Final Event MESOC
March 10th, 2023 · Paris

Baptiste Caramiaux
CNRS, Sorbonne Université

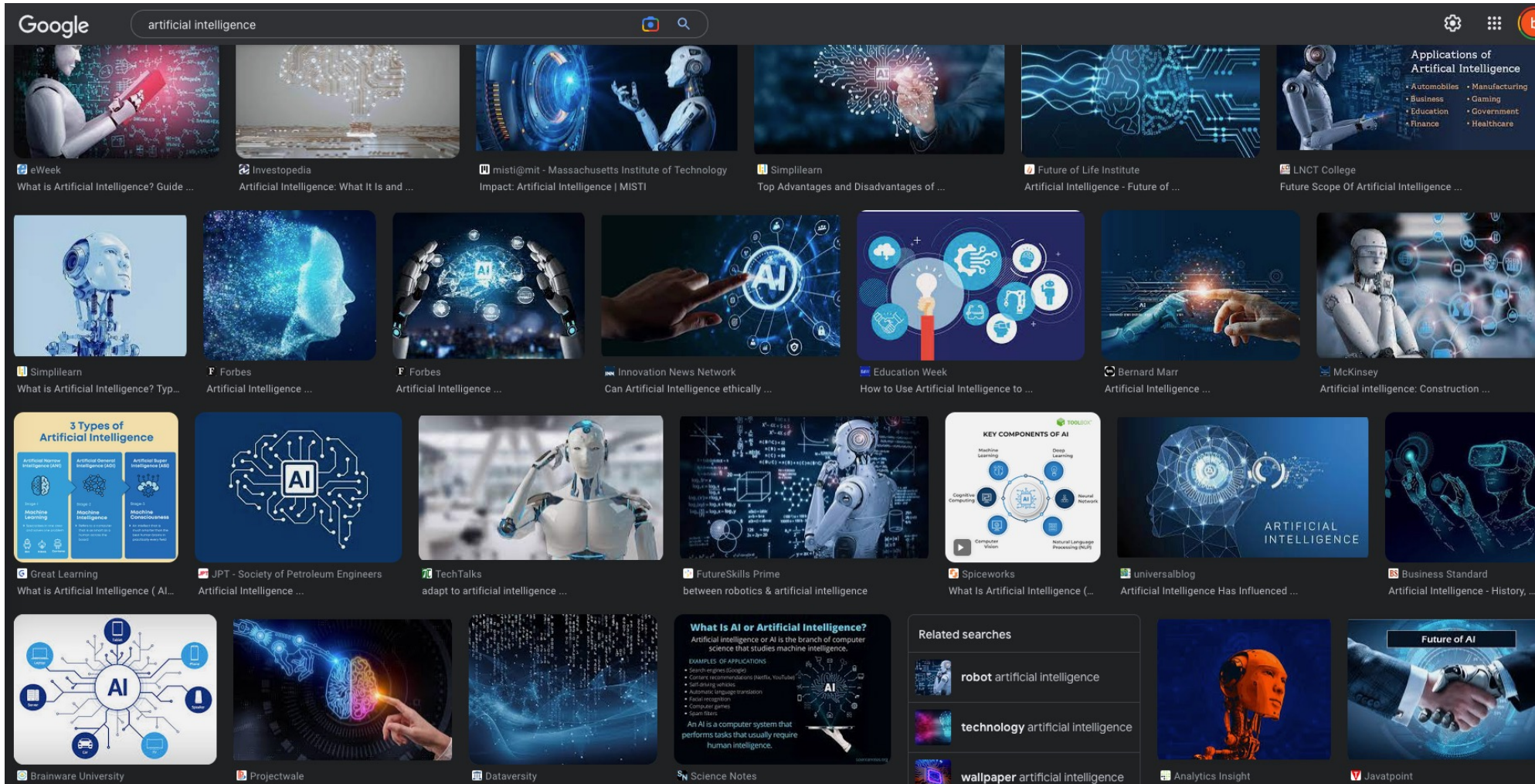# MESOC
measuring
the social dimension
of culture

The Use of Artificial Intelligence in the Cultural and Creative Sectors

MESOC

14/03/2023

Search result of "artificial intelligence" on my google web search engine
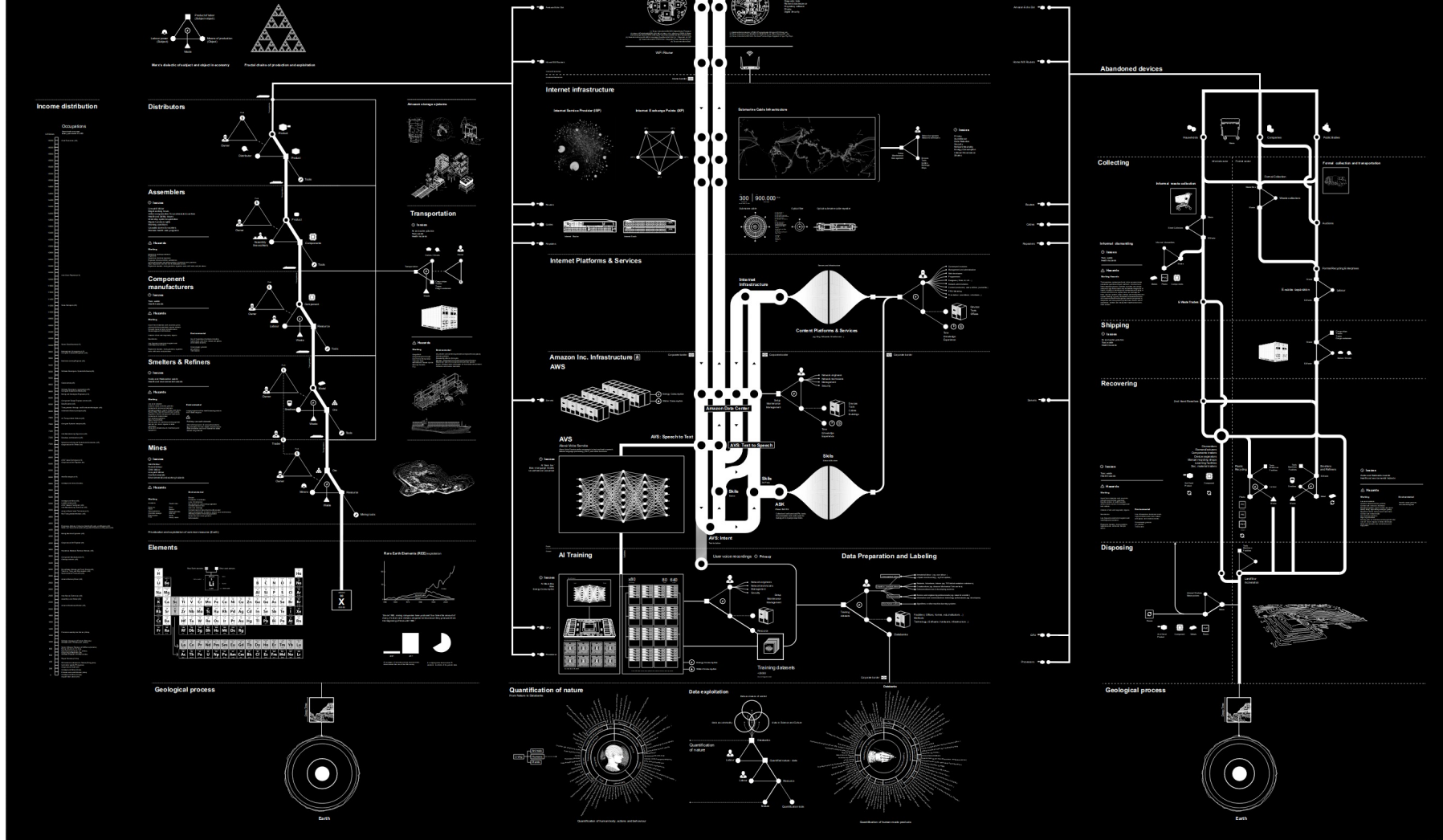
Anatomy of an AI by Kate Crawford and Vladan Joler. Courtesy of the artists

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AI AS ALGORITHM

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Machine Learning : set of techniques able to identify **complex structures** from massive datasets and to use these structures to **make predictions** (and/or take actions and decisions) on previously **unseen data**

```
[ Data ] → [ Model ] → [ Applications ]
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| Data | → | Model | → | Applications |

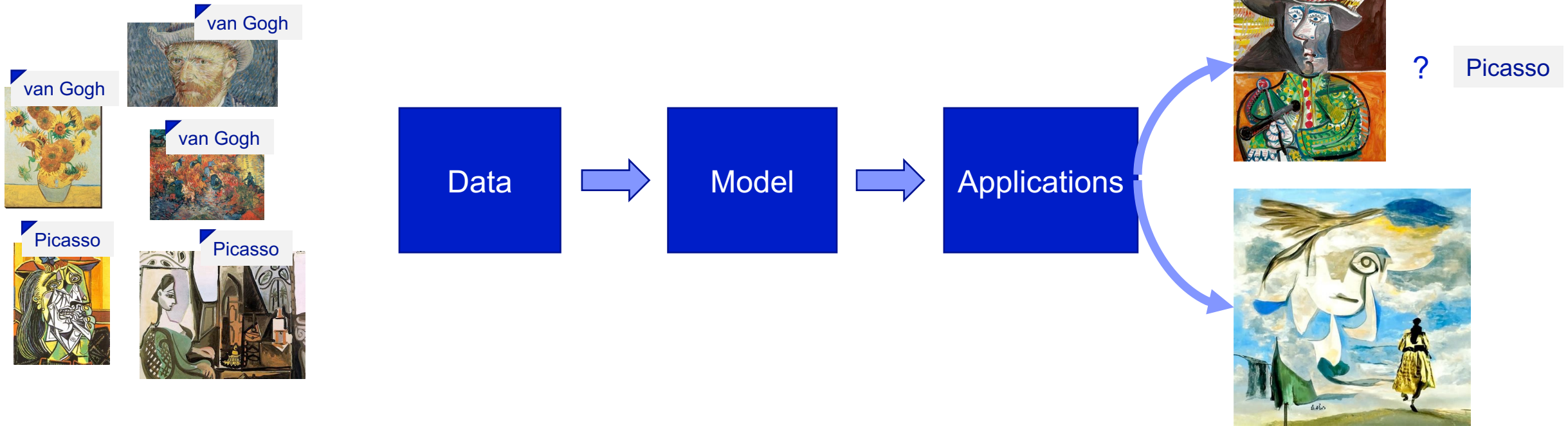14/03/2023

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Memories of Passerby I by Mario Klingemann

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Chatbot developed by
Ask Mona for Centre Pompidou

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This project has received funding
from the European Union's Horizon 2020
research and innovation programme
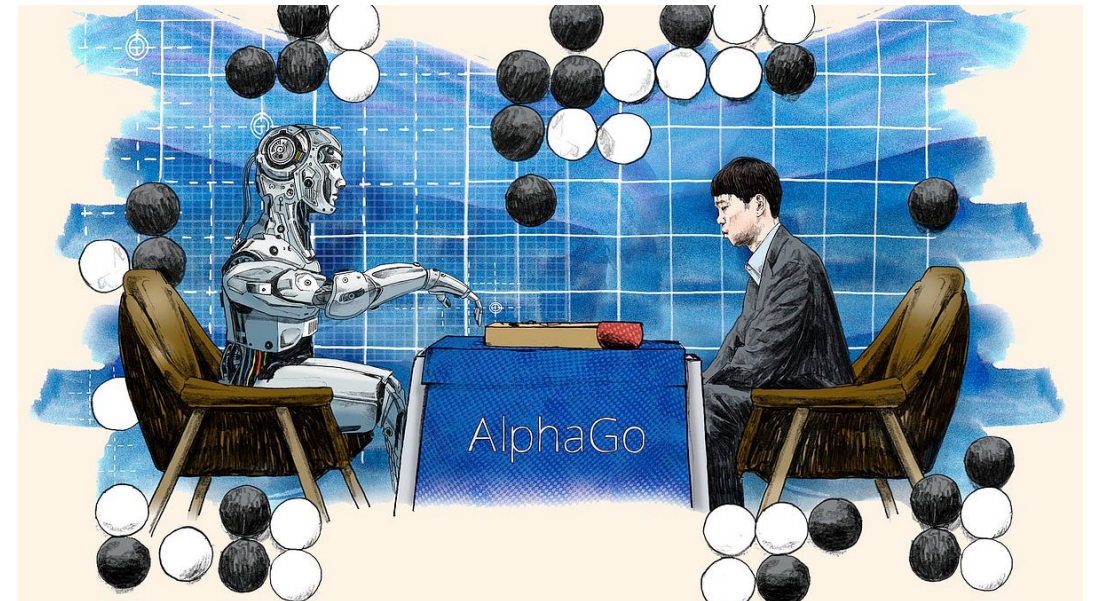under grant agreement No 870935

CULTURE AS AN ENABLER

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AI intrinsically linked to Culture

Culture is used to foster AI communication and adoption

- Games (Go, Chess)

- Art and creativity (Film, Music, etc.)

"Culture eats strategy at breakfast" (Druker)

Picture from the Financial Time

14/03/2023

REPORTS ON AI IN CCS

Creative Disruption: The impact of emerging technologies on the creative economy. WEF2018
http://www3.weforum.org/docs/39655_CREATIVE-DISRUPTION.pdf

Culture, platforms and machines: The impact of artificial intelligence on the diversity of cultural expressions. UNESCO 2018 https://en.unesco.org/creativity/sites/creativity/files/12igc_inf4_en.pdf

AI in the Media and Creative Industries. NEM Initiative 2019
https://hal.inria.fr/hal-02125504/document

The Use of AI in the Cultural and Creative Sectors. European Parliament 2020
https://op.europa.eu/en/publication-detail/-/publication/8bf8f299-f7c4-11ea-991b-01aa75ed71a1/language-en

Study on Opportunities and Challenges of AI Technologies for the Cultural and Creative Sectors. Technopolis / DG CNECT, European Commission 2022 https://op.europa.eu/en/publication-detail/-/publication/359880c1-a4dc-11ec-83e1-01aa75ed71a1/language-en

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CONTEXT

7.4 million people in cultural employment across the EU (3.7% of total employment in the EU)

Increasing digitization

Bringing **challenges** and **opportunities** for the sectors

AI can provide a value added for each stage along the CCS sectoral value chains: **creation, production, distribution, archiving**

https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Culture_statistics_-_cultural_employment#Cultural_employment_.E2.80.94_overall_developments
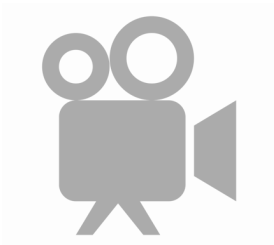
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CULTURAL AND CREATIVE SECTORS

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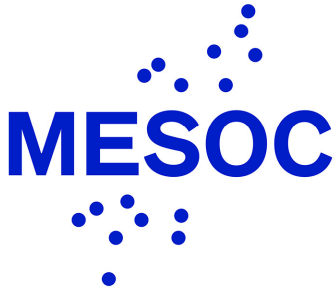
Fashion

Visual arts

Cinema

Music

Writing
Publishing

Performing Arts

Video games

Museums
Cultural
Heritage

Architecture

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AI OPPORTUNITIES

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Reduce Costs	Make decisions	Discover and engage new audience	Inspire human creation
Automated testing	*Pattern extruding*	*Recommendations*	*Experimentation*
Automated translation	*Forecasting*	*Personalization*	*Augmented creativity*
Adaptive content	*Marketing assistant*	*Customer services*	*Content innovation*
Generative content	*Identify artists*		*Critical work*

From *"Opportunities and challenges of artificial intelligence"*, 2022

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AI OPPORTUNITIES

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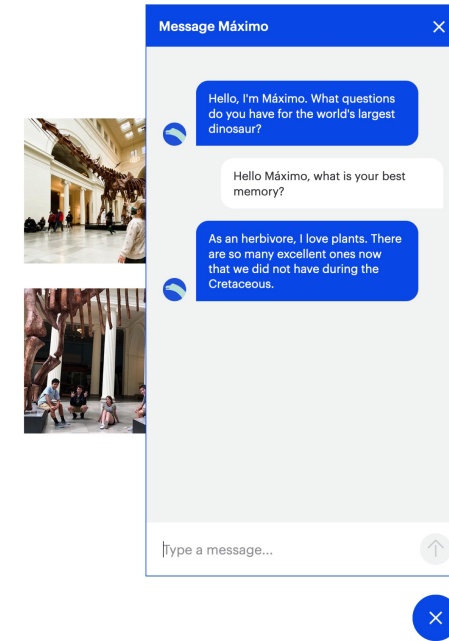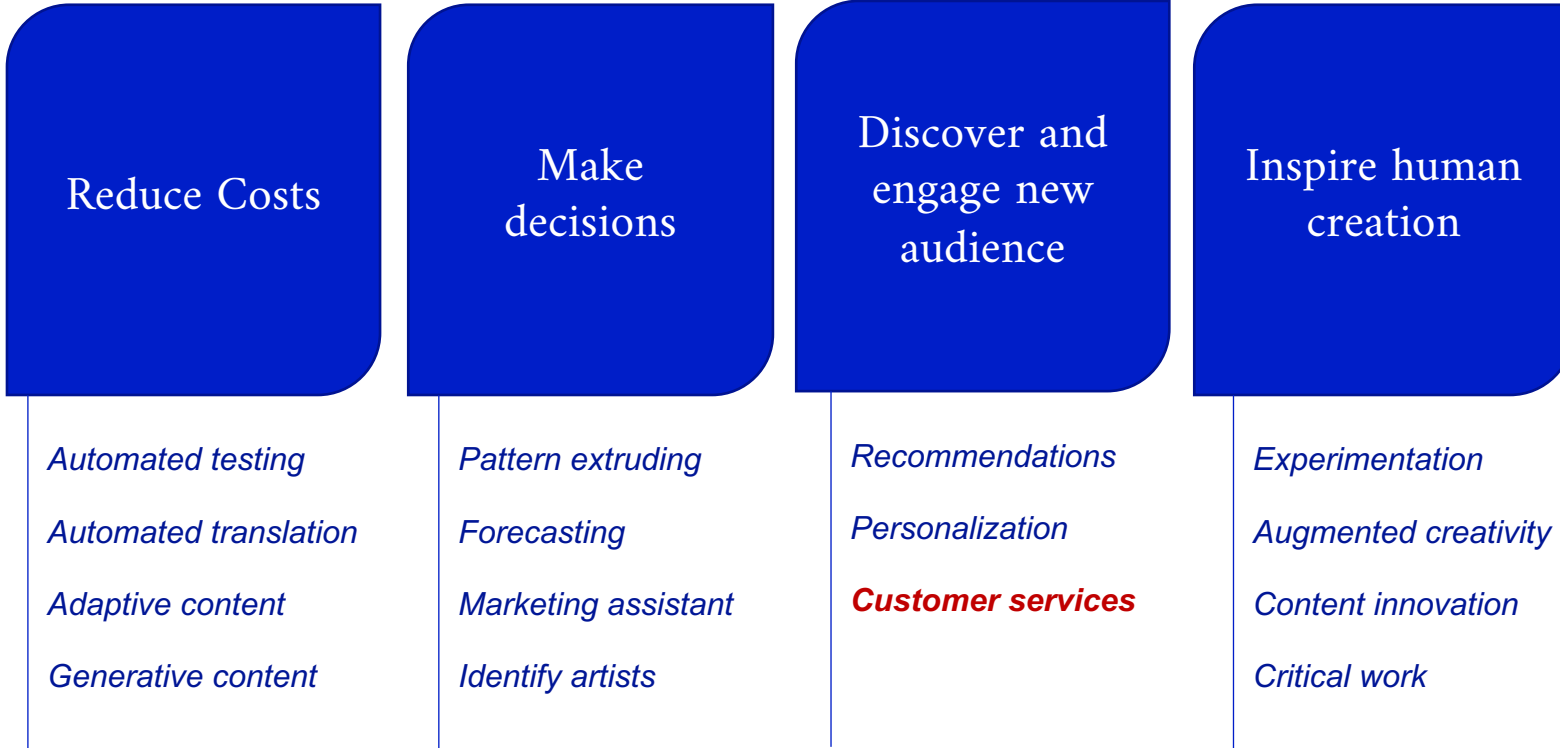| Reduce Costs	Make decisions	Discover and engage new audience	Inspire human creation
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National Gallery (UK) worked with Dexibit company to analyse attendance (using WiFi data)

From *"Opportunities and challenges of artificial intelligence"*, 2022

AI OPPORTUNITIES

Reduce Costs

Make decisions

Discover and engage new audience

Inspire human creation

Automated testing	Pattern extruding	Recommendations	Experimentation
Automated translation	Forecasting	Personalization	Augmented creativity
Adaptive content	Marketing assistant	**Customer services**	Content innovation
Generative content	Identify artists		Critical work

Message Máximo ✕

Hello, I'm Máximo. What questions do you have for the world's largest dinosaur?

Hello Máximo, what is your best memory?

As an herbivore, I love plants. There are so many excellent ones now that we did not have during the Cretaceous.

Type a message...

Fields Museum chatbot

From "*Opportunities and challenges of artificial intelligence*", 2022

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AI OPPORTUNITIES

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Zizi Show by Jake Elwes
(photo courtesy the artist)

From "*Opportunities and challenges of artificial intelligence*", 2022

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Challenges and recommendations

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CHALLENGES & RECOMMENDATIONS
DATA

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Challenges:
- Data collection and computation
- Data access and governance
- Data copyrights
- Data heterogeneity across sectors

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DATA

Recommendations:

- Monitor and regulate cultural data collection and usage
- Support infrastructure for storage and computation
- Explore set up a 'Data Agency for CCS'

SKILLS

Challenges:

- Skill in AI, ML and Computer Science in CCS
- Structural changes in domain-related skills
- Balanced technical and innovative/design/creative skills

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CHALLENGES & RECOMMENDATIONS
SKILLS

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Recommendations:
- Create and improve AI curricula applied to CCS (undergraduate to PhD)
- Support the development of tools (proprietary & open-source)
- Help small CCS stakeholders

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CHALLENGES & RECOMMENDATIONS
INNOVATION

Challenges:
- Lack of transparency in AI solutions
- Difficulty to leverage AI-related cost vs. innovation value
- Increasing dependency in third-party solutions
- AI is highly energy-demanding

CHALLENGES & RECOMMENDATIONS
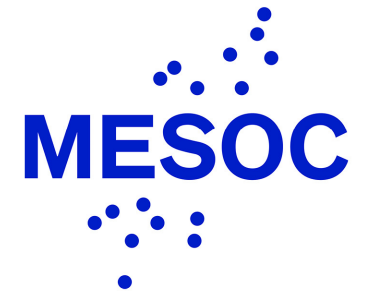# INNOVATION

Recommendations:
- Make AI accountable (through necessary specifications)
- Foster research at the intersection of science and innovation
- Foster dialogue (with all stakeholder and general public) about AI Ethics
- Ask ourselves if we always need big data and big models

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CONCLUSIONS

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Culture as an enabler for AI: Risks and Opportunities

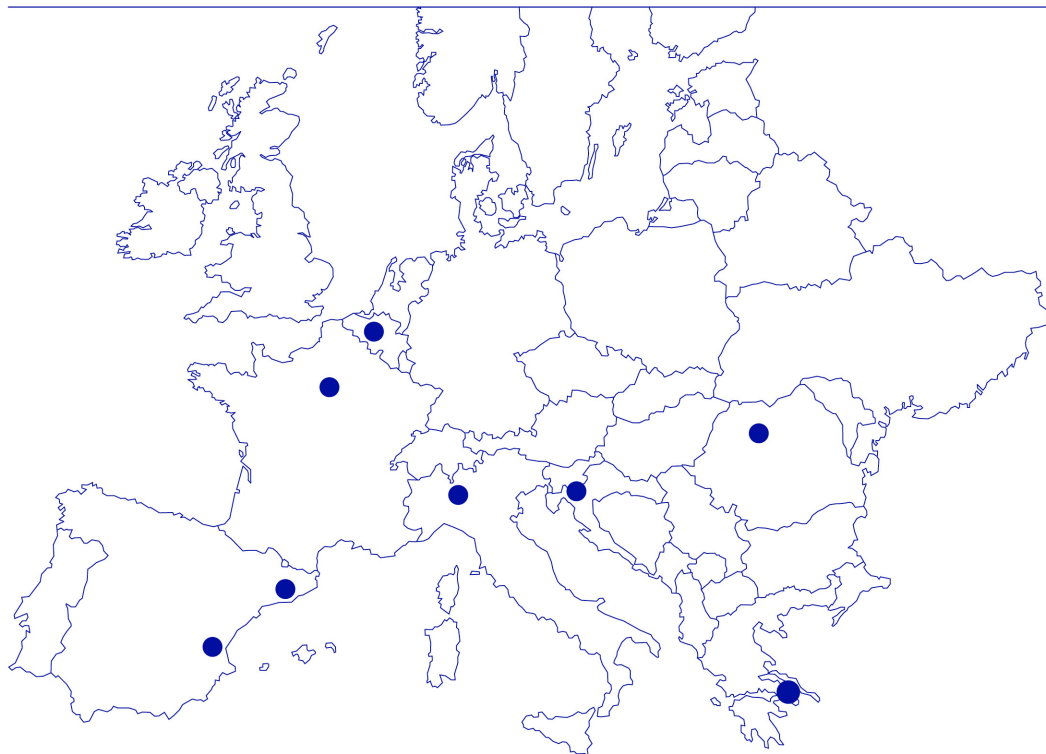**Europe is a key context:** Cultural Diversity & History

AI creates opportunities in CCS: Reducing Costs, Make decisions, Engage audience, Inspire creators and people

AI brings challenges in CCS: Data, Skills, Innovation

AI is fueled by data and computational power: Sustainability issue

Ongoing discussion: see cited reports and other online resources

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PARTNERS

MESOC

Vniversitat de València

econcult

KEA EUROPEAN AFFAIRS
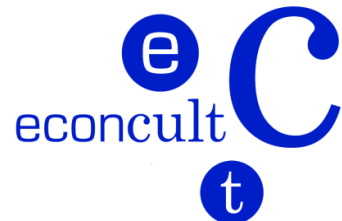
POLITECNICO MILANO 1863
DIPARTIMENTO DI ARCHITETTURA E STUDI URBANI
DEPARTMENT OF ARCHITECTURE AND URBAN STUDIES

UNIVERSITAT DE BARCELONA

Relais Culture Europe

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