Intelligence MEMOS



This week, we present the three top finishers in the C.D. Howe Institute Intelligence Memo competition, which was open to graduate students across the country. Today, our first runner-up.

From: Napas Thein

To: The Honourable François-Philippe Champagne, Minister of Innovation, Science and Economic

Development

Date: October 26, 2023

Re: CANADA NEEDS ITS OWN AI REGULATORY FRAMEWORK

Artificial Intelligence (AI) is surging through the economy as companies adapt the technology in new ways every day.

Canada may lag – 35 percent of firms deploying some form of AI versus 72 per cent in the US – but it's coming and coming fast. Industry and governments in Canada must be ready to harness the benefits while mitigating or eliminating its social costs.

Risks and Benefits

AI will be instrumental in determining the economy's trajectory in coming decades. In 2018, a survey of 352 AI experts posed a question: "When will there be a 50-percent chance that human-level AI exists?" Half said 2061 or earlier. And respondents offered the year in which AI would outperform humans in a large swath of jobs: Translation by 2024, essay writing by 2026, driving trucks by 2027, retail by 2031, writing books by 2049, and surgery by 2053.

AI presents serious surface risks – data protection, privacy, and cyber attacks – and some more subtle, including politically motivated deepfake-powered misinformation and the wide use of outdated training models that embed racist and unequal behaviour. And there are the workplace impacts, with the near-certainty that there will be job losses and inequality over the short and medium term. Meanwhile, AI also presents opportunities, especially when it comes to covering workforce shortages, improved productivity, spurring innovation, fighting climate change, and potentially supporting equitable social goals.

Government Supports Research and Commercialization but Lacks Regulation

The federal government has been active in <u>supporting</u> AI research and commercialization and is developing a <u>framework</u> for responsible AI development in federal departments and agencies. Missing, however, is a clear market-based regulatory framework that other jurisdictions are putting in place. The European Union has adopted an <u>AI Act</u> that, if fully implemented, would regulate and/or ban software based on various levels of risk. On the more extreme side, China has enforced rules on <u>generative AI</u> to prevent false or unacceptable content generation based on the regime's conception of its "Core Socialist Values." Canada has announced plans to establish an <u>Artificial Intelligence and Data Act</u> but currently has no regulatory framework.

AI Tools Present Untapped Potential

A swath of new consumer and business-level AI tools have entered the marketplace. Big AI companies have introduced new productivity-boosting tools such as Microsoft's Business Chat which scans internal information and provides customers with tailored responses or Google's AI App Builder which can allow organizations to easily embed AI-powered chatbots or search engines into their websites. There are myriad new options too which give businesses the opportunity to instantly develop presentations, videos, reports, business analyses, websites, translations, automated data collection and more. Ottawa has been active on the supply chain front through its cluster strategy, with the \$584-million AI-Powered Supply Chains Cluster (Scale AI) program.

The AI space is filled with both gems and outright scams. Large companies can and will adopt these tools effectively while workers, small businesses and nonprofits will fall behind. However, there is a new wave of "consumer-ready" software arriving that makes adoption easier with some support, which presents an opportunity for the federal government to step in.

Recommendations

- 1. Develop a clear regulatory framework and policies to foster enable ethical AI use and addresses social and economic issues: Ottawa should build on its existing ethical frameworks for AI and develop guidance and possibly legislation to ensure AI development and adoption is appropriate given privacy, data processing, security, and misuse issues. Beyond that, the government should forecast potential social and economic issues including labour disruptions and outline plans to deal with them.
- 2. Education: The federal government should encourage provinces to incorporate AI in high school curricula. Future workers and citizens should be aware of its potential impacts on our democracy, economy and society. Additionally, as part of tech literacy initiatives, schools should teach students how to leverage various AI tools responsibly and ethically.
- 3. Subsidize AI tools for small businesses and nonprofits: As with the Go Digital Canada program in 2020 and the Canadian Digital Adoption Program, Ottawa can pay for and provide small businesses and nonprofits with free temporary access to various approved AI platforms with the goal of promoting productivity and social output. This will need a selection process that ensures eligible AI tools are indeed adding value for users.
- 4. AI training for small businesses and nonprofits: Finally, the federal government should provide grants for the development and delivery of free training programs and workshops to small businesses, non-profits and community organizations to them how to deploy AI to best advantage and about its benefits and risks.

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