



What is a truly ethical AI?

An end-to-end approach to responsible and humane technological systems

Antonio Casilli

Why AI ethics?

- AI has been around for 70 years.
- But ethical AI guidelines started proliferating in the second half of the 2010s.
 - * Loss of control to some 'super-intelligence'?
 - * Ethical challenges in autonomous technologies (weapon systems, cars...)





Main debates

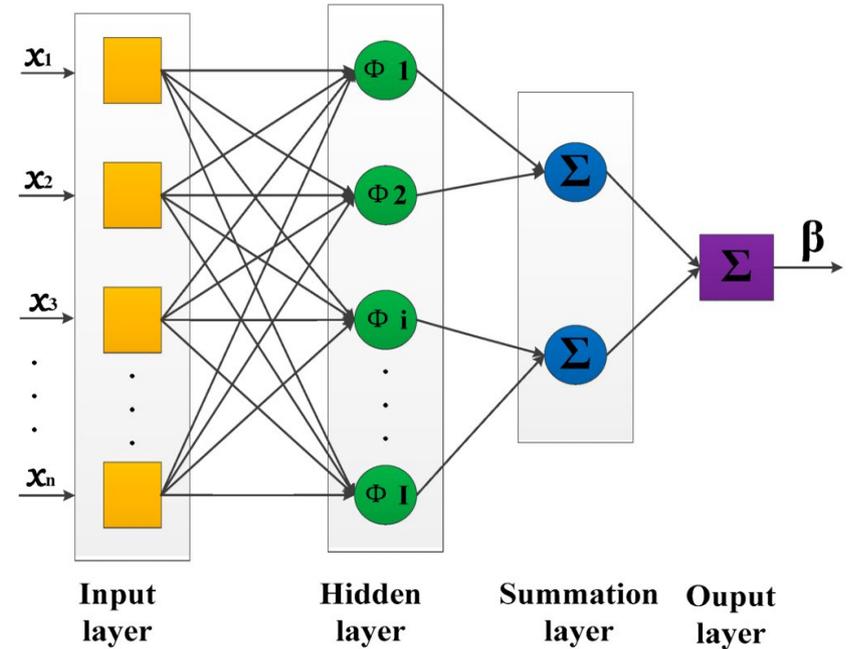
AI guidelines are largely divergent

1. Transparency
2. Justice and fairness
3. Non-maleficence
4. Legal responsibility
5. Privacy



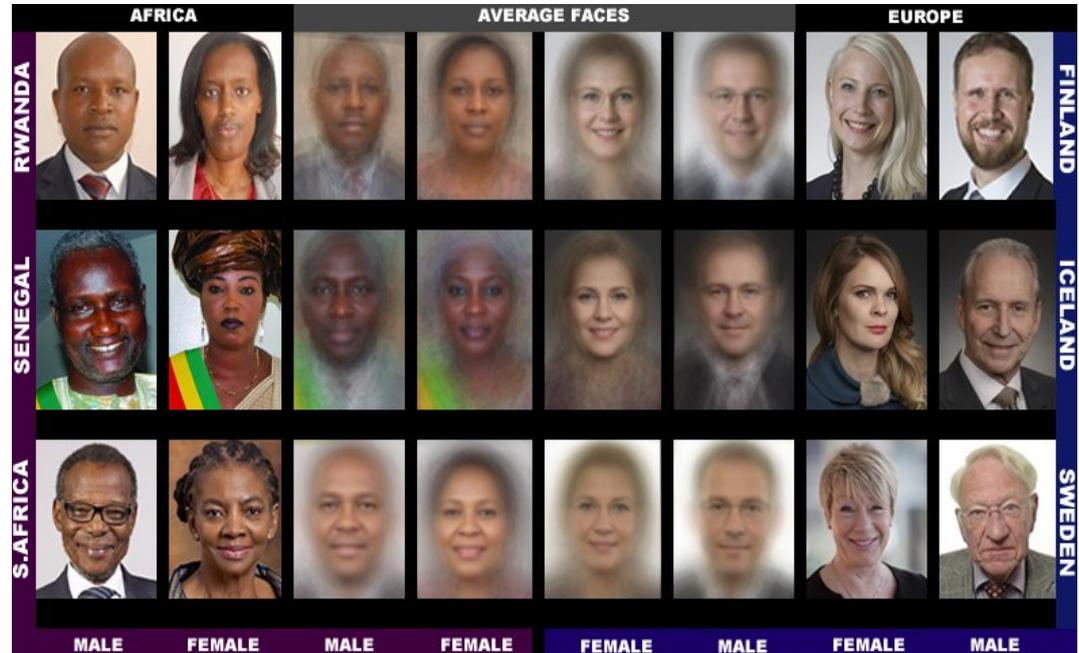
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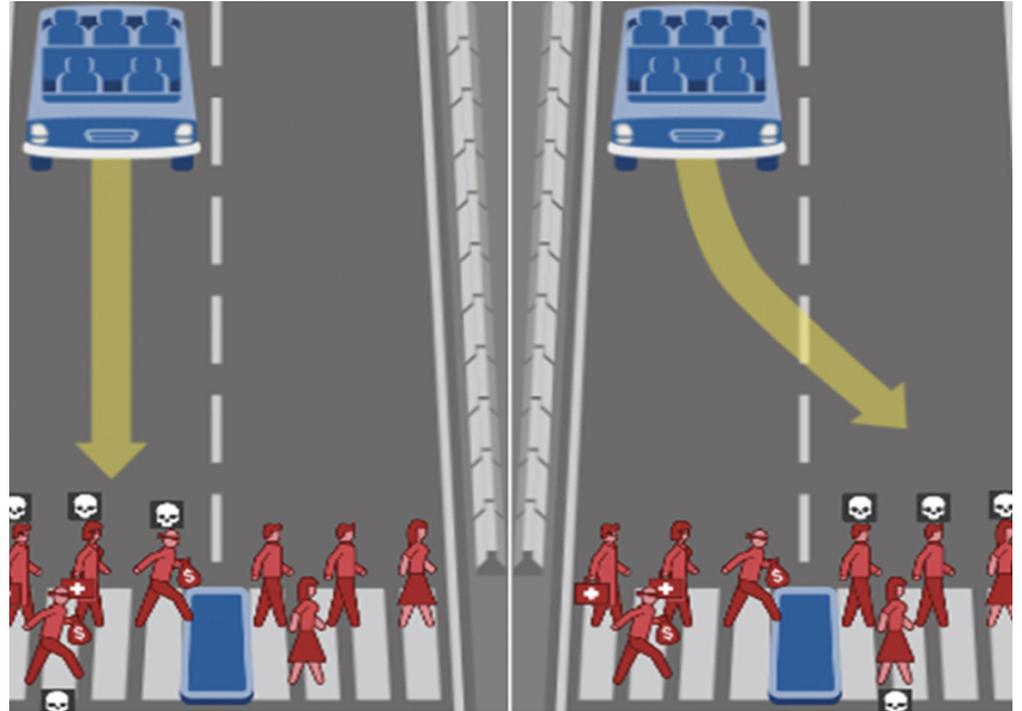
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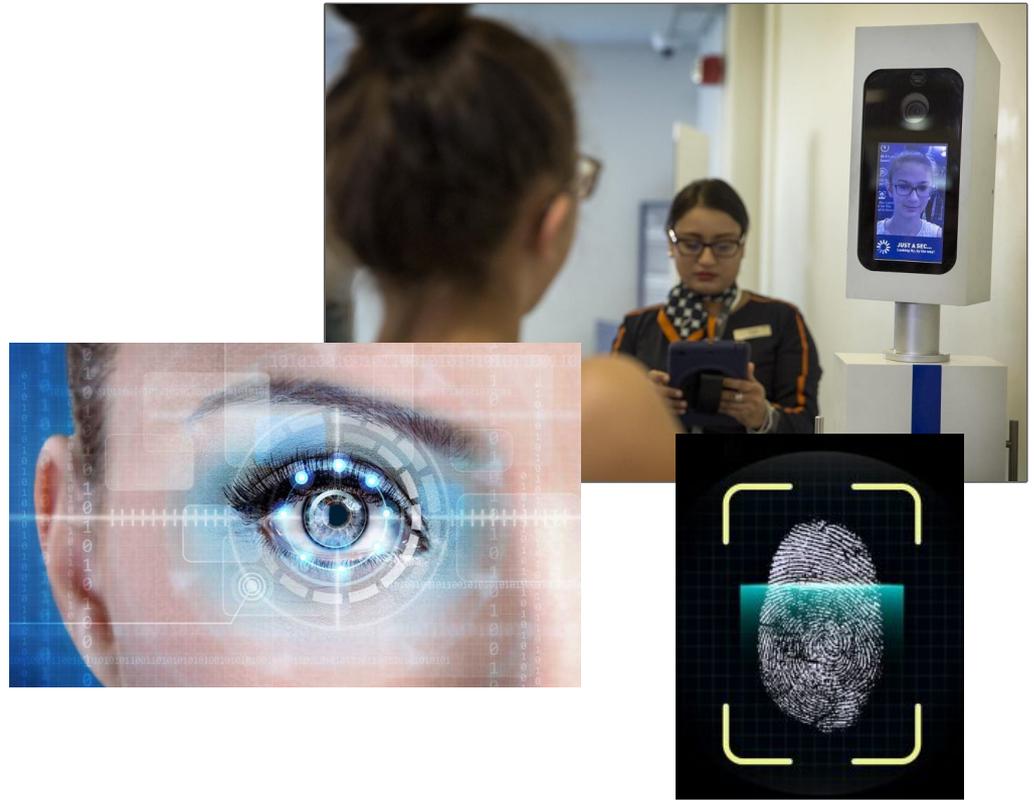
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AI guidelines are largely divergent

- Different interpretations of shared principles
- Remarkable absence of sustainability, trust, autonomy, dignity, solidarity...
- No links between principles and actionable requirements



Alignment with industrial interests

- Tech giants co-opt and neutralize critique: denigrate dissenting research + fund weakest critics
- To avoid more stringent regulation
- Focus on ethics to frame issues of power, dominance, inequalities, oppression...

The Steep Cost of Capture

• Meredith Whittaker, New York University

This is a perilous moment. Private computational systems marketed as artificial intelligence (AI) are threading through our public life and institutions, concentrating industrial power, corresponding marginalization, and quietly shaping access to resources and information.

In considering how to tackle this onslaught of industrial AI, we must first recognize that the "advances" in AI celebrated over the past decade were not due to fundamental scientific breakthroughs in AI techniques. They were and are primarily the product of significantly concentrated data and compute resources that reside in the hands of a few large tech corporations. Modern AI is fundamentally dependent on corporate resources and business practices, and our increasing reliance on such AI cedes inordinate power over our lives and institutions to a handful of tech firms. It also gives these firms significant influence over both the direction of AI development and the academic institutions wishing

to research it. Meaning that tech firms are startlingly well positioned to shape what we do—and do not—know about AI and the business behind it, at the same time that their AI products are working to shape our lives and institutions.

Examining the history of the U.S. military's influence over scientific research during the Cold War, we see parallels to the tech industry's current influence over AI. This history also offers alarming examples of the way in which U.S. military dominance worked to shape academic knowledge production, and to punish those who dissented.

Today, the tech industry is facing mounting regulatory pressure, and is increasing its efforts to create tech-positive narratives and to silence and sideline critics in much the same way the U.S. military and its allies did in the past. Taken as a whole, we see that the tech industry's dominance in AI research and knowledge production puts critical researchers and advocates within, and beyond, academia in a treacherous

insights

- Big tech's control over AI resources made universities and other institutions dependent on these companies, creating a web of conflicted relationships that threaten academic freedom and our ability to understand and regulate these corporate technologies.
- To ensure independent and rigorous research and advocacy capable of understanding and checking these technologies, and the companies behind them, we need to organize, within tech and within the university.

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Alignment with industrial interests

- Tech giants account for the majority of money spent on AI research.
- Authors with corporate ties from 43% to 79%.
- Publications by Alphabet, Microsoft increasing more than fivefold.



Figure 2: Corporate and Big Tech author affiliations.

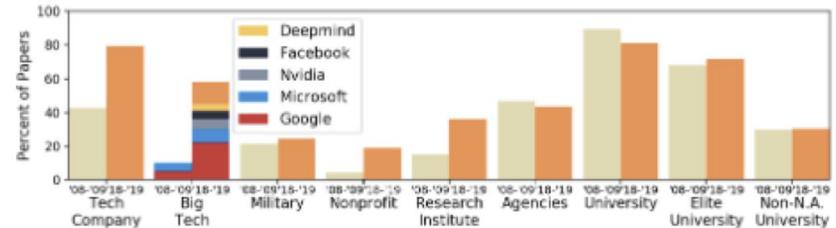
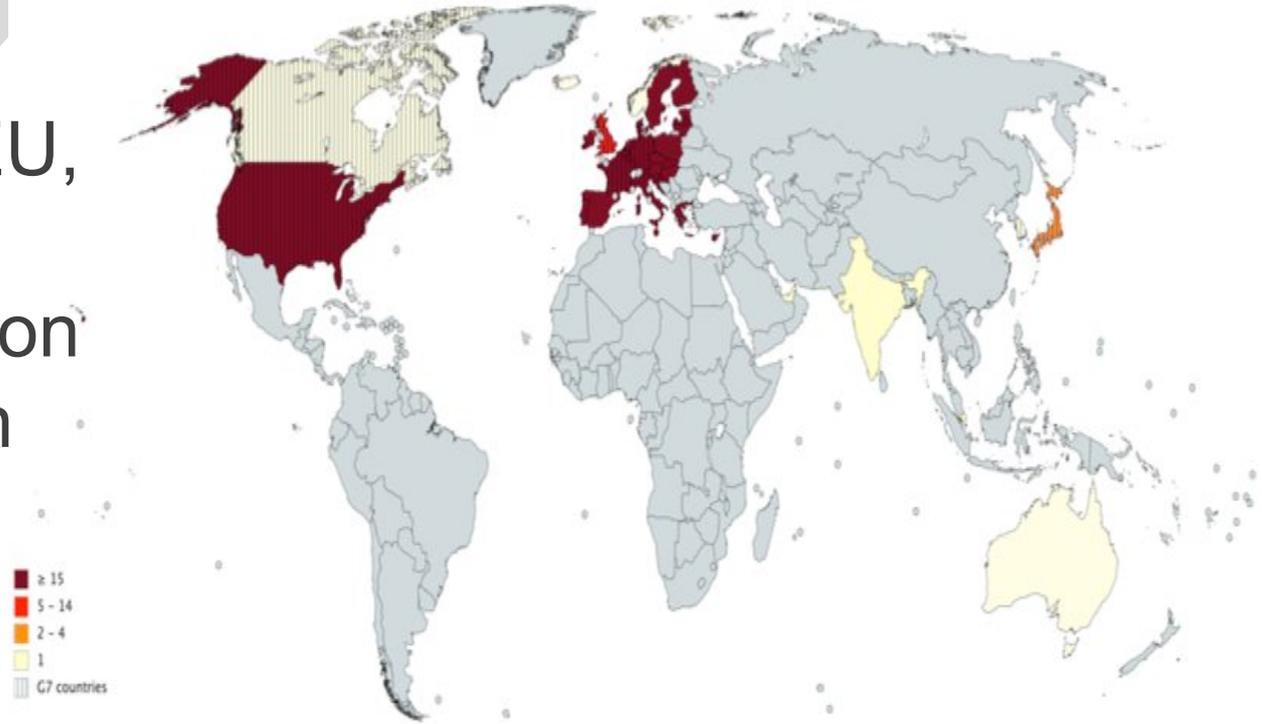


Figure 3: Corporate affiliations and funding ties. Non-N.A. Universities are those outside the U.S. and Canada.

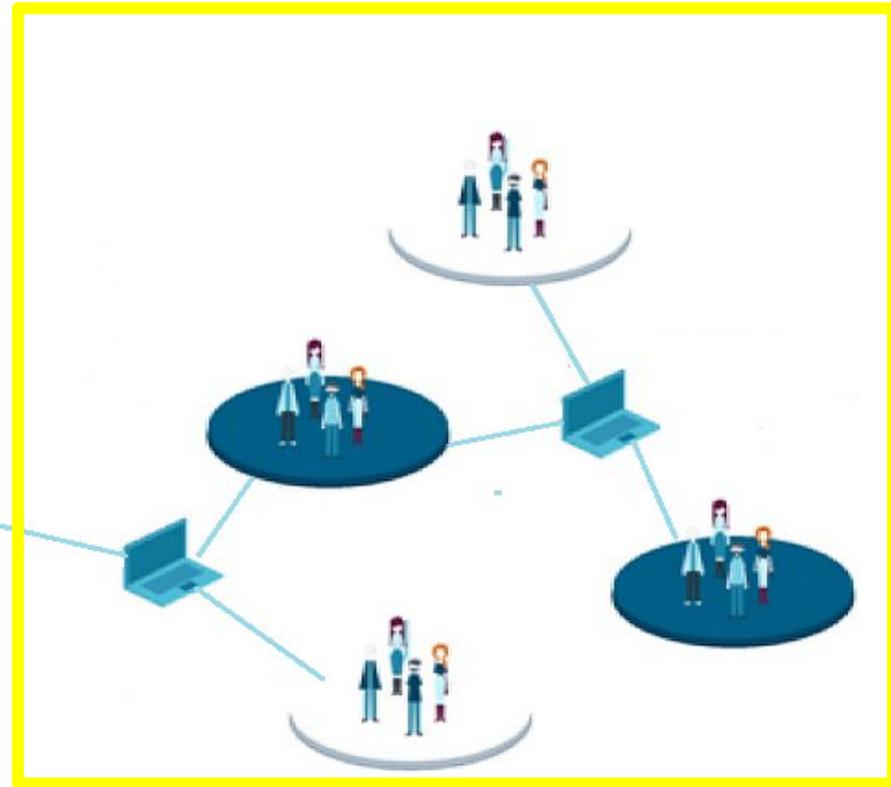
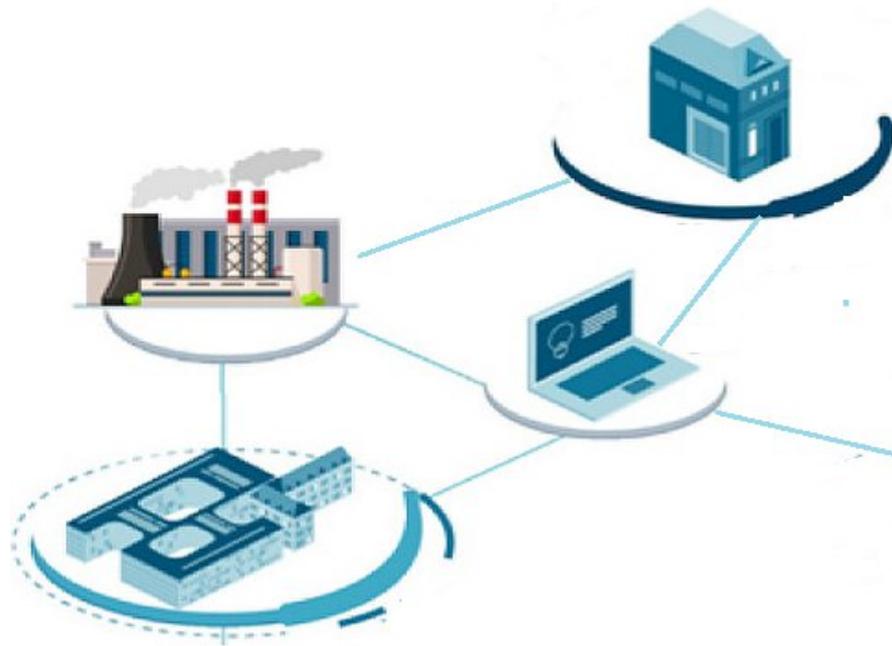
Global North initiatives

- Most guidelines released in USA, EU, UK and Japan
- Under-representation of the Global South
- May undermine pluralism and cultural awareness



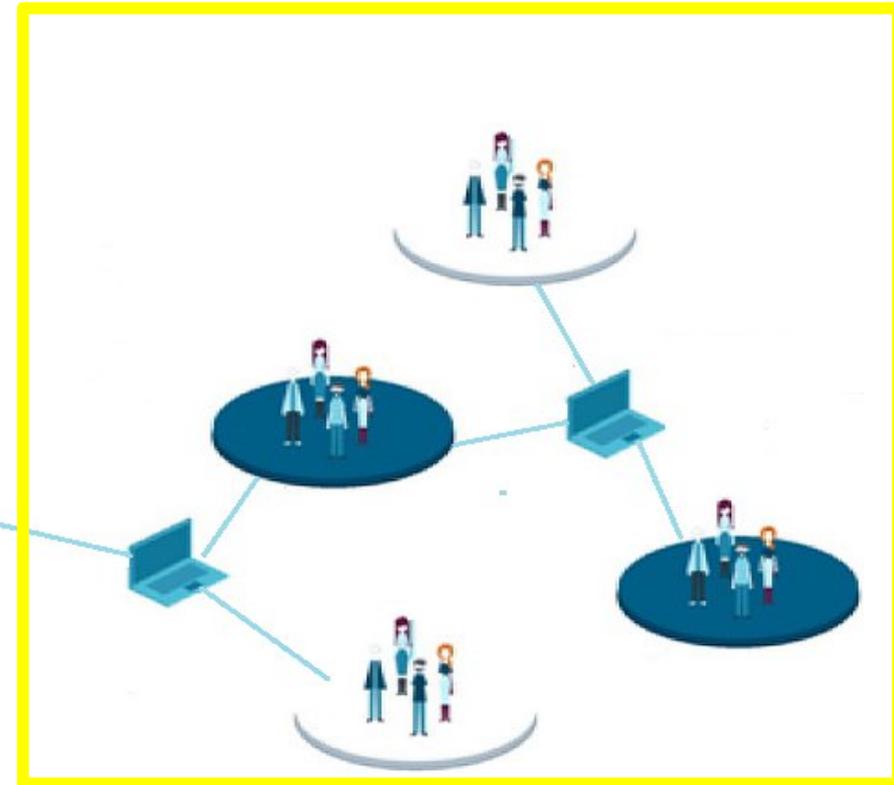
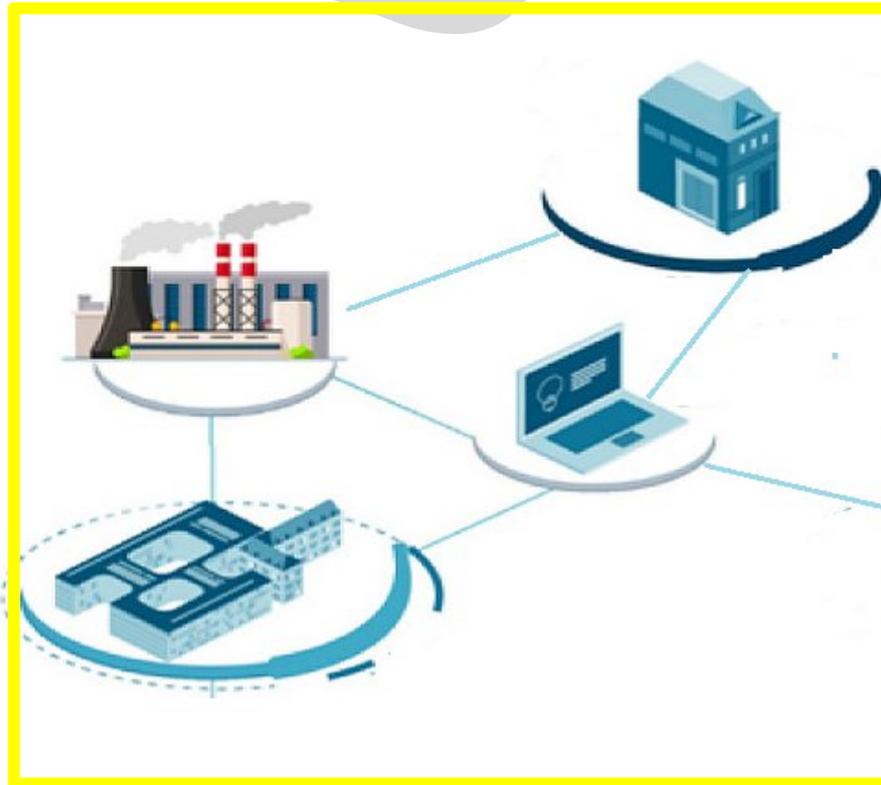
Placing the human back in the loop

Production phase vs. deployment phase

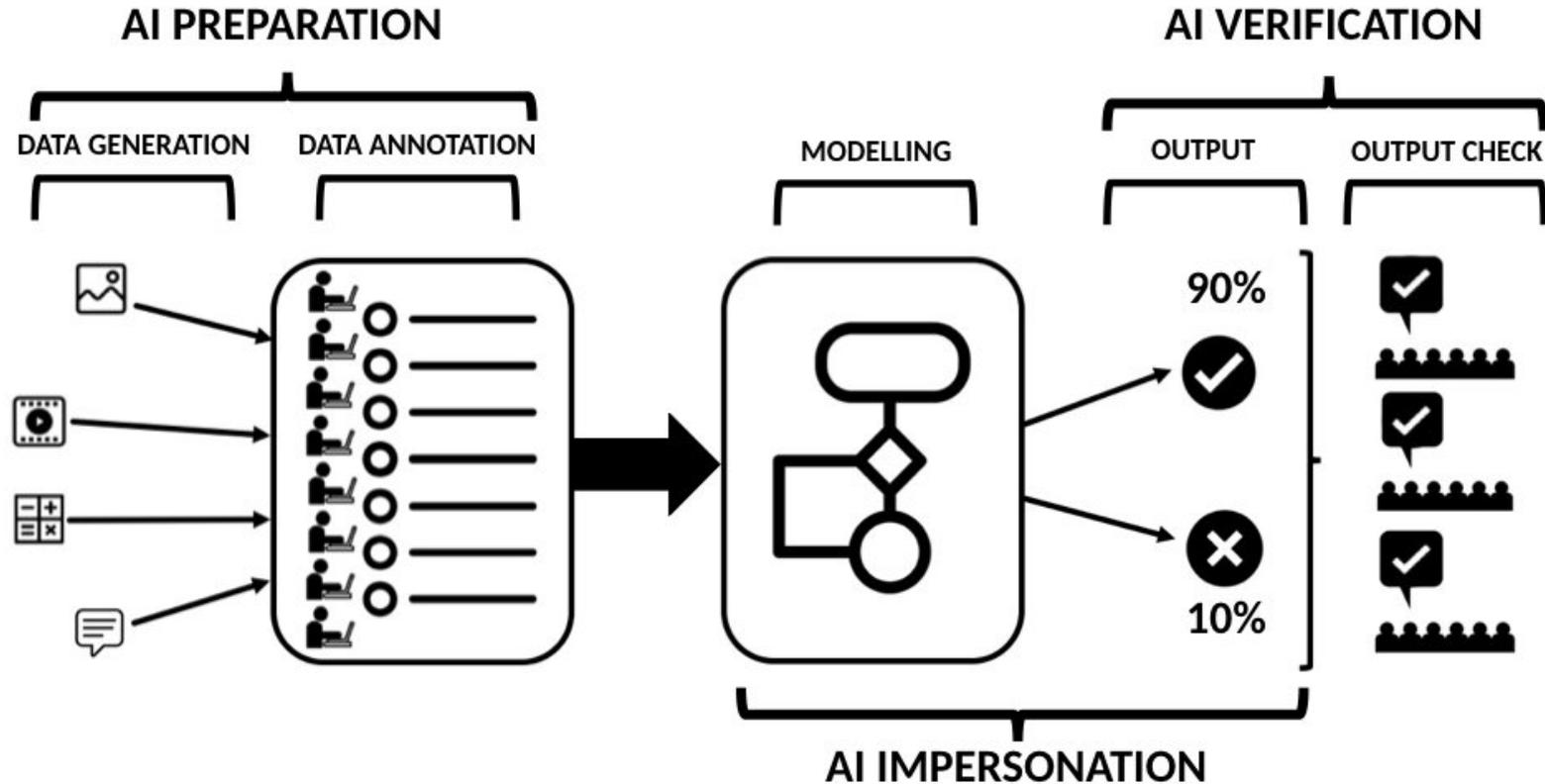


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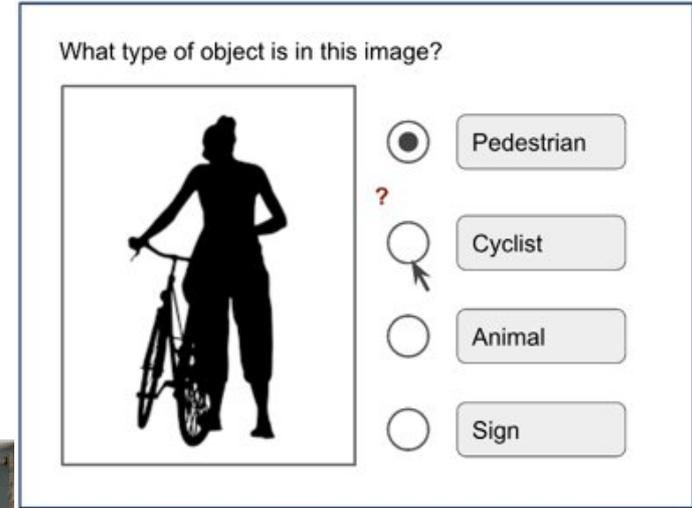
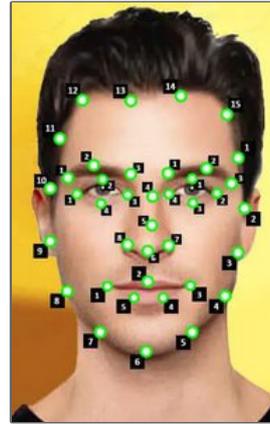
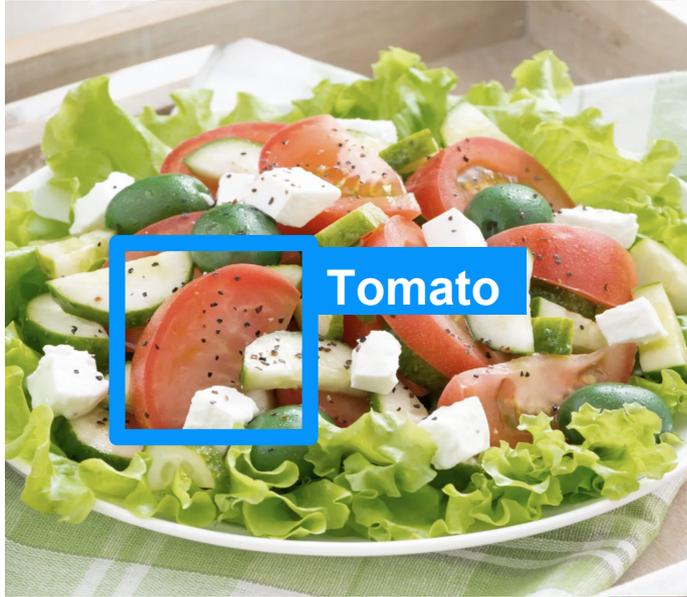
Production phase vs. deployment phase



Workers behind AI

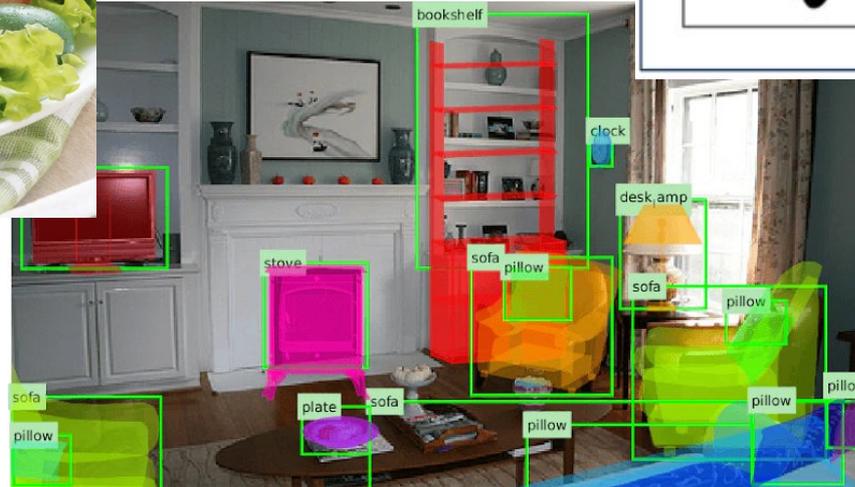


Data labor: training models



'They give us a picture of a plate and say 'draw a square around a tomato', we don't know why, everyone knows what a tomato is, I hope...'

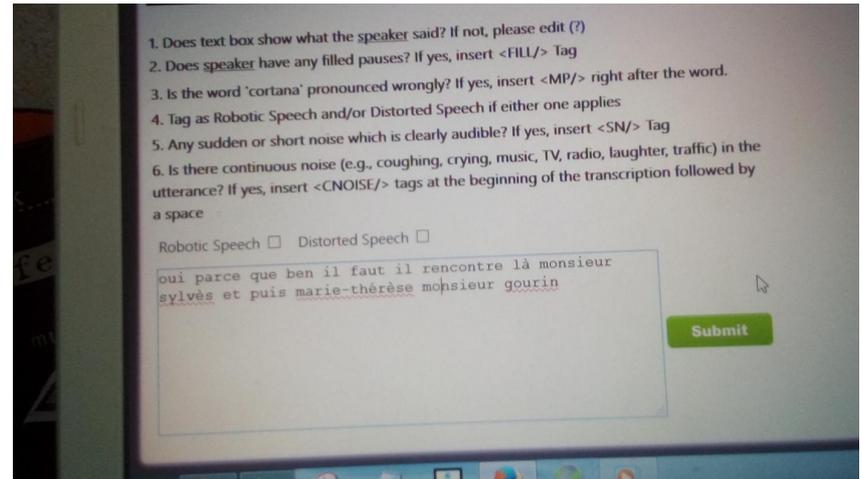
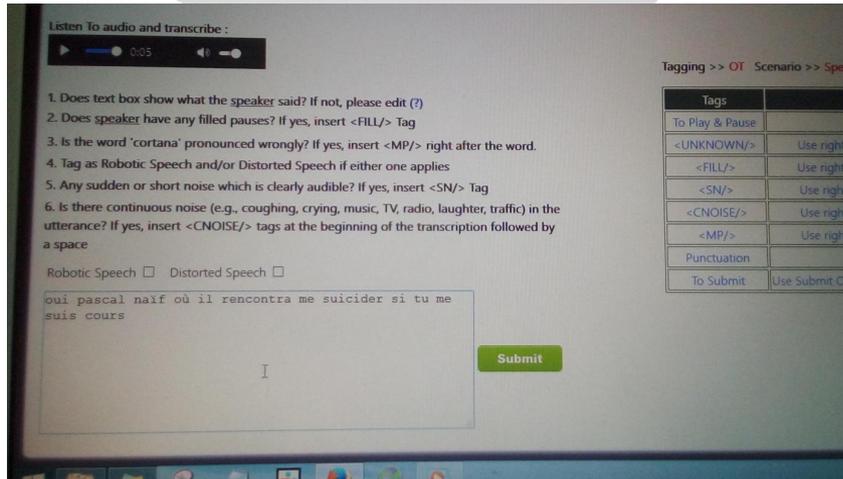
T., FR, 45 yo, 2017







Data labor: verifying outputs



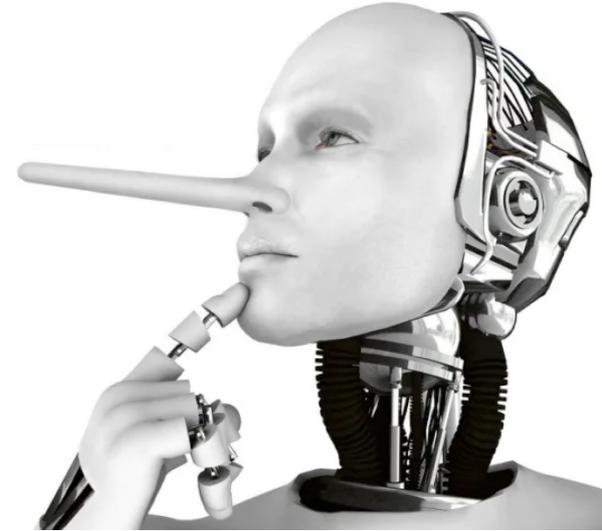
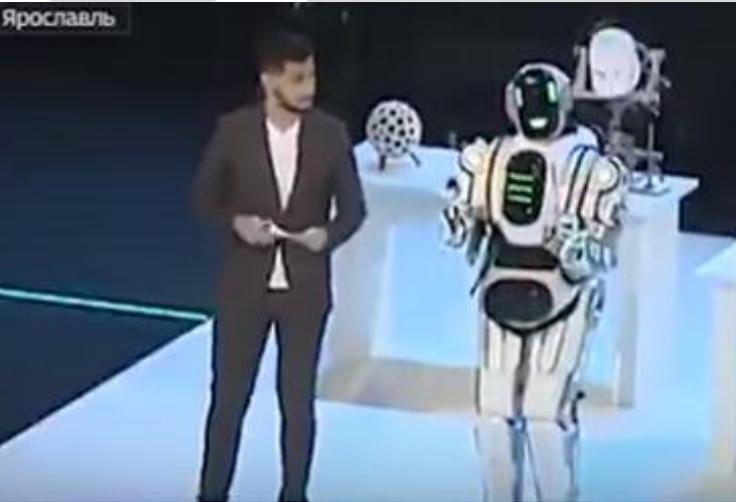
'I listened to the audio recording, then a text appeared on screen, showing what [the vocal assistant] understood and transcribed. My job was to check if it was accurate - if not, I had to correct the text'

J., FR, 26 yo, 2019

Tubaro P., Casilli A.A. 2022 (in press). Human listeners and virtual assistants: Privacy and labor arbitrage in the production of smart technologies. In F. Ferrari & M. Graham (eds.), *Digital Work in the Planetary Market*. MIT Press. pp. 175-190.



Data labor: impersonating AI



'The overwhelming majority of B2B startups we know are human-based. But I understand them because for them, it's a bet on the future. They have to create the data for the appointments and then do machine learning and hope, one day, that the process will be automated'

K., FR, 42 yo, 2018

*'Madagascar is the leader in
French AI.'*

K., FR, 42 yo, 2018



Source: Invisibles – ClickWorkers, France.tv, DW.





Geographies of data production



HUSH "The Human Supply Chain Behind Smart Technologies" (2020-2024); TRIA "The Labor of Artificial Intelligence: Ethics and Governance of Automation" (2021-2024)

Geographies of data production



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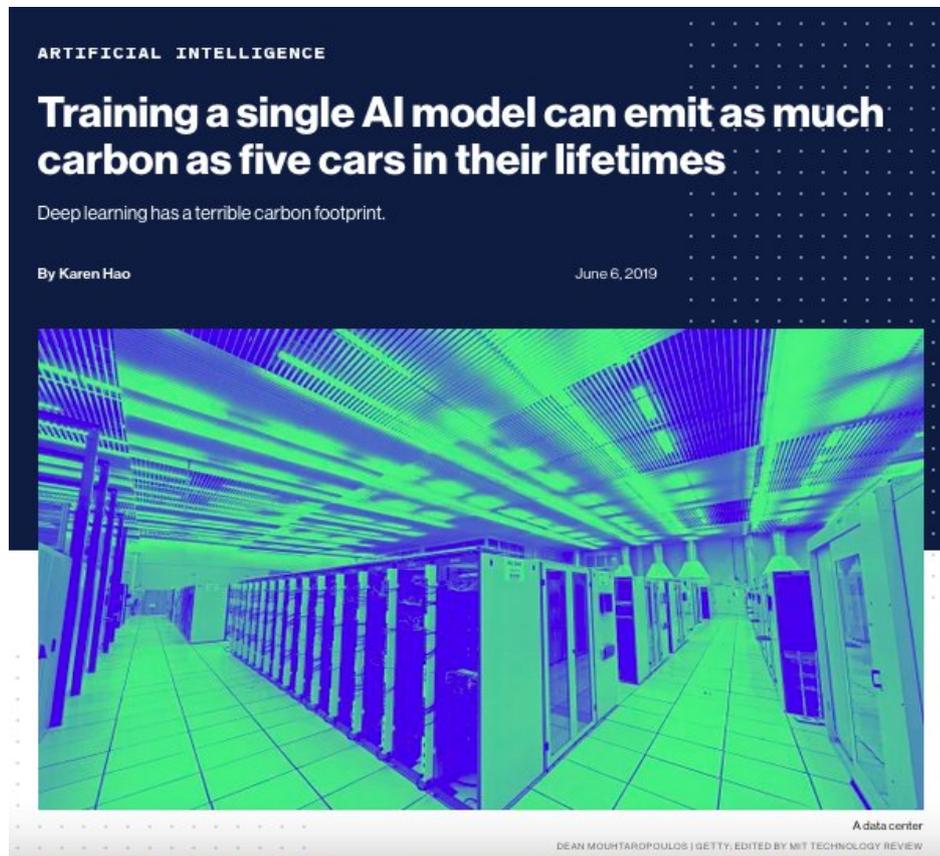
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Environment and natural resources

- Very high environmental costs of ML
- Usually solutions consist paradoxical use of AI to reduce carbon footprint and waste and deadweight assets of AI

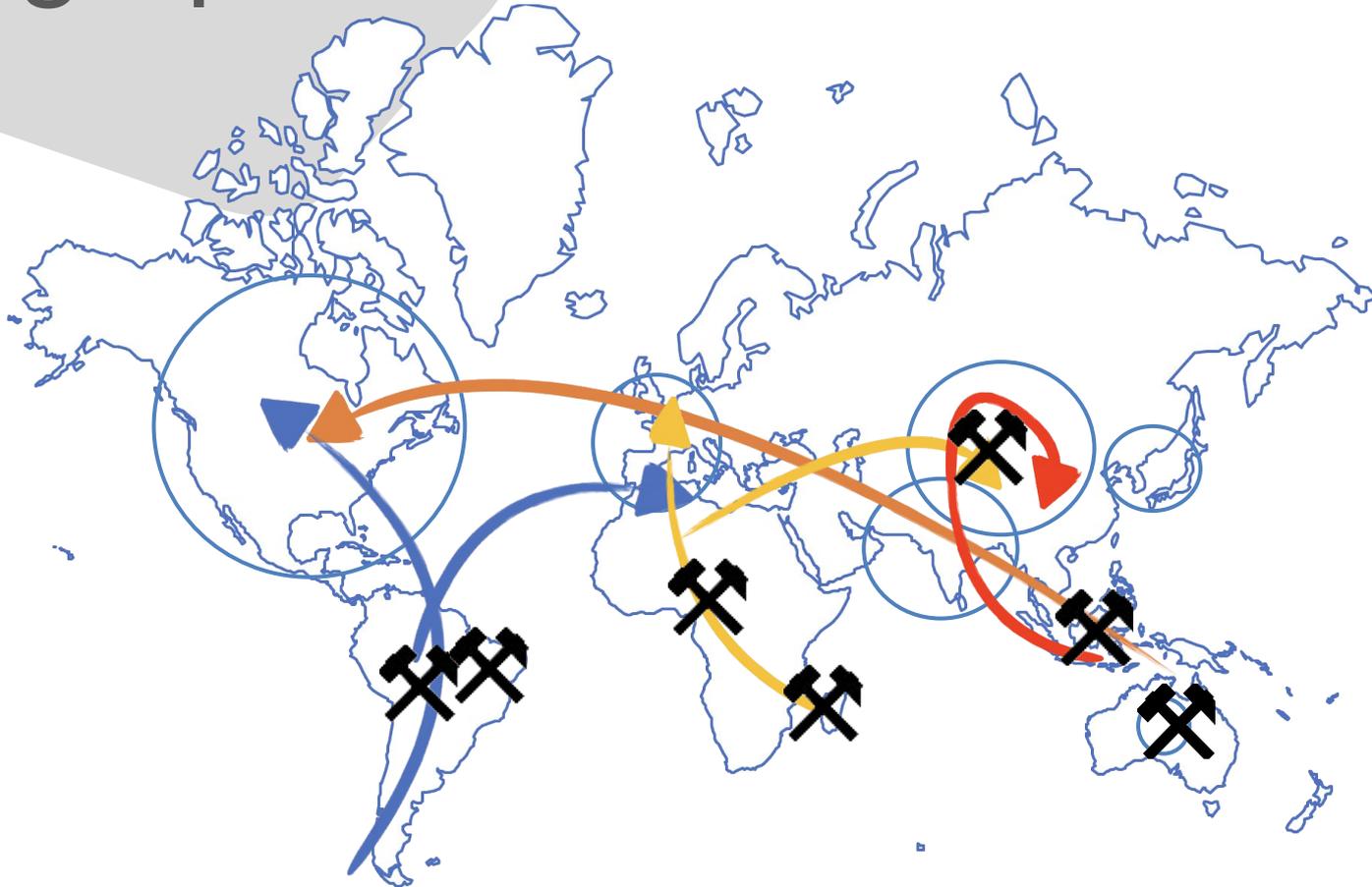


Environment and natural resources

- Extractive industry
 - Cobalt
 - Nickel
 - Lithium
 - Rare earths
- Disrupting economies
- Conflict over land
- International transportation
 - ⇒ Huge quantity of labor



Geographies of resource extraction



HUSH "The Human Supply Chain Behind Smart Technologies" (2020-2024); TRIA "The Labor of Artificial Intelligence: Ethics and Governance of Automation" (2021-2024)



Conclusions

An end-to-end approach to AI?

- Consider AI ethics in the broad framework of its production systems – not only its (future) deployment
- Tech-only solutions insufficient
- Take into account natural and human/social environment
 - Consider the political economy of AI, embedded in global dependencies
 - Insure humane working conditions
 - Enforce stringent standards all along the AI supply chain



Thank you

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