

FUSING AI WITH NATIONAL DEFENCE: DEPARTMENT OF NATIONAL DEFENCE FINALIZING AI STRATEGY

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Introduction

Canada's military is on the verge of adopting an artificial intelligence ("AI") strategy, as the Department of National Defence ("DND") makes finishing touches on its first such strategy. In a statement in late 2023, Defence Minister Bill Blair noted that the strategy will recognize the importance of AI in Canadian military development and procedure, outline measures to secure interoperability with key allies, and ensure that expansion of AI in the military domain is done responsibly.^[1] Although the DND has not announced a release date, we can expect to see the AI strategy adopted in early 2024.

Why Now?

It comes as no surprise that the DND is looking to integrate AI into Canada's military strategy. The Canadian Armed Forces ("CAF") has appreciated the role of data and technology in national defence for years, as evidenced in our current defence policy *Strong, Secure, Engaged* (the "Defence Policy"). The Defence Policy does not materially address AI, but it does acknowledge that much of Canada's tactical advantage is due to "agile information management and technology tools to aggregate and manipulate large quantities of data," and that the future of defence will place a "greater emphasis on information technologies, data analytics, deep learning, autonomous systems, advancements in electromagnetic and cyber domains."^[2]

In 2022, the CAF demonstrated its commitment to improving military data and technology systems by releasing its Digital Campaign Plan ("Digital Plan"). The Digital Plan promised that the CAF would become "digitally transformed" by 2030, a process which involves "developing stable, resilient, and adaptive technology and security backbone, with a mature, common and accessible data mesh," in order to deliver data-driven insights to military decision-makers.^[3] Like the Defence Policy, the Digital Plan is silent with respect to AI, but it demonstrates CAF's willingness to consider novel and innovative technologies in its planning which arguably push towards using AI for national defence.

In early 2023, the DND and CAF sought public input on an update to the Policy that would respond to recent changes in the defence landscape, such as the Russia-Ukraine conflict, increases in cyber threats, and

international military modernization.^[4]

Given these developments, it would appear that both the DND and CAF are aware that technology, data, and, by extension, AI will certainly play a role in the future of national defence, if not becoming a key component of future national defence. The DND's forthcoming AI strategy represents the next logical step in a steady march toward greater military reliance and emphasis on novel technologies.

International Approaches to AI and Defence

Some countries have already developed AI strategies for national defence. Their approaches could provide insight into the DND's upcoming strategy and future developments in Canada's military use of AI.

United States

On November 2, 2023, the US Department of Defence ("DOD") released an updated AI strategy for American national defence: *Data, Analytics, and Artificial Intelligence Adoption Strategy: Accelerating Decision Advantage*.^[5] This strategy builds upon previous DOD AI strategies, which laid the foundation for the DOD's approach to managing AI capabilities.^[6] It advocates an agile approach to AI development and application that should theoretically increase American military decision advantage. The strategy outlines six data, analytics, and AI-related goals:^[7]

- Invest in interoperable, federated infrastructure
- Advance the data, analytics and AI ecosystem
- Expand digital talent management
- Improve foundational data management
- Deliver capabilities for the enterprise business and joint warfighting impact
- Strengthen governance and remove policy barriers

These goals are designed to yield quality data, governance, insightful data analytics and metrics, and responsible AI.^[8]

In 2022, the DOD launched the Joint Warfighting Cloud Capability ("JWCC"), an initiative designed to integrate US military across a commercial cloud platform. The DOD awarded the JWCC contracts to Amazon Web Services Inc., Google Support Services LLC, Microsoft Corporation, and Oracle.^[9] The JWCC supports the DOD's AI goals by providing the opportunity to acquire advanced data analytics, fortified security, centralized management, and global accessibility.^[10]

The DOD's Fiscal Year 2024 Budget Request allocated \$1.8 billion to AI development, adoption, and operation.^[11] The *Defence Fiscal Year 2024 Appropriation Bill* awarded \$90 million above this request to

advance integration of AI in the US military.^[12] Not surprisingly, the United States places a heavy emphasis on the development of and reliance on new technologies as part of its defence strategies.

In February 2023, the US launched the *Political Declaration on Responsible Military Use of Artificial Intelligence and Autonomy* (the “Declaration”), an initiative that outlines steps countries should take to ensure that the military use of AI complies with international law, has safeguards, and involves training.^[13] As of November 21, 2023, 49 states have endorsed the Declaration, including the UK and Canada.^[14]

United Kingdom

In June of 2022, the UK’s Ministry of Defence (“MOD”) released *Defence Artificial Intelligence Strategy*,^[15] accompanied by the policy statement *Ambitious, Safe, Responsible: Our approach to the delivery of AI enabled capability in Defence*.^[16] The AI strategy sets out the MOD’s vision of the strategic opportunities and challenges arising from the emergence of AI in the military space. It has four main objectives:

- Transform MOD into an ‘AI Ready’ organization
- Adopt and exploit AI at pace and scale for defence advantage
- Strengthen the UK’s defence and security AI ecosystem
- Shape global AI developments to promote security, stability and democratic values

The AI strategy identifies outcomes of these goals as being increased decision advantage, efficiency, new capabilities, and empowerment of the defence force. The strategy emphasizes a responsible approach to AI with a focus on promoting security and stability. Its companion policy elaborates on the key challenges of the MOD’s adoption of AI, governance of AI-related activity, and using AI safely, legally, and ethically.

In 2020, the UK government allocated an additional £16.5 billion to the MOD’s defence budget, with delivery over the period 2020/21 to 2024/25.^[17] Spending Review 2020 noted that £6.6 billion would be put toward funding research and development in areas such as artificial intelligence and other technologies that improve combat.^[18]

NATO

NATO adopted its AI strategy in October 2021 after a meeting of the NATO Ministers of Defence in Brussels. NATO’s AI Strategy aims to support collaboration and cooperation among member states on matters relating to AI for transatlantic defence. A main component of NATO’s AI Strategy is its six Principles of Responsible Use with respect to AI military development and deployment. The Strategy has four main goals:^[19]

- Encourage the responsible development and use of AI for Allied defence and security purposes
- Accelerate AI adoption and enhance interoperability within the Alliance

- Operationalize the Strategy's Principles of Responsible Use
- Identify and safeguard against threats from the use of AI

What might Canada's AI Strategy Look Like?

Canada's forthcoming AI strategy may take various approaches to integrating AI in the national defence strategy but a plan to consolidate or integrate the Canadian military across or with a commercial cloud platform seems like a reasonable possibility. Taking this approach would align with the Digital Plan's goals and Defence Minister Bill Blair's vision of increased interoperability with key allies. Some have argued that currently Canada lacks a comprehensive structure for managing military digitalization;^[20] however, a national cloud platform as part of a broader AI strategy could facilitate the necessary integration with international partners, such as the US and NATO, increase accessibility to data necessary for the development and operation of AI, and assist the DND and CAF in designing necessary – and more elaborate and sophisticated – military operations.^[21]

The new AI strategy may also assist in strengthening Canadian intelligence capabilities and security against adversarial cyber threats. As data is increasingly weaponized and AI becomes ubiquitous in military conflict, defence against disinformation operations, cyber-attacks, espionage, and political/economic influence operations will become progressively more important.^[22] An expanding use of AI by global bad actors will inevitably lead to more cyber threats and attacks, demanding stronger security measures. AI is especially vulnerable to attacks effected through deceptive input, whereby attackers "poison" the data needed for its development and deployment.^[23] To ensure that military systems are not overly susceptible to such attacks and that Canada's national security is protected at an appropriate level, powerful security and defence systems will be necessary.

The DND's budget for implementing its forthcoming AI strategy is yet to be released. However, DND's estimates for 2023-2024 are \$26.5 billion, with \$17.9 billion toward operating functions.^[24] Canada has demonstrated significant investment in developing AI through its Pan-Canadian Artificial Intelligence Strategy, which is backed by an allocated \$443 million over ten years starting in 2021-2022.^[25] Given the Canadian government's stated commitment to building AI and the DND's emphasis on funding operations, there could be a reasonable budget available for integrating AI in national defence.

Impact on the Canadian Business Community

Once finalized and released, businesses can expect to feel the effects of Canada's new AI strategy for national defence. Military developments in the technology space often eventually find their way into the everyday world. This is largely due to the military's hefty budget and its corresponding ability to accelerate innovation. Canadian businesses can develop spin offs and take advantage of the byproducts of military technological

innovation.

Canadian businesses can also look to partner or work with the military to address issues around security, protection of information, and commercialization of intellectual property. There is often a need for a lot of support from the Canadian business community to accelerate and push innovation to address the needs of Canada and its allies and to meet global commitments. As a result, businesses working with the military, or government generally, may be able to advance technologies or other innovations which might otherwise not have been possible due to the necessary investment and time normally required for such advancements.

Furthermore, there are often many spin-offs which flow into the business community when the government invests heavily in new technologies. Canadian businesses which have either an established track-record of delivering innovative and creative technologies, or those with prototypes for cutting edge AI related technology, may be able to both develop their technology while working with DND or the Canadian government, while also potentially developing additional applications of such technology for the broader non-military community. In so doing, Canadian businesses may be able to develop a strong path to growth and profitability.

Conclusion

The launch of DND's AI strategy is bound to trigger significant development and investment in Canada's military and the technologies which are needed to support Canada's military in an increasingly digital and technological world. With increased digitalization and integration of AI in defence, new challenges will arise for national security that may require private company expertise. Canadian businesses can also expect that a growth of AI in national defence will accelerate technological innovation, leading to new business opportunities, both within the military and beyond. If you have any questions about how your company can prepare for the upcoming changes, or if you wish to take legal advice around navigating security and confidentiality in the AI landscape, a member of our Technology Group would be happy to assist you.

[1] David Reevely, "[Canada finalizing new artificial intelligence strategy for defence: Minister](#)" (5 December 2023), online.

[2] Government of Canada, "[The Department of National Defence and Canadian Armed Forces Data Strategy](#)" (30 September 2019), online; National Defence, "[Strong, Secure, Engaged: Canada's Defence Policy](#)" (2017), online at 55.

[3] Government of Canada, "[Canadian Armed Forces Digital Campaign Plan](#)" (10 June 2022), online.

[4] Government of Canada, "[Department of National Defence and Canadian Armed Forces open public consultations on update to Canada's defence policy to all Canadians: News Release](#)" (9 March 2023), online.

[5] Department of Defense, "[Data, Analytics, and Artificial Intelligence Adoption Strategy: Accelerating Decision](#)

[Making](#)” (27 June 2023), online.

[6] U.S. Department of Defense, “[DOD Releases AI Adoption Strategy](#)” (2 November 2023), online.

[7] *Ibid.*

[8] *Ibid.*

[9] U.S. Department of Defense, “[Release: Department of Defense Announces Joint Warfighting Cloud Capability Procurement](#)” (7 December 2022), online.

[10] *Ibid.*

[11] U.S. Department of Defense, “[Release: Department of Defense Releases the President’s Fiscal Year 2023 Defense Budget](#)” (13 March 2023), online.

[12] United States Senate Committee on Appropriations, “[Bill Summary: Defense Fiscal Year 2024 Appropriations Bill](#)” (27 July 2023), online.

[13] U.S. Department of State, “[Political Declaration on Responsible Military Use of Artificial Intelligence and Autonomy](#)” (1 November 2023), online.

[14] *Ibid.*

[15] Ministry of Defence, “[Defence Artificial Intelligence Strategy](#)” (June 2022), online.

[16] Ministry of Defence, “[Ambitious, Safe, Responsible: Our approach to the delivery of AI-enabled capability in Defence](#)” (June 2022), online.

[17] House of Commons Library, “[UK defence expenditure](#)” (20 April 2023), online, at 6.

[18] Gov.UK, “[Policy Paper: Spending Review 2020](#)” (15 December 2020), online.

[19] North Atlantic Treaty Organization, “[Summary of the NATO Artificial Intelligence Strategy](#)” (22 October 2021), online.

[20] Daniel Araya, “[Special Report: Artificial Intelligence for Defence and Security](#)” (2022), online at 9.

[21] *Ibid.*

[22] *Ibid* at 11-12.

[23] *Ibid* at 13.

[24] Government of Canada, “[Transition of the Minister of National Defence: Defence Budget](#)” (26 July 2023), online.

[25] Government of Canada, “[Archived: Budget 2021: Chapter 4: Helping Canadian Businesses Grow and Succeed](#)” (19 April 2021), online.

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A Cautionary Note

The foregoing provides only an overview and does not constitute legal advice. Readers are cautioned against making any decisions based on this material alone. Rather, specific legal advice should be obtained.

The logo for mcmillan, featuring the word "mcmillan" in a lowercase, sans-serif font. The letters "m", "c", "m", "i", "l", "l", "a", and "n" are in a dark red color, while the letter "c" is in a light blue color. The logo is positioned in the upper left corner of a banner image that shows a low-angle view of a modern glass skyscraper against a clear sky.

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