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GAC's Role in Artificial Intelligence and Automated Decision-Making Governance

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Frederick Okello is a private development consultant on Sub-Saharan Africa. He advises development agencies operating in Africa on research, development and political issues. Frederick holds a BA Hons in international development, political science and philosophy from Saint Mary's University in Nova Scotia. His research interests are in liberal internationalism, transnational justice systems, forced migration and social protection. Early this year, Frederick published a book on Tanzania's social protection challenges and opportunities. In his free time, he volunteers as program code developer for GitHub (global free software commons or open source community).

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Purpose

The use of artificial intelligence (AI) and automated decision-making (ADM) technologies has become widespread in the hands of public and private entities, yet the Canadian government is slow in creating policies to reflect it. Global Affairs Canada (GAC) needs to collaborate multilaterally with other nations to create a more standard international policy on AI for a global issue.

Summary

Canada perceives AI as a transformative technology with implications for various aspects of international relations, including diplomacy, security, trade, and human rights (Government of Canada, 2022). By hosting an annual international forum on AI governance, appointing a special AI envoy, and aligning AI development and use with universal human rights declaration through an international convention, GAC can play an active role in the effective global governance of AI while protecting fundamental human rights and freedom. The basis for these recommendations is to balance the development and deployment of AI and ADM technologies with the protection of social and political rights declared under the Universal Declaration of Human Rights. The fast-paced development of AI continues to shape global dynamics at an unprecedented speed and Canada and GAC need to step in to protect their interests from the threat of mismanaged AI development.

Background

Defining AI and ADM

The concept of artificial intelligence emerged in the 1950s when researchers began developing algorithms and models to mimic human intelligence. One of the earliest AI algorithms was the «Logic Theorist,» created by Allen Newell and Herbert A. Simon in 1956 (Newell et al., 1958). Artificial intelligence refers to the development of computer systems that have the ability to perform cognitive functions associated with human beings (Sheikh, Prins, & Schrijvers, 2023). By combining computer science and robotic technologies, these systems have become capable of using algorithms and large datasets to process, analyze, and interpret to make decisions or predictions (Sheikh, Prins, & Schrijvers, 2023). Relying on AI, automated decision-making technology is a computer system that uses algorithms and big data to autonomously make decisions or take actions (Lomborg, Kaun, & Scott Hansen, 2023).

Concerns For AI on Human Rights

AI impacts on human rights started to become a social challenge in the early 2010s when the widespread

adoption of AI technologies, coupled with the increasing sophistication of AI algorithms, raised concerns about potential ethical and human rights implications. As AI systems began to be integrated into various sectors, such as law enforcement, healthcare, and education, incidents of biased decision-making, discriminatory outcomes, and privacy breaches highlighted the need for responsible AI governance (Diakopoulos, 2016). On top of this, with misinformation and “deepfake” images and video, AI can be used to implicate people in media that was created purely by AI systems. Currently, there are no government systems that specialize in dealing with these concerns.

Canada’s Current Policy Objectives

Canada is in the process of passing legislation Bill C-27, which would push the Artificial Intelligence and Data Act (AIDA) to the forefront of AI policy. While AI and Data Privacy are not the only AI concern, it is a start in the right direction. Canada recognizes “that developments in AI have created regulatory gaps that must be filled in order for Canadians to trust the technology” (Government of Canada, 2023). It paired the bill to work in tandem with EU AI laws. This will help GAC approach other nations with a more international framework. While AIDA is still being finalized, the GAC should be working to push Canada to the forefront of the conversation by creating events, such as a yearly summit around AI integration, and subdivisions of the GAC that focus on AI and how it impacts the world. By hosting it in Canada, the GAC can promote Canadian interests. On top of this, putting together a panel of experts that link AI to Canadian policymaking is vital to Canada’s success in AI governance. By having a comprehensive group of computer scientists, private sector corporations, and policymakers, amongst others will help close Canada’s AI regulatory gaps.

Players and Stakeholders

The major players are the government entities that use these technologies to process big data and make more precise governance decisions and the private sectors, such as finance, marketing, transportation, and e-commerce which utilize AI and ADM to serve their customers. The stakeholders also include Canadian citizens that interact with AI in society at their local stores, hospitals, and schools, and who want to keep their rights and their data private (Government of Canada, 2023).

Issues

With AI becoming more commonplace in many sectors of everyday life, Canada has not created a comprehensive policy on AI governance to deal with the concerns previously listed. If it cannot create enough solutions toward AI use, many people’s human rights will be infringed upon (OHCHR, 2021; UN, 2021; & Yeung, 2019). Without a specialized governing body within the Canadian government that specializes in AI, global conversation on AI where Canada can promote its interests, and a collaboration

of experts to drive policymaking in Canada's favor. Canada needs to urgently build its infrastructure on AI governance in the next few years to make sure the use of AI doesn't outpace Canada's policies and interests..

Canada's International Engagements and the GAC's Future Role

AI experts and scholars argue that a great deal of work should be done to ensure that Canada's AI regulatory framework is being used effectively in serving humanity in terms of protecting human rights and ethical principles (citation). Looking at the European Union (EU) and the United Kingdom (UK), these examples include the EU's AI Act and UK's AI strategy (OECD, 2023).

International Engagements

Canada has not had very many engagements on a global scale with respect to AI and ADM legislation or regulations. However, during the G7 meeting in 2018, Canada and France expressed their vision for a human-centric artificial intelligence initiative by promoting innovation, development inclusion, and diversity while protecting human rights (Government of Canada, 2018). Canada must continue that vision by laying down the infrastructure in government to deal with AI implementation..

The GAC's Position

The GAC is perfectly suited to push Canada's vision for AI management to the international level. While the government is passing laws that match other states, Canada should be creating leading events, organizations, and committees focused on international AI policies that would bring states to the table, similar to the United Nations Framework Convention on Climate Change (UNFCCC). GAC needs a specialized department within itself that focuses on AI, human rights, and international cooperation, being overseen by a government AI envoy. Because laws are still being passed, Canada is positioned to be a leader in AI policy at the international level, but it must take advantage of this within the next few years.

Recommendations

1. A New International Summit in Canada

The GAC should work with other agencies to host an annual global governance AI forum within the next year. inviting leading AI experts and actors in public, private, and research institutions to exchange their ideas on recent AI development and regulations. Being at the forefront of the conversation will help Canada keep its values in public conversation.

2. A New Department For AI with an AI Envoy

The GAC should create a new AI security subdivision focused on International AI and Human Rights.

It should appoint an AI envoy that builds special rapport with other countries in negotiations on AI development and governance. For instance, the United Arab Emirates government has appointed a Minister of State for Artificial Intelligence that leads their Artificial Intelligence Office

3. Create a Committee of State and Non-State Actors on AI and Human Rights

GAC should put together a committee of AI experts in various industries to create new frameworks of international AI governance with the mission of protecting social and political human rights. This should include a mix of policymakers, scientists, and private sector representatives.

Next Steps

Canada must finish passing an AI policy law like Bill C-27 that protects its interests while achieving a common policy framework with other states. By following the above recommendations, the GAC can lead the conversation on AI, data privacy, and human rights.

References

Borgesius, F. Z. (2018). Discrimination, Artificial Intelligence, and Algorithmic Decision-Making. Council of Europe.

<https://rm.coe.int/discrimination-artificial-intelligence-and-algorithmic-decision-making/1680925d73>

Diakopoulos, N. (2015). Accountability in algorithmic decision-making. *Queue*, 13(9), 126-149.

<https://doi.org/10.1145/2857274.2886105>

Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., Luetge, C.,

Madelin, R., Pagallo, U., Rossi, F., Schafer, B., Valcke, P., & Vayena, E. (2018). An ethical framework for a good AI society: Opportunities, risks, principles, and recommendations. *Minds and Machines*, 28, 689–707.

<https://doi.org/10.31235/osf.io/2hfsc>

Government of Canada. (2019, October 23). Canada's digital charter in action: A plan by Canadians, for Canadians. Language selection - Innovation, Science and Economic Development Canada Main Site / Sélection de la langue - Site principal d'Innovation, Sciences et Développement économique Canada.

<https://ised-isde.canada.ca/site/innovation-better-canada/en/canadas-digital-charter/canadas-digital-and-data-strategy>

Government of Canada. (2020, November 3). FOC joint statement on artificial intelligence and human rights. GAC.

<https://www.international.gc.ca/global-affairs-affaires-mondiales/news-nouvelles/2020/20>

20-11-05-internet-freedom-liberte-internet.aspx?lang=eng

Government of Canada. (2023, April 25). Directive on automated decision-making. Language selection - Treasury Board of Canada Secretariat / Sélection de la langue - Secrétariat du Conseil du Trésor du Canada.

<https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=32592>

Government of Canada. (2023, March 13). The artificial intelligence and data act (AIDA) – Companion document. Language selection - Innovation, Science and Economic Development Canada Main Site / Sélection de la langue - Site principal d'Innovation, Sciences et Développement économique Canada.

<https://ised-isde.canada.ca/site/innovation-better-canada/en/artificial-intelligence-and-data-act-aida-companion-document>

Government of Canada. (2023, May 19). 2023–2026 data strategy for the federal public service. Canada.ca.

<https://www.canada.ca/en/treasury-board-secretariat/corporate/reports/2023-2026-data-strategy.html>

Government of Canada. (2022, October 20). Human rights and inclusion in online and digital contexts. GAC.

https://www.international.gc.ca/world-monde/issues_development-enjeux_developpement/human_rights-droits_homme/internet_freedom-liberte_internet.aspx?lang=eng

Government of Canada. (2023, March 13). The artificial intelligence and data act (AIDA) – Companion document. Language selection - Innovation, Science and Economic Development Canada Main Site / Sélection de la langue - Site principal d'Innovation, Sciences et Développement économique Canada.

<https://ised-isde.canada.ca/site/innovation-better-canada/en/artificial-intelligence-and-data-act-aida-companion-document>

Lomborg, S., Kaun, A., & Scott Hansen, S. (2023). Automated decision-making: Toward a people-centred approach. *Sociology Compass*, e13097.

<https://doi.org/10.1111/soc4.13097>

OECD. (2023). OECD employment outlook 2023 artificial intelligence and the labour market: Artificial intelligence and the labour market. OECD Publishing.

<https://www.oecd-ilibrary.org/sites/04b3d08d-en/index.html?itemId=/content/component/04b3d08d-en>

OHCHR. (2021, September 15). Artificial intelligence risks to privacy demand urgent action – Bachelet. Office of the High Commissioner for Human Rights.

<https://www.ohchr.org/en/2021/09/artificial-intelligence-risks-privacy-demand-urgent-acti>

on-bachelet

O'Neil, C. (2016). *Weapons of math destruction: How big data increases inequality and threatens democracy*. Crown Publishing Group (NY).

Sheikh, H., Prins, C., & Schrijvers, E. (2023). *Mission AI: The new system technology*. Springer Nature.

UN. (2021, September 17). Urgent action needed over artificial intelligence risks to human rights. UN News. <https://news.un.org/en/story/2021/09/1099972>

Wachter, S., Mittelstadt, B., & Floridi, L. (2017). Transparent, explainable, and accountable AI for robotics. *Science Robotics*, 2(6). <https://doi.org/10.1126/scirobotics.aan6080>

Yeung, K. (2019). Responsibility and AI. Council of Europe. <https://rm.coe.int/responsability-and-ai-en/168097d9c5>