



# 5th Gathering of the ParlAmericas Open Parliament Network

Countering Disinformation to  
Promote Responsible Public Discourse

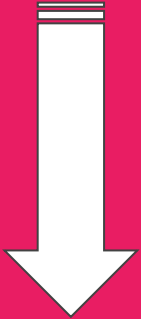
AI +  
ETHICS

WHAT IS  
ARTIFICIAL  
INTELLIGENCE?

INFORMATION SOCIETY



Society based on a  
immaterial digital economy



TRANSITION

"data economy explosion"

ALGORITHMIC SOCIETY  
/ DATA DRIVEN SOCIETY



Society assisted by  
algorithmic decisions  
based on data

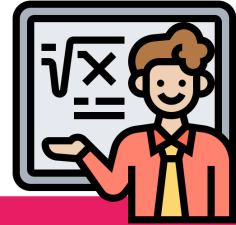




DATA  
AVAILABILITY



COMPUTING  
POWER



MATHEMATICAL  
RESEARCH



ARTIFICIAL INTELLIGENCE CURRENT CYCLE OF GROWTH

# Why is it economically relevant to control data

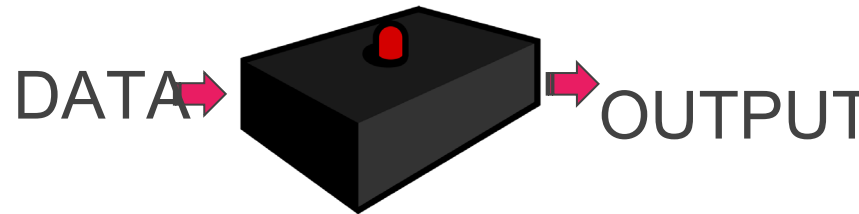
?



data is called the "new oil" ..

But they are more like a mineral, because they need to be refined and prepared to be usable as "datasets"

AI is the new electricity (multi-purpose technology that cuts across all industries).



DAILY DIGITAL  
INTERACTIONS



PRODUCE DATA AS BY-  
PRODUCT

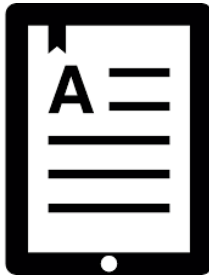


DATA AS AN STRATEGIC RESOURCE - INTERNET OF THINGS (IOT)

# INTERACTION



# INTERFACE



# DATA

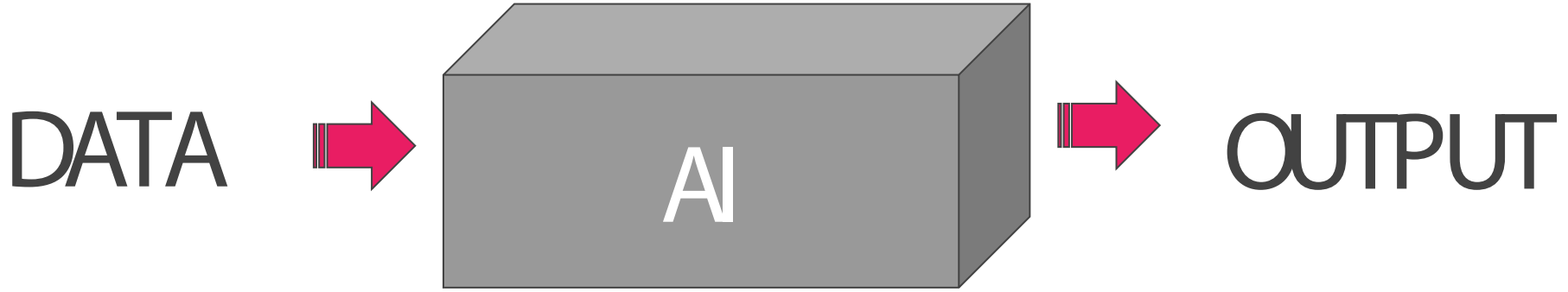
HEALTH  
BIOMETRIC

CONSUMPTION  
HABITS  
PURCHASING POWER

TASTES, HOBBIES  
& PREFERENCES

**PROFILING**

# BLACK BOX PRO



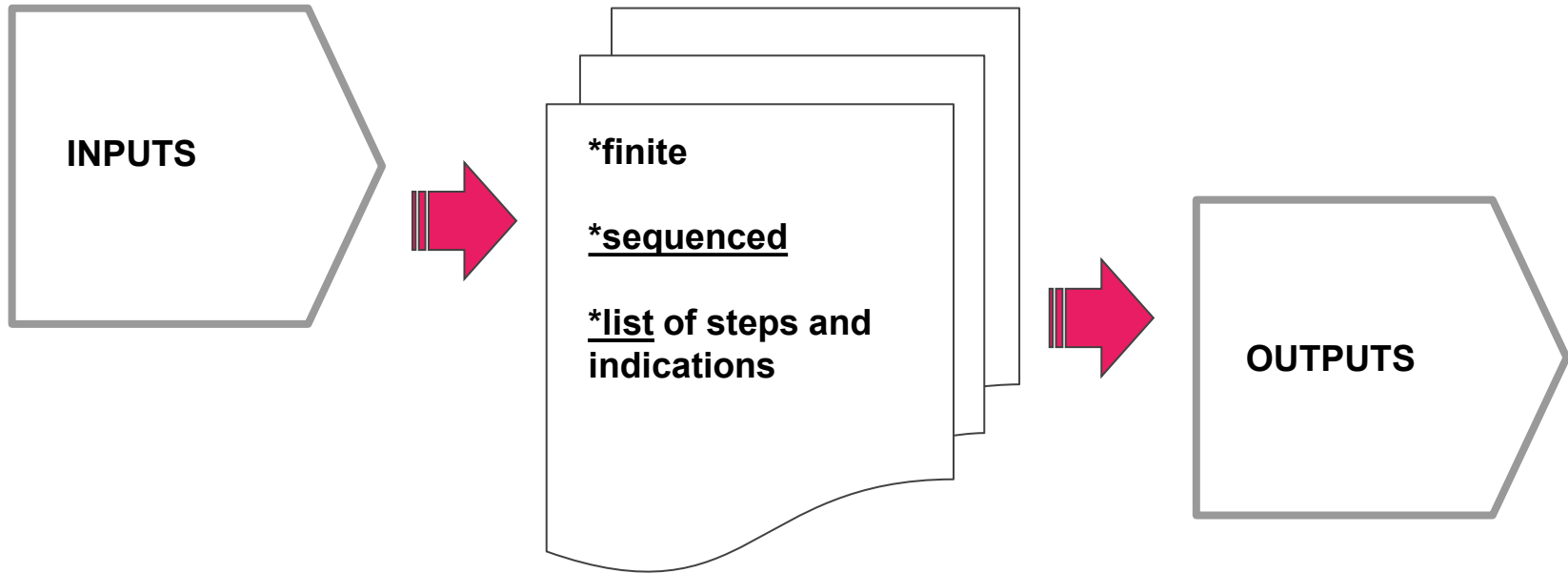
The **machine learning model** is the relationship between the variables that are calculated based on inputs, outputs, formulas, algorithms and their relative settings.

An **algorithm** is simply a sequence of instructions that a computer carries out to transform input data to output data.

VS. TRANSPARENCY

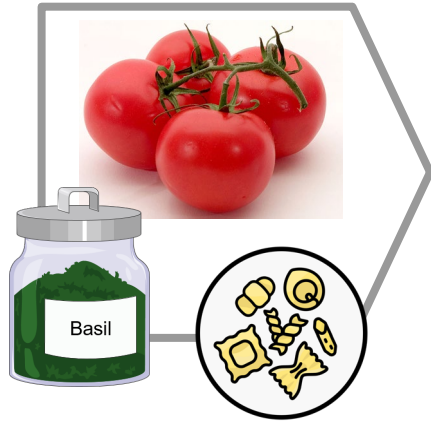


# ALGORITHMS



An **algorithm** is simply a sequence of instructions that a computer carries out to transform input data to output data. Traditional algorithms take an input and some logic in the form of code and gives an output. This output depends upon the steps (codes) described in the algorithm.

## INPUTS



# ALGORITHM

- \*Add water
- \*Boil pasta
- \*Prepare tomato sauce
- \*Add basil

## OUTPUTS



# BIAS

ARTIFICIAL INTELLIGENCE

MACHINE LEARNING

DEEP LEARNING

GENERATIVE AI

FIELD THAT STUDIES HOW ARTIFICIAL SYSTEMS CAN PERFORM INTELLIGENT ACTIONS

FIELD OF STUDY THAT GIVES COMPUTERS THE ABILITY TO LEARN WITHOUT BEING EXPLICITLY PROGRAMMED

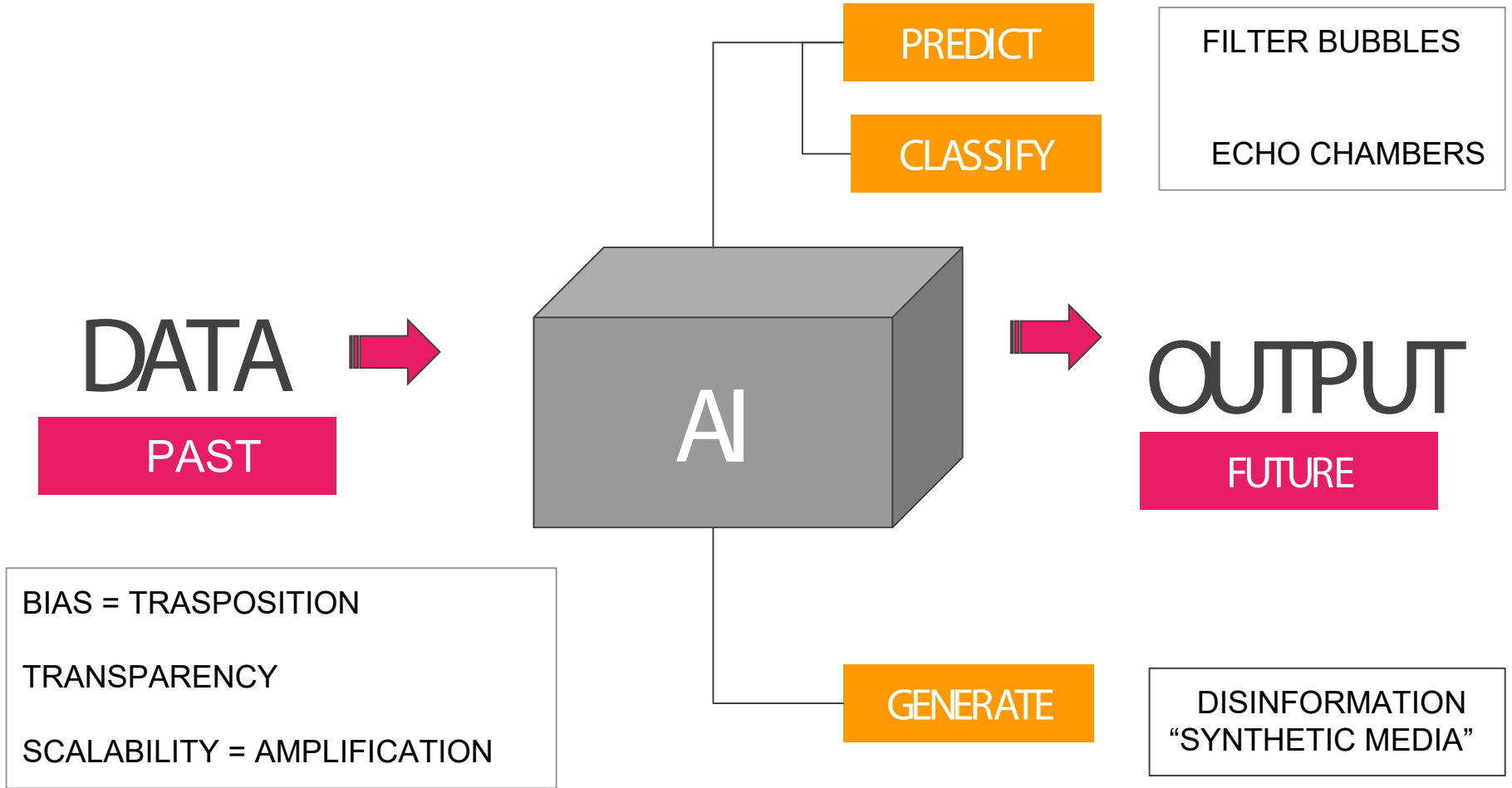
*\*Arthur Samuel, 1959*

SUBSET OF M.L. TECHNIQUES THAT USES MULTI-LAYER NEURAL NETWORKS TO LEARN FROM LARGE AMOUNTS OF DATA

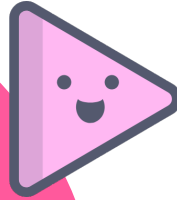
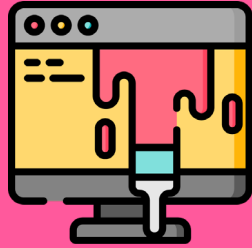
TECHNIQUES WHERE ANN GENERATE NEW INFORMATION FROM TRAINING DATA, FOLLOWING RULES ESTABLISHED BY THE EXISTING INFORMATION

AI +  
ETHICS

AI IMPACT ON  
PUBLIC  
DISCOURSE



WHAT CAN BE  
GENERATED  
BY AI?



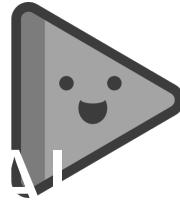
## SYNTHETIC MEDIA

CREATE INFORMATION THAT MIMICS THE  
STATISTICAL DISTRIBUTION FROM THE  
TRAINING DATASET

- NEWS ARTICLES
- FACES
- SCRIPTS
- BOOKS
- PAINTINGS
- MUSIC
- VIDEOGAME ASSETS
- ENHANCE IMAGES
- BUILDING DATASETS FOR OTHER AI's



GENERATIVE

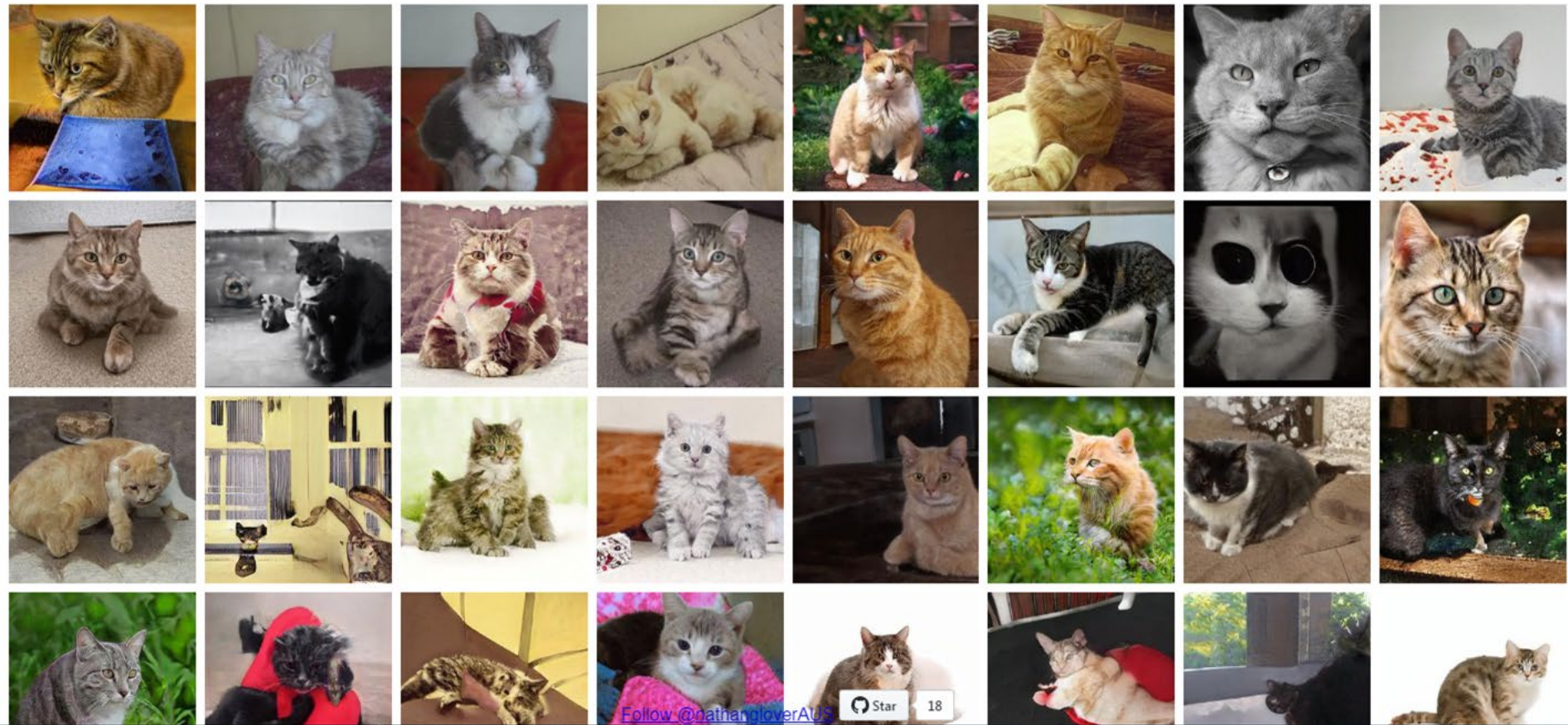


# GENERATIVE AI

## These Cats Do Not Exist

GAN'S

Learn More: [Generating Cats with StyleGAN on AWS SageMaker](#)

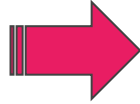


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# GAN's ARCHITECTURE

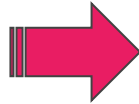
DISCRIMINATOR



TRY TO DISCERN BETWEEN TRAINING DATA AND SYNTHETIC DATA CREATED BY THE GENERATOR

+

GENERATOR



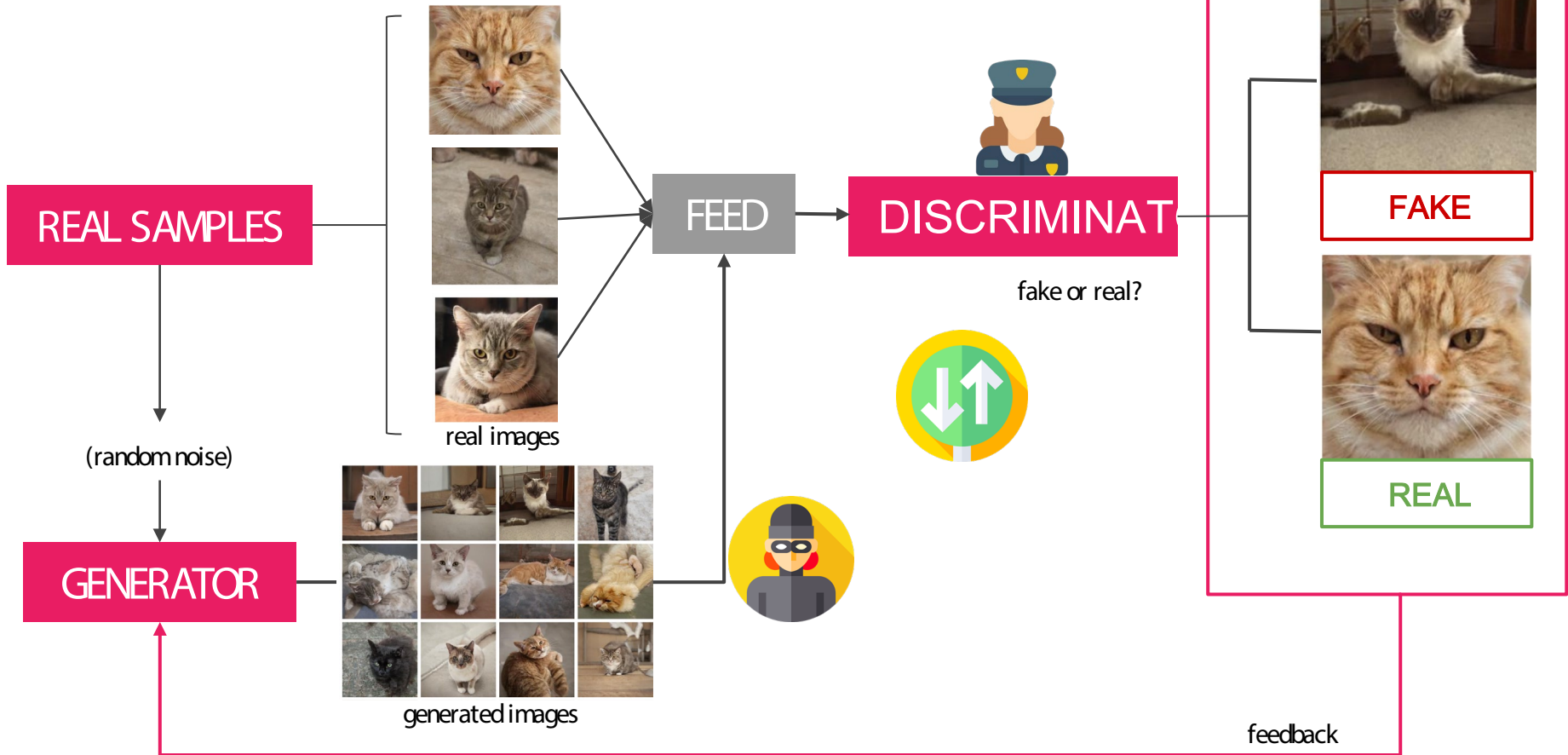
LEARN THE PROBABILITY DISTRIBUTION OF THE INPUT DATA TO MIMIC IT



COMPETITIVE ITERATION



# GAN's CONCEPTUAL SCHEME





DEEP FAKES

GENERATIVE



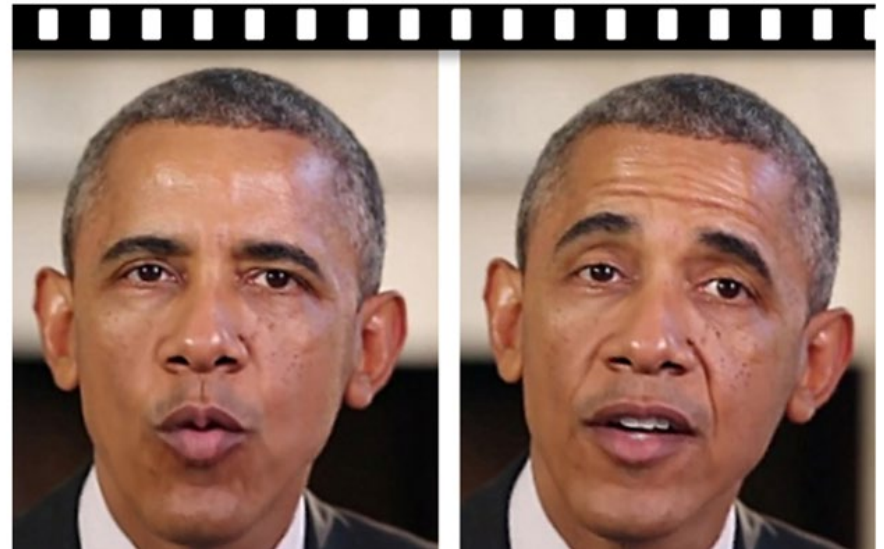
# TECHNO-SOLIPSISM:

FAKENEWS  
& SYNTHETIC  
MEDIA

## AI Creates Fake Obama

Videos of Barack Obama made from existing audio,  
video of him

By Charles Q. Choi



Disinformation.. how can we differentiate what is  
real?

AI +  
ETHICS

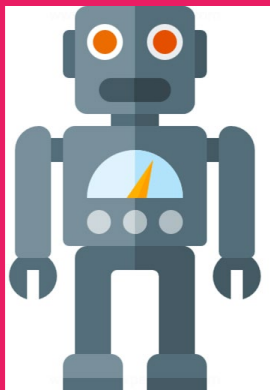
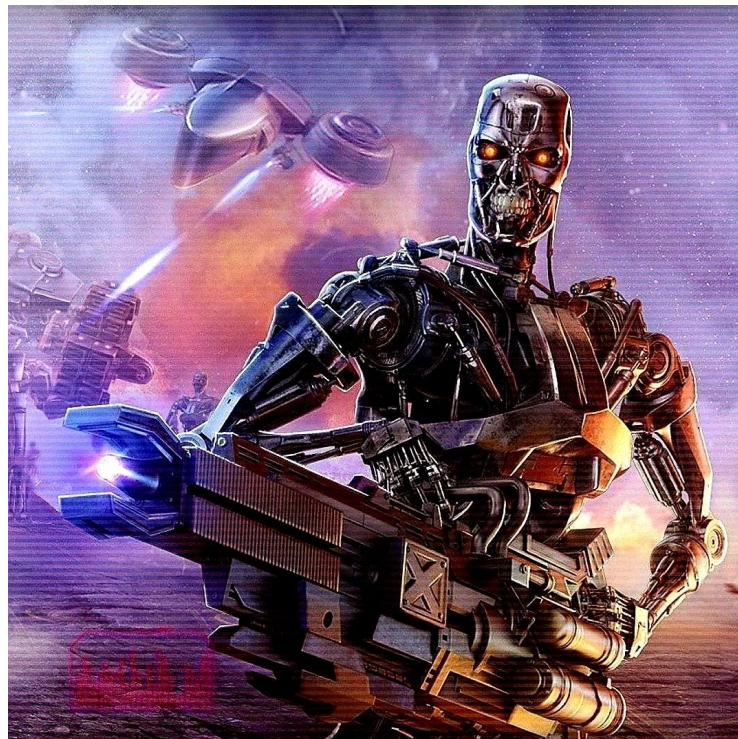
AI GOVERNANCE:  
DANGERS OF AI?

“DANGER  
OF AI

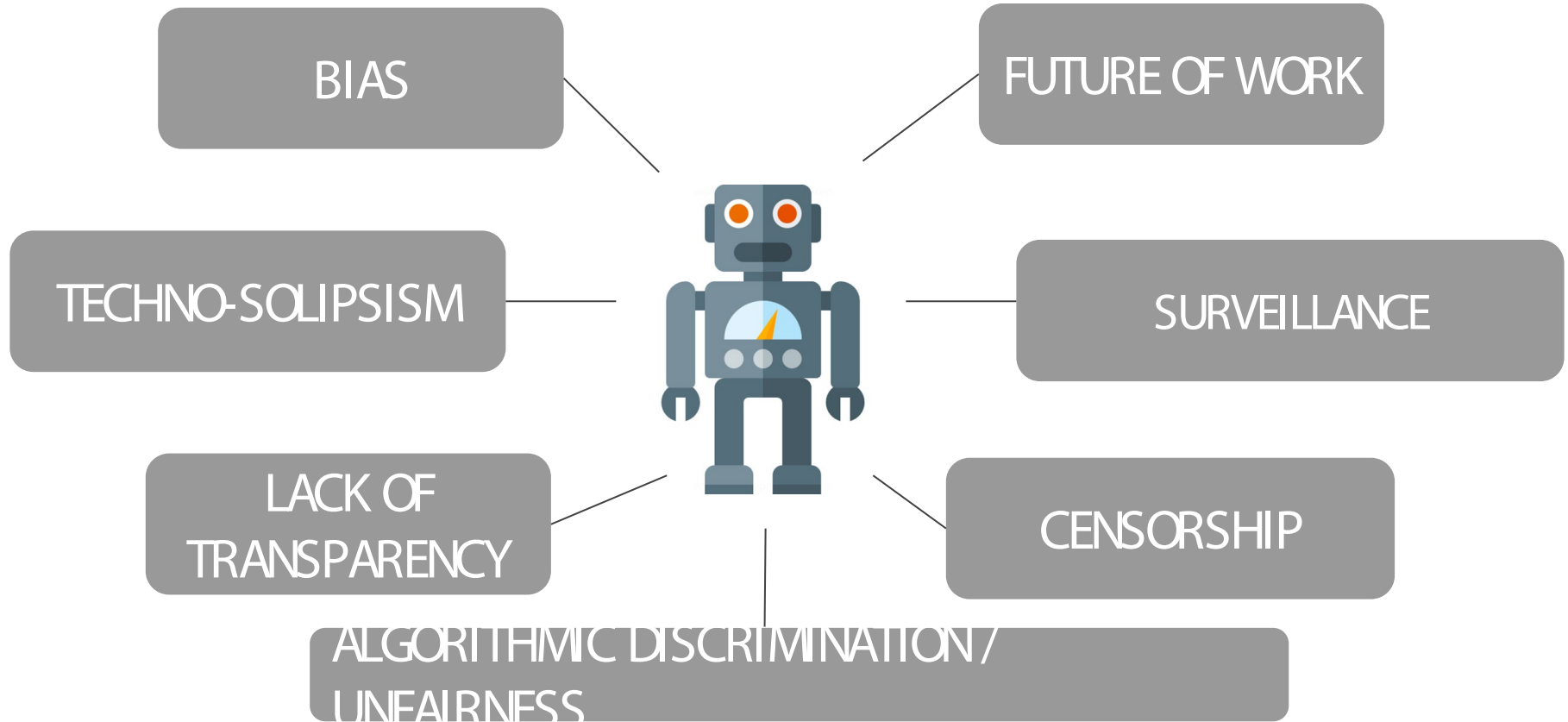


"**WHAT** we really  
should be **fearing**  
from of AI"

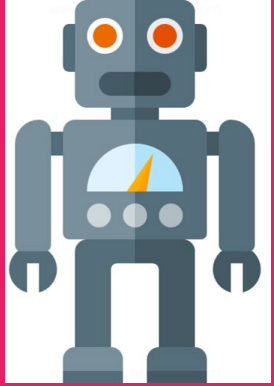
90s movies: AI might kill  
us all in the future!



# REAL “RISE OF THE MACHINES”:



# A.I. POLICY LANDSCAPE



AI = NEW  
ELECTRICITY



AUTONOMOUS SYSTEMS (WEAPONS/ CARS)



ALGORITHMIC SENTENCING



PREDICTIVE POLICING



CONTENT REMOVAL / FAKE NEWS



ALGORITHMIC PRICING & TRADING



AUTOMATED DECISIONS POLICY



SMART CONTRACTS

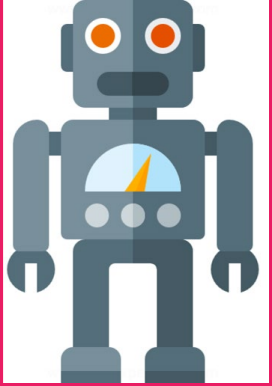


SURVEILLANCE & CYBERSECURITY



LOGISTICS & BUSINESS INTELLIGENCE

# A.I. POLICY LANDSCAPE



AI = NEW  
ELECTRICITY



MEDICAL DIAGNOSTICS



NATURAL DISASTERS RESOURCE ALLOCATION



SUICIDE PREVENTION



CONTENT CREATION



SOCIAL MEDIA VIGILANCE



LEARNING ASSISTANTS



ELDER CARE



MARKETING



ELECTORAL PREDICTION



# A.I. = WE NEED TO AD

## REGULATING ARTIFICIAL INTELLIGENCE

1. ALGORITHMIC AWARENESS

2. PERVASIVENESS & SCALABILITY

3. BIAS // > IN DATA & IN MODELS

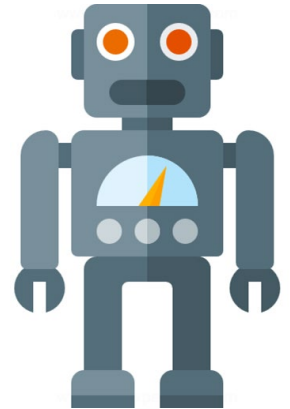
4. OPACITY / TRANSPARENCY

5. ACCOUNTABILITY

6. EXPLAINABILITY / INTERPRETABILITY

7. INCLUSION / FAIRNESS

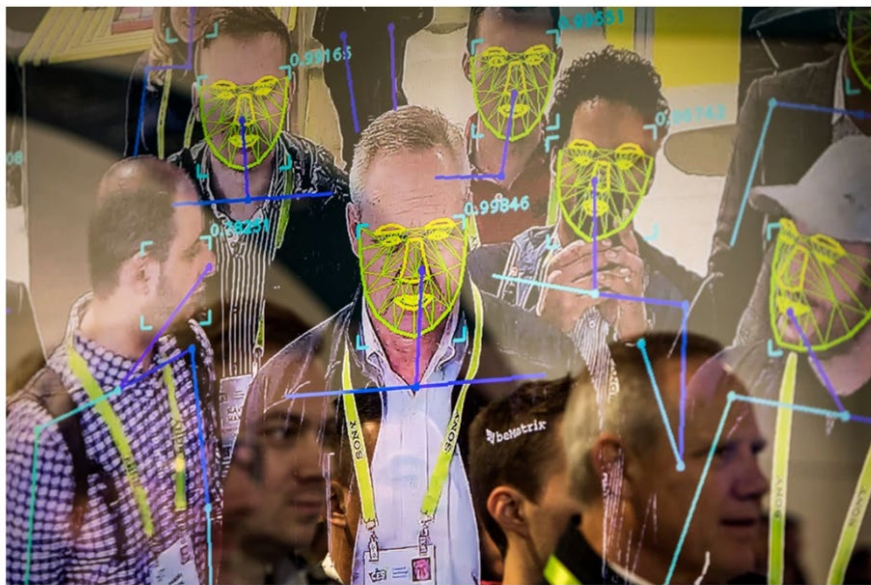
MULTIDIMENSIONAL  
FRAMEWORK FOR  
A.I. ETHICS



# REGULATING ARTIFICIAL INTELLIGENCE

The New York Times

## *San Francisco Bans Facial Recognition Technology*



Attendees interacting with a facial recognition demonstration at this year's CES in Las Vegas.  
Joe Buglewicz for The New York Times

### DO'S AND DON'Ts:

- NO MAGIC AI SOLUTIONS
- SOCIAL IMPACT: GOOD INTENTIONS, BAD POLICIES
- KNOWING THE STATE OF THE ART: CONTEXT & AI
- AREAS OF "NO IMPLEMENTATION"

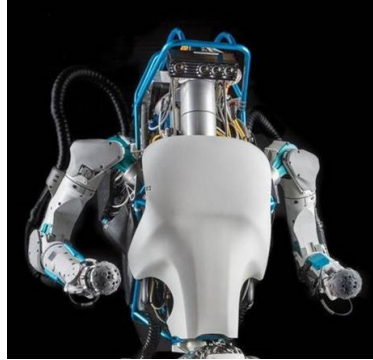
AI ERRORS IMPACT SOCIETY  
AND INDIVIDUALS AT SCALE =  
AFFECTING HUMAN RIGHTS



### MATRIX ON WHEN TO IMPLEMENT AUTOMATION:

- RELEVANCE OF DECISION/ IMPACT SOCIETY
- COMPLEXITY: "ONE SECOND RULE"
- MODEL INTERPRETABILITY / TRANSPARENCY

# REGULATING ARTIFICIAL INTELLIGENCE



DATA  
PROTECTION  
REGULATIONS

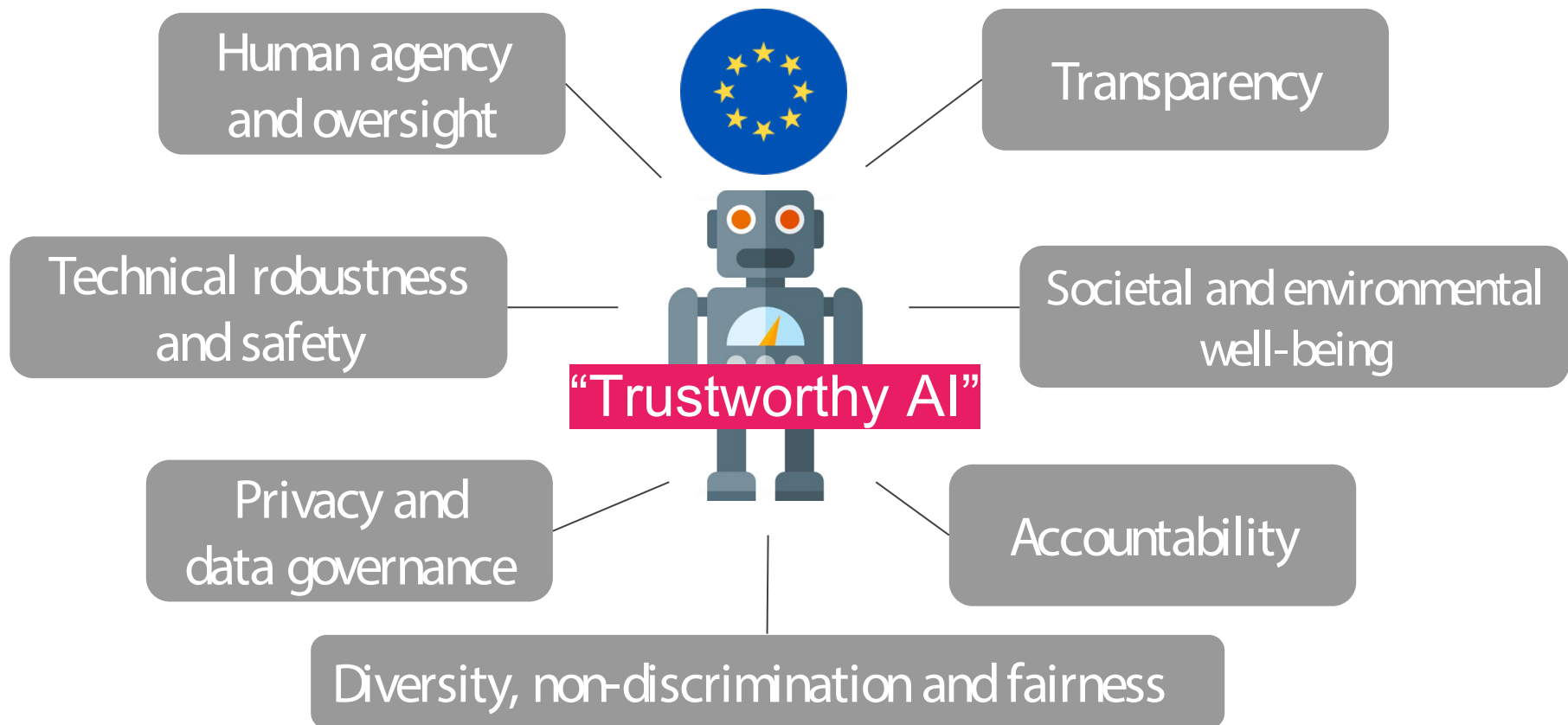
INTELLECTUAL  
PROPERTY

AI ETHICS  
PRINCIPLES  
& HUMAN  
RIGHTS

CONSUMER  
PROTECTION  
LAW

RELEVANT LEGAL  
FRAMEWORKS FOR  
ARTIFICIAL  
INTELLIGENCE

# EU Highlevel Expert Group on Artificial Intelligence



# THANK YOU!



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