Some introductory ideas for the panel "AI: across innovations and ethics"

Luca Mari Imari@liuc.it https://Imari.github.io

2023 IEEE International Conference on Metrology for eXtended Reality, Artificial Intelligence and Neural Engineering Milano, 27 October 2023

A *timely* subject...

... three days ago: https://managing-ai-risks.com

Managing AI Risks in an Era of Rapid Progress

Authors

Yoshua Bengio **Geoffrey Hinton** Andrew Yao Dawn Song Pieter Abbeel Vuval Noah Harari **Ya-Qin Zhang** Lan Xue Shai Shaley-Shwartz Gillian Hadfield Jeff Clune **Tegan Maharaj** Frank Hutter Atılım Günes Baydin Sheila McIlraith Oigi Gao Ashwin Acharya David Krueger Anca Dragan Philip Torr Stuart Russell Daniel Kahneman Jan Brauner* Sören Mindermann*

Affiliations

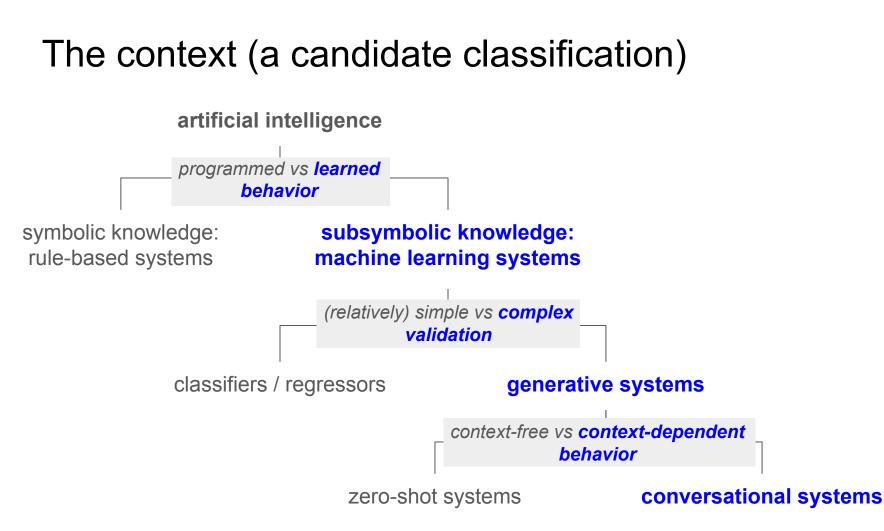
Mila - Quebec AI Institute, Université de Montréal, Canada CIFAR AI Chair University of Toronto, Vector Institute Tsinghua University University of California, Berkeley University of California, Berkeley The Hebrew University of Jerusalem, Department of History Tsinghua University Tsinghua University, Institute for AI International Governance The Hebrew University of Jerusalem University of Toronto, SR Institute for Technology and Society, Vector Institute University of British Columbia, Canada CIFAR AI Chair, Vector Institute University of Toronto, Vector Institute University of Freiburg University of Oxford University of Toronto, Vector Institute East China University of Political Science and Law Institute for AI Policy and Strategy University of Cambridge University of California, Berkeley University of Oxford University of California, Berkeley Princeton University, School of Public and International Affairs University of Oxford Mila - Quebec AI Institute, Université de Montréal

PUBLISHED

October 24, 2023

23 Forthcoming.

ARXIV



The example of a conversation

(ChatGPT, with GPT4, October 2023)

Luca: Do you have any knowledge of the book "Measurement across the sciences", by Luca Mari, Mark Wilson, and Andrew Maul, published by Springer Nature?

ChatGPT: As of my last knowledge update in September 2023, I don't have access to specific information on a book titled "Measurement across the sciences" by Luca Mari, Mark Wilson, and Andrew Maul published by Springer Nature. It's possible that the book is a recent publication or that it hasn't been widely covered in publicly available sources. I recommend checking Springer Nature's website or other book retailers for the most up-to-date information.

The example of another conversation

Chatting with an AI... (*not edited*) <u>A conversation about</u> <u>the contents of a scientific book</u> The entity with which we had this conversation:

- writes a good English, and other languages
- produces original texts
- fulfills complex requests
- adapts its arguments to the context
- proposes creative contents
- analyzes and summarizes long texts
- shows sophisticated linguistic skills

The novelty is not in what it knows, but in how it (knows and) interacts

. . .

A position

It is the first time that we can have conversations in natural languages with an entity which does not belong to our species

This new scenario is generating and will generate both opportunities and risks

Hypothesis: what is happening around ChatGPT & its siblings will be the third "*cultural revolution*" in the Western world:
– Copernicus showed us our cosmological non-centrality
– Darwin showed us our biological non-originality
– chatbots are showing us our cognitive non-uniqueness

Oh c'mon...

Nothing like that, of course: it CANNOT be intelligent!

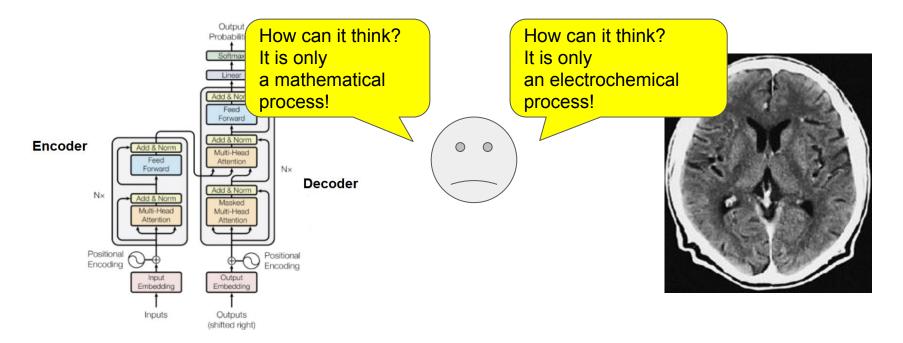


For example:

AI as Agency Without Intelligence: On ChatGPT, Large Language Models, and Other Generative Models

10 March, Philosophy & Technology, https://link.springer.com/article/10.1007/s13347-023-00621-y

An interpretation...



(be either always or never reductionist!)

Issues

Current chatbots produce texts that are the outcome of **autonomous processing**, from a large amount of texts, not of searches / queries in databases

This makes them novel entities, able to operate in original and sophisticated ways but:

- not always trustable in the factual information they report
- usually not explainable in their behavior
- **never** accountable for what they produce

In my (preliminary) opinion,

- *while their trustability* will be significantly improved
- and their explainability will be only marginally improved
- their accountability will remain out of scope

Moral responsibility in front of the human society cannot be delegated to non-human entities



Thanks for your attention

Luca Mari

Imari@liuc.it https://Imari.github.io