

AI For Public Good

Submission to the Standing Committee on Industry and Technology Study
of Bill C-27, The Digital Charter Implementation Act, 2022
and in particular the Artificial Intelligence and Data Act (AIDA).

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Summary

Canada has a long history of leadership in AI particularly in research and development. Canada's Artificial Intelligence and Data Act (AIDA) can position Canada as continuing that leadership role by taking a two-pronged approach to both develop a robust AI industry sector and use AI to generate public good and serve the public interest.

Recommendations

1. Revise the AI and Data Act based on principles that protect the rights of creators, people building on the commons, and society's interests in sustaining the commons.

An AI, Creators and the Commons workshop led by [OpenFuture](#) in Mexico City October 3, 2023 generated a [Making AI Work For Creators and the Commons](#) statement. This statement defines seven principles for regulating generative AI models in order to protect the interests of creators, people building on the commons (including through AI), and society's interests in the sustainability of the commons. Review and revision of the Artificial Intelligence and Data Act (AIDA) should be based on use of these seven principles. The seven principles are:

1. It is important that people continue to have the ability to study and analyse existing works in order to create new ones. The law should continue to leave room for people to do so, including through the use of machines, while addressing societal concerns arising from the emergence of generative AI.
2. All parties should work together to define ways for creators and rightsholders to express their preferences regarding AI training for their copyrighted works. In the context of an enforceable right, the ability to opt out from such uses must be considered the legislative ceiling, as opt-in and consent-based approaches would lock away large swaths of the commons due to the excessive length and scope of copyright protection, as well as the fact that most works are not actively managed in any way.
3. In addition, all parties must also work together to address implications for other rights and interests (e.g. data protection, use of a person's likeness or identity). This would likely involve interventions through frameworks other than copyright.
4. Special attention must be paid to the use of traditional knowledge materials for training AI systems including ways for community stewards to provide or revoke authorisation.
5. Any legal regime must ensure that the use of copyright protected works for training generative AI systems for noncommercial public interest purposes, including scientific research and education, are allowed.

6. Ensure that generative AI results in broadly shared economic prosperity – the benefits derived by developers of AI models from access to the commons and copyrighted works should be broadly shared among all contributors to the commons.
7. To counterbalance the current concentration of resources in the the hands of a small number of companies these measures need to be flanked by public investment into public computational infrastructures that serve the needs of public interest users of this technology on a global scale. In addition there also needs to be public investment into training data sets that respect the principles outlined above and are stewarded as commons.

For full background information see original statement at:

<https://creativecommons.org/2023/10/07/making-ai-work-for-creators-and-the-commons/>

2. Encourage use of open as a means of establishing AI ethical and responsible values, ensuring transparency, creating public good, stimulating AI innovation, mitigating risk, and generating new business models.

In "[Advocating for Open Models in AI Oversight: Stability AI's Letter to the United States Senate](#)" CEO Emad Mostaque says:

"These technologies will be the backbone of our digital economy, and it is essential that the public can scrutinize their development. Open models and open datasets will help to improve safety through transparency, foster competition, and ensure the United States retains strategic leadership in critical AI capabilities. Grassroots innovation is America's greatest asset, and open models will help to put these tools in the hands of workers and firms across the economy."

Recent amendments to the EU AI act, as documented in this [Draft Compromise Amendments](#), acknowledge the important role open source is already playing in the AI landscape and seek to incentivize further open source efforts noting the following exemptions:

"(12a) Software and data that are openly shared and where users can freely access, use, modify and redistribute them or modified versions thereof, can contribute to research and innovation in the market. Research by the European Commission also shows that free and open-source software can contribute between €65 billion to €95 billion to the European Union's GDP and that it can provide significant growth opportunities for the European economy. Users are allowed to run, copy, distribute, study, change and improve software and data, including models by way of free and open-source licences. To foster the development and deployment of AI, especially by SMEs, start-ups, academic research but also by individuals, this Regulation should not apply to such free and open-source AI components except to the extent that they are placed on the market or put into service by a provider as part of a high-risk AI system or of an AI system that falls under Title II or IV of this Regulation.

(12b) Neither the collaborative development of free and open-source AI components nor making them available on open repositories should constitute a placing on the market or putting into service. A commercial activity, within the understanding of making available on the market, might however be characterised by charging a price, with the exception of transactions between micro enterprises, for a free and open-source AI component but also by charging a price for technical support services, by providing a software platform through which the provider monetises other services, or by the use of personal data for reasons other than exclusively for improving the security, compatibility or interoperability of the software.

(12c) The developers of free and open-source AI components should not be mandated under this Regulation to comply with requirements targeting the AI value chain and, in particular, not towards the provider that has used that free and open-source AI component. Developers of free and open-source AI components should however be encouraged to implement widely adopted documentation practices, such as model and data cards, as a way to accelerate information sharing along the AI value chain, allowing the promotion of trustworthy AI systems in the EU.

Open source is already part of the AI ecosystem and integral to many of the ethical and safety aims of regulation. The benefits of open, such as transparency, fostering innovation and economic activity, and democratizing access address many AI ethical and value issues. AI research funded by Canada should be openly published using Open Access. Open source models, apps and applications ought to be encouraged and incentivized.. Openness is essential to the creation of a robust and diverse AI ecosystem.

3. Invest in AI open infrastructure to ensure public utility, support of research, and small to medium enterprise innovation.

Being dependent on a few large AI tech providers is ill-advised and risky. Creating a parallel alternative public AI infrastructure including AI compute hardware, cloud platform and models ensures national security, autonomy, and resilience..

An AI open public infrastructure provides a means of enhancing development of public goods and improved public services that benefit all Canadians.

Provision of AI as an open public infrastructure aligns with initiatives like [Democratic Digital Infrastructure](#) and [Invest in Open](#) which aim to democratize access to and use of technologies.

Article 53, Measures in Support of Innovation, of the [EU AI Act](#) talks about the creation of AI Regulatory Sandboxes that provide a controlled environment facilitating the development, testing and validation of innovative AI systems for a limited time before their placement on the market or putting into service pursuant to a specific plan. Canada should embrace and strengthen this approach to open AI infrastructure.

As noted in the [Antimonopoly Tools for Regulating Artificial Intelligence](#) policy brief produced by the Vanderbilt Policy Accelerator “A public option for cloud infrastructure could serve as a helpful complement or alternative to tools from networks, platforms, and utilities (NPU) law—including structural separations or nondiscrimination requirements, and interoperability rules. Because of high capital costs, network effects, and concerns from vertical integration, a public option for cloud could provide the cloud services that developers and end-users need—but without relying on oligopoly providers AWS, Microsoft Azure, and Google Cloud Platform. The public option could also ensure that cloud infrastructure is available at an affordable price to researchers and other users who might have different goals than private firms”.

Open Communities & networks need to be supported as part of this infrastructure. Community of practice efforts such as that supported by the Digital Public Goods Alliance (DPGA) and UNICEF provide essential advice and recommendations. See [“Core Considerations for Exploring AI Systems as Digital Public Goods”](#).

The establishment of AI open public infrastructure should be included as one of the Purposes in Section 4 of the AI Act.

4. Consider a social contract requiring any commercial deployment of generative AI systems trained on large amounts of publicly available content to pay a levy.

As noted in [AI, The Commons, And The Limits Of Copyright](#) “The proceeds of such a levy system should then support the digital commons or contribute to other efforts that benefit humanity, for example, by paying into a global climate adaptation fund. Such a system would ensure that commercial actors who benefit disproportionately from access to the “sum of human knowledge in digital, scrapable form” can only do so under the condition that they also contribute back to the commons.”

AI tools as they exist today have derived their capabilities by being trained on very large datasets and data scraped from the web. Unfettered use of this data by AI tech providers for profit is a form of extraction and exploitation of the public commons. Furthering development of AI will require even more datasets but voluntary provision of such data will be curtailed if there isn't some kind of reciprocity.

5. Create an AI Constitution that lays out the values and ethics Canada seeks to ensure are part of responsible AI development and use. And establish an AI International Governing Body to ensure national regulations are harmonized and work collaboratively with other nations to reduce risks and enhance benefits.