



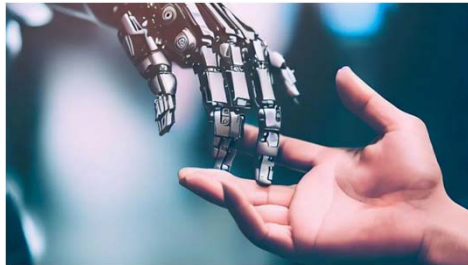
SHAPING EUROPE'S DIGITAL FUTURE

European Excellence and Trust in Artificial Intelligence

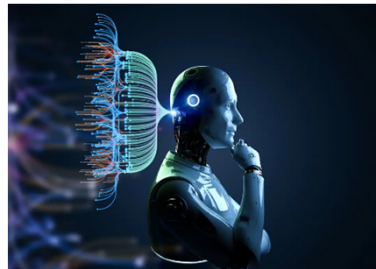
Jola Dervishaj
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European Commission

Artificial Intelligence (AI)

How do we
visualise AI?



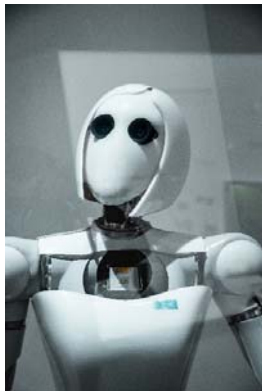
Source: Bring Image Creator



Source: PhonlamaiPhoto



Source: Thinkstock

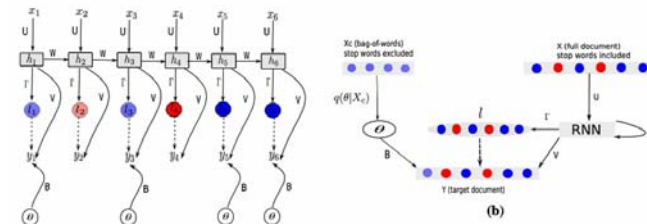
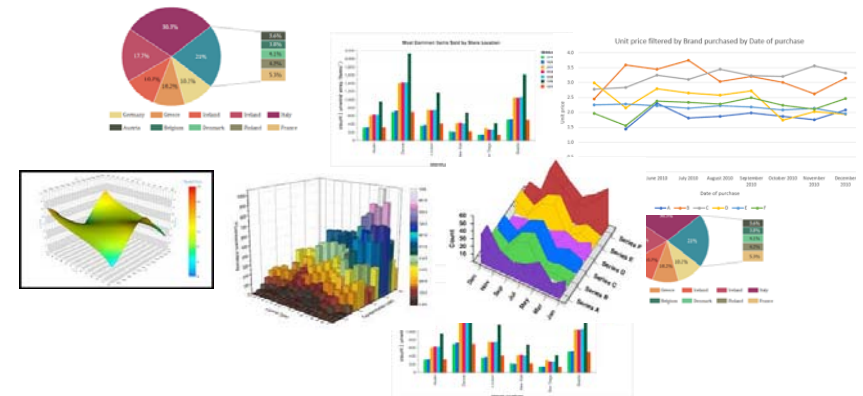


Source: Maximalfocus
on Unsplash



Source: istock

How does AI really
look like?



Source: Adji B. Dieng, Chong Wang, Jianfeng Gao and John Paisley built TopicRNN, a neural network that models topics in language data, in 2016.

How does AI see the world?



How does the EU see AI?



Baseline argument

AI is good ...

- For people
- For business
- For the public interest



... but creates some risks

- People's safety
- For fundamental rights

An ecosystem of Excellence and Trust in AI (COM/2020/65)

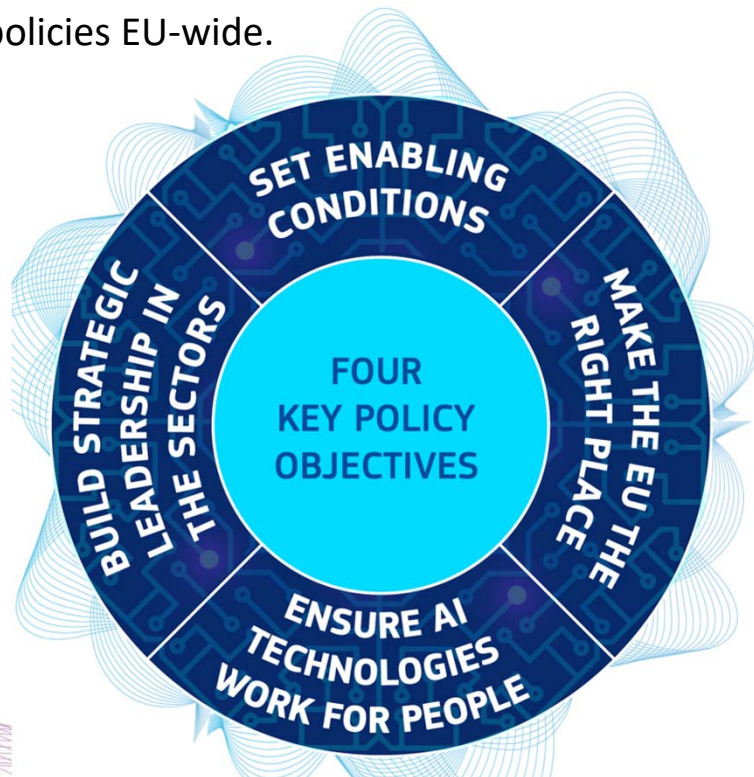
✓ Making the EU a world-class hub for AI and ensuring that it can benefit people

✓ Ensuring compliance with EU rules, fundamental rights and consumers' rights

Coordinated Plan on AI (2018, revised 2021)

Commission and EU Member States agree to:

- ▶ **accelerate** investments in AI
- ▶ **act** on AI strategies for their timely implementation
- ▶ **align** AI policies EU-wide.



- ▶ Coordinated public efforts help leverage private investments

Digital Europe Programme

Build the **strategic digital capacities**, facilitate the wide deployment of digital technologies

Horizon Europe Programme

Support **research and innovation** for new knowledge and innovative solutions

Recovery and Resilience Facility

Support **Member States' investments and reforms** for recovery

AI Act: World's first regulation on AI

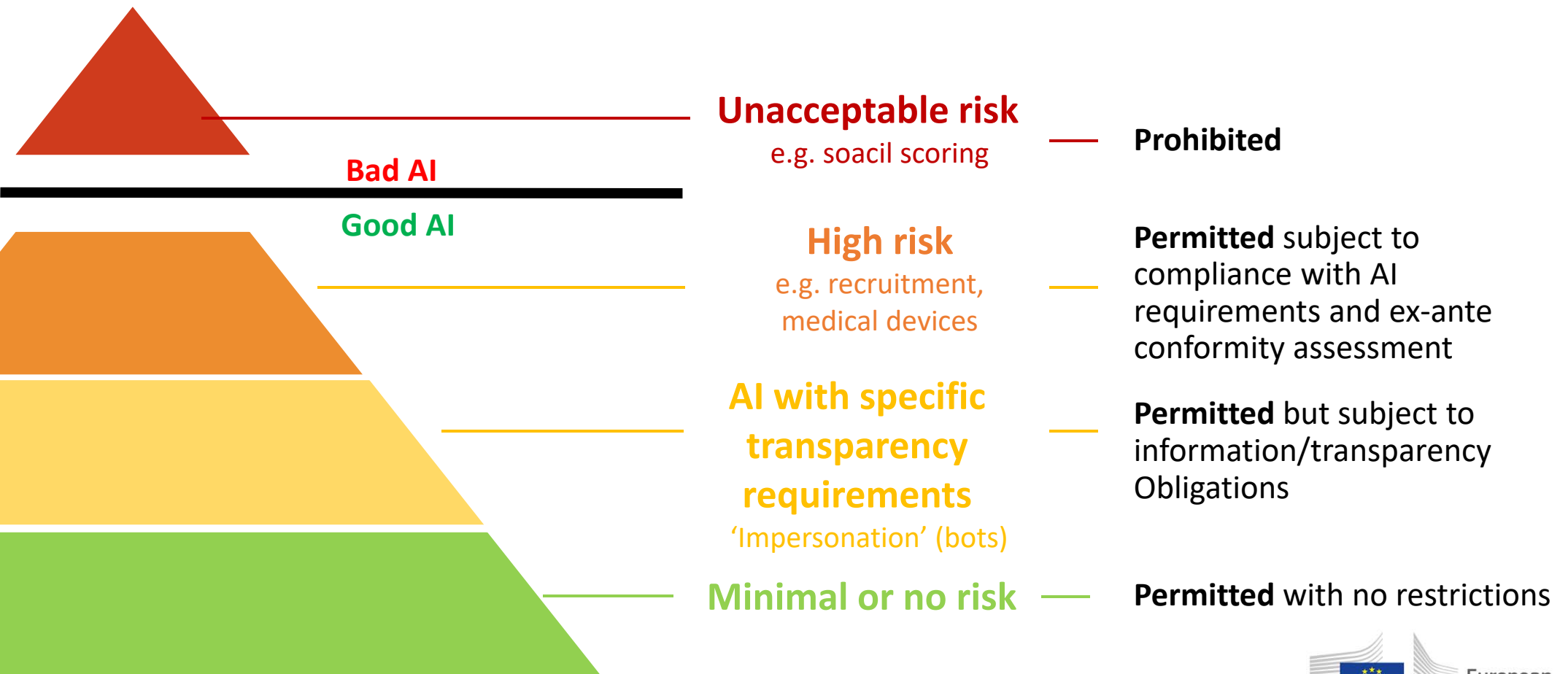
Legal Clarity

- ✓ Horizontal rules **complementary** with existing regulation
- ✓ Rules activated only under **certain conditions**, when existing regulation does not cover
- ✓ **Clear obligations** for developers, providers and users
- ✓ Future proof approach
- ✓ Supported by technical standards

Support of Innovation

- ✓ **Legal clarity**
- ✓ **Regulatory Sandboxes** to test the implementation of the AI Act and the development of **harmonized technical standards**
 - At MS level but also possibility of cooperation with other MS
 - Helping providers demonstrate compliance (open to all but priority to SMEs and small-scale provider)
 - Followed by competent authorities (including future AI board)

A risk-based approach to regulation



Prohibitions

AI that contradicts EU values is prohibited (Title II, Article 5)

X

Subliminal manipulation
resulting in physical/
psychological harm

Example: An **inaudible sound** is played in truck drivers' cabins to push them to **drive longer than healthy and safe**. AI is used to find the frequency maximising this effect on drivers.

X

**Exploitation of children
or mentally disabled persons**
resulting in physical/psychological harm

Example: A doll with an integrated **voice assistant** encourages a minor to **engage in progressively dangerous behavior** or challenges in the guise of a fun or cool game.

X

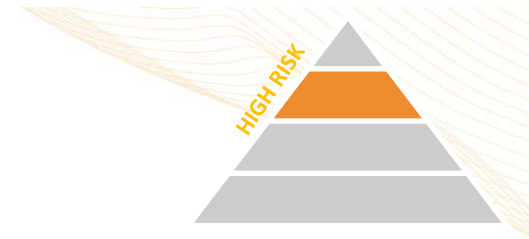
**General purpose
social scoring**

Example: An AI system **identifies at-risk children** in need of social care **based on insignificant or irrelevant social 'misbehavior'** of parents, e.g. missing a doctor's appointment or divorce.

X

**Remote biometric identification by law
enforcement authorities in publicly
accessible spaces (with exceptions)**

Example: All faces captured live by video cameras checked, in real time, against a database to identify a terrorist.



High-Risk AI Systems

Certain applications in the following fields (High-risk Artificial Intelligence Systems (Title III, Annexes II and III):



1 SAFETY COMPONENTS OF REGULATED PRODUCTS

(e.g. medical devices, machinery) which are subject to third-party assessment under the relevant sectorial legislation

2 CERTAIN (STAND-ALONE) AI SYSTEMS IN THE FOLLOWING FIELDS

- ✓ Biometric identification and categorisation of natural persons
- ✓ Management and operation of critical infrastructure
- ✓ Education and vocational training
- ✓ Employment and workers management, access to self-employment
- ✓ Access to and enjoyment of essential private services and public services and benefits
- ✓ Law enforcement
- ✓ Migration, asylum and border control management
- ✓ Administration of justice and democratic processes

Requirements for high-risk AI



Establish and
implement **risk
management**
processes

&
In light of the
**intended
purpose** of the
AI system

Use high-quality **training, validation and testing data** (relevant, representative etc.)

Establish **documentation** and design logging features (traceability & auditability)

Ensure appropriate certain degree of **transparency** and provide users with **information** (on how to use the system)

Ensure **human oversight** (measures built into the system and/or to be implemented by users)

Ensure **robustness, accuracy** and **cybersecurity**

Questions?

Contact:

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Visit:

<https://futurium.ec.europa.eu/en/european-ai-alliance>

Requirements

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+ Conformity Assessment
+ EC Marking

2 OTHER RISK WITH TRANSPARENCY OBLIGATIONS

- ▶ **Notify humans** that they are **interacting with an AI system**
- ▶ Notify humans that **emotional recognition** or **biometric categorisation** systems are applied to them *
- ▶ Apply **label to deep fakes** (unless necessary for the exercise of a fundamental right or freedom or for reasons of public interests)


3 MINIMAL TO LOW RISK

- ▶ No mandatory obligations
- ▶ Encouragement of codes of conduct intended to foster the **voluntary application of requirements to low-risk**

The governance structure

European level

European Commission to act
as Secretariat

Artificial Intelligence
Board 

Expert Group* 

*Not foreseen in the regulation but the Commission intends to introduce it in the implementation process

National level

National Competent
Authority/ies 