



ventureforcanada

STUDENT-LED AI ADOPTION MODEL

Aligning youth employment and SME
productivity through applied AI implementation

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EXECUTIVE SUMMARY

Canada faces a dual labour market challenge. Young Canadians are entering a disrupted economy without meaningful applied AI experience, while small and medium-sized enterprises (SMEs), which account for the majority of private-sector employment, struggle to adopt AI affordably and responsibly. At the same time, Canada's global leadership in AI research has not translated into broad productivity gains, particularly among SMEs. **These two gaps are often treated as separate policy problems. They are, in fact, complementary.**

This brief proposes a scalable delivery overlay that embeds structured, student-led AI implementation sprints within existing youth employment and experiential learning programs, like those delivered through the Youth Employment and Skills Strategy and at Venture for Canada. AI implementation can range from helping SMEs use AI tools to generate business outputs and improve day-to-day workflows, to custom GPTs, chatbots, workflow automation, and, where appropriate, agentic solutions, depending on business needs and student capabilities. Through short, time-bound deployments, student teams work with SMEs to identify feasible, high-value AI use cases using a Feasibility-Value-Ethics framework, implement accessible low-cost tools, and track measurable productivity outcomes.

This is not a new standalone program. It is a plug-and-play delivery mechanism that can be integrated within existing fellowships, internships, co-op placements, youth employment initiatives, and innovation programs. It leverages infrastructure already operating at scale: youth talent pipelines, employer networks, and placement coordination capacity.

Venture for Canada is well-positioned to pilot and scale this model nationally through its established programming and partnerships. By aligning youth talent development with SME AI integration, Canada can convert parallel labour market challenges into measurable productivity gains, strengthening workforce readiness, responsible AI adoption, and economic resilience in one coordinated approach.



“The model simultaneously strengthens early-career AI literacy and accelerates responsible AI diffusion across Canada's productive base.”

Steven Wang
CEO, Venture for Canada



YOUTH LABOUR MARKET GAP

Canada's youth are bearing the brunt of a labour market that is cooling, fragmenting, and increasingly impacted by AI-driven transformation. Employment for those aged 15 to 24 has fallen to 54.8% by December 2025, nearly four percentage points below the pre-pandemic average, accounting for 27,000 job losses, and declining more sharply than core-age workers.¹

Transition challenges from education to employment remain acute, particularly for those without work-integrated learning or applied industry exposure. Indeed, employers report that new graduates lack essential soft skills, business acumen, and applied workplace experience, even as many young people work in roles below their qualifications.²

EMPLOYMENT RATE

54.8%

Ages 15 to 24

Compared to pre-pandemic average

~4% ↓

NUMBER OF JOB LOSSES

27K

VIEW TOWARDS UNIVERSITY DEGREES

5%

of organizations consider a university degree essential for junior roles

The challenge is no longer a lack of education, but the difficulty of gaining initial work experience. Only 5% of organizations now consider a university degree essential for junior roles, placing greater emphasis instead on communication, critical thinking, and technical skills.³

Emerging evidence suggests AI may be compounding vulnerability among early-career workers. Employers are turning to AI for more cognitive and entry-level functions, unlike automation in the past, which primarily affected routine tasks.⁴ AI-exposed occupations such as entry-level software and customer service roles have already seen a 13% relative decline in early-career employment internationally, indicating early disruption at the bottom of the career ladder.⁵

The trajectory points to a risk that extends beyond temporary disruption: a misaligned talent pipeline in which young Canadians cannot access the formative work experiences needed to develop soft skills and AI fluency for the future. This absence reduces their ability to contribute to AI value creation, assess risk, design human oversight, and translate experimentation into measurable outcomes. Canada needs not only AI users but AI-ready decision-makers who can integrate these tools responsibly into real business contexts.⁶ Without structured opportunities to build these capabilities, young Canadians risk being left behind at precisely the moment when applied AI skills are becoming a prerequisite for long-term competitiveness.



SME AI ADOPTION GAP

This long-term competitiveness is equally strained in the business environment. While Canada's early leadership in AI research and startup formation has been noteworthy, it has not translated into broad-based productivity gains. This is largely because adoption among small and medium-sized enterprises (SMEs) remains uneven, nascent and constrained.

Only 12.5% of SMEs report using AI in the production of goods or delivery of services,⁷ despite SMEs accounting for nearly 98% of Canadian businesses and over 63% of private-sector employment,⁸ meaning diffusion failure at the SME level directly limits national productivity performance.

AI USAGE AMONG SMES

12.5%

of SMEs report using AI in the production of goods or delivery of services

CANADIAN BUSINESS SECTOR COMPOSITION

98%

of businesses are SMEs

63%

of private sector employment comes from SMEs

The challenge is not awareness but access and integration. Many SMEs are experimenting informally with consumer-grade AI tools, yet few move beyond pilots into operational integration. This reflects a broader implementation gap observed globally, where experimentation far outpaces measurable deployment.

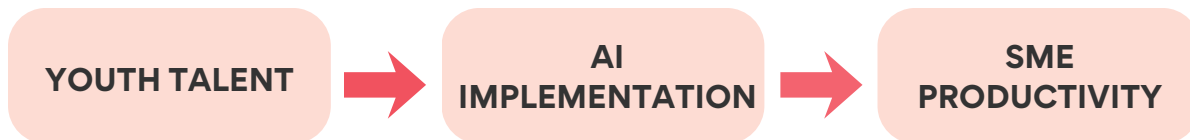
Barriers are persistent and structural, including high costs, limited access to applied AI talent, weak data readiness, and difficulty assessing risk and return on investment. Larger firms can absorb these constraints; SMEs cannot. At the same time, expectations around secure, accountable, and human-centred AI deployment are rising, increasing governance complexity for smaller firms with limited compliance capacity.⁹

The result is a widening divide between Canada's AI creation ecosystem and its productive base. Without low-friction, affordable, and outcome-oriented mechanisms to responsibly accelerate AI adoption among SMEs, Canada risks falling behind, not because it lacks innovation, but because it cannot operationalize it at scale where most of its economy actually operates.



OPPORTUNITY

SOLVING TWO GAPS WITH ONE STRATEGY



Taken together, these gaps reveal a structural inefficiency and a strategic opportunity. Young Canadians are entering a disrupted labour market, drained of the possibility of gaining meaningful professional or applied AI experience, while SMEs struggle to access AI expertise affordably and move forward with responsible AI adoption and execution despite accounting for the majority of private-sector employment.

Yet these two challenges are not separate; they are complementary. Evidence consistently shows that work-integrated learning significantly improves employment outcomes, accelerates skill development, and strengthens long-term earnings trajectories.^{10,11} At the same time, SMEs that successfully adopt AI do so when they have access to applied talent capable of translating business problems into practical AI-enabled solutions.¹² The missing link is not technology; it is a structured connection.

Students and early-career workers often bring familiarity with emerging AI tools and a willingness to adopt new technologies. However, many still need opportunities to develop practical AI literacy and workplace-relevant implementation skills. Structured AI implementation projects help students build these capabilities while supporting SMEs in identifying opportunities, adopting accessible AI tools, and accelerating AI adoption. A 2025 IWG report found that 55% of Gen Z employees in Canada are actively coaching older colleagues on AI, and 61% of directors reported that AI innovations introduced by younger employees had unlocked new business opportunities.¹³

Generative AI tools are increasingly embedded in classrooms, coding bootcamps, and post-secondary programs across the country. Meanwhile, Canada has already developed the national infrastructure for experiential learning operating at scale, including universities, colleges, polytechnics, co-op programs, applied research hubs, and federally supported work-integrated learning networks collectively serving hundreds of thousands of students annually through the Youth Employment and Skills Strategy. The ingredients exist. What is missing is a coordinated mechanism that directs this emerging AI-literate talent toward SME productivity challenges in structured, outcome-oriented ways.

Instead of treating youth employment and SME AI adoption as parallel policy problems, we propose that Canada can align them. By embedding students and recent graduates into SMEs to work on clearly defined AI integration projects with guardrails for responsible, human-centred implementation, the country can simultaneously strengthen early-career pathways and accelerate AI diffusion across its productive base. The dual labour market challenge becomes a single strategic opportunity: build the next generation of AI-ready workers by helping SMEs adopt AI in practice.



SCALABLE DELIVERY MODEL

To convert parallel labour market gaps into measurable productivity gains, we propose a short-cycle deployment model that integrates student preparation, SME readiness alignment, and a structured implementation sprint. The model is time-bound, low-cost, and designed for national replication across sectors and regions.



Phase 1: Applied AI Preparation

Students receive foundational training in AI literacy, responsible AI practices, and human-centred AI adoption. Preparation equips students to work effectively alongside AI tools and evaluate opportunities through a Feasibility–Value–Ethics framework that considers technical feasibility, business value, and ethical implications.



Phase 2: AI Readiness Alignment

Student teams conduct structured AI discovery sessions with participating SMEs to identify priority business painpoints and prioritize one feasible, high-value use case. Each opportunity is evaluated through a Feasibility–Value–Ethics lens to ensure technical viability, measurable business value, and ethical soundness before implementation.



Phase 3: Implementation Sprint

Over a defined 6–8 week cycle, teams support AI implementation within a specific business process. AI implementation can range from helping SMEs use AI tools to generate business outputs and improve day-to-day workflows, to custom GPTs, chatbots, workflow automation, and, where appropriate, agentic solutions, depending on business needs and student capabilities.

This model embeds responsible AI by design. It focuses on expanding productivity rather than replacing roles, building internal SME confidence alongside capability. Each sprint produces measurable operational outcomes for SMEs and portfolio-ready evidence of applied AI experience for students. By leveraging widely available tools that require minimal infrastructure investment, the model reduces financial and technical barriers while strengthening national AI diffusion capacity.



WHAT SUCCESS LOOKS LIKE

Over a defined 6–8 week cycle, teams deploy accessible AI solutions, such as custom GPT workflows, chatbot optimization, or basic agentic automation, within a specific business process. All solutions operate under human-in-the-loop oversight and produce documented productivity metrics (e.g., time saved, workflow acceleration, error reduction).

For Students

Students receive targeted training in practical, non-technical AI deployment, responsible AI principles, and workflow analysis using a Feasibility–Value–Ethics framework. Preparation emphasizes human-centred AI adoption and responsible implementation aligned with SME capacity and risk tolerance.

- **Readiness before placement:** % of students meeting a minimum pre-deployment threshold (indicating the success of Phase 1 to preparing students)
- **Applied AI capability growth:** % of students showing improvement from baseline to exit on key AI skills
- **Use-case translation ability:** % of students rated effective in identifying and framing a use case with SMEs
- **Transferable confidence:** % of students who feel they could repeat this process in another SME

For SMEs

Student teams conduct structured AI discovery sessions with participating SMEs to identify workflow inefficiencies and prioritize one feasible, high-value use case. Each opportunity is evaluated through a Feasibility–Value–Ethics lens to ensure technical viability, measurable business value, and ethical soundness before implementation.

- **Validated use-case identification:** % of SMEs with at least one feasible, relevant use case (and a follow-up for those who don't to determine the barriers)
- **Progress to pilot:** % of SMEs that test or prototype the selected use case
- **Early operational value:** % of SMEs reporting workflow improvements (time, speed, errors)
- **Continuation decision:** % of SMEs choosing to continue, adapt, or expand the use case (check-in after 1-2 months)

Evaluation Cadence & Tools

- **Baseline:** assess starting readiness via short surveys
- **Pre-deployment (students):** confirm readiness to engage with SMEs using a brief assessment or scenario check
- **During sprint:** light-touch check-ins to track progress and feasibility
- **Exit:** capture outcomes, experience, and use-case quality through short surveys and brief reviews
- **Follow-up (~60 days):** assess continued use, adaptation, and longer-term value



CASE STUDY

RESPONSIBLE AI ADOPTION CHALLENGE

This case study was developed through the VFC Intrapreneurship Program's AI Adoption Challenge, a structured initiative designed to identify and evaluate how student teams can support SMEs in adopting artificial intelligence and automation. The challenge aims to generate practical insights into emerging AI use cases, implementation barriers, and the capabilities required for effective deployment.

Transforming STEM Educational Workshops with AI



Agent Workflow: Deep Dive

Contextual Analysis

Contextual Analysis Use
The agent analyzes the school type (Public, Private, Catholic) to determine the most likely location of administrative contact data.

Data Extraction

Data Extraction
Uses LLMs to parse unstructured text and HTML, identifying Principal names and emails even when hidden in complex layouts.

Dynamic Navigation

Dynamic Navigation
Instead of static paths, the agent "looks" for keywords like 'Staff', 'Our Team', or 'Directory' to find the right sub-pages autonomously.

Verification Logic

Verification Logic
Cross-references findings across multiple pages to ensure the email belongs to the correct person before final output.

Problem

Manual outreach was inefficient and unscalable. The student team spent excessive time on administrative tasks, specifically researching contact details across hundreds of inconsistent school websites and answering repetitive inquiries. This created a bottleneck that limited growth.

Solution

The students developed an AI-supported outreach system featuring a structured database of over 4,000 schools populated by AI agents capable of interpreting unstructured web data. The team also developed a custom AI chatbot prototype designed to handle initial school inquiries and support future deployment using a tone consistent with the organization's brand.

Outcome

The organization successfully automated the most time-consuming research and communication tasks. This significantly reduced manual labor and created a scalable workflow, allowing the team to prioritize high-value relationship building and engage with a much larger volume of schools.

Key Results

Scaled Data Accuracy: AI-standardized data for 4,000+ schools with 50+ verification checks, replacing manual research.

Targeted Outreach: Enabled precise filtering (proximity, performance) to prioritize high-conversion school leads.

Operational Efficiency: Accelerated campaign launches by automating list generation and lead qualification.

Future Engagement Capacity: Developed a custom AI chatbot prototype to support future 24/7 inquiry handling, improve responsiveness, and reduce administrative burden.



A DELIVERY OVERLAY, NOT A NEW MODEL

This proposal is not a new standalone program. It is a structured delivery overlay that can be embedded within existing youth employment, experiential learning, and innovation initiatives. The model does not require the creation of new institutional infrastructure; it operates by enhancing placements that are already funded, already staffed, and already operating across Canada. The approach can be integrated within fellowship programs, internship and co-op placements, youth employment initiatives, experiential learning programs, and innovation and commercialization programs.

Rather than building a parallel system, the model overlays a structured AI adoption sprint onto existing placements, adding a defined productivity mandate, a Feasibility-Value-Ethics evaluation framework, and measurable outcome tracking. It leverages existing youth talent pipelines, employer networks, placement infrastructure, and program coordinators and oversight mechanisms that are already in place.

In practical terms, this means that a student already placed within an SME through a co-op or internship program can be equipped with structured AI adoption tools and guided through a time-bound implementation sprint. No new placement infrastructure is required. The intervention operates within existing funding envelopes, redirecting effort toward measurable productivity impact. The model is inherently scalable and replicable across institutions, including non-profits, post-secondary institutions, and workforce development providers. It is not proprietary, nor dependent on a single organization's structure. It is designed to be adopted, adapted, and implemented wherever youth talent and SME partnerships already exist.

Venture for Canada is particularly well-positioned to implement and pilot this overlay given its established youth talent pipelines and programs, employer relationships, and placement coordination capacity. However, the model itself is institution-agnostic. Its value lies in its simplicity and transferability: a plug-and-play mechanism that strengthens outcomes within systems that already operate at scale.

“It is designed to be adopted, adapted, and implemented wherever youth talent and SME partnerships already exist.”



POLICY ALIGNMENT

This model directly operationalizes commitments Canada has already made. At the 2025 Kananaskis Summit, G7 Leaders agreed to an AI Adoption Roadmap with an explicit mandate to help SMEs access, understand, and adopt AI in ways that drive value and productivity. Canada’s response included targeted funding through the AI for Growth program to support domestic SME adoption, alongside investment in domestic AI compute capacity announced in Budget 2025. These are supply-side commitments.

Our proposal addresses the demand side by providing a structured, low-cost delivery mechanism that connects AI-fluent students and early-career talent to SMEs through infrastructure that already exists.

Programs & Gaps	Emerging AI Strategy Alignment
On the workforce side, the Student Work Placement Program (SWPP) and the Youth Employment and Skills Strategy (YESS) collectively support thousands of subsidized placements annually across Canada. Neither currently includes a structured AI adoption mandate tied to SME productivity outcomes. Embedding this overlay within either initiative requires no new funding envelope. It redirects existing placement activity toward measurable productivity gains while strengthening the applied AI skills that have been identified as a growing gap in Canada.	Empowering Canadians (Pillar 2): The model strengthens applied AI skills development by embedding students and early-career workers in real-world implementation contexts, enabling the development of practical, job-relevant capabilities. Powering AI Adoption for Shared Prosperity (Pillar 3): By enabling SMEs to implement accessible, low-cost AI solutions, the model accelerates adoption across Canada’s productive base, addressing barriers to productivity gains. Building Trusted Partnerships and Global Alliances (Pillar 6): The model operates through structured collaboration between students, SMEs, and delivery organizations, creating a scalable partnership framework that supports responsible, human-centred AI deployment.

The model connects three federal priorities: youth employment, SME productivity, and responsible AI governance into a single coordinated delivery mechanism. It requires no new architecture. It needs only to be embedded where the infrastructure already runs. In doing so, it advances productivity and workforce readiness while strengthening public trust in AI by anchoring adoption in real workplaces, where most Canadians gain experience, run businesses, and see how these tools are applied in practice.

Venture for Canada is ready to pilot this model within existing youth and SME programs, converting parallel labour market challenges into measurable productivity outcomes. We welcome the opportunity to meet to discuss how this model can be advanced within current federal workforce and innovation priorities.



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