to your target. Image: OpenAI

# **Lacking Common Sense**



# **Lacking Concepts & Abstraction**



Basic Image Caption

a black and white cat with a clock on it



# **Lacking Concepts & Abstraction**





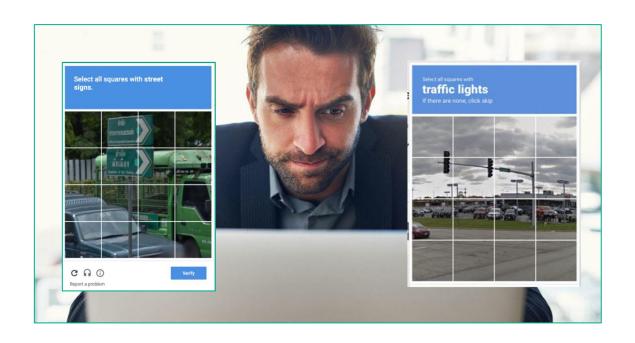




## **Lacking Concepts & Abstraction**



## **Lacking Concepts & Abstraction**

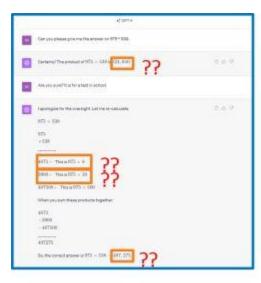


## **Correlations versus Causality**



If Al's So Smart, Why Can't It Grasp Cause and Effect? | WIRED

## **Adding Knowledge & Reasoning**

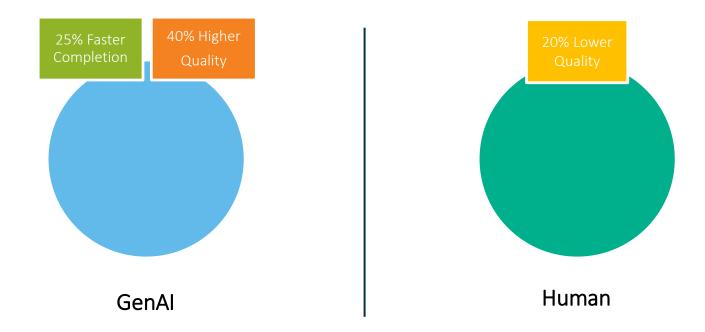




#### **Moravec's Paradox**



#### **GenAl: Moravec's Paradox and the Impact on Work**



Navigating the Jagged Technological Frontier: Field Experimental Evidence of the Effects of AI on Knowledge Worker Productivity and Quality by Fabrizio Dell'Acqua, Edward McFowland, Ethan R. Mollick, Hila Lifshitz-Assaf, Katherine Kellogg, Saran Rajendran, Lisa Krayer, François Candelon, Karim R. Lakhani:: SSRN

# **The Power of Autogeneration**



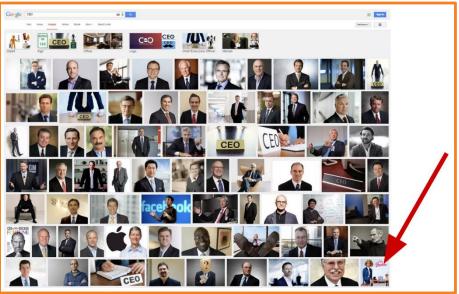
Portrait | Vana

# **Moment of Self-Deception**

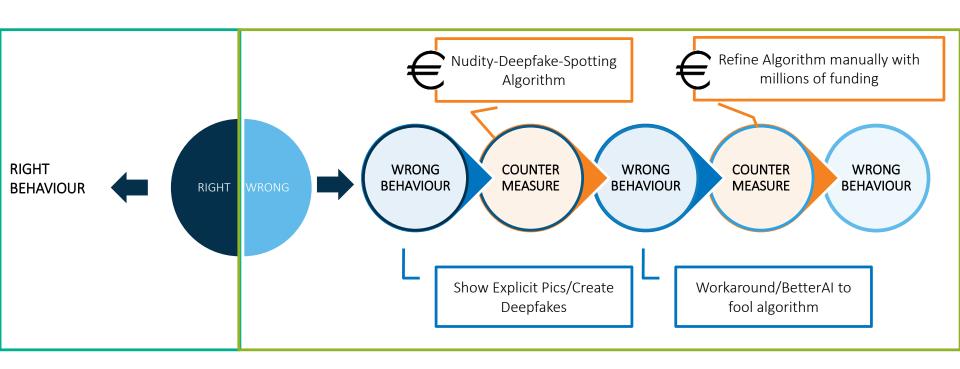


### « We will fix the problems as they come along »





#### **Red Queen Hypothesis: Values**

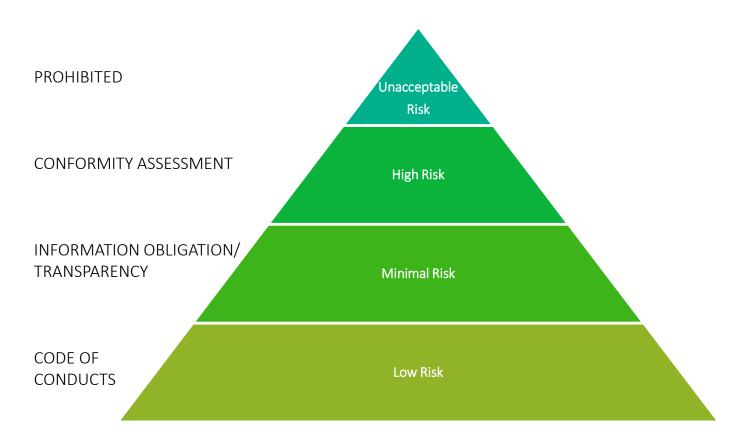


#### The Power of Autogeneration ... or Danger?

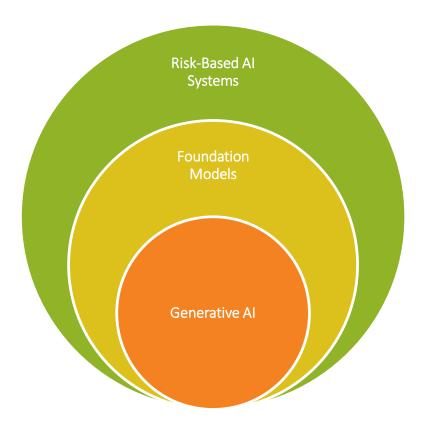


Source: Thinkstock

## **Risk Based Approach**



#### **Updates on European AI Act**



Generative AI and the EU AI Act – a closer look - Allen & Overy (allenovery.com)

# **Four Key Challenges**



Basic Al Safety Standards



Open-Source versus Public Safety



Al's Environmental Footprint



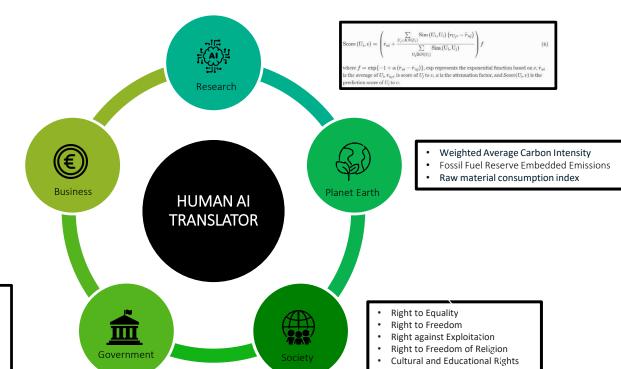
Boosting Investment in Al

## **Liability is clear today**

Air Canada chatbot decision a reminder of company liability: experts



# **Al Tomorrow: Quintuple Innovation Model**



APRU (Average Revenue per User)

MRR (Monthly Recurring Revenue)

NPS (Net Promoter Score)

... Decisions referred to in paragraph 2 shall not be based on special categories of personal data referred to in Article 9(1), unless point (a) or (g) of Article 9(2) applies and suitable measures to safeguard the data subject's rights and freedoms and legitimate interests are in place ... Geertrui Mieke De Ketelaere

Geertrui Mieke De Ketelaere

Geertrui Mieke De Ketelaere

Geertrui Mieke De Ketelaere

# MENS VERSUS MACHINE

Artificiële intelligentie ontrafeld

PELCKMANS

HUMME VERSUS MACHINE

L'intelligence artificielle démystifiée

PELCEMANS

WANTED: HUMAN-A1 TRANSLATORS

Artificial Intelligence
Demystified

PELCKMANS

# MENSCH ODER MASCHINE

Künstliche Intelligenz entwirrt

ELCKMANS