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What AI Advances Mean for Canada's Trade Strategy



BY DANIELLE GOLDFARB



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By Danielle Goldfarb, 2025-2026 John H. McArthur Research Fellow

Key takeaways

- Canada's trade headlines are, understandably, focused on trade in goods. But there is a growing gap between this narrow view of trade and what global trade looks like today.
- Recent dramatic advances in artificial intelligence (AI) systems — especially general-purpose AI that can perform a variety of tasks across many domains — are disrupting trade. The most valuable parts of trade are now the continuous flows of data, digitally delivered intelligence, AI models, and the products and services that incorporate AI capabilities.
- These AI advances lower the cost of entering and operating in global markets, allowing even very small firms to export. They enable existing tradables to become more intelligent and make it possible to trade new types of products and services.
- Since distance matters less for digital and intelligent tradables, expanding Canada's non-U.S. exports is more achievable than at any previous moment in the country's history. By growing its AI-integrated, higher-value exports, Canada can diversify not only where but also what it trades, derisking the country's overall trade portfolio.
- Canada is a trade-dependent country, but the country's firms and policymakers are operating with major blind spots during today's frequent trade and geopolitical shocks. To make the economy more resilient, the federal government should leverage these advances in AI capabilities to create an AI-based real-time trade intelligence system that can reallocate resources or reroute traffic as conditions change.
- Policymakers need to reorient the country's trade strategy towards more intelligent, higher-value tradables and continually adjust the strategy as general-purpose AI becomes more capable.

Canada's trade conversation gap

Canada has a relatively small economy and depends on trade to grow and maintain its living standards. Most of that trade takes place with the United States. Traditional economic models show that trade follows “gravity.” It makes sense that Canadian firms would do most of their business with the world’s largest market next door. For many decades, free trade with the U.S. boosted Canadian living standards far above what they otherwise would have been.

The relentless trade shocks imposed by U.S. President Donald Trump starting in 2025 challenge Canada’s long-held assumptions about predictable U.S. market access. It is now urgent for Canada to expand trade across both traditional and new markets, and across different types of trade.

Canadian trade and trade diversification discussions largely remain, understandably, focused on physical products crossing borders. This is an important but narrow vision of trade. Recent advances in AI capabilities build on the digitization of the economy to create entirely new tradables. They change the economics of selling to distant markets, allow even the smallest companies to export, and reshape where value is created. The most valuable parts of trade are now the continuous flows of data, digitally delivered intelligence, AI models, and products and services that incorporate AI capabilities.

We are having two separate conversations in Canada: one about trade and trade diversification and the other about AI.¹ There is only one mention of trade in the 2026 national AI strategy. The 2025 federal budget’s trade diversification strategy does not mention AI-related trade at all, and only briefly mentions digital services exports.²

This paper examines how advanced AI capabilities are having profound impacts on Canada’s trade, outlines some of the implications, and argues that Canada’s trade strategy needs to change as a result.

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Dramatic advances in general-purpose AI capabilities

Until the past few years, AI systems could perform one task. For example, developers could train an AI system to classify which tariff code a shipment falls under.

In the past few years, there has been a major development: the arrival of highly capable general-purpose AI (GPAI) systems. These are software systems that learn patterns from large amounts of data and then use that learning to analyze new data and produce new content.³ One of the

¹ There is a reference to Canada’s negotiation of trade agreements, many of which advance cooperation on several different AI issues. Innovation, Science and Economic Development Canada. “Canada’s National Artificial Intelligence Strategy: AI for All” (2026). <https://ised-isde.canada.ca/site/ised/en/canadas-national-artificial-intelligence-strategy-ai-all>

² Department of Finance Canada. “Chapter 2: Shifting from Reliance to Resilience,” Budget 2025 (2025) <https://budget.canada.ca/2025/report-rapport/chap2-en.html>.

³ Bengio et al. “International AI Safety Report 2026”

biggest differences from previous eras is that GPAI systems can perform a variety of tasks across many domains.⁴

Developers can, for example, now train a model on millions of trade documents, customs records, and sanctions lists, all in different formats, from dozens of countries, across multiple languages, and make sense of that information to identify and address sanctions evasion. GPAI can categorize and interpret these large datasets at a scale and quality that was previously impossible.

While most current discussion about GPAI focuses on language systems (e.g. ChatGPT), GPAI systems also include image and video generators, predictors of diverse classes of biomolecular structures, robotics and navigation systems, and AI agents.⁵ AI agents are becoming increasingly powerful and capable and can be developed for many different applications.⁶ Humans give these agents an overall goal. The agents figure out the steps to complete that goal, without human intervention at each stage. An example could be making sure that a critical input's supply does not get interrupted. The agent could track shipping delays, monitor supply across a range of suppliers, watch for tariff changes, identify disruptions and alternatives, and change sourcing or reroute shipments as conditions change.

How AI advances reshape trade

AI advances, especially these major advances in GPAI capability, reshape where value is created in traded products and services and expand who can trade and what they can trade.

Trade costs drop

GPAI dramatically lowers the cost of participating in global trade for both goods and services, and for companies of all sizes.

The internet reduced the cost of trading globally, making it easier to sell both goods and services digitally, including software, data, and remote consulting services. As AI capabilities improved, this further reduced trade costs for both goods and services trade by lowering the cost of coordinating across the value chain. One example would be managing inventories or production across borders.

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GPAI's new capabilities further reduce the friction of entering new markets and operating across complex global supply chains. When entering new markets, companies need an understanding of everything from demand to regulations to language. These tasks are costly and usually prohibitive for many smaller firms. But a single GPAI system can almost instantly synthesize local and trade regulations from local languages, identify market conditions and pricing, and do this across multiple markets. Anyone can access and use these highly capable GPAI tools, regardless of their location, technical sophistication, or number of employees.

⁴ Bengio et al., "International AI Safety Report 2026."

⁵ Bengio et al., "International AI Safety Report 2026."

⁶ Bengio et al., "International AI Safety Report 2026."

As trade costs drop and approach zero for many digitally delivered products and services, the economics of trade change. Distance to market matters less, and even the smallest firms can scale globally.

GPAI advances also reduce trade costs by making it easier to cross borders. Shipping products across borders has become more complex due to fluctuating and new tariffs, related compliance costs, and uncertainty. AI advances work in the opposite direction, reducing wait times and disruptions at borders.⁷ They allow border agencies to streamline border processing in ways previously impossible. An example is recognizing and categorizing differently worded products on multilingual customs forms.

Going forward, AI agents can further reduce border processing frictions. Automation speeds up individual border processing tasks. But agentic AI systems go further: they can now execute the entire chain of border processing activities — from documentation review to risk assessment to payments.

Distance matters less

As trade costs drop and approach zero for many digitally delivered products and services, the economics of trade change. Distance to market matters less, and even the smallest firms can scale globally.

Global digitally-delivered services trade grew to C\$3.2 trillion in 2025.⁸ The fastest-growing imports in every region of the world are now digitally delivered services.⁹ The fastest-growing importers in Asia include India, Indonesia, the Philippines, and Vietnam. Asian countries as a whole grew their imports of digitally delivered services from C\$625 billion in 2016 to over C\$1.4 trillion by 2025. Many fast-growth markets now import more digital services than traditional goods.¹⁰

The reduction in trade costs challenges some of our long-held assumptions about trade, including the assumption that firms trade with firms and consumers in close proximity. Proximity to markets may always matter for many goods and services, but for some services and products, distance to market matters less than before.

Data-driven or AI-driven services created once can also be sold repeatedly at zero marginal cost and simultaneously across multiple markets. It is no longer always the case that scaling globally requires increasing the number of employees.

⁷ World Trade Organization. Trading with Intelligence: How AI Shapes and Is Shaped by International Trade (Geneva: World Trade Organization, 2024); <https://doi.org/10.30875/9789287076601>

⁸ World Trade Organization. 2026. Digitally Delivered Services Trade Dataset. Digitally delivered services trade in that dataset includes all services supplied via computer networks, such as cloud computing, online finance, streaming media and remote professional advice. These data bundle together both more traditional digital exports and more advanced GPAI-enabled services.

⁹ Goldfarb, D., & Suominen, K. (2025). Canada's Under-The-Radar Trade Opportunity: Digital and AI-Enabled Trade. Asia Pacific Foundation of Canada. <https://www.asiapacific.ca/publication/canadas-under-radar-trade-opportunity-digital-and-ai-enabled-trade>

¹⁰ Goldfarb, D., & Suominen, K. (2025). Canada's Under-The-Radar Trade Opportunity: Digital and AI-Enabled Trade.

Real-time trade intelligence becomes possible

Official trade data tell us what products and services were traded a month or more ago, with which countries, and how these have changed since the previous month. But digital datasets combined with AI advances make it possible to get more timely, insightful, and actionable trade intelligence.

Every time a firm submits customs documentation, this creates a digital record of what crossed the border, who shipped and received it, its quantity, product classification, whether it qualified for lower tariffs under a trade agreement, the applied tariff, and where and when it entered the country. Every time a truck carrying goods crosses a border, GPS systems create a digital record of its location, route, delays, and transit times.

These are examples of the “treasure trove of digital data, including transaction patterns, shipping routes, seasonal trends, and even regulatory bottlenecks”¹¹ that trade transactions create. This “digital exhaust” has existed since governments and businesses digitized their processes. Traditional software can collect, organize, and automate analyses of any of these “structured” datasets.

GPAI tools can take this a level further and generate much more sophisticated trade intelligence. For example, GPAI tools can create new datasets and insights from “unstructured” data, such as text, images, and video. The tools can categorize product descriptions on customs forms across multiple languages and combine them with satellite feeds, transportation schedules, and other

datasets to generate new and ongoing trade intelligence. These systems can generate visibility across complex supply networks and provide continuously updating recommendations, for example, on where to allocate border or port personnel. This was not possible with traditional software, and not at this scale, quality, and speed.

The menu of tradables expands, and every tradable becomes more intelligent

Digitization and AI advances expand the menu of tradables¹² (see box). Historically, trade meant goods only. Businesses had to buy and sell most services locally. With air travel, it became more possible to sell services across borders, such as travel, education, and consulting services. The arrival of the internet and the digitization of the economy made it possible to sell a wider array of products and services globally. Task-specific AI on its own (or incorporated into products or services) further expanded the menu and improved each menu item.

The arrival of highly capable GPAI enables existing services to become more tradable and entirely new types of products to be traded.¹³ Examples of new tradables are GPAI models or systems themselves. Other new tradables only exist because of highly capable GPAI: for example, testing for vulnerabilities in AI systems. Another example of a new tradable is drug discovery platforms that synthesize vast amounts of scientific literature to identify novel drugs. Autonomous services — where the agent executes a goal set by the human — are yet another category of new tradables. With each new development in GPAI capabilities, the menu expands again.

¹¹ Amandeep Singh Gill. “From Flow to Foresight: How AI Is Redefining Trade,” in World Trade Report 2025: Making Trade and AI Work Together to the Benefit of All (World Trade Organization, 2025) https://www.wto.org/english/res_e/publications_e/wtr25_e.htm

¹² Credit to Kati Suominen for the concept of the “menu of tradables”.

¹³ World Trade Organization. Trading with Intelligence: How AI Shapes and Is Shaped by International Trade (Geneva: World Trade Organization, 2024); <https://doi.org/10.30875/9789287076601>

The expanding menu of tradables

GOODS

The original form of trade is physical products crossing borders.

- Oil and gas
- Autos and parts
- Agricultural products

CROSS-BORDER SERVICES

As commercial air travel became more available, services added new tradables

- Education
- Insurance
- Financial services

DIGITAL TRADABLES

With the arrival and widespread use of the internet, both new and existing tradables became easier or possible due to the ability to send anything globally in an instant

- Software and digital products
- Data and data services
- Professional services sold digitally

AI-ENABLED TRADABLES

Task-specific AI further expands tradables by creating new analytical and predictive products, delivered via the cloud

- Fraud detection systems
- Recommender systems
- Predictive maintenance systems

GPAI-ENABLED TRADABLES

The most recent form of trade adds entirely new trade categories and dramatically improves existing tradables.

SYSTEMS

- Foundation models
- Computer vision models

SERVICES

- Testing for vulnerabilities in AI systems
- AI detection software
- Synthetic data creation

EMBEDDED SYSTEMS

- Systems that continuously adjust planting based on a range of agricultural data

- Real-time supply chain systems
- Systems that update environmental risk analysis as conditions change

DISCOVERY PLATFORMS

- Semiconductor materials designed by exploring millions of molecular combinations simultaneously
- Drug discovery platforms that synthesize the scientific literature to identify novel drugs
- Services that synthesize hundreds of datasets to “nowcast” economic growth

AGENTS

- Autonomous logistics and supply chain agents
- Advanced robotics and physical agents for manufacturing
- Autonomous consultants that generate recommendations and interact directly with clients

Source: Author

GPAI not only expands the menu of tradables, it also enables every tradable to become more intelligent by embedding increasingly capable AI. This applies to traditional products and services, where GPAI tools are now embedded into products and services — from raw materials to manufactures to finance.

These systems continuously learn and adapt as new data come in. An example is agricultural systems that adjust

planning timing continually based on new data. These existed before but now integrate data from a wide array of sources, such as satellite data, weather models, commodity price data, transportation data, and field sensors. Another example is economic “nowcasting.” A few years ago, economists used a few indicators to determine real-time GDP growth. Now these same analysts can use GPAI tools to synthesize thousands of economic indicators and generate more accurate and richer economic intelligence.

Countries with businesses that sell products and services that incorporate this intelligence layer will capture a growing share of global trade value.

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What this means for Canada

Trade diversification is finally possible

Canadian Prime Minister Mark Carney has set a goal to double the country's non-U.S. exports over the next decade. Many previous prime ministers have tried to meaningfully expand Canada's non-U.S. trade and failed.

AI advances make geographic diversification more possible than at any point in Canada's history. Both digitization and GPAI reduce the costs of trade and weaken the importance of proximity to markets, especially for many types of services. All of these advances make it far less complex for Canadian companies to export to distant markets, whether for goods or services or both. AI agents could reduce these trade frictions further.

AI advances make geographic diversification more possible than at any point in Canada's history.

Diversifying *what* Canada trades also derisks its trade portfolio. The menu of tradables has expanded significantly beyond traditional products and services as a result of digitization and task-based AI. As GPAI capabilities improve at a blistering pace, new products and services become available, more intelligent, and tradable.

A broader export mix that includes these new tradables increases Canada's resilience to shocks and reduces the likelihood that any type of trade or geopolitical shock will impact this broader mix of trade at any one time.

The country's firms have so far failed to take advantage of these opportunities, according to the limited available data. While Canada's digitally delivered services exports doubled from C\$43 billion in 2016 to C\$90 billion in 2025, they have plateaued since 2021. This country's global share of digital exports has barely changed in two decades, unlike peers with similar AI expertise and GDP levels.

Canadian firms should compete in the intelligence layer of trade

In addition to diversifying both the countries Canadian firms trade with and what they trade, Canadian firms need to increase their intelligent exports. Since anyone can now access GPAI tools, Canadian companies need to establish themselves as globally competitive in these higher-value parts of trade.

Canadian firms can build on this country's deep expertise and global profile in areas such as clean technologies, financial services, and resource management. GPAI capabilities now make it possible to build and sell the related and usually continuous data and intelligence layers, either integrated into these tradables or on their own. Canada also holds significant data assets in many sectors that could form the basis of high-value AI-enabled services.

Many Canadian companies are already developing and exporting aspects of this intelligence layer, though it is hard to see this in conventional trade data.

Canadian startups can scale globally

In the past, Canadian firms had to add more headcount, more capital, and foreign operations to successfully sell globally. Canada's many smaller firms did not tend to export, and those that did usually exported only to the U.S.

Advances in AI capabilities, combined with digitization, change those economics. They dramatically lower the costs of translation, co-ordination, market research, regulatory analysis, and customer support. Instead of having to sell in Canada and maybe then move on to the U.S., a single person or startup can scale to multiple countries immediately. These firms do not necessarily have to add employees to do so. And data-driven or AI-driven services created once can be sold infinite times at zero marginal cost.

General-purpose AI advances now make it possible to generate trade and supply chain intelligence at a scale, speed, and depth impossible before.

At the same time, competition is fierce: the same GPAI tools lowering costs for Canadian exporters are lowering costs for competitors in every market.

Resilience to shocks requires real-time trade intelligence

Canada is especially vulnerable to trade and geopolitical shocks. The country has a relatively small economy that relies on trade across its only land border to boost its living standards. Canada is also disproportionately affected from an investment perspective, since a “thicker” border that faces changing tariffs and geopolitical uncertainty makes it less attractive to invest in Canada to access the U.S. market.

Policymakers and smaller firms operate with significant blind spots in moments of major shock and disruption, threatening the country’s resilience. Traditional trade statistics are not up to the task: they tell us what Canadian firms bought or sold weeks ago.

It is therefore critical for the federal government to invest in ongoing trade intelligence to make the country more resilient to shocks. GPAI developments now make it possible. They can generate trade and supply chain intelligence at a scale, speed, and depth impossible before.

These systems can, for example, combine a variety of different types of data — from customs records to transportation sensor data to satellite imagery — to create real-time visibility across complex supply networks. As the country faces shocks, these systems can recommend how to allocate border resources, triage the most critical shipments, or reroute traffic to alternative entry points. AI agents will take this one step further and be able to execute these activities directly.

This investment in trade intelligence would be a direct and practical way for this trade-dependent country to reduce trade friction and increase resilience in the face of shocks. It would also make Canada more attractive as an investment destination. This is a critical piece of intelligence infrastructure for Canada.

Canada needs to reorient its trade support towards AI-integrated startups

The trade support system was largely built for traditional exporters selling goods crossing borders. Canada’s export competitiveness in high-value AI products or AI-integrated products and services requires a different set of levers.

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Trade support should increasingly orient toward Canadian digital startups with the potential to scale globally, in line with the approach that Carney's government appears to be taking. Trade support organizations need to redesign their support around these new types of exporters that combine intelligence with other sectors. Many data, AI, or AI-integrated firms do not fit neatly into the categories offered by trade support organizations or into the catch-all technology sector.

Trade support organizations also need to reconsider the services they provide. For example, providing basic market intelligence becomes less valuable when companies of any size can increasingly gather this information quickly and cheaply themselves.

Emerging AI and data rules create new barriers for Canadian businesses

Companies — such as those selling AI systems or using data across multiple jurisdictions to train AI models — now face a new set of barriers.

As a result of these AI developments, governments around the world are increasingly grappling with AI and data governance rules, with many setting rules that are different from others. That means businesses operating across multiple jurisdictions may face different rules in each. This creates a “spaghetti bowl”¹⁴ of AI and data requirements.

This is particularly challenging for Canadian policymakers and firms. From a trade point of view, this country has a strong interest in establishing AI and data standards that are interoperable with its most important trading partners. But the U.S. takes a very permissive approach to AI and data rules, while the European Union's rules are extremely precautionary. Canadian firms have to navigate two very different sets of rules. Policymakers need to strike

a balance between reducing trade barriers and making AI and data rules in the country's domestic interests.

The arrival of highly capable AI and its related need for training data means that Canada's trade negotiators will need to increasingly address the barriers created by this spaghetti bowl of AI and data rules.

Domestic policies are now trade policies

Intelligence-driving trade means that the ability of Canadian companies to compete globally is increasingly driven by domestic policy, not only by trade policy.

To create the conditions for more intelligence-based trade, policymakers need to prioritize AI adoption throughout the economy. Right now, AI adoption in Canada remains concentrated in a relatively small number of service sectors. Companies that adopt AI can become more productive, more likely to export, and export more intelligence-based products and services.

Other domestic policy areas also increasingly affect what Canadian firms can develop and sell globally. These include privacy rules, IP, competition policies, technical standards, infrastructure choices, and innovation policies.

Many strategic questions remain

This paper focuses on a few key implications of AI for trade and Canada's trade strategy. There is a much broader set of questions critical to the country's trade strategy.

This includes Canada's position — both strengths and vulnerabilities — in the global AI value chain. These GPAI systems require huge amounts of data, specialized expertise, and substantial compute. Compute requires both specialized computer chips as well as cloud infrastructure.¹⁵

¹⁴ Economist Jagdish Baghwati coined the term “spaghetti bowl” as countries negotiated so many bilateral and regional free trade deals, each with its own set of rules, rather than one set of global rules.

¹⁵ Bengio et al. “International AI Safety Report 2026”

Canada has assets that feed into this value chain, including critical minerals, rich AI expertise, and data. But most components of this global value chain are concentrated in a small number of firms and countries. Most other countries (including Canada) are primarily buyers of the AI value chain components, integrating AI into their economies without controlling the underlying systems.¹⁶ This creates a strategic vulnerability for Canada.¹⁷

Conclusion

Canada faces a relentless series of trade shocks. The country has a relatively small economy dependent on trade for its living standards. It needs to bolster its resilience to these shocks.

At this same moment, GPAI capabilities open up an array of possibilities. They make it possible for Canadian firms to sell new, high-value goods and services. They give the country a realistic path towards meaningfully expanding its non-U.S. exports. They also expand not

only where firms sell but what they can sell. They allow even the smallest startups to become multinationals. And integrating GPAI capabilities across all sectors of the Canadian economy makes those products and services more intelligent, valuable, and globally competitive.

At a time when the border has made trade more complex and uncertain, GPAI makes it possible to smooth those frictions. GPAI capabilities also make it possible to create a timely trade intelligence system that anticipates and addresses problems as they occur.

Canadian leaders are actively searching for ways to reduce the country's exposure to shocks. Seizing the array of new opportunities made possible by GPAI addresses this problem, yet it is completely missing from that conversation.

Canada needs a trade strategy that leverages these new possibilities and recognizes them as a source of economic resilience. The strategy itself must be resilient, adjusting continuously as GPAI becomes more capable.

¹⁶ Merle A. Hinrich. "Trade, Intelligence, and the Next Global Order." Hinrich Foundation, March 24, 2026; <https://www.hinrichfoundation.com/research/article/tech-digital-trade/trade-intelligence-and-the-next-global-order>

¹⁷ Sean Mullins and Jaxson Khan. Sovereign by Design: Strategic Options for Canadian AI Sovereignty (AI Competitiveness Institute, 2026); <https://aicompetitiveness.ca/>



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