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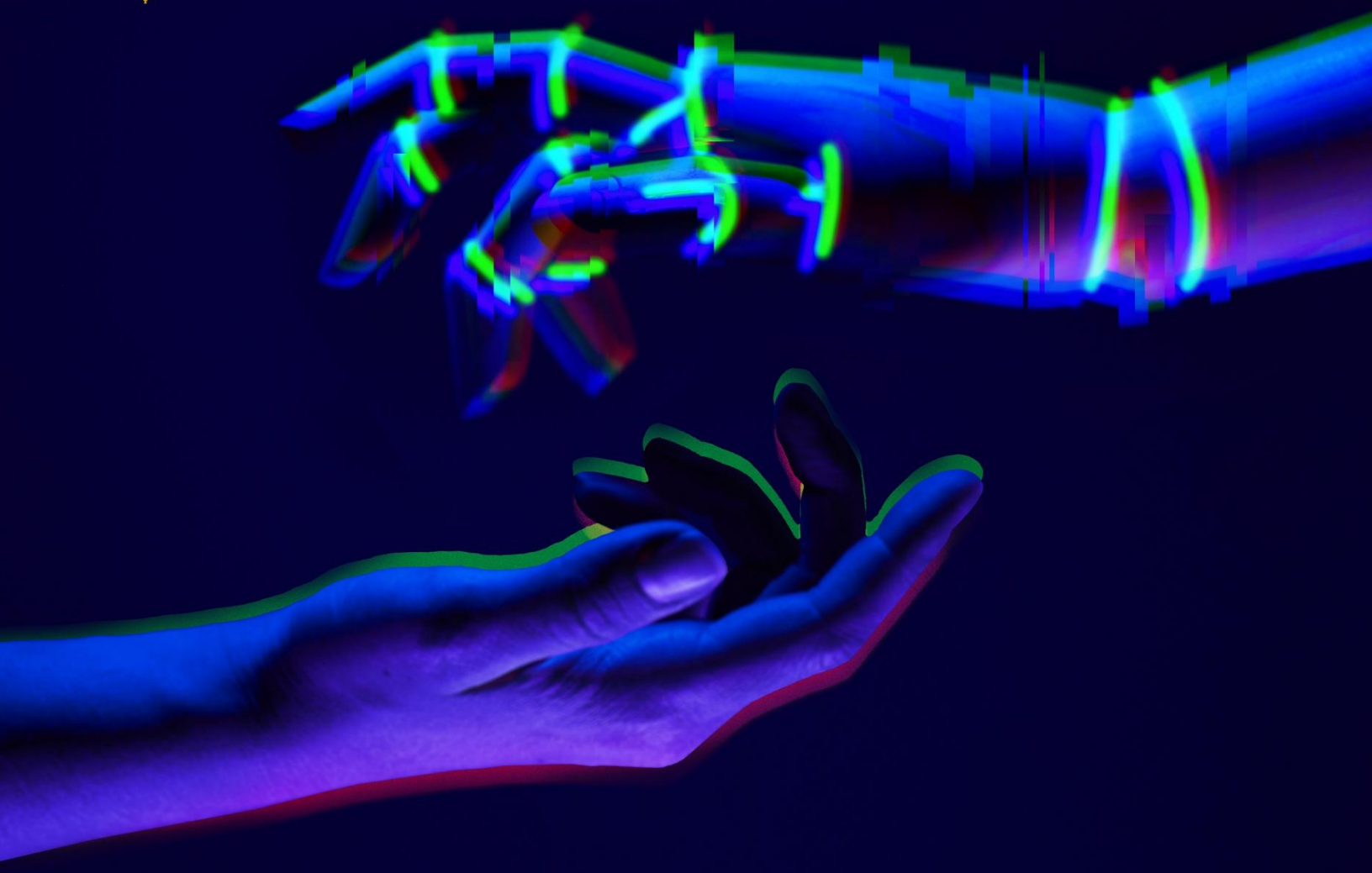

Fuelled by Technology, Powered by Humanity:

An interim report on a human-centred approach to AI in Canada

Report of the Standing Senate Committee on Social Affairs, Science and Technology

The Honourable Rosemary Moodie, Chair
The Honourable Sharon Burey, Deputy Chair

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The Committee Membership

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The Honourable
Sharon Burey
Deputy Chair

The Honourable Senators

Dawn Arnold

Victor Boudreau

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Order of Reference

Extract from the *Journals of the Senate* of Thursday, October 2, 2025:

> The Honourable Senator Moodie moved, seconded by the Honourable Senator Petitclerc:
>
> That the Standing Senate Committee on Social Affairs, Science and Technology be authorized to examine and report on matters related to the impact of artificial intelligence in Canada, highlighting issues including:
>
> (a) data governance and sovereignty;
>
> (b) ethics, privacy and safety; and
>
> (c) the risks, benefits and social impact;
>
> That the committee be permitted, notwithstanding usual practices, to deposit its reports on this study with the Clerk of the Senate if the Senate is not then sitting, and that the reports be deemed to have been tabled in the Senate; and
>
> That the committee submit its final report no later than December 31, 2026, and that the committee retain all powers necessary to publicize its findings for 180 days after the tabling of the final report.
>
> The question being put on the motion, it was adopted.
>
> *Clerk of the Senate*
>
> Shaila Anwar

Glossary[a]

Machine Learning: An approach to artificial intelligence (AI) in which a computer algorithm can learn from and further generalize data, identify patterns, and make predictions without explicit instructions.

Examples: personalized content on social media; fraud detection; wearable medical devices; recommendations on streaming or other entertainment websites; etc.

Deep Learning: An advanced form of machine learning using **neural networks** modelled on the human brain whereby algorithms mimic neural processing by communicating signals through interconnected layers of artificial neurons, allowing the network to learn from large, complex data.

Examples: facial and typographic recognition; self-driving vehicles; X-ray analysis; voice-controlled virtual assistants; etc.

Generative AI: AI technologies that generate novel responses – text, images, video, audio, code, or otherwise – when prompted, using deep learning and massive data sets.

Examples: text and other media generation tools like ChatGPT, Copilot, and Llama; code generation tools like GitHub Copilot; and image generation tools like DALL-E, Midjourney, and Stable Diffusion; etc.

Agentic AI: AI technologies that generate novel responses, but are also empowered to act proactively, adapt to new situations, and collaborate with other automated agents.

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[a] Definitions are based on information received during this committee's study, supplemented by: Cole Stryker and Eda Kavlakoglu, *What is artificial intelligence (AI)?* IBM; Google Cloud, *Artificial intelligence (AI): a simple-to-understand guide*; Government of Canada, *Canadian Sovereign AI Compute Strategy*; Government of Canada, *Digital Sovereignty*; Mesh Flinders and Ian Smalley, *What is data sovereignty?* IBM; Natiea Vinson, First Nations Technology Council, *Written Brief: Study on the Impact of Artificial Intelligence in Canada*, Brief submitted to the Standing Senate Committee on Social Affairs, Science and Technology, March 4, 2026; Government of Canada, *Indigenous Data Sovereignty (DDN3-A11)*, Canada School of Public Service, Article, January 8, 2025; Stanford Institute for Human-Centered Artificial Intelligence, *Artificial Intelligence Glossary*; MIT Sloan Teaching & Learning Technologies, *Glossary of Terms: Generative AI Basics*; Promptmetheus, *LLM Knowledge Base*; Aadya Gupta and Adarsh Ranjan, "A Primer on Compute," *Carnegie Endowment for International Peace*, Carnegie India, April 30, 2024; United Kingdom, Department for Science, Innovation & Technology, *Frontier AI: capabilities and risks – discussion paper*, Research and analysis, April 28, 2025; and Olivia Guest, "What Does 'Human-Centred AI' Mean," *arXiv*, July 29, 2025.

Examples: autonomous customer support agents; autonomous cars; virtual assistants for shopping and travel planning; etc.

Frontier AI: A constantly moving goalpost representing the latest, most advanced AI technologies. At present, it refers to advanced multimodal, general-purpose AI models that are capable of complex reasoning and content creation.

Examples: ChatGPT-5, Gemini 3.5, Claude Fable and Claude Mythos, etc.

Artificial General Intelligence: A hypothetical category of AI technologies that would simulate general, human-level capacity for learning, reasoning, and decision-making across a spectrum of tasks and sectors.

Superintelligence: The hypothetical zenith of AI capacity, surpassing overall human intelligence and abilities.

Human-Centred AI: An approach to AI that emphasizes collaboration between humans and machines, retaining human involvement rather than seeking to replace it. Instead of pure technological performance and output, human needs and values are centralized in decision-making.

Foundation model: The processing engine behind generative and agentic AI technologies, trained on massive, raw data sets to yield a complex neural network capable of generating autonomous pattern-based responses.

Examples: **large language models** (LLMs), used for text-based generative AI like chatbots; and **multimodal models**, capable of processing and generating multiple types of input and output, like ChatGPT-5. Specialized models are also now being developed across fields including radiology and medicine, music, chemistry, and mathematics.

There are three main approaches to the shareability of AI models: **closed models** can only be accessed through proprietary online services, and internal processes and prompts remain opaque (ChatGPT, Claude, and Gemini); **open weight models** are downloadable and executable but retain opaque internal design (Llama, DeepSeek, Gemma, Mistral, Kimi, and Qwen); and **open source models** offer full access to training data and internal components (Bloom and Olmo).

Compute: The computational resources, power, and infrastructure required to train and run advanced AI models.

AI Stack: The critical components required to operationalize AI technologies, including:

- data: the basis for AI learning and models;

- software: the programming languages and foundation models;
- hardware: the electronic chip, generally a graphics processing unit (GPU); and
- physical infrastructure: data centres (and the associated infrastructure to operate them, like energy, and water for cooling and servers) and communications/network infrastructure.

Data sovereignty: The principle that data is subject to the regulatory and governance frameworks of the jurisdiction in which it is generated. **Digital sovereignty** also encompasses the necessary technological and network infrastructure to access, transfer and store data.

Indigenous data sovereignty: Builds on the concepts of Indigenous self-determination and data sovereignty to recognize the inherent rights of Indigenous Peoples to own, govern, use, and control their data, knowledge, and cultural information.

Prompt: The input provided to a generative AI tool to guide its response. A **meta or system prompt** may be used to guide the tone or boundaries of an interaction, and may not be known by the user, such as organizational instructions to not provide personal data in responses. When system prompts and operations are not visible to the user, this may be considered **black box AI**.

Hallucination: The generation of an inaccurate or illogical response due to data or system constraints.

Executive Summary

Canada has been seen as a leader in artificial intelligence (AI) research and development – home to the "godfathers of AI," Professors Geoffrey Hinton and Yoshua Bengio; and the first country in the world to launch a national AI strategy in 2017. However, domestic adoption and governance of these emerging technologies have not kept pace with early successes.

In 2025, Canada ranked among the lowest of 47 countries surveyed by KPMG and the University of Melbourne, when it comes to the regular use of, and trust in AI.[b] Just over one third of Canadians (34%) were "willing to trust AI."[c] This echoes what the committee heard during its study: trust in AI technologies is very low, and is one of the most significant barriers to more widespread, safe adoption in Canada.

In many ways, low trust is an expression of concern. As AI technologies continue to evolve, they are being embedded throughout governments, businesses, and society; producing increasingly visible, systemic, and inequitable social impacts. Hesitation as a reaction to new technologies is not a new phenomenon and it is not uncommon with new technologies that there are more questions than answers. It is expected that a technology that expressly aims to mimic, if not surpass human intelligence, provokes a strong response. Given that we are more likely to question what we do not understand and control, information gathering and knowledge sharing is an exercise of trust building in and of itself.

It was in this context that the Standing Senate Committee on Social Affairs, Science and Technology (the committee) began a study on the impact of AI in Canada, holding six meetings so far in 2026. Throughout the planning, evidence gathering, and reporting for this first phase of the study, which ended on May 8, 2026, the committee has been very aware of the rapidly evolving nature of this technology and has remained focused on sharing the information and recommendations it has heard while they remain relevant.

On June 4, 2026, the Government of Canada announced a renewed national AI strategy, *AI for All*. While the development of that strategy was distinct from this study, the committee is encouraged that many of the observations and key actions mentioned in the renewed strategy align with those made in this report, with particular attention to the emphasis on Canadian identity and values; the commitment to create AI-related jobs; the identification of priority sectors for AI

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[b] "Figure 2: Regular use of AI systems across countries," and "Figure 9: Perceptions of the trustworthiness of AI systems," in KPMG and University of Melbourne, *Trust, attitudes and use of artificial intelligence: A global study 2025*.

[c] KPMG and University of Melbourne, *Trust, attitudes and use of artificial intelligence: A global study 2025 – Canada insights*.

opportunity; and the commitment to collaborate with multinational partners towards safe AI internationally.[d] That said, the committee looks forward to learning more about how certain commitments such as legislation preventing online harms and protecting Canadians' data, AI literacy beyond the student and youth population, and the creation of anticipated job opportunities, will be implemented and the results measured.

On June 10, 2026, the Minister of Canadian Identity and Culture introduced Bill C-34, the Safe Social Media Act.[e] Among other things, this bill would enact a Digital Safety Act regulating interactions with certain online services, including by introducing age-related restrictions for persons under 16 accessing social media services; and new responsibilities for chatbot services. Like with the renewed national AI strategy, the committee is encouraged that the provisions proposed in this bill largely align with recommendations made in this report. However, members note that given the possibility of amendments during the legislative process, it is challenging to provide further commentary at this time. The committee hopes to be able to use the knowledge learned during this and future phases of this study to inform a more in-depth examination of Bill C-34.

This interim report aims to establish what AI is, the major opportunities, risks and challenges it introduces, and to provide recommendations to the federal government as it implements a renewed national AI strategy. The preliminary observations and recommendations in this report reflect the degree and spectrum of fears associated with new technologies, with the balance weighted towards "risks and challenges." In future phases of this study, the committee hopes to hear more about positive "opportunities" to promote the development of AI technologies for good, for all. Other issues raised as priorities for future phases of this committee's work include collaborative action and emergency planning to mitigate the threat of superintelligence; the impact of AI on the labour market and work in Canada; and the continued focus on the use and impact of AI technologies on at-risk and marginalized populations.

When it comes to AI, it is no longer a question of "if" or "when." AI is here. It is being integrated throughout Canadian society. However, there is a still an opportunity to respond to and influence the questions of "how," "why," and "for whom" AI technologies are developed and deployed.

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[d] Government of Canada, *Canada's National Artificial Intelligence Strategy: AI for All*.

[e] Bill C-34, An Act to enact the Digital Safety Act and the Digital Safety Commission of Canada and to make consequential amendments to other Acts (Safe Social Media Act), 45th Parliament, 1st Session, (first reading version, June 10, 2026).

List of Recommendations

The committee's recommendations have been arranged here in thematic order, which does not necessarily reflect order of priority.

Recommendation 1: Develop a National AI Literacy Strategy

That the Government of Canada, in collaboration with provincial, territorial, and Indigenous governments, implement a national strategy for AI literacy and education that:

- provides a comprehensive definition of AI, as used and understood by the Government of Canada;
- responds to the needs of diverse communities, including Indigenous Peoples, elderly persons, other members of equity-deserving groups, and sectors at higher-risk of AI-related job displacement;
- ensures persons across all regions of Canada have adequate Internet connectivity to support access to AI technologies;
- is adaptable to the evolving spectrum of AI technologies; and
- is adequately supported by practical tools and resources that reach individuals at their level of knowledge and need.

Recommendation 2: Close the Research to Adoption Gap

That the Government of Canada close the research and development to integration and adoption gap by continuing to invest in sovereign compute capacity and infrastructure; supporting public sector deployment; and fostering adoption among individuals and industry in Canada through training and skills development.

Recommendation 3: Leverage AI to Increase Inclusion and Access

That the Government of Canada leverage AI technologies to mitigate bias; remove barriers to access; and improve accessibility and inclusion, by:

- engaging with members of diverse communities, equity-deserving groups, and rights holders to better understand the potential social impact of AI technologies;
- supporting research into human-centred, inclusive AI; and
- identifying proactive and preventive mechanisms the federal government can target for support.

Recommendation 4: Proactive Labour Market Preparedness

That the Government of Canada play a leadership role in coordinating with provincial and territorial governments and other partners to proactively prepare the labour market from AI-related disruption, by:

- continuing to measure and assess the impact of AI throughout the Canadian labour market, with particular attention to high-risk sectors and professions;
- supporting workforce transition and adaptation programming; and
- investing in research on the future of the AI-integrated labour market and future of work, more broadly.

Recommendation 5: Implement Comprehensive Legal AI Framework

That the Government of Canada urgently develop and implement a comprehensive legal framework regulating AI that:

- incorporates and modernizes existing legislation, like the *Privacy Act*, *Personal Information Protection and Electronic Documents Act*, and *Access to Information Act*, where relevant;
- complements existing models of standardization, risk mitigation, impact assessment, and data governance;
- is built on ongoing consultation and engagement with stakeholders representing diverse perspectives and rights;
- is guided by the precautionary principle;
- establishes a rigorous, risk-based, pre-deployment testing and regulatory enforcement regime;

- establishes an independent, arms-length regulatory authority to implement and enforce this framework; and
- prioritizes a flexible, agile approach with the capacity to quickly respond to new innovations and AI technologies.

Recommendation 6: Protect and Enforce Data Governance and Sovereignty Principles

That the Government of Canada urgently prioritize the protection of data privacy and sovereignty within Canada, with particular consideration to:

- developing a better understanding of Canadian sovereignty gaps and limitations throughout the AI stack;
- Indigenous Peoples' rights to data sovereignty and self-determination; and
- regulatory mechanisms that will support Canada's expression of AI and data sovereignty.

Recommendation 7: Promote Human-Centred AI

That the Government of Canada leverage effective AI governance to promote the domestic development and adoption of human-centred AI that is inspired by Canadian values, like diversity, democracy, freedom, human rights, and bilingualism, and that respects Indigenous rights and worldviews.

Introduction

> *"One of the central ideas is that AI should remain to the service of humans. Furthermore, not just a handful of humans or a couple of countries, but to the service of humans globally through democratic means and the joint decision making of countries around the world."*
>
> *Yoshua Bengio, Professor, Université de Montréal, as an individual*

The possibility of artificial intelligence (AI) has been worked towards and debated for years. However, it was only with the 2022 release of ChatGPT and other generative AI technologies that new opportunities for adoption and implementation were created, while simultaneously generating new concerns about potential risks and impacts throughout society. In response, several parliamentary committees have undertaken work exploring how AI affects issues within their mandates. This committee, the Standing Senate Committee on Social Affairs, Science and Technology (the committee), is approaching AI as a whole-of-society matter, hoping to build an intersectional understanding of the most pressing issues and opportunities it introduces.

In pursuit of a thorough understanding of issues related to AI, this committee looks forward to the conclusions and recommendations made by these other committees; and notes that certain important issues related to AI may be better suited to more in-depth examination at other committees.[f]

Over six meetings from February to May 2026, the committee began an initial, exploratory phase of its study, with the goals of better understanding what AI is; identifying the major opportunities, risks and challenges associated with it; and exploring how it is currently governed and regulated in Canada. This initial phase concluded on May 8, 2026, by which the committee had heard from 29 witnesses and received 28 written submissions.

Recognizing how quickly AI evolves, the committee considers it important to promptly share its initial observations, preliminary conclusions, and recommendations, especially in light of the implementation of the federal government's renewed national AI strategy and introduction of online harms legislation.

[f] These issues include the environmental impact of AI technologies; opportunities and challenges related to the intersection of AI and Indigenous and official languages; and potential defence and national security concerns.

The preliminary observations and conclusions shared from the first phase of the committee's study are not intended to be exhaustive or definitive. Given the complex, important, and rapidly evolving nature of this topic, further work is anticipated. This interim report concludes with possible next steps for this future work, for which the committee continues to welcome written submissions and requests to appear. The committee is sincerely grateful for the depth of knowledge, expertise, and time shared so far during this study and anticipates learning more as it continues.[1]

What is Artificial Intelligence?

"Artificial intelligence" refers, quite literally, to the capacity of technology to mimic human intelligence. While the development and deployment of autonomous technologies approaching AI has been ongoing for some time, the expansion to generative and agentic capacity since 2022 has transformed the field, provoking concerns that frontier AI may eventually give way to superintelligence. The enhanced capacity and rapid evolution of AI technologies have brought to the forefront conversations surrounding its social impact, and what constitutes appropriate governance and regulation.

These conversations have been complicated by the nebulous nature of AI, as it does not represent any single machine, tool or system, but rather a broad group of technologies with varying uses, users, and risk levels.

One way AI technologies can be categorized is by primary function:[g]

- Predictive AI uses historical data to understand patterns and forecast outcomes. Examples include inventory management, fraud detection, and personalized marketing.

- Conversational AI facilitates human-computer communication. Examples include smart home devices, virtual assistants, and chatbots.[h]

- Generative AI is trained with massive data sets to produce novel responses and uses predictive modelling and conversational AI to facilitate interaction and ongoing training. Examples include generating text, images, video, audio, and code.

These AI technologies have been integrated into many other tools, machines, systems, and environments like banking applications, web searches, virtual assistants, and social media. End users may not always be aware of how these technologies are affecting their experience. For effective governance and regulation, it is important to differentiate between existing technologies and novel, high-risk AI technologies.

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[g] For more information, please see the Glossary. See also Government of Canada, *What is AI?*; Government of Canada, *Guide on the use of generative artificial intelligence*; Jacqueline Dooley, "Generative AI vs Predictive AI: What Is the Difference?" *Coveo*, blog, December 17, 2024; and IBM, *Understanding the different types of artificial intelligence*.

[h] Some AI tools, like chatbots, may fall under multiple categories, depending on primary use and user.

> *"AI, at the end of the day, is a tool, and that's not inherently good or bad. Like electricity, like the printing press, like the internet before it, what matters is not the technology itself, but whether the people using it have the knowledge, the capacity and the agency to shape it for the public good."*
>
> *Divya Sharma, U-Reporter Ambassador, UNICEF Canada, as an individual*

Opportunities

- There is a strong history of Canadian leadership in AI research and development, which continues to be supported and fostered today.[2]
- When designed and deployed responsibly, AI has the potential to improve interactions with essential services; increase efficiencies; and contribute to cost savings across various sectors, including health care, education, agriculture, transportation, logistics, and research.[3]
- Inclusive AI literacy and education appropriate for all persons in Canada could build trust and mitigate potential harms associated with higher risk uses.[4]
- AI technologies designed to reflect the diversity of Canadian and Indigenous data may offer pathways to safer, more inclusive AI for all.[5]

Risks and Challenges

- Despite early Canadian leadership and ongoing strength in AI research and development; adoption and integration lag behind other countries.[6]
- Low trust and understanding of AI may be barriers to widespread adoption.[7] In particular, witnesses referenced a 2025 KPMG report ranking Canada among the lowest of 47 nations when it comes to national AI training and literacy.[8]
- The size of Canada's economy and population limits domestic capacity for public/private investment and infrastructure development (e.g., data centres and capital investment in scaling), especially in comparison to other countries like the United States. Canada therefore risks losing AI talent and potential to other markets.[9]
- Much of Canada's data and digital infrastructure relies, at least in part, on foreign service providers. Widespread integration and adoption of AI

technologies in Canada may therefore introduce a significant risk to domestic data privacy and cybersecurity; and national autonomy, sovereignty, and security, more broadly.[10]

- Many experts, including those who invented critical AI technologies, warned the committee that advanced AI, approaching superintelligence, poses an existential threat to humanity.[11]

> *"AI is becoming a crisis accelerator; it compresses the time between harm, confusion, verification and escalation. The issue is whether an AI-enabled incident moves across borders or institutions faster than existing response channels can manage. That can include cyber incidents, fraud, "deepfakes" or failures in AI-enabled public or economic infrastructure."*
>
> *Alejandro Reyes, Chief Strategy Officer, AI Safety Asia*

Recommendations

Recommendation 1: Develop a National AI Literacy Strategy[12]

That the Government of Canada, in collaboration with provincial, territorial, and Indigenous governments, implement a national strategy for AI literacy and education that:

- provides a comprehensive definition of AI, as used and understood by the Government of Canada;
- responds to the needs of diverse communities, including Indigenous Peoples, elderly persons, other members of equity-deserving groups, and sectors at higher-risk of AI-related job displacement;
- ensures persons across all regions of Canada have adequate Internet connectivity to support access to AI technologies;
- is adaptable to the evolving spectrum of AI technologies; and
- is adequately supported by practical tools and resources that reach individuals at their level of knowledge and need.

Recommendation 2: Close the Research to Adoption Gap[13]

That the Government of Canada close the research and development to integration and adoption gap by continuing to invest in sovereign compute capacity and infrastructure; supporting public sector deployment; and fostering adoption among individuals and industry in Canada through training and skills development.

What are the Social Impacts of AI?

AI has the potential to cause significant societal disruption; with impacts increasing as AI systems become more advanced. The committee heard substantial concern from witnesses about some of the worst-case scenarios: widespread job displacement leading to a shrinking tax base; increasingly pervasive mis-/disinformation and loss of trust among citizens; and an existential threat to humanity. In addition to these society-wide concerns, members of certain population groups and communities may be especially vulnerable to impacts like the amplification of existing racism, discrimination, and bias in training data; online harms experienced by youth; and the violation of Indigenous data sovereignty.

The committee also heard about opportunities for AI to alleviate human-made inequalities and barriers to access; and promote new ways of interacting with critical systems like health care, immigration, and education. For example, AI technologies can be used to personalize learning and promote curiosity in education; and facilitate earlier detection, diagnosis, and decision-making in health care, while also reducing administrative burden.[14] Committee members hope to hear more positive use cases during future work on this topic.

Members also acknowledge the complexity of the potential intersectional social impacts related to AI technologies and hope to gather more evidence and lived experiences in future phases of this study. Therefore, the observations and recommendations that follow do not represent final conclusions but are presented based on the urgency of the debate, and the opportunity for responsive domestic governance and regulation of AI to mitigate possible harms and leverage its potential for good.

Opportunities

- If developed and trained with thoughtful consideration to initial data, inputs, and system guardrails, AI technologies have the potential to be less biased or discriminatory than humans and may even be used for harm mitigation.[15]

- AI tools can be used to reduce barriers and improve access to certain systems (e.g., health care, education, criminal justice, etc.) for certain populations (e.g., elderly, non–English/French-language speakers, youth, persons with disabilities, etc.).[16]

"Oftentimes we ask young people: What do you want to be when you're older? And that question has been asked for decades. With AI, the opportunity really here is to ask: What would you like to solve? What AI actually does is that it gives you a platform to build on a number of different questions."

Divya Sharma, U-Reporter Ambassador, UNICEF Canada, as an individual

Risks and Challenges

"The digital world is no longer separate from childhood; it's embedded within it and is referred to as the digital ecosystem. The impact of this digital ecosystem on child development is undoubtedly one of the most significant and unpredictable public health challenges we all face today.

Young people are among the most exposed to, and affected by, AI systems. Children do not encounter AI occasionally; it's present in their classrooms, on their phones, in their toys and in the social spaces where they seek belonging. Yet, these systems have been designed primarily for commercial efficiency, not for child development safety or well-being."

Dr. Michelle Ponti, Paediatrician and Chair of the Digital Health Task Force, Canadian Paediatric Society

- AI risks recreating systemic biases and discrimination learned from historic data, potentially amplifying the impact of existing barriers and inequities. Examples include predictive policing; health care and hiring tools that replicate racial inequalities; and tools that fail to accommodate diverse accessibility needs.[17]

- AI can encourage the spread of mis- and disinformation by facilitating content generation and influencing human-algorithm interactions. This has the potential to negatively impact trust in digital information and institutions, leading to increased risks of foreign/democratic interference.[18]

- The novel and dynamic nature of AI makes it difficult to adequately assess its impact, especially on developing youth. Specific concerns include cognitive decline associated with overreliance and integration of AI technologies; inadequate and/or dangerous health advice; impaired social skills and

relational health; and the amplification of disinformation, deepfakes, and child sexual abuse material. Particular concern was raised about unregulated interactions with chatbots, with witnesses sharing that many youth may already use one for AI companionship.[19]

- AI systems and tools may increase the threat of online harms among certain other vulnerable populations, like the elderly, women, and members of marginalized communities.[20]

- Policy and regulatory decisions related to AI and data sovereignty more broadly must respect Indigenous data sovereignty, as Indigenous Peoples in Canada have certain rights to the governance and use of personal and cultural data.[21]

- The economic model of neoliberal capitalism still governing much of the world, including Canada, does not account for the possibility of full adoption and integration of AI in the labour force.[22] Should the capabilities of AI technologies increase and their price point decrease to the point that they are more labour/cost effective than human workers, there is a risk of mass unemployment in all sectors and professions for which this is the case. The resulting loss of income could, in turn, destabilize the tax base and threaten the durability of the social safety net.[23]

Recommendations

Recommendation 3: Leverage AI to Increase Inclusion and Access[24]

That the Government of Canada leverage AI technologies to mitigate bias; remove barriers to access; and improve accessibility and inclusion, by:

- engaging with members of diverse communities, equity-deserving groups, and rights holders to better understand the potential social impact of AI technologies;

- supporting research into human-centred, inclusive AI; and

- identifying proactive and preventive mechanisms the federal government can target for support.

Recommendation 4: Proactive Labour Market Preparedness[25]

That the Government of Canada play a leadership role in coordinating with provincial and territorial governments and other partners to proactively prepare the labour market from AI-related disruption, by:

- continuing to measure and assess the impact of AI throughout the Canadian labour market, with particular attention to high-risk sectors and professions;
- supporting workforce transition and adaptation programming; and
- investing in research on the future of the AI-integrated labour market and future of work, more broadly.

How Should AI be Governed and Regulated in Canada?

In Canada, the governance and regulation of AI fall under shared federal and provincial/territorial jurisdiction, depending on the type of technology and its use.[i] While the Government of Canada has developed various guidance and policies governing AI use, there is currently no comprehensive legal framework regulating AI in force.

Throughout this initial phase of the committee's study, witnesses and committee members often discussed opportunities and challenges associated with adequately regulating a fast-evolving technology that is, in many ways, borderless.

The committee's conversations were also informed by recent events in a small Canadian community. In the wake of the tragedy in Tumbler Ridge, there has been renewed interest in AI legislation and regulation.

In addition to the opportunities, risks and challenges associated with AI governance and regulation, witnesses discussed the following specific approaches that may be considered in the Canadian context:

- Expand, make mandatory, and enforce existing models of regulation, governance, and standards.[26] For example, consider liability and duty of care principles related to medical devices, aerospace, trucking, finance, etc.

- Update and broaden existing legislation (like the *Privacy Act*, *Personal Information Protection and Electronic Documents Act*, *Access to Information Act*, and *Criminal Code*) to better respond to concerns related to AI.[27]

- Adapt online harms legislation to capture potential AI-related harms.[j]

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[i] For example, jurisdiction over privacy, data protection, health, and human rights is shared between the federal and provincial governments; competition law and intellectual property law are within federal jurisdiction; and consumer protection law and property law are within provincial jurisdiction.

[j] At the time they appeared, witnesses referenced Bill C-63, legislation proposed during the previous parliament that would have established "a baseline standard for online platforms to keep Canadians safe," targeting various types of harmful content and imposing certain responsibilities on social media providers. These provisions are reflected in the first reading version of Bill C-34, the Safe Social Media Act, introduced on June 10, 2026; which also proposes certain responsibilities around harmful content for chatbot service providers.
See Government of Canada, *Proposed Bill to address Online Harms*; Bill C-63, An Act to enact the Online Harms Act, to amend the Criminal Code, the Canadian Human Rights Act and An Act respecting the mandatory reporting of Internet child pornography by persons who provide an Internet service and to make consequential and related amendments to other Acts, 44th

- Develop and enforce a rigorous pre-deployment testing regime for AI tools and systems in Canada, with particular attention to chatbots.[28]

- Explore risk-based regulation of AI, with consideration to the precautionary principle[k].[29]

- Explore age-related requirements for accessing certain AI technologies, like those proposed for social media.[30]

- Look to legislation in other jurisdictions for inspiration. Examples include the European Union's *AI Act*, *Digital Services Act*, *General-Purpose AI Code of Practice*, and *General Data Protection Regulation*; the United Kingdom's *Online Safety Act*; Australia's online safety legislation;[31] and the State of California's Safe and Secure Innovation for Frontier Artificial Intelligence Models Act (SB 1047) and *Transparency in Frontier Artificial Intelligence Act* (SB 53).[32]

As the regulatory framework for AI in Canada solidifies, it would also be helpful to have a single, national, independent regulatory authority responsible for coordinating and implementing national AI policy and regulation, like the proposed Digital Safety Commission, but with the consolidation of other AI governance.

On June 10, 2026, the Minister of Canadian Identity and Culture introduced Bill C-34, the Safe Social Media Act. In addition to proposing age-related restrictions (under 16 years) on access to social media services, this legislation would also introduce certain duties for chatbot services, particularly around preventing access to harmful content; and would establish a Digital Safety Commission responsible for administration and enforcement. While noting that this legislation is not intended to regulate AI technologies more generally, and is specific to AI-enabled chatbots, the committee is encouraged to see some of the approaches suggested by witnesses being implemented by the government. That said, this bill is recently introduced and may be amended before it is adopted. The committee hopes to play a role in the consideration of this important legislation and in assessing how its adoption and implementation respond to the observations shared here.

Parliament, 1st Session; and Bill C-34, An Act to enact the Digital Safety Act and the Digital Safety Commission of Canada and to make consequential amendments to other Acts (Safe Social Media Act), 45th Parliament, 1st Session, (first reading version, June 10, 2026).

[k] Initially codified in the *Canadian Environmental Protection Act, 1999* and reinforced in *Spraytech v. Hudson*, the precautionary principle has been interpreted in Canada to recognize that "the absence of full scientific certainty shall not be used as a reason for postponing decisions where there is a risk of serious or irreversible harm." It is predominantly exercised in the context of environmental regulation, but has also informed nuclear safety, and the COVID-19 pandemic response.
See Government of Canada, *A Framework for the Application of Precaution in Science-Based Decision Making about Risk*, 2003; and Charles Birchall, Julie Abouchar and John Donihee, *Navigating Environmental Risk: When and How to Apply the Precautionary Principle*, Willms & Shier, December 22, 2017.

> *"If AI is just a tool, then it is wielded by people who must be operating within these systems. We don't blame the hammer, or the toolbox that it came in, for the harm a structure that was built by a person causes. We hold the person accountable. But if AI transcends tools, then new systems must be purpose-built."*
>
> *Jonathan Dewar, Chief Executive Officer, First Nations Information Governance Centre*

Many witnesses emphasized the critical nature of domestic AI/data sovereignty when considering regulation and governance of AI, and its future use in Canada. While witnesses agreed that sovereign data and infrastructure are essential components to broader national sovereignty, there was less consensus on how to best define and protect said sovereignty given the complexity and diversity of AI technologies and stacks.

Opportunities

- A strong, transparent governance framework can help foster trust in, and potentially, adoption of AI among Canadians.[33]

- Appropriate domestic governance and regulation can encourage the development of sovereign, human-centred AI that respects Indigenous rights, knowledge, and worldviews; and Canadian values like diversity, democracy, freedom, human rights, and bilingualism.[34]

- While certain countries, like the United States and China, may possess greater economic and industrial capacity, Canada could collaborate and even play a leadership role with other "middle power" countries[l] to develop safe, human-centred AI.[35]

[l] Potential partners for collaboration include Australia, Brazil, India, Japan, New Zealand, Singapore, South Korea, and the United Kingdom.

"Canada is at an inflection point. Artificial intelligence is rapidly moving from research into the core of our economy, reshaping how we operate, how we compete and how we deliver services. The question before us is not whether AI will transform Canada; it is whether Canada will shape that transformation or allow it to be shaped elsewhere."

John Menezes, President and Chief Executive Officer, Bell Cyber Inc., Bell Canada

Risks and Challenges

"In the near future, AI may be used to create terrible new viruses and horrendous lethal weapons that decide by themselves who to kill or maim. All of these short-term risks require urgent and forceful attention from governments and international organizations. […]

There is also a longer-term existential threat that will arise when we create digital beings that are more intelligent than us. We have no idea whether we can stay in control."

Geoffrey Hinton, Professor, University of Toronto, as an individual

- Since AI is not a single technology, but rather a 'stack' of data, software, hardware, and physical infrastructure; ensuring adequate governance and sovereignty throughout is challenging. Furthermore, the global nature of AI technologies makes harm mitigation beyond Canada's borders difficult.[36]

- The capacity and abilities of AI technologies are rapidly evolving, making it more challenging to make evidence-based regulation and policy decisions; and to keep pace with new innovations.[37]

- Many popular AI tools have already advanced beyond their developers' understanding of how decisions and responses are generated. This is a barrier to effective regulation, and to deployers' and users' ability to appropriately evaluate risk.[38]

- The spectrum of approaches to AI governance and regulation ranges from full deregulation and unbridled support for innovation on one end to cautious, risk-based regulation on the other. While many witnesses advocated for balance in principle, the challenges of realizing such an approach were also acknowledged.[39]

- Effective regulation and governance must respect and protect the rights and sovereignty of Indigenous Peoples, with consideration to Indigenous data sovereignty and self-determination.[40]

- When considering appropriate regulation, it is important, but challenging, to differentiate between criminal acts (e.g., creating deepfakes, sextortion, and creating child sexual abuse material, etc.) and other forms of harm.[41]

- While some legislation currently in force in Canada responds to certain harms and criminal acts associated with AI technologies, most of it predates the digital era and none is fit-for-purpose.[42]

> *"I would say a good place for us to start is to really refresh our data privacy laws. I could be wrong, but I believe our Privacy Act dates back to 1983. The Personal Information Protection and Electronic Documents Act, or PIPEDA, is from the early 2000s. Clearly, a lot has changed in that time. We absolutely need to look at our data privacy laws and data use because the way data is used with AI was not contemplated back in 1983. If I were to start anywhere, I would start there."*
>
> *Glenda Crisp, President and Chief Executive Officer, Vector Institute*

Recommendations

Recommendation 5: Implement a Comprehensive AI Regulatory Framework[m][43]

That the Government of Canada urgently develop and implement a comprehensive legal framework regulating AI that:

- incorporates and modernizes existing legislation, like the *Privacy Act*, *Personal Information Protection and Electronic Documents Act*, and *Access to Information Act*, where relevant;

- complements existing models of standardization, risk mitigation, impact assessment, and data governance;

[m] While acknowledging the introduction of Bill C-34, the Safe Social Media Act, on June 10, 2026, the committee notes that this legislation does not represent a comprehensive legal framework regulating AI and that addressing other uses and risks related to AI technologies beyond chatbot services remains critical.

- is built on ongoing consultation and engagement with stakeholders representing diverse perspectives and rights;
- is guided by the precautionary principle;
- establishes a rigorous, risk-based, pre-deployment testing and regulatory enforcement regime;
- establishes an independent, arms-length regulatory authority to implement and enforce this framework; and
- prioritizes a flexible, agile approach with the capacity to quickly respond to new innovations and AI technologies.

Recommendation 6: Protect and Enforce Principles of Data Governance and Sovereignty[44]

That the Government of Canada urgently prioritize the protection of data privacy and sovereignty within Canada, with particular consideration to:

- developing a better understanding of Canadian sovereignty gaps and limitations throughout the AI stack;
- Indigenous Peoples' rights to data sovereignty and self-determination; and
- regulatory mechanisms that will support Canada's expression of AI and data sovereignty.

Recommendation 7: Promote Human-Centred AI[45]

That the Government of Canada leverage effective AI governance to promote the domestic development and adoption of human-centred AI that is inspired by Canadian values, like diversity, democracy, freedom, human rights, and bilingualism, and that respects Indigenous rights and worldviews.

Interim Conclusion

> *"Perfection isn't going to happen, but there is a place between perfection and what is happening right now that we could possibly get to."*
>
> *Lloyd Richardson, Director of Technology, Canadian Centre for Child Protection*

Once considered only a distant possibility, AI technologies are now part of daily life for many Canadians – whether they are aware of it, or not. Since the widespread public access to generative AI took off less than four years ago, it has been integrated throughout social media and digital platforms; is being touted as a key opportunity for industrial efficiency across sectors; comes pre-programmed in children's toys; offers medical, financial and legal advice; and may even be acting as a virtual "friend" to many, if not most, youth. As the frontiers of AI development continue to shift, the risk of significant societal disruption and unmitigated harms increases.

Throughout this study, the idea of balance was often raised:

- waiting to develop evidence-based legislation and policy, balanced by the need to urgently and effectively regulate certain AI technologies;
- mitigating risk and preventing harm, balanced by the importance of supporting innovation in Canada; and
- anticipating the breadth of AI potential, balanced with the risk of unintended negative consequences.

Yet, when balancing the "opportunities" sparked by AI technologies against "risks and challenges", doubts associated with the untested, unproven, and unregulated outweigh positive sentiments. We fear what we do not know, and we do not trust what we fear. While low trust of AI technologies among Canadians has been identified as a barrier to adoption, the committee believes it also presents an opportunity: to support, develop, and adopt Canadian-specific, human-centred AI that reflects the richness of our diversity; protects our safety, sovereignty, and autonomy; and promotes the development of AI for good, for all.

The committee hopes this interim report will inform decision-makers and the Canadian public on the balance of these perspectives and priorities, and the importance of taking prompt, decisive action. The absence of action is an action in and of itself.

> *"Delays in federal action will not maintain the status quo—they will compound harm."*
>
> *Youth Digital Rights Blueprint, John Humphrey Centre for Peace and Human Rights*

Next Steps

Recognizing the fast pace of AI technological and policy development, the committee considers it important to share its initial findings after a first series of meetings, with the intention of revisiting these observations and recommendations in future work.

The committee looks forward to the opportunity to hear from the Minister of Artificial Intelligence and Digital Innovation regarding the federal government's renewed national AI strategy, released on June 4, 2026, and the implementation of key actions committed to in this announcement; as well as the Minister of Canadian Identity and Culture on Bill C-34, the Safe Social Media Act, introduced on June 10, 2026.

In addition to this work, other priority topics that have been identified for future study from this initial phase include:

- how to protect and promote Canadian data/digital governance and sovereignty;
- collaborative global governance, emergency preparedness, and crisis response to the existential threat posed by the potential development of superintelligence;
- opportunities to leverage human-centred AI for good; and
- the impact of AI within the Canadian and/or global labour markets.

While noting the above issues, the committee is committed to remaining flexible, should other priorities arise as it continues this important work.

Appendix A – Witnesses

Wednesday, February 25, 2026

Kara Beckles, Executive Director, Privacy and Responsible Data, Treasury Board of Canada Secretariat

Dominic Rochon, Chief Information Officer of Canada, Treasury Board of Canada Secretariat

Mark Schaan, Associate Deputy Minister, Department of Industry, Innovation, Science and Economic Development Canada

Elissa Strome, Executive Director, Pan-Canadian AI Strategy, Canadian Institute for Advanced Research

Thursday, February 26, 2026

Geoffrey Hinton, Professor, University of Toronto, as an individual

David Kristjanson Duvenaud, Associate Professor of Computer Science, University of Toronto, as an individual

Inioluwa Deborah Raji, Researcher, University of California, Berkeley, As an individual

Wyatt Tessari L'Allié, Founder and Executive Director, AI Governance and Safety Canada (AIGS Canada)

Thursday, March 12, 2026

Yoshua Bengio, Full Professor, University of Montréal, as an individual

Jonathan Dewar, Chief Executive Officer, First Nations Information Governance Centre

Chantal Guay, Chief Executive Officer, Standards Council of Canada

Anneke Olvera, Director, Programs, Standards Council of Canada

Tania Saba, Interim Executive General, International Observatory on the Societal Impacts of AI and Digital Technologies

Wednesday, March 25, 2026

Glenda Crisp, President and Chief Executive Officer, Vector Institute

Stephanie Enders, Chief Delivery Officer, Alberta Machine Intelligence Institute

Gideon Christian, Research Chair in Artificial Intelligence and Law, University of Calgary, as an individual

Jason Lewis, Professor and Principal Investigator, Abundant Intelligences

Thursday, April 30, 2026

Alexandra Dassa, Senior Vice President, Technical Success and Value Engineering, Coveo

John Menezes, President and Chief Executive Officer, Bell Cyber Inc., Bell Canada

Michel Richer, President, Bell AI, Bell Canada

Wednesday, May 6, 2026

Tiffany Efird, Project Lead, Youth and Community Engagement, John Humphrey Centre for Peace and Human Rights

Maria Angelica Quesada, Director of Research and Adult Education, John Humphrey Centre for Peace and Human Rights

Lloyd Richardson, Director of Technology, Canadian Centre for Child Protection

Divya Sharma, U-Reporter Ambassador, UNICEF Canada, As an individual

Michael Geist, Canada Research Chair in Internet and E-commerce Law, University of Ottawa, As an individual

Dr. Michelle Ponti, Paediatrician and Chair of the Digital Health Task Force, Canadian Paediatric Society

Félix Proulx-Giraldeau, Interim Executive Director, Evidence for Democracy

Alejandro Reyes, Chief Strategy Officer, AI Safety Asia

Supheakmungkol Sarin, Co-Founder and Chief Research Officer, AI Safety Asia

Appendix B – Briefs and Written Submissions

Please note that the following list is current to May 8, 2026, and appears in alphabetical order by main witness/organization. For an updated list, please consult the briefs and other documents tab on the committee's portal. Relevant briefs are found under the subheading "Examine and report on matters related to the impact of artificial intelligence in Canada."

- AI Futures Project, organization only
- Alejandro Reyes, AI Safety Asia (appeared before the committee on May 6, 2026)
- Angela McGraw, as an individual
- B'nai Brith Canada, organization only
- Canadian Association of Radiologists, organization only
- Canadian Institute for Health Information, organization only
- Canadian Union of Public Employees, organization only
- Chris D'Aloisio, as an individual
- Deaf Wireless Canada Committee, organization only
- Dominic Rochon, Treasury Board of Canada Secretariat (appeared before the committee on February 25, 2026)
- Duane Bromfield, as an individual
- Duff Conacher, Democracy Watch
- eSafety Commissioner, Australian Government, organization only
- Evidence for Democracy, organization only
- First Nations Technology Council, organization only
- Gen(Z)AI, organization only
- Gideon Christian, Research Chair in Artificial Intelligence and Law, as an individual (appeared before the committee on March 25, 2026)

- Information and Communications Technology Council, organization only
- Jasmeen Sidhu, as an individual
- Katrina Nicole Matheson, as an individual
- Maria Angelica Quesada, John Humphrey Centre for Peace and Human Rights (appeared before the committee on May 6, 2026)
- Mark Schaan, Department of Industry, Innovation, Science and Economic Development Canada (appeared before the committee on February 25, 2026)
- Munk School of Global Affairs and Public Policy, University of Toronto, organization only
- Myles Jones, as an individual
- Nadia Pulcova, TalentFund
- Olivier Blais, Moov AI
- Robert Rattle, as an individual
- SickKids Child Health Policy Accelerator, organization only

[1] A selection of oral testimony and written submissions relevant to the various observations and recommendations made in the report follows in the endnotes. Oral testimony is presented first, followed by written submissions; both listed in alphabetical order.

[2] Alexandra Dassa, Senior Vice President, Technical Success and Value Engineering, Coveo: "We have world-class talent and have contributed meaningfully to global AI advancement."

Elissa Strome, Executive Director, Pan-Canadian AI Strategy, Canadian Institute for Advanced Research: "This incredible research and talent base enables our national ambitions of deeper AI adoption, commercialization and global leadership in AI safety."

Mark Schaan, Associate Deputy Minister, Department of Industry, Innovation, Science and Economic Development Canada: "We have an incredible research capacity. […] We're one of only four countries in the world that has a large language model company."

[3] Geoffrey Hinton, Professor, University of Toronto, as an individual: "It's going to make almost any industry more efficient."

Mark Schaan: "When deployed responsibly and reliably and with effective controls, AI has the capacity to be able to fundamentally increase our productivity, our efficiency and our consumer choice, as well as a legitimate step change in services, including in spaces like health, agriculture, transportation and logistics."

Stephanie Enders, Chief Delivery Officer, Alberta Machine Intelligence Institute: "First, with research, in our most recent expansion of Canada's CIFAR AI Chairs, we focused on growing our AI and X models, which means we're emphasizing interdisciplinary research and exploring how artificial intelligence can push the boundaries of research in fields like health, energy, physics and the humanities."

Canadian Association of Radiologists, written submission: "When rigorously validated and monitored, AI functions as a force multiplier: improving diagnostic accuracy, supporting clinical decision-making, and alleviating the workforce strain currently paralyzing Canadian healthcare delivery."

[4] Félix Proulx-Giraldeau, Interim Executive Director, Evidence for Democracy: "Emphasis on literacy, education and critical thinking skills: those are all ways that we can actually — without necessarily involving those big tech companies, and regulating them, involving all the geopolitics, perhaps, behind this — protect the Canadian population against harms that these technologies may bring."

Glenda Crisp, President and Chief Executive Officer, Vector Institute: "I believe AI literacy is key."

Information and Communications Technology Council, written submission: "A comprehensive approach to AI literacy will ensure that citizens are informed actors capable of navigating AI-infused systems thoughtfully and critically."

[5] Elissa Strome: "Data is the essential fuel for AI. We need to actually make sure that we have access to very large, robust, diverse data sets that are representative of the communities that the solutions are meant to be applied to."

Glenda Crisp: "I actually believe that the more diverse the group of people who are building AI and creating AI, the better the AI will be. To put a finer point on it, I have consistently said that I don't want AI that is built by all White men."

Stephanie Enders: "I'm non-technical myself, and I have faith and great optimism because I see the passion and diversity of the people building this technology and how they want to serve the public good."

[6] In 2025, Statistics Canada reported that 12.2% of Canadian firms were using AI; sector, existing technological adoption, and firm size all influencing likelihood of AI adoption.
Jiang Li and Huju Liu, "Artificial intelligence adoption and productivity in Canadian firms," *Statistics Canada*, Economic and Social Reports, April 22, 2026.

Alexandra Dassa: "We are exceptional at the science behind AI, but we have not adopted AI meaningfully at home, and we have not consistently monetized it globally."

Glenda Crisp: "The message is consistent: Canada is excellent at producing AI talent and research, but Canada lags in adoption and deployment."

Munk School of Global Affairs and Public Policy, University of Toronto, written submission: "Canada is the birthplace of modern AI, yet controls neither the major firms that dominate its deployment nor the critical infrastructure that powers it. This dependency is a dangerous vector for coercion, and recent tariff threats, territorial provocations, and "51st state" rhetoric have clarified that the rules-based order Canada once relied upon can no longer be assumed."

[7] Elissa Strome: "It really needs to be a matrix approach so that we're providing AI literacy, helping build trust in AI and engaging Canadians in the conversation around AI. That's one of the key missing factors in why Canadians don't trust AI."

Glenda Crisp: "Trust is at the root of the problem in terms of adoption."

Stephanie Enders: "One of the things we're seeing – again, not to be the broken wheel on literacy – is that the shorthand around people who have greater trust is they are folks who are using it."

[8] Divya Sharma, U-Reporter Ambassador, UNICEF Canada, as an individual: "Here is what the evidence shows: Canada ranks forty-fourth out of 47 nations in AI training and literacy, according to a KPMG global AI survey, which was conducted in 2025. Only 24% of Canadians have received any form of AI training, versus a global average of 39%."

Félix Proulx-Giraldeau: "In Canada, the portrait is not looking so good. When it comes to literacy and knowledge of AI systems, we're forty-fourth out of forty-seven countries globally."

See also KPMG, *Canada is lagging behind global peers in AI trust and literacy*, June 2025.

[9] Alexandra Dassa: "We have world-class talent and have contributed meaningfully to global AI advancement. Too often, however, that talent is not deployed here at home in the service of Canada and does not contribute to strengthening our economy."

Geoffrey Hinton: "In terms of developing new, cutting-edge AI, there's a problem in that it requires huge amounts of capital. It's very difficult to see how Canada can do that. The leading researchers have to work with big U.S. tech companies."

Mark Schaan: "It's not really clear that Canada has the capacity to commercialize and adopt AI at the same rate as the United States."

Yoshua Bengio, Professor, Université de Montréal, as an individual: "Even if Canada were to pass strong laws, American companies could decide not to make their tools accessible. […] To start with, Canada isn't a big enough player to influence their decisions."

[10] Alejandro Reyes, Chief Strategy Officer, AI Safety Asia: "Biosecurity, for example, is a well-ignored area where there could be a crisis."

Dominic Rochon, Chief Information Officer of Canada, Treasury Board of Canada Secretariat: "When government data is stored in the public cloud, it is hosted by third-party providers that may be subject to foreign laws. There is a risk that another country could legally require access to the data."

John Menezes, President and Chief Executive Officer, Bell Cyber Inc., Bell Canada: "sovereignty in AI is not theoretical; it is operational. It depends on where data resides, who controls the compute, how systems are connected and who ultimately has authority over them."

Yoshua Bengio: "As you may know, the U.S. government, for national security reasons, can have access to anything American companies do, even if they are based in Canada. If the data centres are in Canada, they can, in a way we might not know, access that, so we need to prepare to have alternatives to ensure our citizens and our national security concerns are protected."

Katrina Nicole Matheson, written submission: "Blocking such threats has grown increasingly difficult, especially with the recent introduction of AI coding agents like Claude Code, OpenClaw and other similar products that enable users to 'vibe code' AI programs using natural language commands. Preliminary research suggests that the security of these AI-coded apps and programs is insufficient and leaves room for significant software defects and cybersecurity vulnerabilities."

Myles Jones, written submission: "Over the next four years, AI-enabled influence operations will become cheaper, more personalized, and more immersive. Generative models will support near-real-time translation and allow influence actors to operate across languages and platforms. Deepfake sophistication will complicate attribution and detection, raising the probability of manufactured scandals during elections. AI-generated voice cloning could be used to simulate

leaders' speeches or fraud voters. Combined with stolen data, adversaries will run precision-targeting campaigns that mimic legitimate messaging."

SickKids Child Health Policy Accelerator, written submission: "AI companies routinely collect, store, and process user data, including sensitive personal information disclosed during interactions. Because data practices are often complex and not readily understood by children and youth, their ability to provide informed consent is limited."

[11] Geoffrey Hinton: "If we don't find the solution before they become more intelligent than us, I think we're toast, so that seems like a good thing to fund."

John Menezes: "We are already seeing examples of AI systems that are considered too powerful or too unpredictable to be broadly released. That is not a future concern; that is happening now."

Wyatt Tessari L'Allié, Founder and Executive Director, AI Governance and Safety Canada: "The development of advanced AI is the biggest threat to Canadians' safety, and for that reason alone, deserves to be a top priority."

AI Futures Project, written submission: "Humans will be incapable of exercising meaningful oversight over superintelligent AIs, putting us in a vulnerable position with respect to them. If the AIs want to disempower humans or even drive us to extinction, they'll have more than enough hard power to do so."

[12]Alejandro Reyes: "The same is true in education, where AI literacy is becoming a civic and economic capability."

Divya Sharma: "Once young people become digitally literate — and not just young people, vulnerable populations who oftentimes do need to access supports from government or different services, really understanding when something says, "Do you understand the terms and conditions?" What does the fine print actually mean? The way for us to achieve that, in order for us to get to that level, we have to make sure that young people are being trained in terms of digital literacy at a very young age."

Elissa Strome: "We need a national approach to AI literacy. There are many different activities and programs happening. They are not coordinated. We are a ragtag group of people who find each other and share our ideas and what we're doing, but there is no coordination, and there is no funding for this work either."

Stephanie Enders: "Part of the conversation that gets left out regarding wide-scale AI literacy and AI fluency, as well as the pace, is that we are focused on making sure people have the understanding, so they know when to say no and when AI is not the right tool."

Yoshua Bengio: "First, we have to understand that it's not like there's only one kind of AI."

B'nai Brith Canada, written submission: "Recommendation 1: The development of a national program to enhance the digital literacy of youth, including the misinformation, disinformation, and AI use and manipulation that they may encounter online."

Canadian Union of Public Employees, written submission: "Support foundational literacy and digital skills for all through a national literacy strategy."

First Nations Technology Council, written submission: "Establish stable, Indigenous-led funding for digital transformation and AI literacy that integrates ethics." "Many Indigenous communities lack the bandwidth, hardware, and technical support needed to use AI tools safely and effectively. […] Without closing connectivity gaps and supporting community capacity, AI will deepen existing inequities and exclude communities from both the opportunities AI presents and the decisionmaking processes that shape how it is governed."

Jasmeen Sidhu, written submission: "The government could commission the Standards Council of Canada to convene national [Work-Integrated Learning] association, post-secondary institutions, employers, and AI governance organizations to develop a national competency framework for AI literacy in [Work-Integrated Learning] contexts."

[13] Alexandra Dassa: "Today, too many organizations remain stuck in experimentation mode, while global competitors are already operating AI in production. […] Government has a critical role to play here: To act as a demand engine through procurement, incentivizing deployment and not just research, and reducing friction through clear, consistent regulatory frameworks."

Elissa Strome: “We need to help those companies grow and scale in Canada, and in order to do that, there are a few things that are essential. One is providing them with the expertise they need to move from that start-up phase into a much more sophisticated, dynamic company. … Although venture capital investment is significant in Canada, there is a lot of room for more. … Finally, these companies need customers. A lot of start-up companies tell me they have a hard time accessing customers in Canada, whether they be federal, provincial or municipal governments or Canadian businesses.”

Glenda Crisp: “It would be really great if we could actually spend the money that was promised on compute.”

Stephanie Enders: “One of the things that’s super important when it comes to creating many more AI start-ups – and also identifying start-up champions who can scale to the world – is compute capital and customers.”

Olivier Blais, written submission: “Research leadership without deployment leadership will not translate into productivity and competitive advantages for our industries.”

[14] Divya Sharma shared how AI can be used for: “personalized learning, creativity and early mental health detection.”

The Canadian Association of Radiologists described how AI tools can contribute to earlier identification of disease, resulting in greater opportunities for treatment and improved outcomes, while also reducing administrative backlogs.

Canadian Institute for Health Information, written submission: “AI presents a significant opportunity to improve patient outcomes, strengthen health system sustainability, and support Canada’s economic competitiveness. In health, these impacts are already being realized: AI can support earlier detection, improve decision-making, reduce administrative burden, and enable more efficient use of resources.”

[15] David Kristjanson Duvenaud, Associate Professor of Computer Science, University of Toronto, as an individual: “We expect a bunch of efforts like [Ms. Raji’s] to eventually get these systems to a state where they’re much less biased than the current human systems.”

Elissa Strome: “AI can be a problem, but it can also be the solution.”

Geoffrey Hinton: “It will have the biases of the data it was trained on, but at least you can freeze the weights in the chatbot and measure its biases. With a person, it’s hard to do that. […] For bias, our aim with AI should be to make it less biased than the system it replaces, not unbiased. You will never make it unbiased, but if you keep making them less biased than the system they replace, you will make progress.”

eSafety Commissioner, Australian Government, written submission: “AI itself can also improve online safety outcomes, for example through enhanced detection of abuse and harmful content.”

[16] Canadian Association of Radiologists, written submission: “Validated AI tools are not merely incremental improvements; they have the capacity to improve system sustainability. By identifying disease at earlier, more treatable stages and streamlining administrative backlogs, responsible AI adoption can materially improve access to care. This yields both individual health outcomes and broader economic benefits by reducing downstream costs associated with late-stage diagnoses and clinician burnout.”

Canadian Institute of Health Information, written submission: “Health is a leading domain for demonstrating how responsible, people-centred AI can deliver both public value and economic impact in Canada. It generates some of the most comprehensive and longitudinal data, spanning the full continuum of care and reflecting real-world outcomes across the population.”

Gen(Z)AI, written submission: Speaker 8: “What excites me most about AI, I’d say, is what we can do […] to better humanity with it. So I think of the machine learning algorithms that hospitals are trialing right now, where they’re training AI models to improve cancer detection and cancer treatment and all these things like that.” Speaker 10: “The scientific advances we can make thanks to AI are unimaginable.”

[17] Elissa Strome: “We talk about generative AI approaches as the modern AI approaches, but even traditional AI approaches were fraught with bias. Unfortunately, the bias creeps in the data sets that are being used to train these AI models. Bias is often a result of not having a representative

enough data set. It's not large enough, it doesn't have enough samples or it doesn't have enough diversity in it. Sometimes the bias creeps in because of the way human developers think about the approach and the tool that they're developing."

Félix Proulx-Giraldeau: "Poor data quality, opaque systems and weak oversight can reproduce or worsen harms already faced by marginalized communities, especially racialized Canadians. Those risks are especially serious in high-stakes settings, such as immigration, health care and social services, where automated errors have had real and lasting consequences, including wrongful arrests, unfairly denying social service claims and unjustly stripping residents of their legal status."

Gideon Christian, Research Chair in Artificial Intelligence and Law, University of Calgary, as an individual: "the data being used to train AI in this context, in this sector, is from this history of over-policing and overrepresentation in the criminal justice system. When you use it to train an AI tool today, it's basically going to replicate that past, even though we have tried to sever from the past by developing policies and legislation that will reform that past. But this change has not generated data that will supersede the previous data, so AI is basically replicating that bias[.]"

Inioluwa Deborah Raji, Researcher, University of California, Berkeley, as an individual: "Large language models have already disastrously provided incorrect translations in critical immigration and health care settings, provided incorrect diagnoses and invented unfounded references for scientific and legal claims. Even before the deployment of LLMs, we have had AI risk assessments misidentify different fraud applicants for unemployment benefits, inappropriately deny many subsidized housing claims and applications, and deny individuals appropriate health care benefits. These failures disproportionately destroy the lives of those under-represented and misrepresented in the data, as well as those most likely to have to rely upon or face the brunt of these automated decisions, such as low-income individuals or persons with disabilities."

Jason Lewis, Professor and Principal Investigator: "Who validated that data? Are they working off a century-old data set that is riddled with biases and prejudices from missionaries, anthropologists or government officials?"

Canadian Union of Public Employees, written submission: "AI systems can result in bias and discrimination that affects equity-deserving workers. The data used to train the AI system may include bias, the data being fed into the AI system may include bias and the actual programming code in the algorithm may include bias. This bias can be difficult to detect given the lack of information provided by system developers and employers."

Deaf Wireless Canada Committee, written submission: "Accessibility frameworks in Canada are often implemented through an audio-first or speech-based model. As a result, AI systems developed under these assumptions risk excluding visual-language users, including Deaf communities who rely on sign languages."

[18] Dr. Michelle Ponti, Paediatrician and Chair of the Digital Health Task Force, Canadian Paediatric Society: "Those technologies may provide reassurance in the short term, but they can also normalize distress, and they offer inaccurate information or they actually fail to recognize when a young person is in crisis. This issue is compounded by the prevalence of misinformation online, which AI systems can amplify."

Stephanie Enders: "I think the conversation around AI is often dominated by generative AI, and I think we are seeing huge risks related to misinformation. People have questions about how to navigate that, but I think the bigger risk with any of the AI technologies is when there is not a fulsome discussion about risk."

Myles Jones, written submission: "Artificial intelligence acts as a force multiplier for influence campaigns. Generative models can impersonate voices, fabricate news articles, and create deepfakes on demand."

[19] Lloyd Richardson, Director of Technology, Canadian Centre for Child Protection: "Children are also increasingly engaging with AI chatbot companions. A recent survey found that 72% of teens have used an AI companion, and more than half of these teens were considered "regular" users."

Wyatt Tessari L'Allié: "This also brought new challenges to overcome, such as deepfake scams and misinformation, cyberattacks and chatbots that can talk people into committing harm."

eSafety Commissioner, Australian Government, written submission: "Advancements in AI's ability to create detailed and highly realistic images means even innocuous photos of children can be manipulated to generate explicit material that is visually indistinguishable from authentic child abuse imagery. […] AI companions and chatbot services have been shown to expose children to sexually explicit content, encourage self-harm and disordered eating, and foster emotional dependency that may impair the development of healthy relationships."

[20] Elissa Strome: "I think older Canadians have a right to be distrustful. They are vulnerable for sure. They've been taken advantage of by malicious actors and by scammers."

Yoshua Bengio: "You're right about the elderly. Even if they don't want to use AI, it doesn't prevent the use of AI to defraud them. Scammers can mimic the voice and image of their children, and seniors are increasingly being extorted. AI can also influence their political opinion. They're more vulnerable in the sense that they're more likely to be manipulated by fear, for example."

eSafety Commissioner, Australian Government, written submission: "The misuse of AI-enabled technologies is generating serious and escalating harms, undermining trust in digital environments and reinforcing existing social and structural inequalities, particularly for children, women and marginalised communities."

[21] Jason Lewis: "How can we implement data sovereignty principles like OCAP – ownership, control, access and possession – into the core fabric of our AI systems?"

Jonathan Dewar: "First Nations data sovereignty is part of First Nations sovereignty. This means that this is fundamentally a discussion about ensuring that a rights-holding collective – a First Nation – can assert its right as a collective to sovereignty over its information."

First Nations Technology Council, written submission: "AI systems are rarely built on datasets that reflect Indigenous epistemologies, languages, and worldviews. The result is that Indigenous Peoples can feel 'othered' when interacting with widely used AI tools. This is not a technical oversight. It is an ethical failure, and it has real consequences for how Indigenous communities experience and trust this technology."

[22] Robert Rattle, written submission: "Over the entire evolution of the internet and Internet of Things, neoliberal capitalism has been the predominant set of values shaping digitalisation and AI. As such, AI predominantly manifests the values, structures and goals of neoliberal capitalism in policy, product, service, narrative and governance. […] AI will predominantly and overwhelmingly continue to manifest societal risks and adverse societal (including environmental) impacts within public policy environments that express neoliberal values, structures and goals. To reduce the societal risks and harmful impacts from AI, policies that reflect Canadians' values must dominate the public policy environment and provide a default to the neoliberal system."

[23] David Kristjanson Duvenaud: "What does this mean for you, senators? The main thing I'd like you to keep in mind going forward is that people are right to fear being replaced. This isn't just a period of disruption after which things will return to something like business as usual. The default path is that we all become unemployable, except in mandated make-work contexts, and then eventually marginalized in favour of a machine economy oriented towards growth for the sake of competitiveness."

Geoffrey Hinton: "If AI can do any normal human job, humans will cease to have value as labour, and David Duvenaud has pointed out that if they are not being taxed, they won't get properly represented. So his view is that there is no representation without taxation. I believe that. I believe a crisis is coming, in which we see massive unemployment caused by AI."

Gen(Z)AI: Speaker 14: "If there is no entry-level workforce because it's being replaced by these automatic systems, how does that impact the future? And how do you move up if you can't get a foot in the door?"

Jasmeen Sidhu, written submission: "[N]early half (47%) of Canadian workers report inadequate training for AI-driven changes, 57–60% of Canadian jobs are highly exposed to AI transformation, and youth unemployment stands at 14.5%, double the national rate. Meanwhile, among peer

nations that have established dedicated AI literacy programs, including the EU, UK, Singapore, and Australia, Canada stands alone in having no federal framework."

Olivier Blais, written submission: "AI is already changing job structures, especially at the entry level. We are seeing early signals that junior roles – the traditional on-ramps where people learn judgment, context, and professional intuition – are shrinking in AI-exposed occupations. This is happening at a time of elevated youth unemployment and raises serious questions about the future of our talent pipelines."

[24] Elissa Strome: "[O]ne of the ways that we think about mitigating bias in AI is diversifying the teams that are involved in developing these tools. If you have people with different lived experiences helping to develop, test and think about what the user needs as these tools are being developed, that has been shown to be absolutely essential to mitigating bias in AI systems. […] The AI tools that have demonstrated their effectiveness, their approach to responsible AI and their efforts to mitigate bias are actually the tools that people want to buy."

Geoffrey Hinton: "For bias, our aim with AI should be to make it less biased than the system it replaces, not unbiased. You will never make it unbiased, but if you keep making them less biased than the system they replace, you will make progress."

Tania Saba, Interim Executive General, International Observatory on the Societal Impacts of AI and Digital Technologies: "[W]hat is missing from all the operations and consultations that are undertaken around artificial intelligence are the voices of civil society, as well as Indigenous voices."

Canadian Institute of Health Information, written submission: "Ensure AI systems are designed, tested, and monitored using representative data to minimize bias and support equitable outcomes, including respect for Indigenous data sovereignty and distinctions-based approaches."

[25] Glenda Crisp: "[I]ncreasing productivity through AI is genuinely difficult and requires a fundamental rethinking of business processes, upskilling the workforce and sustained organizational commitment. In other words, if you're not rewiring your business processes around AI, you're essentially buying a Ferrari and only running it in first gear."

Canadian Union of Public Employees, written submission: "Invest in education, skills, and retraining pathways for workers. […] Engage in labour market planning and inclusive consultation. […] Build public sector capacity, leadership and public digital infrastructure."

[26] Chantal Guay, Chief Executive Officer, Standards Council of Canada, celebrated Canada's "mature national quality infrastructure" and discussed how standards can complement regulatory objectives.

Dominic Rochon referenced the *Directive on Automated Decision-Making*, the Algorithmic Impact Assessment Tool, and the public AI Register.

Inioluwa Deborah Raji referenced existing pre-deployment testing requirements in other sectors like aerospace, health care, and finance.

Katrina Nicole Matheson presented considerations around insurance-based policy pathways using a third-party liability model.

[27] Dominic Rochon: "We're in the throes of looking to update both the *Privacy Act* and the *Access to Information Act*."

Mark Schaan: "A range of existing laws already provide protections related to some aspects of AI development, deployment and use. These include the *Criminal Code* of Canada, the *Personal Information Protection and Electronic Documents Act*, or PIPEDA, as well as sectoral legislation applicable to specific industries, such as the health and financial sectors."

Michael Geist, Canada Research Chair in Internet and E-commerce Law, University of Ottawa, as an individual: "Second, a modernized privacy law that addresses both the inputs to AI systems and the outputs. Data sovereignty concerns are not solved by Canadian data centres. They are solved by Canadian privacy law that actually applies to Canadian data with real penalties. We need privacy laws that directly address the risks posed by re-identifying de-identified data, a risk that is exacerbated by the power of AI inference and which was scarcely addressed by today's decision by the Privacy Commissioner involving OpenAI."

[28] Inioluwa Deborah Raji suggested rigorous pre-deployment screening as a solution to AI regulation beyond the domestic Canadian context, introducing a three-pronged approach targeting AI developers (in pre-deployment), AI deployers (all organizations integrating AI), and researchers/innovators supporting advances in safety and accountability.

Wyatt Tessari L'Allié: "As legislators passing laws, we definitely need binding regulations and legislation on pre-deployment testing and accountability measures for when something goes wrong."

[29] Gideon Christian: "First, Canada should adopt a precautionary approach to the deployment of AI systems in high-risk environments where the consequences of error are severe and would further marginalize communities that are already disproportionately impacted."

Mark Schaan referenced the embedding of "principles-based approaches within our legislative frameworks, including the consideration and the concept of a duty of care and having liability standards that apply to the application of that duty of care."

Yoshua Bengio: "That means the precautionary principle may have to be applied. If we're not sure, we need to be overprotective."

[30] In response to a committee member asking for a "Show of hands, who thinks we should have age restrictions on social media for youth?" most witnesses responded in the affirmative.

Lloyd Richardson: "A logical approach or a child-safety approach to this, in terms of creating age-verification mechanisms for certain types of AI, much like we would strongly advocate for, related to social media, would be absolutely prudent in the protection of children."

Gen(Z)AI, written submission: "Create a standardized age-verification system to restrict users' access to generative AI platforms through the creation of an anonymized digital token system, with associated programs and accessible resources to inform the public about its implementation. […] Mandate that any AI platforms accessible to children, including in educational contexts, implement safety-by-design protocols to safeguard their use and promote learning and skills development."

See also Bill C-34, An Act to enact the Digital Safety Act and the Digital Safety Commission of Canada and to make consequential amendments to other Acts (Safe Social Media Act), 45th Parliament, 1st Session, (first reading version, June 10, 2026).

[31] For more on Australia's regulatory framework, please see the written submission from the eSafety Commissioner, Australian Government.

[32] Félix Proulx-Giraldeau: "We also recommend introducing a statutory duty-of-care for AI developers, inspired by international best practices, such as the UK *Online Safety Act*, the EU *Digital Services Act* and the EU *AI Act*."

Inioluwa Deborah Raji added context about the proposed SB 1047, which was vetoed before adoption, and the now-adopted SB 53.

Mark Schaan also made comparisons between the Canadian regulatory landscape and the European Union.

Yoshua Bengio mentioned the European Union and California examples, and alluded to the Australian model of regulating online harms among youth.

[33] Yoshua Bengio: "The number one necessary form of regulation is transparency."

Mark Schaan, written submission: "Task Force reports emphasized the need for transparent accountability, governance and public engagement, and the establishment of oversight mechanisms to monitor AI deployments."

Olivier Blais, written submission: "Second, treat governance as an accelerator, not an obstacle."

[34] Elissa Strome: "AI sovereignty means building Canada's capacity to leverage AI for long-term social and economic benefit. It requires building strong domestic capability in research, talent, infrastructure and governance, while strategically collaborating with trusted international partners."

Jason Lewis: "My colleagues and I believe that Canada's next AI strategy must move beyond a narrow focus on computational power and toward relational leadership. We imagine AI technology that strengthens self-determination, community well-being and environmental stewardship. This

includes extending the notion of national AI sovereignty to include knowledge self-determination and the ability to define what 'intelligence' means within Indigenous and Canadian contexts."

Jonathan Dewar: "[W]e've seen a broad acknowledgement that we who do this type of work, really any type of information work with Indigenous Peoples, must always work within designated, distinctions-based Indigenous frameworks or, as I like to say, systems of accountability. So if that is what is expected of us, we who possess human intelligence, then that is simply and fundamentally what must be expected of artificial intelligence."

Stephanie Enders: "The most important thing around regulation in Canada is that it should reflect Canadian values."

[35] Elissa Strome: "Canada cannot succeed by attempting to do AI alone. The scale and complexity of AI mean that international collaboration is a necessary condition for sovereignty, rather than a threat."

Geoffrey Hinton: "Therefore, we have to make alliances with the other middle-level countries, like all the countries in Europe. […] We need to make alliances with them and, between us, insist that these U.S. big tech companies have to do safety checks on their chatbots and tell us the results."

Yoshua Bengio: "To mitigate the major economic and security risks that I'm talking about, Canada should deepen its collaborations with other middle powers."

Munk School of Global Affairs and Public Policy, University of Toronto, written submission: "Middle powers face a choice between dependency on foreign AI systems or technological weakness; but coalition-building and hybrid strategies offer a path beyond this binary. Canada must navigate these dynamics, including the impending July 2026 CUSMA review, which presents both risk and opportunity for AI and digital sovereignty."

[36] Alejandro Reyes: "First, Canada needs a broader understanding of AI sovereignty. Sovereignty in AI is not full-stack independence. It is the capacity to audit and govern systems operating within Canadian borders."

Alexandra Dassa: "I will reiterate that sovereignty is possible if we look at the multiple layers that are involved in the tech stacks that make a global AI. That's because there are multiple layers in a tech stack. What matters are networks, data centres, compute and governance, and that we have the ability to have all of that governed and controlled within Canada so that we are not subject to the jurisdiction of certain foreign actors, particularly to the south of our border."

Lloyd Richardson: "[W]ith a company like Telegram that's based in the United Arab Emirates and that's run by a Russian fellow, what are we doing in Canada to institute sovereign rules that are actually applicable to these companies? The answer to that is not necessarily the *Criminal Code*. That is a regulatory approach that's enforceable in Canada."

Michael Geist: "I actually think you can make the case that, over the last year or so, there is the prospect that we face a crisis with respect to digital sovereignty or data sovereignty, especially when we think of the challenges with our neighbour to the south."

AI Safety Asia, written submission: "If a nation relies on foreign cloud infrastructure and proprietary hardware to run an open-weight model, it remains dependent. The risk of dependency is further amplified by "openwashing," where ambiguous claims of openness may obscure continued vendor lock-in or restrictive licensing, potentially misleading policymakers about the true extent of their autonomy."

Information and Communications Technology Council, written submission: "At the same time, Canada must recognize that it cannot outspend larger economies in the global race for AI compute infrastructure. Rather than pursuing sovereignty as a purely national endeavour, Canada should adopt a model of collective AI compute sovereignty, working with trusted partners to build interoperable, secure, and resilient AI infrastructure across allied economies."

Munk School of Global Affairs and Public Policy, University of Toronto, written submission: "The majority of new AI investment over the next half decade will reshape the technology stack, particularly for inference and deployment: the operational layer where AI systems process data, serve users, and generate value. Decisions being made today about infrastructure, platforms, and standards will shape the landscape for a generation, and making these decisions without regard for sovereignty risks locking Canada into dependencies that will be difficult to reverse."

[37] David Kristjanson Duvenaud: "Each country, industry or worker faces a choice between adapting AI as fast as possible or being outcompeted."
Dominic Rochon: "Unfortunately, the technology is evolving very quickly. We're talking about AI. In two years, we'll be talking about a new quantum computer that will completely change the stakes once again."
Elissa Strome: "Since the technology is moving quickly and policy is trying to keep up with AI, there is probably a need for greater innovation and more research on how we can develop innovative approaches to managing AI, AI policy and AI regulation as we move forward."
John Menezes: "AI is moving faster than our ability to govern it, and that gap is where the risk lives. The scale of change is significant."
Mark Schaan: "First, it is important to note that our aspiration is to have a regime with the capacity to respond to *ex ante* technology and that is not linked only to *ex post* efforts. […] As my colleague said, the technology is advancing very quickly."
Katrina Nicole Matheson, written submission: "It is clear that policymakers are generally not equipped to create or oversee laws and standards that are flexible and technical enough to keep up with rapidly evolving technology uses, capability and risks."
SickKids Child Health Policy Accelerator, written submission: "As AI chatbots and companions continue to expand within the digital lives of children and youth. Canada must implement robust measures to ensure safe and appropriate use. Recognizing that both technical and legislative landscapes are rapidly evolving, government must be positioned to develop and implement critical safety standards and address emerging risks related to AI companions and chatbots."
[38] Gideon Christian: "So government agencies – and the public sector, especially, in Canada – are increasingly deploying artificial intelligence technology. The problem is that most of this is being done with secrecy. There has been a lack of transparency, and this is problematic for many reasons. First, AI itself is a black box. It is a black box in the sense that the developers of these tools don't even have detailed knowledge as to how the tools operate, which is concerning."
John Menezes: "AI systems depend on data, make decisions and, increasingly, act autonomously. That introduces entirely new categories of risk."
Kara Beckles, Executive Director, Privacy and Responsible Data, Treasury Board of Canada Secretariat: "We need to understand it can't be a black box. You have to be transparent and let people know that what they're interacting with is AI or that AI was involved in this process."
[39] Dominic Rochon: "Going slowly will hinder economic opportunities. I don't want to say that economic issues have to be the priority, but we have to take everything into consideration and assess the risks."
Glenda Crisp: "I think the bigger risk for Canada at this point is the fear that we are going to be left behind the rest of the world because we don't even adopt more traditional AI-like predictive modelling, et cetera."
Mark Schaan: "Canada's focus is more on balance."
Tania Saba: "Governments, technology companies and scientific communities have different priorities. Sometimes economic interests related to development conflict with regulatory objectives."
[40] Jason Lewis: "This entails building AI that reflects Indigenous and Canadian values, languages and world views; supporting Indigenous data governance that ensures communities retain control over their data, then extending those frameworks Canada-wide; and embedding cultural and ethical sovereignty into AI infrastructure so that public investments in computational resources reinforce democratic control."
Jonathan Dewar: "First Nations, Inuit, and the Métis Nation are advancing respective strategies to these ends, supported by the federal government's commitments under the *United Nations Declaration on the Rights of Indigenous Peoples Act* and the Transformational Approach to Indigenous Data initiative, among other obligations. For First Nations, the ongoing implementation of the national First Nations Data Governance Strategy, since federal Budget 2021, has been a centrepiece."

[41] Lloyd Richardson: "The start of it, I would suggest, is online harms legislation and a regulator. What people sort of miss here is that everything is codified in criminal law, and we can deal with companies on the internet based on what we see in criminal law, which is a far move from what you would see with a regulator who has abilities to fine and set rules related to what these companies actually do."

Tiffany Efird, Project Lead, Youth and Community Engagement, John Humphrey Centre for Peace and Human Rights: "I want to speak to the idea that untested and unregulated AI should be considered a crime. We are talking about something that is even farther down the line. Looking at AI itself and how it's built, it's built in an unethical matter. It's built on stolen material."

[42] Glenda Crisp: "[Ou]r *Privacy Act* dates back to 1983. The *Personal Information Protection and Electronic Documents Act*, or PIPEDA, is from the early 2000s. Clearly, a lot has changed in that time. We absolutely need to look at our data privacy laws and data use because the way data is used with AI was not contemplated back in 1983."

Michael Geist: "One is that I don't think anybody at this stage disputes or takes issue with the notion that Canada's privacy law is out of date. We're now dealing with a privacy law that is more than 25 years old."

John Humphrey Centre for Peace and Human Rights, written submission: "Canada currently has no national digital safety statute. With the expiry of Bill C-63 following prorogation in 2024, young people are navigating escalating online harms without cohesive or comprehensive protections."

[43] Chantal Guay: "As discussions about AI evolve, we hear two main concerns. On the one hand, there is the need for guardrails and governance, and on the other hand, the need to innovate and remain competitive. Standardization can help with that balance."

David Kristjanson Duvenaud: "I would say we're approaching a window where our time to effectively act is the highest. […] I basically see that we have this increasing will to act and ability to coordinate. Then, at some point, as people get replaced and become irrelevant, our ability to enact our will and actually have our institutions obey our interests is going to decrease. I view the next two to six years as the biggest window."

Elissa Strome: "It is not a trade-off between data governance and innovation. In fact, the two have to work together."

Geoffrey Hinton: "On the issue of whether it is too late, it may be. Many of the people at the forefront of the industry, which includes a lot of my ex-students […] think this is coming very fast."

Glenda Crisp: "I would point to the banks, who were early adopters in AI; they are global leaders in AI adoption. However, the banks also had well-established model governance practices because their quantitative models had been under scrutiny for decades."

Jonathan Dewar: "I would build on a point of strength, which is to say that Canada has been working in collaboration with First Nations on the implementation of a national First Nations Data Governance Strategy."

Mark Schaan: "[I]t is about cooperation with companies and co-designing standards and protocols so that we are all moving at the pace of technology and not just being tied to specific legislation that has more specific rules or functions."

Tania Saba: "We need to move from a largely declarative ethic to a more operational governance framework of AI."

Wyatt Tessari L'Allié: "Much like with COVID in 2020, there are times when the responsible thing for the government to do is to pivot to addressing the developing crisis and reassess the priorities of other files accordingly."

Canadian Institute of Health Information, written submission: "Develop pan-Canadian frameworks for AI validation, testing, and monitoring to ensure safety, effectiveness, and equity. Advance federal AI legislation into operational frameworks that support clear accountability, oversight, and risk-based implementation, while enabling consistent application across jurisdictions."

Deaf Wireless Canada Committee, written submission: "Expand AI Testing Frameworks[.] Testing must include: accessibility performance[,] sign language accuracy[,] real-world usability in visual communication contexts."

Gen(Z)AI, written submission: "Establish a new, independent government body to enforce AI safety standards, conduct systems evaluations, algorithm audits, and risk assessments, and intake user complaints, including by offering dispute resolution and other resource mechanisms."

Information and Communications Technology Council, written submission: "The absence of a comprehensive AI legislative framework presents serious risks for interoperability, talent mobility, and business competitiveness with peer nations."

[44] Alexandra Dassa: "My allusion to sovereignty is that it is not only about the data flowing through the system; it is about which legal jurisdiction governs the provider managing that data."

Michael Geist: "The reality is that it doesn't matter, in terms of your sovereignty, if your server is in Gatineau, so long as your laws are not effective to ensure that they apply."

Yoshua Bengio: "There are definitely steps we can take to improve our sovereignty."

AI Safety Asia, written submission: "Advanced AI safety governance is therefore inseparable from strategic autonomy, national security, and international cooperation: if a country cannot audit and govern systems operating within its borders, it is forced into blind trust."

First Nations Technology Council, written submission: "For First Nations, the OCAP® Principles (Ownership, Control, Access, Possession) offer a practical framework, alongside other distinctions-based and community-specific protocols."

Munk School of Global Affairs and Public Policy, University of Toronto, written submission: "[S]overeignty in the AI era means freedom from coercion, not digital isolationism or technological self-sufficiency. No country can achieve complete independence across the AI technology stack; the question is how to structure dependencies to preserve choice, reduce foreign leverage, and ensure that Canadian data and infrastructure remain governed by Canadian laws and values."

[45] David Kristjanson Duvenaud: "I think one step in the right direction to buy time is to extend the period when humans, working with AIs, are the most effective option."

Tania Saba: "That there's a growing convergence around a core set of principles for a human-centred AI that respects fundamental rights and democratic values, including ensuring transparency, explainability and accountability of algorithmic systems; ensuring safety, strength and reliability; promoting responsible innovation; and paying attention to economic, social and environmental impacts."

Robert Rattle, written submission: "[D]igitalisation must evolve according to the prevailing structures society provides [; and] those structures are shaped by the values expressed by society through public policy."

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