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Governance of What? Regulation of AI, algorithms and automation

16 August 2023

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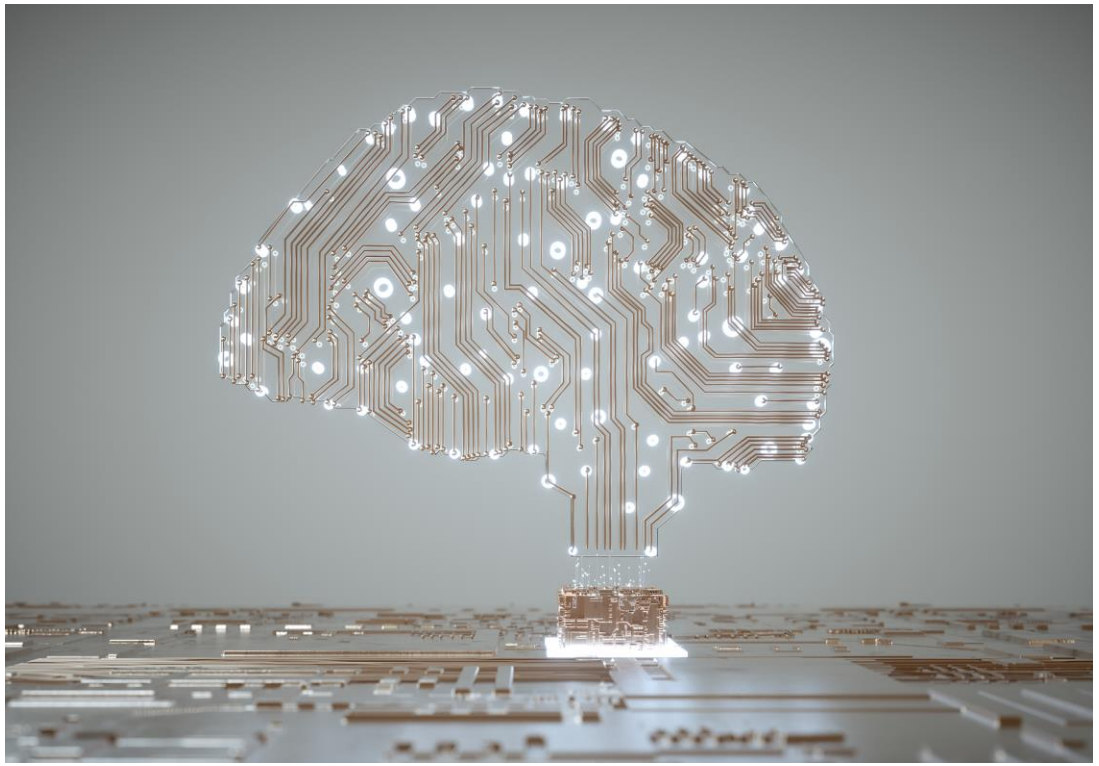
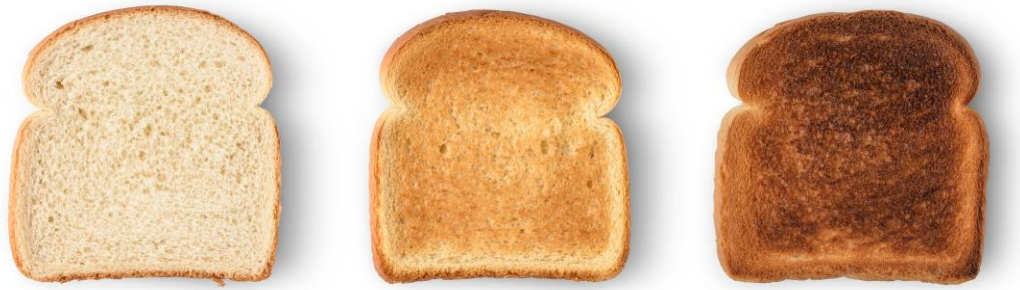
Some parables on “We need to regulate / laws for X”

- Digital tapes
- Nanomaterials
- …
- Automation
- AI
- Algorithms
- Bots
- …

The thing





We need to regulate BECAUSE AI

AI causes harm

"Daniel Oberhaus (2017)"

Australian AI ethics

Throughout their lifecycle, AI systems should benefit individuals, society and the environment.

(Australia's Artificial Intelligence Ethics Framework)

We need to regulate BECAUSE AI

AI increases scale of harm

We need to regulate BECAUSE AI

Political opportunity to address harms

Tech-specific law: EU approach

The following artificial intelligence practices shall be prohibited:

(a) the placing on the market, putting into service or use of an AI system that deploys subliminal techniques beyond a person's consciousness or purposefully manipulative or deceptive techniques, with the objective to or the effect of materially distorting a person's or a group of persons' behaviour by appreciably impairing the person's ability to make an informed decision, thereby causing the person to take a decision that that person would not have otherwise taken in a manner that causes or is likely to cause that person, another person or group of persons significant harm;

(proposed *Artificial Intelligence Act* article 5(1)(a), following 14 June amendments)

Art 22 GDPR

1.The data subject shall have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him or her or similarly significantly affects him or her.

2.Paragraph 1 shall not apply if the decision …

There is also a right in Articles 13(2)(f), 14(2)(g), 15(1)(h) to “meaningful information about the logic involved, as well as the significance and the envisaged consequences of such processing for the data subject”

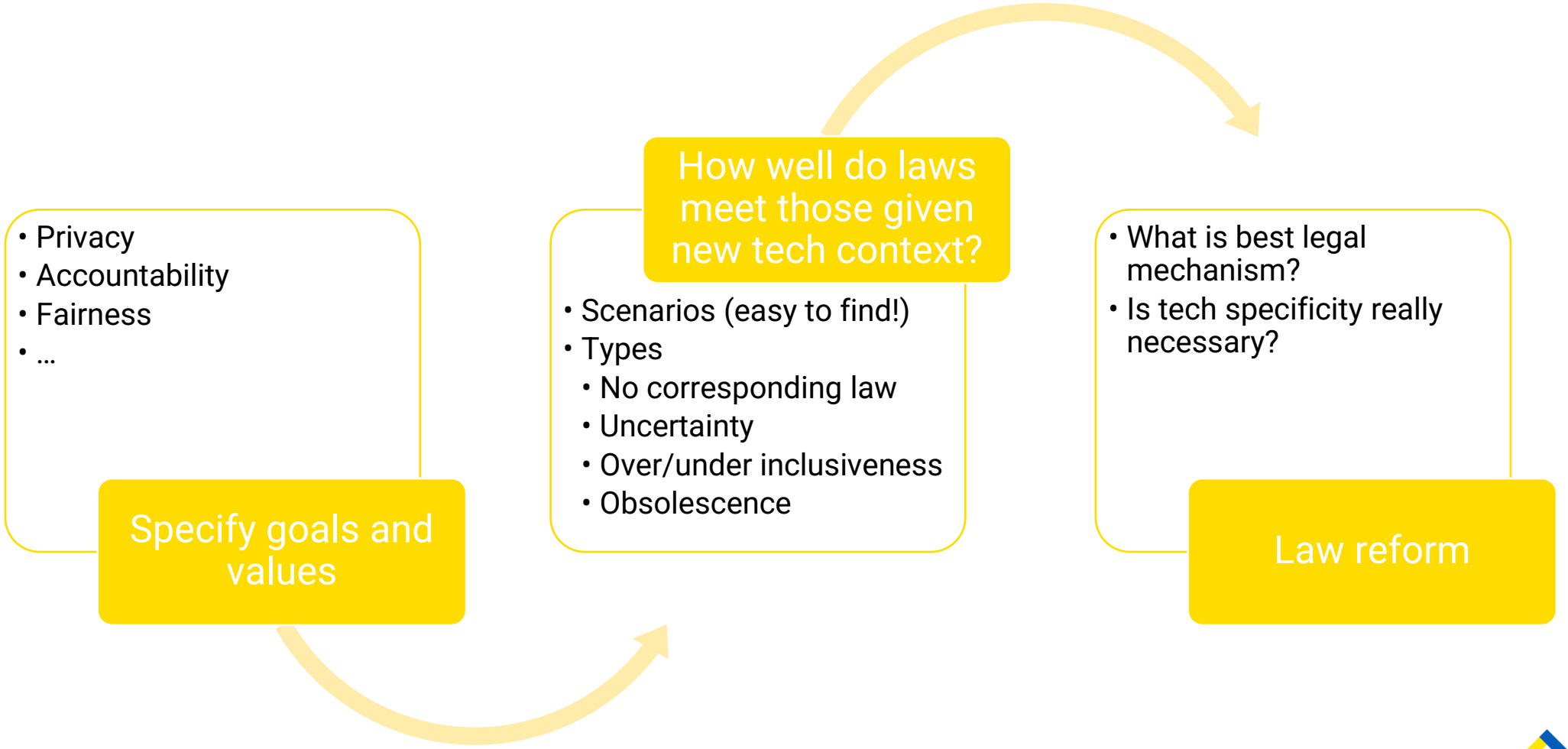
Where the problems come from

Automation/algorithms/bots

Machine learning/data-driven inferencing

Generative AI

Better thinking



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Example – Discrimination and Unfairness in machine learning

Value

- Fairness (contextual)

Consider in context of ML. Some problematic examples:

- Data used to train a ML model is collected in circumstances influenced by real-world bias (crime databases, social media streams, existing employees of an organisation).
- ML model chosen may reduce relevance of outliers or make other assumptions that effectively 'ignore' particular categories of people (eg gender)
- May use variables like race (or those that correlate with them) to make decisions about people in circumstances where society has (rightly) decided this is inappropriate.

Law reform

- Does it really matter whether we are doing statistics the old-fashioned way or using ML? If not, should not be about ML/AI.
- Better approach: Reform discrimination legislation so that it 'works' whether decision is made by a bigoted human or an AI system.

Framing the question

Given our existing legal and regulatory framework, what changes are required to respond to unique considerations raised by new activities, entities and relationships?