



AI GOVERNANCE

PREPARED FOR GLOBAL AFFAIRS CANADA
MUNK SCHOOL OF GLOBAL AFFAIRS

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THE PROBLEM

How can AI be governed?

What are the instruments & institutions available for Canada to lead the global governance of ethical AI?

● CHALLENGES WITH GOVERNANCE

1. Broad, cross-sectoral impact on society
2. Speed of technological development exists in a policy vacuum
3. Investments in developing AI exceed investments in making AI safe
4. Lack of expertise in the regulatory and policy community
5. Mass emergence of actors and responses

CURRENT AI POLICY IS OUTCOMES-BASED,
NOT PROCESS BASED

**Data
Inputs**

**Design &
Development**

Pre-Launch

**Post-
Launch**

Privacy

Bias

Discrimination

Inclusion

Future Outcomes

- Future of work
- Automation
- Autonomous weapons

● TRANSPARENCY & EXPLAINABILITY

LACK OF TRANSPARENCY

MEANS that issues in diversity, human rights and social impact are only discovered

- when the product is launched
- when marginalized users have been negatively impacted

Transparency & explainability would allow for proactive mitigation of potential negative effects and traceability of issues

TO MAXIMIZE

EXPLAINABILITY, the following questions should be considered:

- What variables were used by the algorithm?
- How were the variables are weighted?
- What were the decisions made by the AI program?
- How do they affect the stakeholders or end-users?

EXISTING PRINCIPLES WORKING ON TRANSPARENCY/EXPLAINABILITY

ORGANIZATIONS	PRINCIPLES								
	Human responsibility	Fairness	Explainable	Traceable	Human-in-Command	User-Owned Data	Education	Whistle-blower protection	Disclosure that AI is in use
IEEE Ethically Aligned Design	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
UNI The Future World of Work	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
FAT/ML	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
ASILOMAR AI PRINCIPLES	Yes	Yes	No	No	Yes	Yes	Maybe	No	No
Canada Digital Disruption White Paper	Yes	Yes	Maybe	Yes	Yes	No	No	No	No
Conference toward AI Network Society	Maybe	Yes	Yes	Yes	Maybe	No	No	No	No
Association for Computing Machinery	Yes	Maybe	Yes	Yes	No	No	No	No	No
Partnership on AI Tenets	Maybe	Yes	Yes	No	No	No	Yes	No	No
Montreal Declaration	No	Yes	No	No	Maybe	Maybe	Maybe	No	No

POTENTIAL POLICY OPTIONS

Hard Law

International regulations such as treaties and niche bans on AI in specific industries

Soft Law

A series of standards, audits and/or publicly published impact assessments

Self-Regulation

Minimal/No state-led policy. Developers of AI technologies congregate to set guidelines.

Why might GAC begin with soft law approaches?

Soft Law directly tackles the issue of transparency and explainability, while enabling a multi-stakeholder approach that retains the benefits of AI and mitigates social impacts.

POLICY RECOMMENDATIONS

SHORT TERM

Goals:

Establish the first ever **list of transparency and accountability principles** agreed upon internationally by governments

Recommendations:

1. Leverage Canada's Presidency of the **2018 G7 Summit** to push for a list of High Level Principles on Ethical AI
2. Use existing principles from the **IEEE** and the Draft AI R&D Guidelines as a starting point
3. Continue leading the global conversation in the **G20** and **OECD**

POLICY RECOMMENDATIONS

LONG TERM

Goal:

Form a **new global agency** with the purpose of fostering knowledge about the societal implications of AI, monitoring and evaluating national regulatory efforts, and coordinating global efforts to regulate AI

Recommendations:

1. Lead a coalition of states to establish a **new global agency**
2. Develop a series of **regulatory recommendations** for the ethical use of AI
3. **Monitor** implementation, **ensure** recommendations are up-to-date, and **promote** the adoption of recommendations globally

● VIABILITY & FEASIBILITY

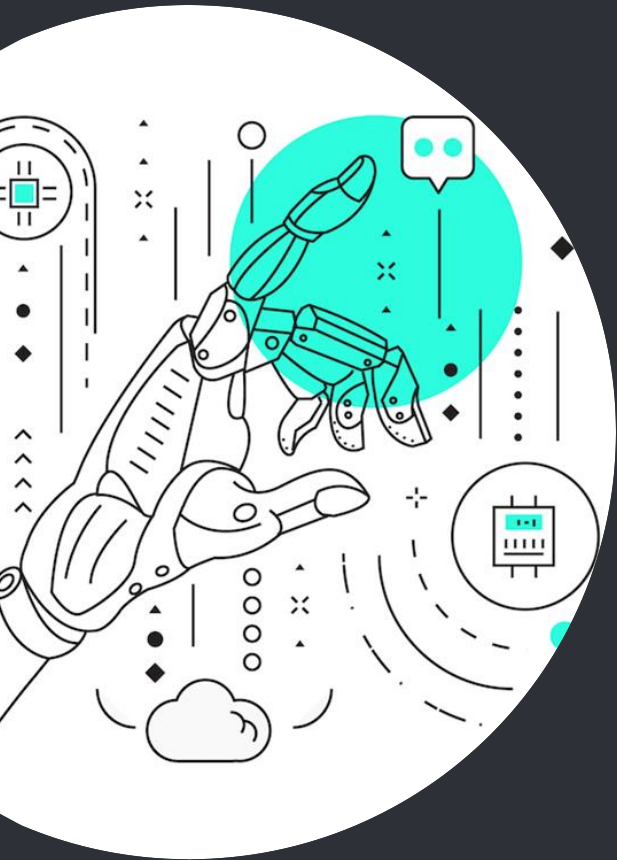
○ **Parallels with existing standard setting bodies show feasibility**

- FATF and Guidance on Transparency & Beneficial Ownership
- World Bank & IFC Performance Standards on Environmental and Social Sustainability

The EU's GDPR shows a growing political will for global AI legislation

- European Union's General Data Protection Regulation
- G7 ICT & Industry Ministers' Declaration on Human-Centric AI

● OPPORTUNITIES FOR CANADA



- **Lead the global effort** to promote the transparency, explainability, and accountability in the use and development of AI
- **Position Canada as the global thought leader** on the ethical and social implications of AI
- **Create a new global agency**, located in one of Canada's growing AI clusters, to act as the central node of the emerging global governance of AI



THANK YOU