

Algorithmic Governance for policy-makers



FOReSiGHT

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Power and Prediction: The Disruptive Economics of Artificial Intelligence (2022) by Ajay Agrawal, Joshua Gans, Avi Goldfarb





Governance?

- coordination between actors based on rules
- not necessarily intentional and goal-directed (Black, 2001)
- it also includes unintentional coordination

Governance **<u>BY</u>** algorithms

Katzenbach, C. & Ulbricht, L. (2019). Algorithmic governance. Internet Policy Review, 8(4). https://doi.org/10.14763/2019.4.1424



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Two diverging narratives

"Governance becomes more powerful, intrusive and pervasive"



"Governance becomes more inclusive, responsive, and allows for more social diversity"





Images developed with DALL-E

"

The legitimate use of algorithms by government, depends on the capability to protect, promote and live up to **<u>public values</u>**.

As algorithms may make the work of government more effective and more efficient, it promotes values such as proper use of public funds.

Yet we are also and increasingly aware of threats to values stemming from **bias**, equality of treatment and privacy.

The Hague Centre for Digital Governance



European Tech Insights 2022

64,1% OF EUROPEANS BELIEVE TECHNOLOGY IS STRENGTHENING DEMOCRACY

A majority (56,4%) also believe technology has improved their democratic participation

In 2021, 1 in 2 Europeans would rather artificial intelligence make decisions instead of politicians

A LARGE PROPORTION OF EUROPEANS WANT TO LIMIT AUTOMATION BY LAW

Yet a wide majority (60.4%) do not believe their job will be automated within the next 10 years.

57,4% OF EUROPEANS BELIEVE AI WILL BRING ABOUT MORE MEANINGFUL JOBS

More than a third (34.8%) also believe an AI algorithm would be more productive at work than their bosses.

https://www.ie.edu/cgc/research/european-tech-insights/#keyfindings





Not new – not necessarily about Al

- 2009 Rouvroy and Berns 'gouvernance algorithmique'
- 2013 Müller-Birn, Dobusch and Herbsleb 'algorithmic governance' = "a coordination mechanism opposed to 'social governance'."
- 2013 Tim O'Reilly 'algorithmic regulation' automatically governed spaces are efficient
- 2014 Morozov If highly contested issues are delegate to technological solutions ==> - depoliticization

Regulation = "intentional attempts to manage risk or alter behavior in order to achieve some pre-specified goal" (Yeung, 2018)

https://www.oreilly.com/tim/





podcast, February 8, 2022)

I have trouble keeping track of my various, scattered writings and interviews, so I decided to create a page where I can find my own words when I want to refer to them. I figured others might want to look at this archive as well. In addition, here is my official bio and my short official bio.

Recent interviews, articles, and talks

Web3-the latest Silicon Valley buzzword (The Economist's Babbage

My book on technology and the future of the economy

In WTF? What's the Future and Why It's Up to Us (Harper Business, October 2017), I share some of the techniques we've used at O'Reilly Media to make sense of and predict innovation waves such as open



source, web services and the internet as platform, and the maker movement. Lapply those same techniques to provide a framework for thinking about how internet platforms and artificial intelligence are changing the nature of business, education, government, financial markets, and the economy as a whole



Some Regulations and risk assessment tools for Al

The <u>Algorithmic Impact Assessment tool</u> (Canada) - systems design, algorithm, decision type, impact, and data.

The <u>National Al Initiative Act of 2020 (DIVISION E, SEC. 5001)</u> (US) became law on January 1, 2021.

The <u>EU Artificial Intelligence Act</u> (EU) assigns applications of AI to three risk categories: applications and systems that create an **unacceptable risk**, such as government-run social scoring; **high-risk** applications, such as a CV-scanning tool that ranks job applicants; and lastly, applications **not** explicitly **listed as high-risk**.

The <u>FEAT Principles Assessment Methodology</u> was created by the Monetary Authority of Singapore (MAS) in collaboration with other 27 industry partners for financial institutions to **promote fairness, ethics, accountability, and transparency (FEAT)** in the use of artificial intelligence and data analytics (AIDA).





Let's talk cities

Image developed with DALL-E

Risks to deploying Al in cities

The systems

Reinforce the assumptions in their data and design.

The systems

Cannot evaluate their own performance.

The systems

Are mathematical and cannot integrate nuance.

Benefits

The systems

Synthesize very well large-scale datasets →habitability, security, and healthcare

The systems

May improve urban economy, infrastructure, mobility, by optimizing flows

- see also Waze against LA
- <u> U-Tool Polytehnic University of Valencia</u>

European Parliament briefing - Artificial Intelligence in smart cities and urban mobility, July 2021



https://unhabitat.org/ai-cities-risks-applications-and-governance

"A thermostat wasn't good enough. You went and gave the building a brain" Detective Spooner – I, Robot (2004) it's not artificial intelligence we have most to fear but artificial single-mindedness

Tim O'Reilly



"A thermostat wasn't good enough. You went and gave the building a brain" Detective Spooner – I, <u>Robot (2004)</u>