Global Perspectives on AI Regulation

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Presentation outline

- General approaches to regulation and their problems.

- Case studies (EU, China, USA).

- Activity – discussion.

The race to AI regulation (Smuha, 2021)

- The increased **visibility of the risks** associated with AI has led to calls for appropriate regulation to ensure trustworthy AI. This has resulted in a "**race to AI regulation**" alongside the "**race to AI**" itself.

- Multitude of AI applications and their distinct challenges require **tailored policies** and a **holistic regulatory approach**.

- Recognition that trading off trust for economic benefits hampers AI's long-term benefits → cautious optimism.

- Regulators rushing to adopt requirements for Trustworthy AI – BUT: currently primarily based on **voluntary guidelines** and not enforceable when harm occurs.

- The need for enforceable safeguards for human rights, democracy, and the rule of law.

Regulatory toolbox (Smuha, 2021)

- **Modalities of regulation**:
  - Regulation by **law** (traditionally seen as the main regulatory modality).
  - **Social norms**, which can influence and constrain behaviour through societal expectations and values.
  - The **market**, which can shape behaviour through economic incentives and competition.
  - The architecture or design of technological applications, which can incorporate safeguards and constraints into the technology itself.

- **Carrots, sticks, and sermons** (governance/policy tools) (Bemelmans-Videc et al., 1998).
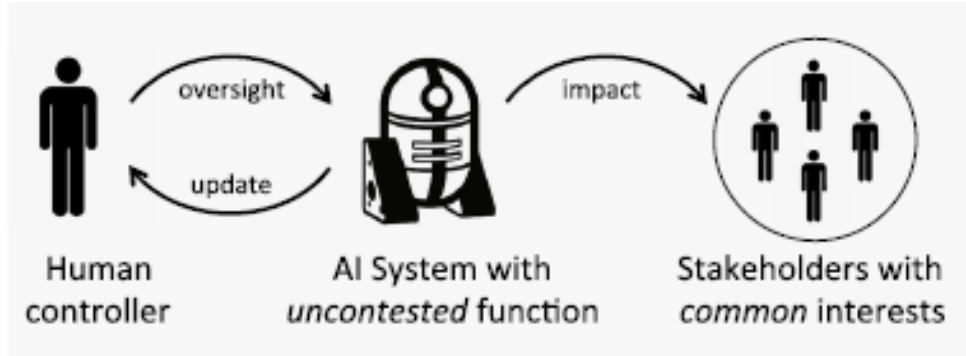
The problems of AI regulation (Smuha, 2021)

- **Various jurisdictions**.

- The **absence** of a commonly agreed **definition of AI** → cannot effectively assess AI investment levels, research advancements, and adoption across different countries.

- Regulators face **complex and multidisciplinary field** and have to assess **consequences** of their intervention and non-intervention.
  - Synoptic delusion?

- Hard to keep up with the **rapid advancement** in AI tech.

- AI regulation´s potential impact on **other technologies** and **stakeholders**.

A detour: Two normative theories

- The **Social Contract Theory (SCT)** and The **Stakeholder Theory (ST)**.

- SCT – an individual has rational reasons to form a contract (e.g., Hobbes: the brutal state of nature → security or Kant: universal moral norms) (Lessnoff, 1990).

- ST – weighing multiple stakeholder´s interests within a societal arrangement → SITL (society-in-the-loop) developed from HITL (human-in-the-loop) (Rahwan, 2018).
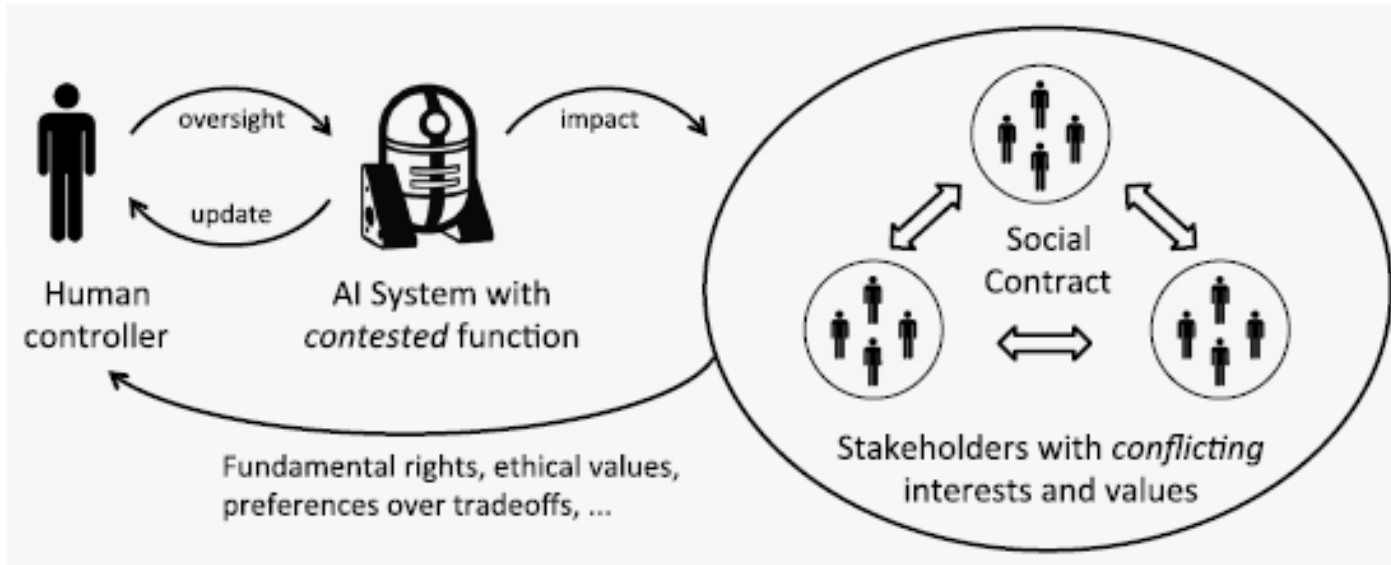
Human-in-the-Loop (HITL)

oversight → AI System with *uncontested* function → impact → Stakeholders with *common* interests

update

Human controller

Society-in-the-Loop (SITL)

oversight → AI System with *contested* function → impact → Social Contract — Stakeholders with *conflicting* interests and values

update

Human controller

Fundamental rights, ethical values, preferences over tradeoffs, …

Source: Rahwan, 2018: 9

Case studies on regulation: Four Internets (O'Hara and Hall, 2021)

- **Internet governance models**:
  - **Silicon Valley**'s open,
  - **Brussels'** bourgeois,
  - **Beijing**'s authoritarian,
  - and **DC's commercial** internet,
  - plus, **Moscow's spoiler** model.

Source: Nordic Innovation House

Source: The Federalist

Source: China Briefing

Source: The Denver Post

Source: HN

The EU case I: setting rules of the game (Smuha, 2021)

- (EU) is acknowledged as the regulatory **standard-setter** in data protection – aims for the same in AI (but not unsontested).

- Has established the **High-Level Expert Group** on AI (AI HLEG).

- GDPR – EU´s flagship data-protection tool.
  - A competitive disadvantage -> falling behind the U.S. and China.

- EU AI Act – the first comprehensive AI regulation (European Parliament, 2023).

The EU case II: Individuals and their rights (European Parliament, 2023)

- **EU AI Act**:
  - Part of the EU´s digital strategy.
  - Passed July 2023 (potentially 2025-2026 in effect).
  - **Different risk levels** → different rules:
    - **Unacceptable** – cognitive behavioural manipulation, social scoring, real-time biometric identification systems, democratic process medling (e.g., facial recognition) etc. → banned
    - **High** – toys, aviation, medical, biometric ident. sys., critical infrastr. ops, law enforcement etc. → assessed before and throughout their lifecycle.
    - **Generative AI** – transparency
    - **Limited** – minimal transparency compliance

- More on EU´s websites.

The Chinese case I: Competition and social control (Roberts et al., 2021)

- China aims to **become a world leader in AI by 2030** incl. shaping of the ethical boundaries (seeting the rules of the game).
    - Set by 2017 New Generation Artificial Intelligence Development Plan'.

- Focus on **international competitiveness**, **economic growth**, and **social governance**.

- Government-affiliated bodies and private companies in China have also developed their own AI ethics principles ('Beijing AI Principles', Tencent, or Chinese Association for Artificial Intelligence).
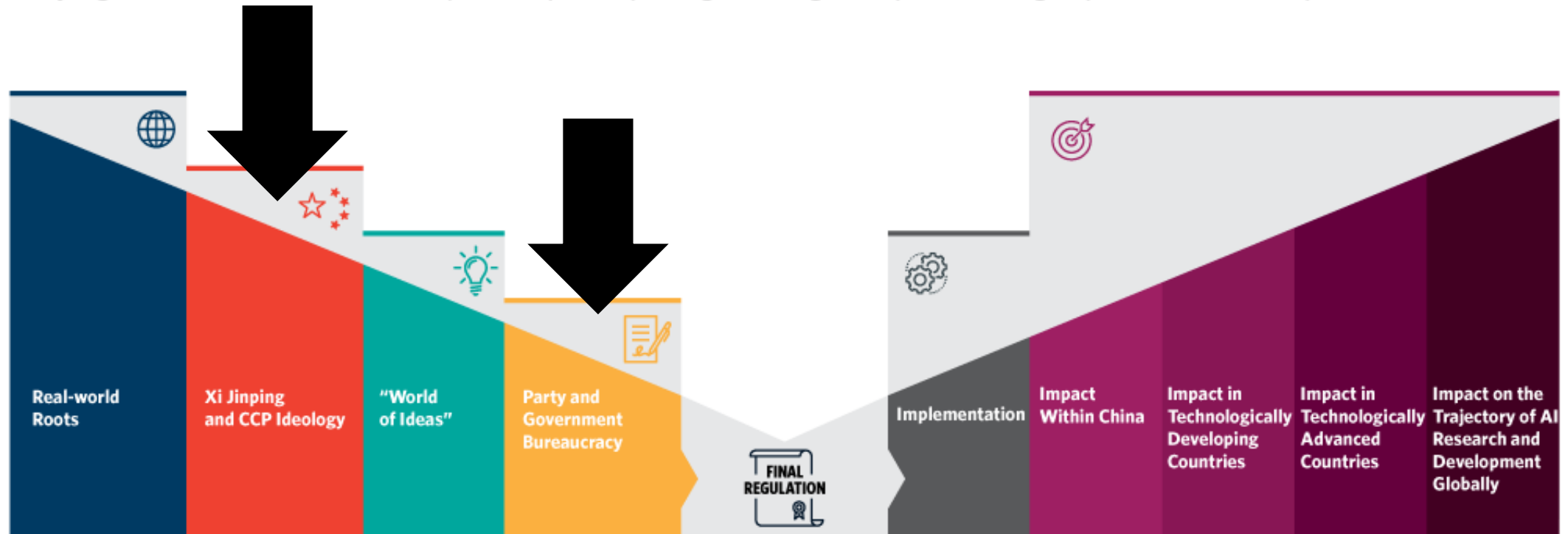
The Chinese case II: Now (Sheehan, 2023)

- One of the „world´s earliest and detailed regulations governing AI".
- West often sees Chinese AI reg. only geopolitically and as a competition – but worth the study.
- Three most impactful regulations:
  - **2021 regulation on recommendation algorithms**
    - .Bar excessive price discrimination and protects the rights of workers..."
  - **2022 rules for deep synthesis** (synthetically generated content)
    - „Requires conspicuous labels be placed on synthetically generated content."
  - **2023 draft rules on generative AI**
    - „Requires both the training data and model outputs to be "true and accurate"." (an obsatcle for LLMs).

How China makes AI regulation, a conceptual model (Sheehan, 2023):

Figure 1. The "Policy Funnel" of China's AI Governance

Major governance initiatives tend to proceed from left to right through this funnel, though often not in a linear fashion.

Real-world Roots

Xi Jinping and CCP Ideology

"World of Ideas"

Party and Government Bureaucracy

FINAL REGULATION

Implementation

Impact Within China

Impact in Technologically Developing Countries

Impact in Technologically Advanced Countries

Impact on the Trajectory of AI Research and Development Globally

The U.S. case: Regulation in Its „Early Days" (Kang, 2023)

- **No concrete law text** (U.S. falling behind EU and China – is it a new/bad phenomenon?). BUT: **suits** many **tech companies**.

- Despite the hype, only **blueprint** (The White House, 2023):
  - „You should be **protected from unsafe or ineffective systems**".
  - „You should **not face discrimination** by algorithms and systems should be used and designed in an equitable way."
  - „You should be **protected from abusive data practices** via built-in protections and you **should have agency** over how data about you is used."
  - „You **should know** that an **automated system is being used** and **understand** how and why it contributes to outcomes that impact you."
  - „You **should be able to opt out**, where appropriate, and have **access to a person** who can quickly consider and remedy problems you encounter."

Activity: Team Discussions

- Divide yourselves into teams.

- Choose a position on AI regulation (2 mins).

- Look up credible information about that position (5-10 mins).
  - Tip: Use SciSpace for effective pdf-info extraction.

- Moderated discussion with other teams.

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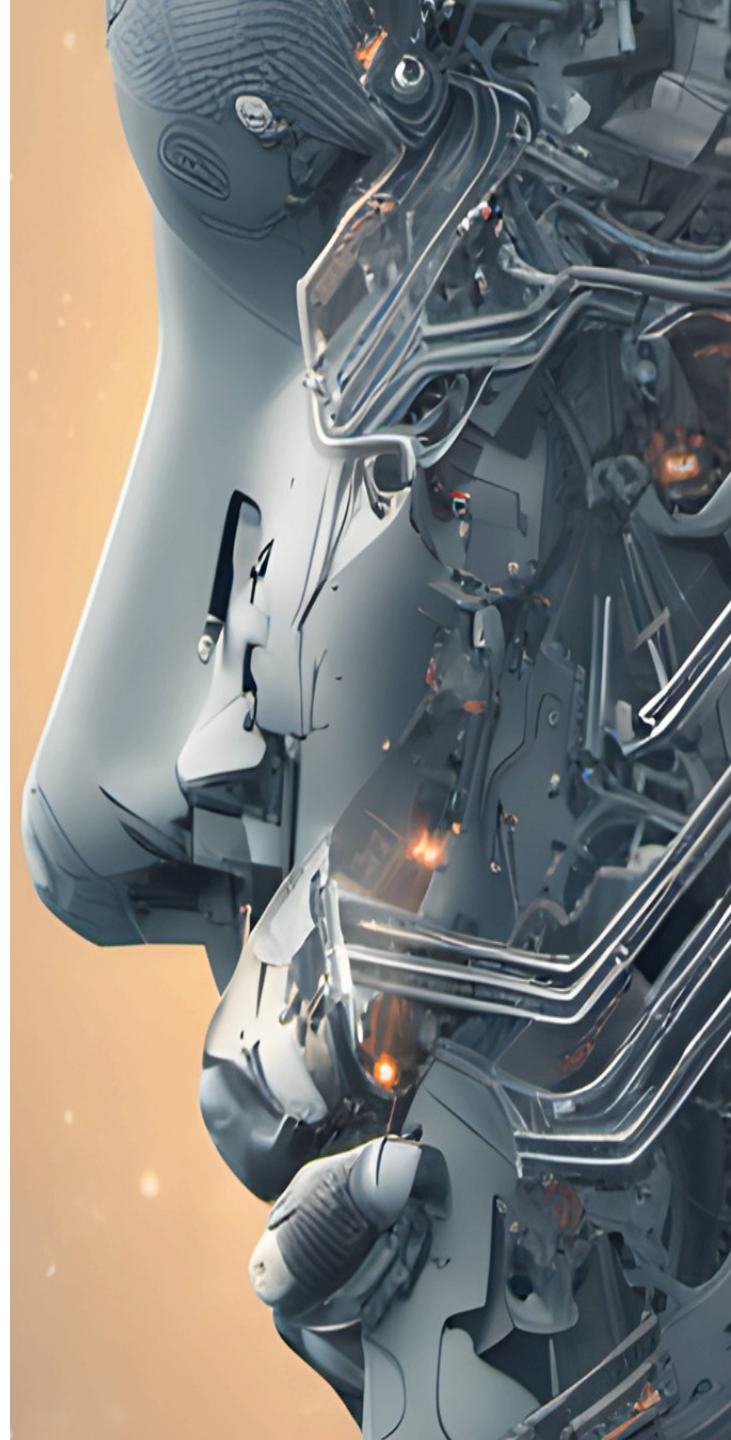
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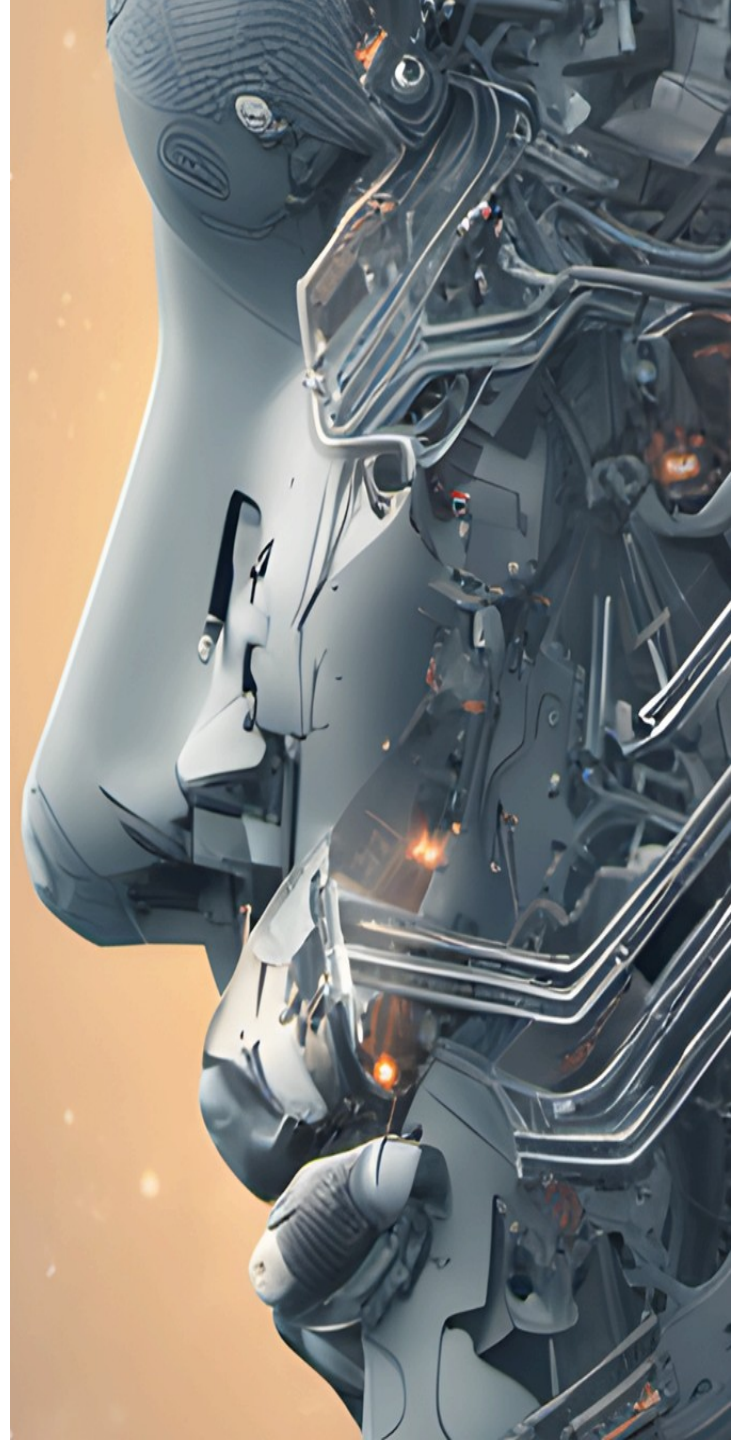
Thank you for
your attention.

Questions?

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