Advancing AI in Canada

Opportunities, Challenges, and a Path Forward

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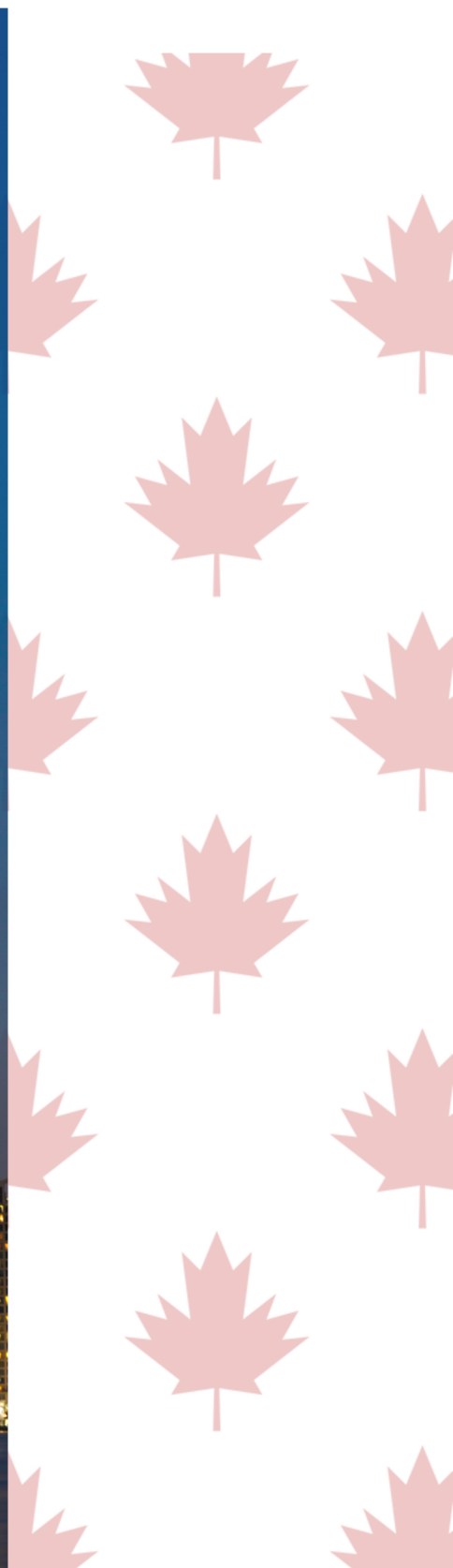
Executive Summary

This whitepaper, developed from the Anchoram Consulting roundtable *The Future of AI in Canada*, held during Toronto Tech Week (June 23–27, 2025), captures insights from leaders across government, industry, and academia. The consensus: A continued focus on a Team Canada approach to delivering on the Pan-Canadian Artificial Intelligence Strategy.

Artificial Intelligence (AI) offers Canada a critical opportunity to lead globally in innovation, sustainability, and public service modernization. While the country is home to top-tier research institutions and a trusted academic ecosystem, key obstacles—fragmented infrastructure, limited commercialization, unclear regulations, and cautious investment—continue to hold back national progress.

Roundtable participants emphasized that sustainable AI must align with environmental goals, including reusing data centre heat to reduce emissions and support food security. Regulatory frameworks must move beyond aspirational language toward clear, enforceable safety standards. To retain talent and IP, Canada must close its capital gap and support domestic startups ready to scale.

AI literacy emerged as a foundation for progress, ensuring that governments, organizations, and citizens can navigate AI confidently and responsibly. Cities were identified as ideal environments to pilot citizen-focused AI applications, while public services must adopt a data-first approach, using performance benchmarks to guide AI deployment.

To succeed, Canada must evolve from research excellence to implementation leadership. By investing in ethical infrastructure, public understanding, and sovereign innovation, Canada can continue its work to be a global leader in AI.

Problem Statement

Canada's AI progress is hindered by a persistent gap between research excellence and practical implementation. While the country boasts top-tier academic institutions and a highly skilled workforce, AI adoption remains limited due to public and corporate hesitation, often driven by fears of job displacement and misinformation. A risk-averse investment climate accelerates talent and IP loss, while governance struggles to keep pace with AI's rapid evolution, leaving terms like "responsible AI" vague and unenforceable.

Infrastructure inefficiencies further weaken Canada's AI readiness. Data centres waste recoverable heat, missing an opportunity to align with national sustainability goals. At the same time, the lack of performance benchmarks in public services undermines efforts to apply AI meaningfully, reducing it to blind automation. Canada's core challenge is not innovation, but commercialization—and without a strategic push to retain talent, scale homegrown firms, and modernize infrastructure, the nation risks falling behind in the global AI economy.

Introduction

The Anchoram Consulting AI Roundtable brought together diverse leaders from the public and private sectors to explore the future of AI in Canada, from infrastructure and ethics to commercialization. Participants emphasized that AI should augment, not replace, human intelligence, improving productivity and quality of life. The discussions highlighted AI's complexity, ranging from mature machine learning to emerging agentic systems – a distinction essential for informed policy. While optimism was strong, concerns around data privacy, misinformation, job displacement, and educational impact were repeatedly raised. This whitepaper captures those insights and presents actionable strategies to address them, positioning Canada to lead responsibly and effectively in the evolving global AI landscape.

Key Opportunities

The roundtable identified several high-impact opportunities to strengthen Canada's AI leadership. **Sustainable AI infrastructure** stands out – mandating or incentivizing waste heat reuse from data centres can **reduce emissions**, **support food production**, and **create jobs**. Promoting AI as a tool for augmented intelligence, not job replacement, is key to **driving productivity** and **broader adoption**.

Cities offer fertile ground for AI experimentation, given their citizen-facing services and operational complexity. Canada is also well-positioned to lead globally in **ethical AI frameworks**, championing principles like "do no significant harm" and integrating environmental standards into **AI infrastructure financing**.

Finally, **bridging research and commercialization** is essential. Canada must prioritize the acceleration of private capital investment into **university-led innovation**, **retain domestic talent**, and **rebuild industrial ecosystems** that produce globally competitive, Canadian-owned AI companies.

Primary Challenges

Despite significant opportunities, Canada faces several key challenges in realizing its full AI potential:

Public & Corporate Fear	**Talent Retention & Conservative Investment**	**Undefined Governance**
Inefficient Infrastructure & Lack of Metrics	**Commercialization Gap**	**Regulatory & Interprovincial Barriers**

Current State and Strategic Outlook

Canada holds a promising yet delicate position in global AI, excelling in research and talent, but lagging in commercialization and widespread adoption. This creates an imperative to transition from research leadership to broader impact.

Research and Talent Strength

- Canada boasts world-class AI research institutions (University of Toronto, University of Alberta, Vector Institute) and a strong pipeline of highly skilled AI professionals.

Public Engagement

- Many Canadians have begun exploring generative AI tools, indicating public curiosity and a foundation for broader adoption.

Governmental Intent

- Initiatives like the Canadian AI Safety Institute (CASI) and ongoing discussions about an AI Code of Conduct signal the government's commitment to AI governance.

Infrastructure Potential

- Canada's growing data centre footprint offers opportunities for innovative, sustainable energy solutions.

Addressing Brain Drain

- Reverse "brain drain" by fostering an ecosystem that incentivizes domestic AI company growth, closing the capital gap, and encouraging major Canadian corporations to directly fund university AI research.

Current State and Strategic Outlook

Shifting Narratives

- The national narrative must shift from AI replacing jobs to AI augmenting human productivity, requiring widespread education for both public and private sectors.

Proactive Governance

- Agile regulatory frameworks, focusing on practical guardrails like "do no significant harm" and implementing "measure first, improve second" in public services, are crucial for tangible AI benefits and accountability.

Sustainable Digital Infrastructure

- National policies, potentially utilizing "green bonds," must mandate or incentivize data centre waste heat reuse, transforming them into catalysts for broader societal productivity.

Domestic IP Retention & Globalization

- It is imperative that Canada move beyond being an "idea factory" to develop mechanisms for retaining intellectual property and empowering Canadian companies to scale globally, ensuring AI's economic benefits accrue domestically.

Building the Road Ahead for Canadian AI

To solidify its AI leadership, Canada must integrate policy, investment, education, and infrastructure through the following **six initiatives**:

1. Define and Enforce Clear AI Safety and Ethical Guardrails

Codify actionable principles like "Do No Significant Harm" for AI development and deployment, especially for frontier and agentic systems. The Canadian Artificial Intelligence Safety Institute (CASI) could propose concrete safety standards (beyond guidelines), and exploration of "constitutional AI" is vital. Mandate accountability, ensuring human oversight and legal responsibility for AI use. For the Minister, prioritizing agile regulatory sandboxes for rapid iteration of AI safety standards is recommended.

2. Foster Sustainable AI Infrastructure through Heat Reuse

Implement policies incentivizing waste heat reuse from data centres. This involves assessing data centre locations for integration with district heating and greenhouses and developing "green bond" frameworks for sustainable data centres. Senior staff in Innovation, Science and Economic Development (ISED) should consider developing a national strategy to transform data centres into "catalysts for impact" for a circular economy.

3. Close the Capital Gap and Fund Canadian Startups

Create a more robust, risk-tolerant private investment landscape for Canadian AI. This requires designing programs encouraging Canadian corporations to fund university AI research, scaling accelerator programs (e.g. Mitacs) with substantial funding, and incentivizing domestic scaling of AI startups. We highly recommend the establishment of a multi-million-dollar industry-academia R&D partnership to foster a "circular economy" from research to commercial entities.

4. Promote AI Literacy and Nuanced Understanding

Combat misinformation and fear by educating Canadians on AI's true nature. This means launching national AI literacy campaigns for all ages, emphasizing "augmented intelligence" and AI's broad applications beyond generative models. We recommend the Minister of Artificial Intelligence and Digital Innovation working with his counterparts in the provinces and territories develop resources showcasing practical, successful Canadian AI applications to demystify the technology.

Building the Road Ahead for Canadian AI

5. Empower Cities and Measure for Improvement

Position municipalities as key AI innovation hubs; mandate baseline measurement in public services. This includes supporting municipal initiatives for responsible AI governance and requiring government agencies to measure current performance before AI implementation to ensure accountability and demonstrable value. That the Minister of Artificial Intelligence and Digital Innovation working with provinces and territories to review existing performance management measures use by the municipalities to ensure front line government agencies are leveraging the power of Artificial Intelligence. Establish a national framework and suggest key performance indicators (KPIs) for public service performance measurement as a prerequisite for AI integration.

6. Enable AI Adoption and Export IP, Not Just Ideas

Shift from blocking to enabling responsible AI use in workplaces; strategize global export of Canadian AI IP. This involves providing training and tools for responsible AI integration in corporate and government workflows and developing policies to help Canadian AI companies scale globally.

By proactively addressing these challenges and capitalizing on these opportunities, **Canada can build a robust, ethical, and economically vibrant AI ecosystem** that benefits all Canadians and reinforces its position on the world stage.

Canada's Moonshot Opportunity

The roundtable concluded with a unified call: Canada must shift from research excellence to economic sovereignty. Countries like the U.S. and China are aggressively integrating AI across infrastructure, defense, and commerce. Canada must do the same, not by imitation, but through innovation rooted in sustainability, ethics, and inclusion.

Roundtable participants agreed that the initial discussion should continue and expand to include relevant stakeholder groups, to continue the dialogue toward developing a cohesive integrated plan with private and public sectors in Canada.

About Anchoram Consulting

Anchoram Consulting group was founded by seasoned professionals from corporate, government, and consulting sectors who shared a vision to create a firm that genuinely values its clients and people. Anchoram Consulting consists of experienced senior leaders who have worked in public sector, industry and large global consulting powerhouses, sharing a common purpose to serve organizations with strong client service ethos.

The Anchoram team comprises experts in **enterprise risk management**, **cyber and protective security**, **program and project management**, **critical infrastructure security** and **data and information management**.

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