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AI and Innovation in Action for Small and Medium-sized Enterprises

The role of digitalization and artificial
intelligence (AI) in SMEs

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Agenda

- AI Concepts
- Context: The Canadian AI Paradox
- AI Transforming Business
- AI Adoption Risks and Responsibilities
- The Way Forward



AI Concepts

Expert Systems	Machine Learning	Deep Learning	Generative AI
Uses if-then rules to simulate decision-making of a human expert in a specific domain. Applications • Game-playing • Medical diagnoses • Circuit design	Uses statistics to learn from data and generalize to new, unseen tasks. Applications: • Client analytics • Fraud detection • Demand forecasting	Uses artificial neural networks inspired by the human brain to process large amounts of raw/unstructured data. Applications: • Image recognition • Speech recognition • Self driving	Uses specialized deep learning architectures to create models that can generate new content such as image, video, and text. Applications: • Chatbots • Media generation • Drug discovery

Examples of AI tools



Foundational tools: ChatGPT

- **What it is:** A conversational AI that drafts, rewrites, summarizes, explains, and pulls key points from uploaded files, useful for simple analyses and tables
- **Where it works:** Web and mobile apps; you can paste text, upload files, and ask follow-up questions
- **What it is good for:** First-draft emails and docs, meeting notes and summaries, short research syntheses, idea generation, simple tables and checklists
- **Data and privacy:** In the consumer [free] version, chats may be used to improve models unless you turn this off in Settings. Business plans (Teams/Enterprise) state that customer content is not used to train models and include admin controls. Do not paste sensitive data unless your plan and policy allow it
- **Simple example:** Paste a rough customer update and ask for a 120-word email with a friendly tone and one clear next step

Foundational tools: Microsoft Copilot

- **What it is:** AI built into Word, Outlook, PowerPoint, Excel, and Teams that can draft, summarize, transform, and find information across your files and messages
- **Where it works:** Inside Microsoft 365 apps you already use
- **What it is good for:** Turning notes into a document, creating slides from a brief, summarizing a Teams meeting with actions, drafting email replies, and outlining spreadsheets
- **Data and privacy:** Uses your organization's Microsoft 365 permissions and policies. Content stays in your tenant, and prompts and responses are not used to train Microsoft's models for other customers. Follow your company's data rules
- **Example:** After a Teams call, open Copilot to get a summary with owners and dates, then have Copilot draft a follow-up email you review and send

Building your AI superpowers – prompt engineering

- Prompt engineering is the practice of writing clear instructions, context, and constraints so a generative AI tool can produce a useful answer. Think “good brief,” not code
- Good prompts usually include: the goal, who it’s for, any facts to use, format, and length. *The more specific the prompt, the better the quality of the output:*
 - Be clear and specific when prompting
 - Using delimiters
 - Specifying output length
 - Output format
 - Split Complex Tasks into Subtasks
- “Few Shot” prompting – Provide examples so it can see the pattern
- It is iterative: ask, review, add one line of feedback, ask again.
- **Quality assurance is key.** Generative AI is well meaning but *hallucinates* and fabricates quite frequently

Prompt Engineering: Prompt example

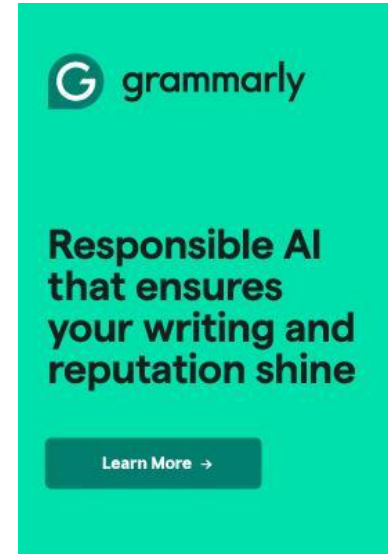
Act as a marketing analyst at an IT company. Draft a numbered outline for a comprehensive report on social media marketing trends in technology companies from 2020 to the present for a senior marketing leadership audience. Use the following context: ""[paste brand accounts, key markets, top competitors, priority KPIs]"". Before you write, list three steps you will follow. The outline must include an Introduction, three main sections that each focus on a distinct aspect of social media trends, and a Conclusion that summarizes the findings. In each of the three main sections, include two elements: first, a short list of key marketing strategies as 3 to 5 concise bullets, and second, suggested graphs that could illustrate user engagement trends, specifying the chart type and what the x and y axes would show. Provide a final References list with credible sources from 2020 or later that includes the title, publisher, date, and URL; if a source cannot be verified, label it 'To validate'. Keep the outline to about 300 to 400 words, use plain language suitable for non-experts, format as numbered headings with short sub-bullets, and do not include any confidential data.

Tone: clear and professional

AI Tools - A deeper dive

Grammarly

- **What it is:** A digital writing assistant that checks spelling, grammar, formatting, clarity, and tone as you type
- **Purpose:** It helps you turn rough drafts into clear, professional messages across email, documents, and the web. It also teaches you why changes are suggested so your writing improves over time
- **How to use it:** Install the browser extension or open the desktop or web app, paste or type your text, review the side panel suggestions, set goals like audience and tone, accept the fixes you want, and run a final pass
- **Example:** You paste a customer update into Grammarly. It shortens long sentences, fixes tense issues, flags a missing comma, and suggests a friendlier tone. You accept the changes and send a clearer, more professional message



Manage meetings – Otter.ai or built in Zoom AI Companion



- **What it is:** a meeting notetaker that transcribes conversations in real time and labels speakers, and it can identify action items
 - **Purpose:** Helps focus on the discussion while it captures notes, highlights, and action items you can share
 - **How to use it:** Connect your calendar, invite Otter to the meeting or record in the app, then review and edit the summary and transcript
 - **Example:** After a Zoom call, open Otter, skim the summary, copy the action items, and post them to your team's task list
- **What it is:** a built-in assistant that summarizes meetings, identify action items, answer quick questions, and drafts follow-ups
 - **Purpose:** It reduces the time you spend writing recap emails and tracking decisions after a call
 - **How to use it:** Turn it on in Zoom settings, run your meeting, then open the generated summary and suggested next steps
 - **Example:** After a client call, Zoom provides a recap with owners and deadlines that you review and share

NotionAI

- **What it is:** helps draft, summarize, organize, and automate pages, notes, and databases. It can extra to-dos, outline documents, and much more. It includes **10,000+ templates** for projects, notes, and databases that you can customize and pair with AI
- **Purpose:** It turns scattered notes and tasks into organized documents and simple workflows that teams can share and keep up to date
- **How to use it:** Create a page, paste your notes, trigger Notion AI to make a summary or outline, convert key bullets into tasks in a database, and (optionally) connect integrations so updates and assignments flow automatically
- **Example:** You paste meeting notes into a Notion page. Notion AI produces a short summary, pulls out three action items into your tasks database, and you assign owners so the team can track progress in one place

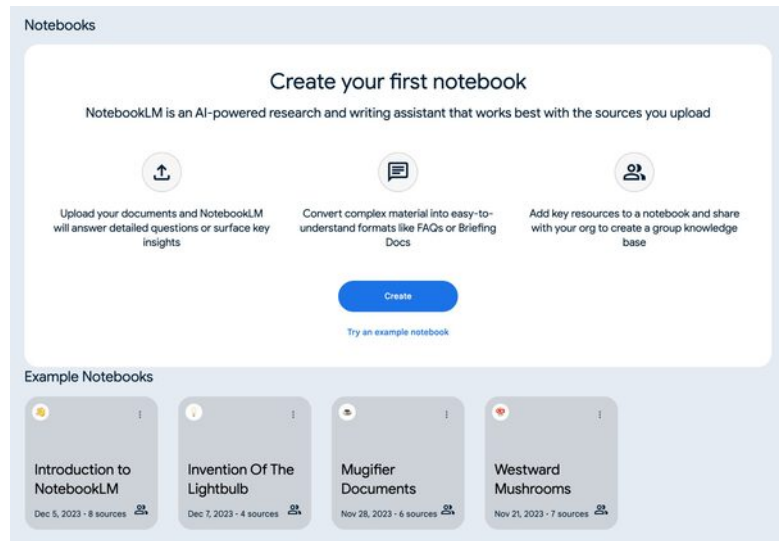


Manage information - Google Notebook

- **What it is:** NotebookLM is an AI notebook that grounds answers in your uploaded sources and provides citations

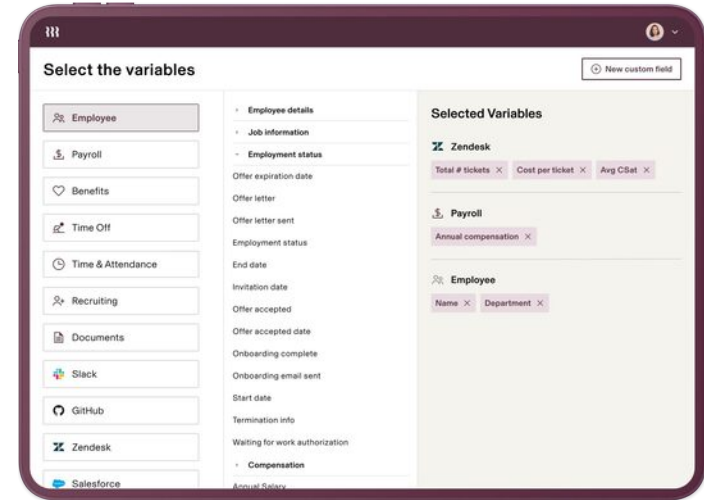
It builds a workspace from your sources, answers questions with citations, and creates concise summaries and outlines. It can even create podcasts as another way to consume the information

- **Purpose:** It helps you digest long materials and connect ideas without losing track of where facts came from
- **How to use it:** Create a notebook, upload PDFs or links, ask questions, and read the cited responses or summaries
- **Example:** You upload a report and a web article, ask for the three key differences, and get a short answer with links to the exact sections



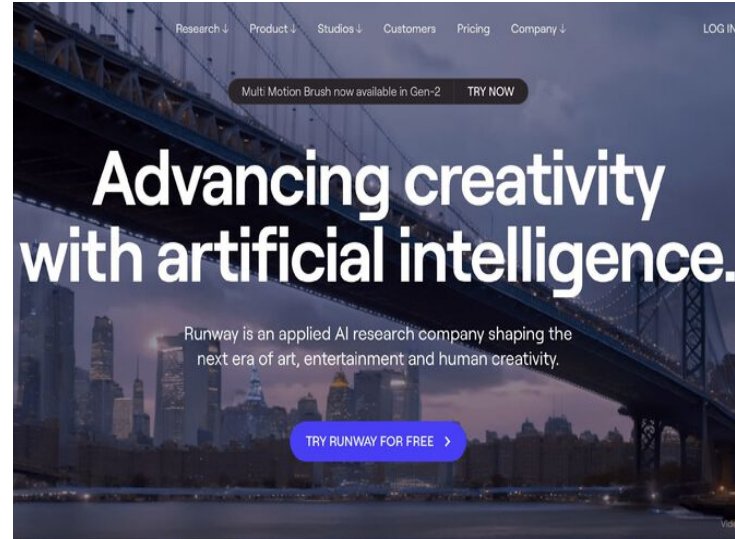
Rippling

- **What it is:** Rippling is an HR platform that automates onboarding, payroll, benefits, and IT access. It automates new-hire setup, runs payroll and benefits, syncs software access, and removes access when someone leaves
- **Purpose:** It reduces manual paperwork and keeps employee data and permissions consistent
- **How to use it:** Add the new hire, select onboarding steps, and let the system provision accounts and tasks. It also integrates with other HR automation tools, project management platforms, inventory management systems, and customer support chatbots
- **Example:** A new employee is added on Monday and Rippling automatically sends a welcome email, sets up payroll, and provisions software



Runway

- **What it is:** Runway is a creative tool that uses AI to edit videos and images. It removes backgrounds, adds subtitles, cleans audio, and can generate short visuals from prompts
- **Purpose:** It speeds up content creation for social posts and promos without advanced editing skills
- **How to use it:** Upload a clip or image, choose an effect or generator, preview the result, and export
- **Example:** You upload a talking-head video, remove the background, add subtitles, and export a polished 30-second clip



Specialized AI customer service tools

Help Scout provides a unified platform - AI Summarize offers concise summaries of email threads, aiding in understanding customer contexts quickly. AI Assist helps polish replies, ensuring they align with the brand's tone

Salesforce Einstein Analytics analyzes customer data to predict customer behavior and preferences enabling businesses to deliver highly targeted and engaging customer experiences, ultimately boosting customer satisfaction and loyalty

Zendesk Advanced AI an add-on for the Zendesk Suite, enhancing customer service with a set of AI tools to enable automated request classification, efficient agent assistance, and improved customer interaction, reducing agent onboarding time and increasing cost savings

Freddy AI by Freshdesk enhances customer service efficiency by offering a suite of tools designed to streamline ticket handling and response processes

Kustomer includes a Chatbot Superbot for scalable, code-free support and personalized customer experiences. The platform supports customer understanding with a unified view across all channels, delivering hyper-personalized service. Additionally, it leverages data-driven support to anticipate and address customer needs proactively, minimizing inbound support volume

Agentic and Physical AI - What are they?

Agentic AI:

- systems that extend beyond generating content to planning and executing multi-step tasks
- invoking external tools, maintaining context over time, and adapting toward goals

For example: Create agents to mimic employee functions

Physical AI

- embodied systems including industrial robots, collaborative robots (“cobots”), autonomous mobile robots, and drones that act on the physical world.
- increased affordability, compact size, flexible programming, and safety features that let them work alongside people are making these tools increasingly accessible

For example: Some AI-powered drones can identify and treat crop stress in agriculture settings. Public Mobile Robots

Context: The Canadian AI Paradox

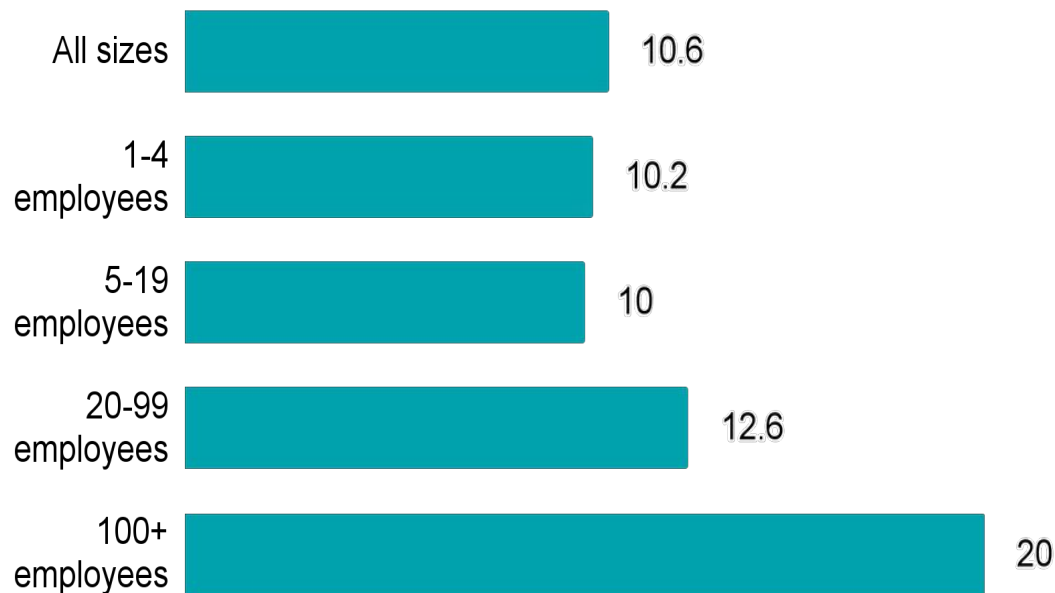
- Canada is a leader in AI tech development:
 - Home to **10% of the world's top-tier AI researchers**
 - **Geoffrey Hinton** and **John J. Hopfield** won the **Nobel Prize in Physics in 2024**
 - **\$2.57 billion** invested in Canadian AI research and development and total AI investment in Canada is \$8.64 billion
- But it lags in adoption
 - **Depends on the definitions**
 - **Shaped by structure of the economy - SMEs**
 - **Critical skills gaps:** Canada ranks 44th out of 47 countries in AI training and literacy
 - Most SMEs rely on existing staff for AI implementation

Measuring AI use/adoption in SMEs: A moving target

- Reported AI adoption rates among Canadian businesses, especially SMEs, vary because studies define, measure, and interpret “AI” differently and survey different types of firms
- Some recently published studies use data from 2023 that focus **primarily on machine learning** and reported 26% of businesses used AI
- Narrow scopes produce lower estimates. For example in Statistics Canada reports 12.2% of SMEs used AI “in the production of goods or delivery of services” over the prior 12 months
- Business Development Bank of Canada (BDC), first asked if they used AI, to which 39% of businesses said yes. However, when they provided a definition of AI and examples of AI-enabled tools, such as automated translation services and generative AI, the proportion rose to 66%
- Microsoft’s 2025 SMB Report surveyed 300 Canadian SME decision-makers – including owners, partners, managers, and directors – who reported a 71% adoption rate

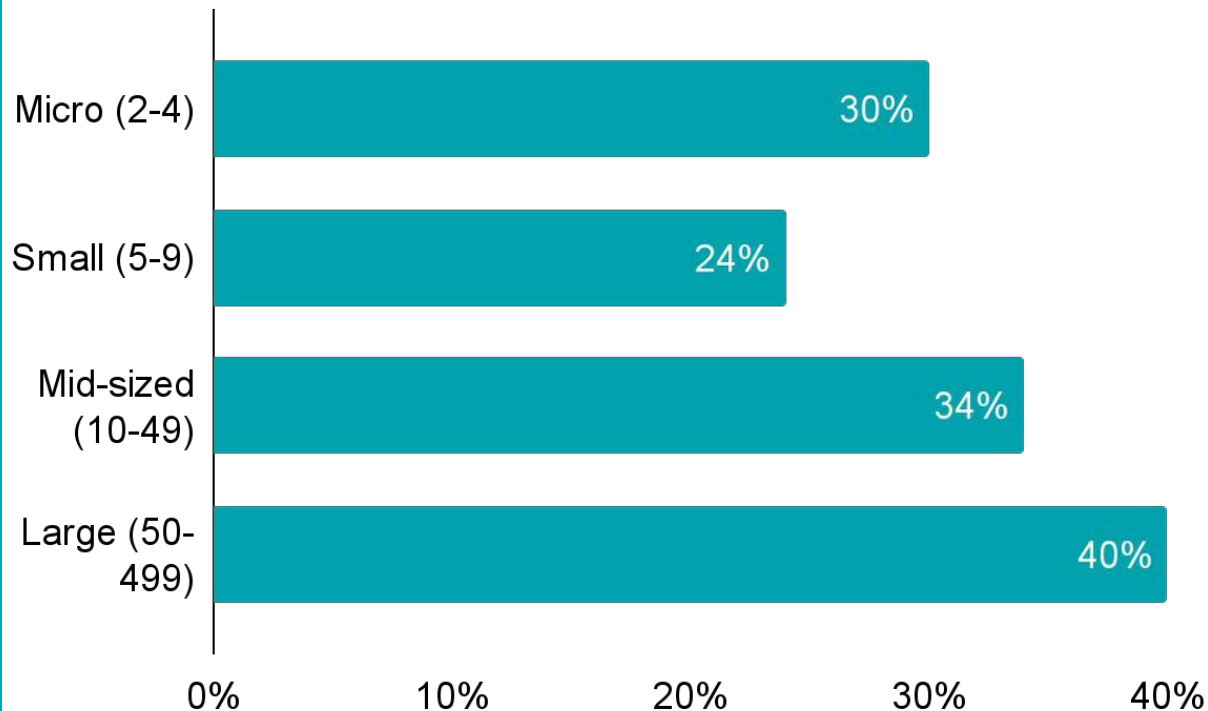
Adoption of AI to produce goods and services among Canadian SMEs

% of businesses planning to adopt AI in the next 12 months, by business size



More precise definitions of AI in surveys usually result in lower adoption rates. However, small businesses are still less likely to have plans for AI use in producing goods or services **than larger businesses**

Overall AI adoption among Canadian SMEs



Since **AI refers to a wide range to technologies**, the questionnaire included some examples of AI programs such as ChatGPT, BingChat, Sora, and Copilot to support clearer definition of AI use.

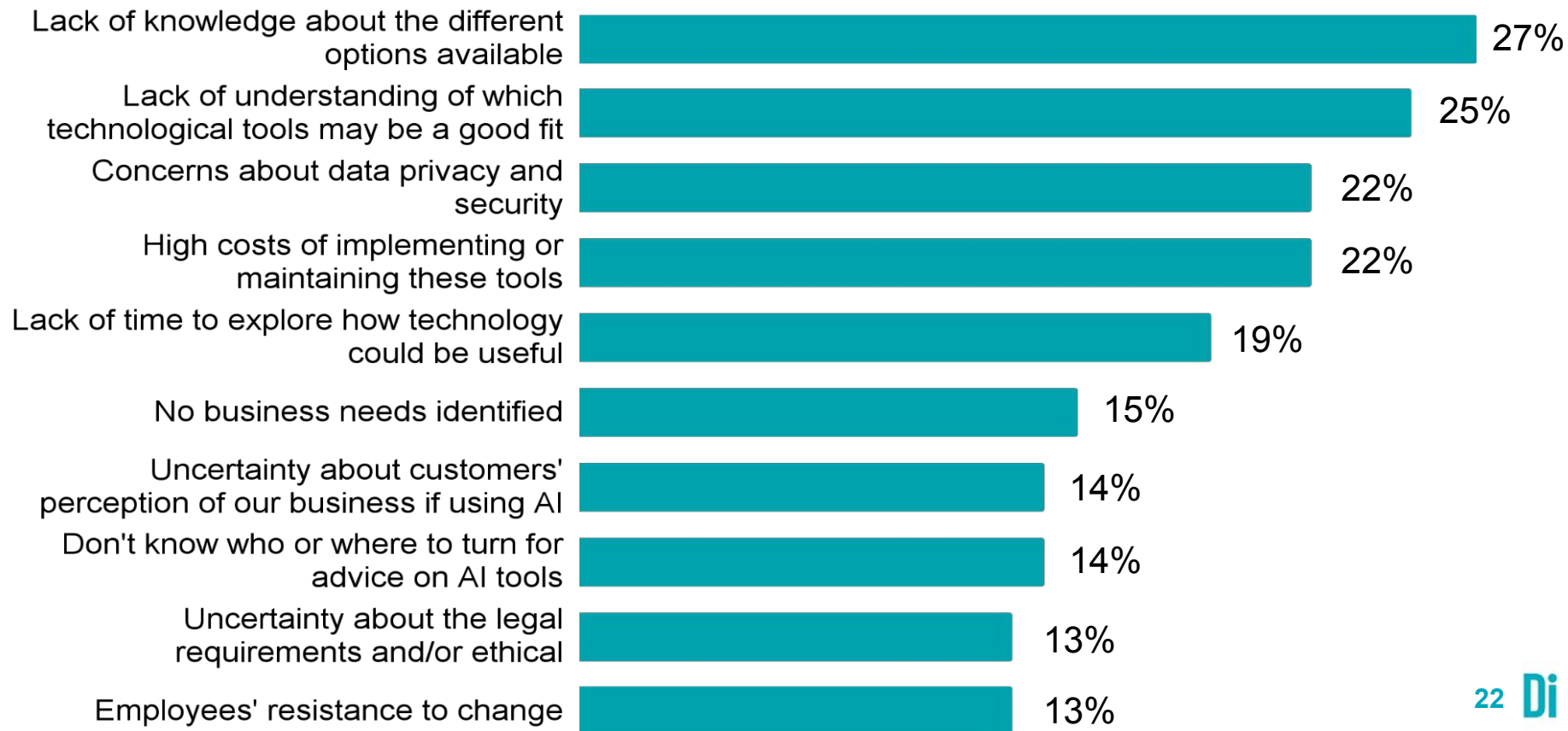
Attitudes of Canadians on AI and automation

Through the *Survey on Skills and Employment* we found that:

- **48% worry about job stability** for themselves or family
- **42% fear job loss** due to automation
- **47% say** workplaces are **too slow to adopt** new technologies
- **50% think they haven't received enough training at work** to be able to take advantage of these new technologies
- **Only 34%** have **received training from an employer** on how to use AI at work
- **36%** of employees are figuring out how to use AI programs at work **on their own**

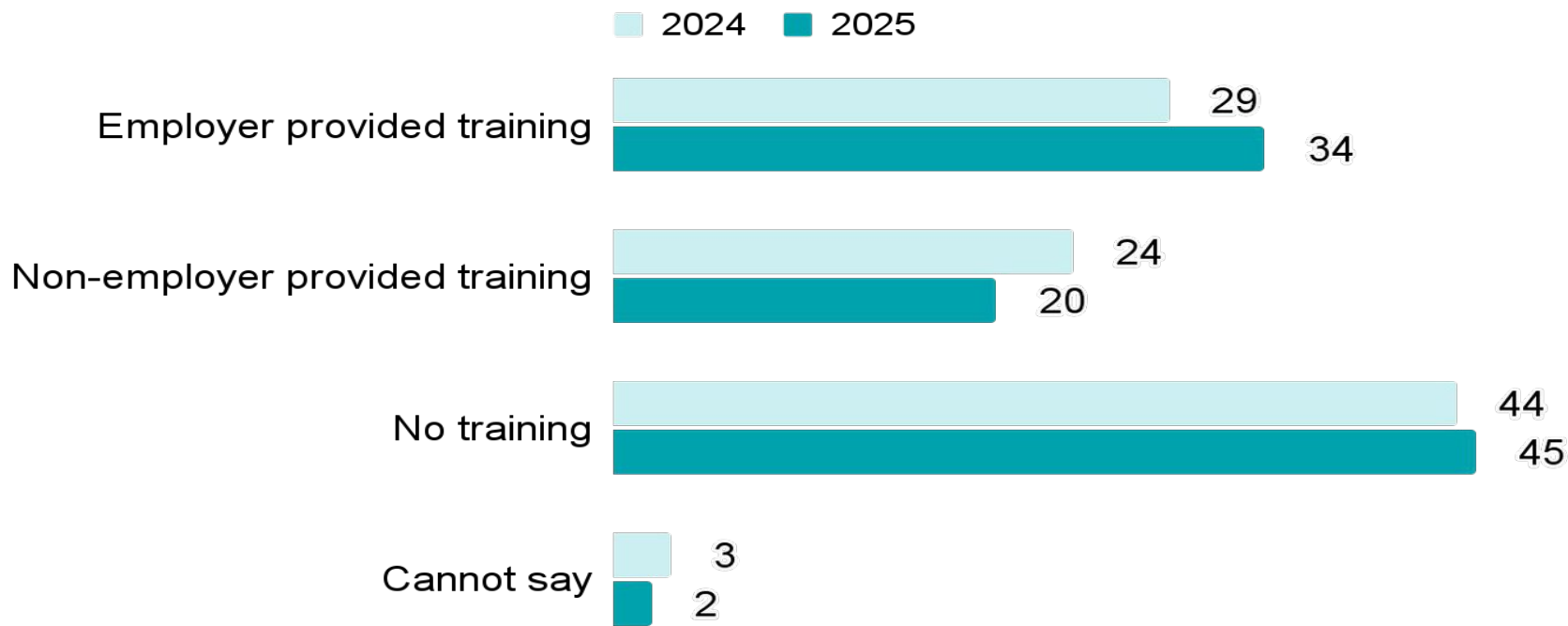
Barriers to AI adoption

Barriers to AI adoption that Canadian SMEs face (%)



AI use among employees

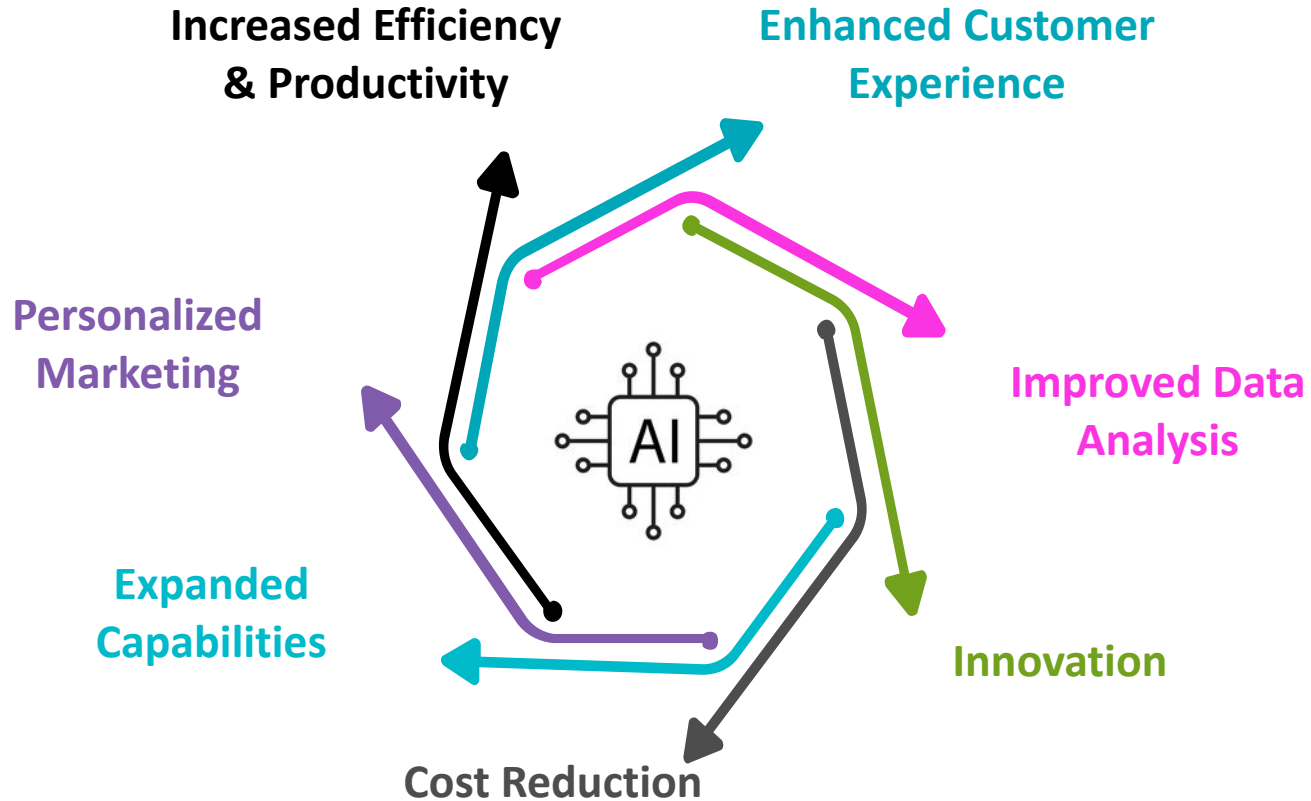
% of employees receiving AI training for work



Digital divides

- Women remain underrepresented in the information, communications, and technology (ICT) sector at **38.6%**, according to TAP analysis on 2021 census data
- English is spoken by only **20%** of the population globally; while **49%** of websites globally are in English, creating a “digital language divide”
- On average, **96%** of Canadians have access to 50/10 Mbps unlimited internet coverage as of 2023
 - Those living in rural areas (**81%**), the Territories (**67%**), and in Indigenous communities (**61%**) have much lower access
- The “divide” is not just infrastructure but affordability as well as digital skills

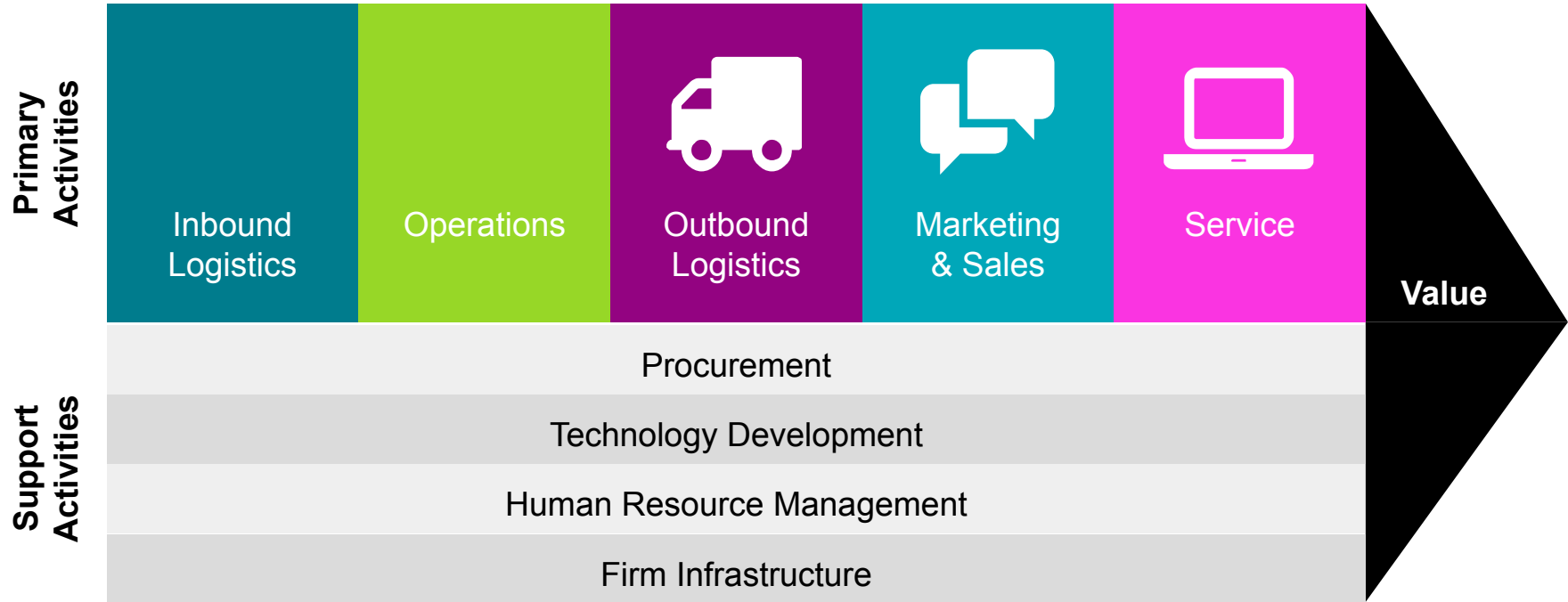
AI Transforming Businesses



Potential impact on SMEs

- Generative AI could add **\$187B** to Canada by 2030, save workers about **125 hours per year**, and deliver up to **\$100B/year** in value across SMEs
- Only **29%** of SMEs use AI in their core business activities (OECD, 2025).
- Users report tangible benefits: greater efficiency, lower costs, higher sales, and better service quality
- Compensate for skill shortages and makes teams more effective without immediate headcount changes
- 65% of SMEs using generative AI report that it helped increase employee performance
- Most deploy it for peripheral or administrative tasks like marketing, copywriting, and documentation, suggesting there's still a large unrealized potential for operational AI transformation
- AI helps small teams work like bigger ones by automating routine drafting, summarizing, scheduling, and ticket triage so people can focus on customers and judgment

AI across the value chain



AI in primary activities

INBOUND LOGISTICS

Streamline operations across order processing, inventory management & supply chain

MARKETING

Personalized email marketing, AI Chatbots, Product recommendation, Dynamic pricing, Social media marketing, Analytics

SERVICE

Providing customers consistent service and personalized consumer engagement and solutions



OPERATIONS

Enable machines to learn from data, make informed decisions and automate tasks

OUTBOUND LOGISTICS

Efficient management of order processing, packaging, shipping, and problem solving

AI in supporting activities

PROCUREMENT

Streamline supplier selection, predict demand, and optimize cost management through data-driven insights



HUMAN RESOURCES

Streamlines processes like recruitment, onboarding, employee engagement, and performance management through automation and data-driven insights



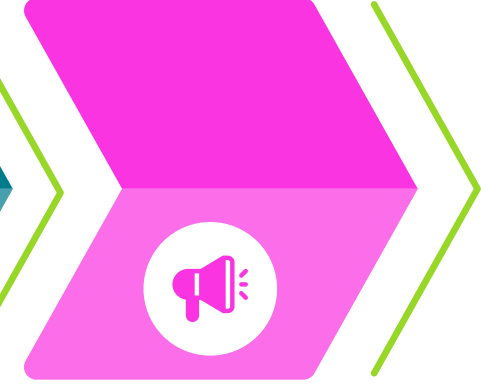
TECHNOLOGY

Accelerate innovation, automate testing and enhance product development

29

INFRASTRUCTURE

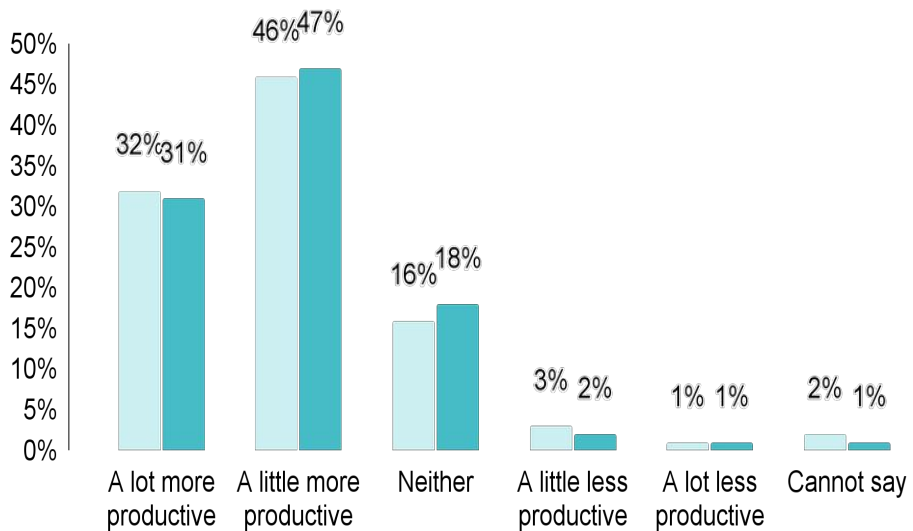
Enhances firm infrastructure in legal processes, optimizing finances and management processes



AI impact on employees: More productive and more creative

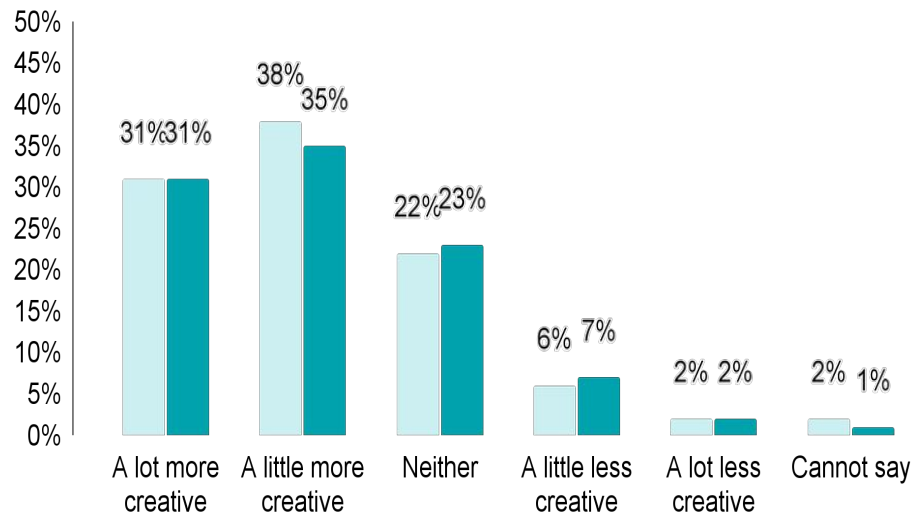
(For AI users) Would you say that is has made you more or less productive?

2024 2025



(For AI users) Would you say that is has made you more or less creative?

2024 2025



Applications

- **Ecommerce.** AI chat assistants answer customer questions 24/7, recommend products based on browsing and purchase patterns, and personalize emails. Example: a small retailer uses a chatbot to cut response times and a recommender to lift average order value
- **Entertainment.** Small studios use AI to generate background art, localize subtitles, and tune game difficulty in real time so players stay engaged. Result: faster production cycles and more immersive experiences without adding headcount



Applications

- **Healthcare.** Clinics use AI to summarize patient histories, flag drug interactions, triage messages, and assist with image review, while clinicians make the final call. Benefit: shorter wait times, clearer care plans, and fewer administrative bottlenecks
- **Finance.** Accounting firms and fintech SMEs use AI to categorize transactions, detect anomalies, forecast cash flow, and answer routine client questions. Outcome: fewer manual errors, earlier risk warnings, and more time for advisory work



AI use cases and examples



American Tall – Mississauga, Ontario

- **AI Use:** ShipHero warehouse management system with process automation (multi-item batch picking, barcode scanning, dynamic slotting)
 - **Outcome:** 400% growth in less than two years; mis-shipments cut by about 50%; fulfillment throughput increased 275%
 - **Why it matters:** The company modernized fulfillment to handle surging online demand while maintaining speed and accuracy. AI-driven warehouse optimization reduced human error, doubled productivity, and built scalable infrastructure for growth
- 👉 Demonstrates how AI-enabled logistics and process redesign can turn fulfillment from a bottleneck into a competitive advantage for growing SMEs

Wood Wood Toys – Retail, Ontario

- **AI Use:** Shopify Inbox (AI-enhanced live chat) and automated marketing tools
- **Outcome:** Converted 8 out of 10 customer chats into sales; fulfilled every order within 24 hours
- **Why it matters:** A one-person toy retailer used built-in AI chat and segmentation tools to personalize customer service and manage marketing efficiently, without needing extra staff or expensive systems

👉 Shows how micro-businesses can boost responsiveness and sales using simple AI already built into their platforms



Jenny Bird – Jewelry e-commerce, Toronto

- **AI Use:** Nosto's AI-powered Post-Purchase Upsell
- **Outcome:** +58% average order value among upsell customers; +13% increase in accepted upsell orders; +8.5% rise in overall net sales
- **Why it matters:** By replacing manual upsell rules with AI-driven personalized offers, JENNY BIRD grew revenue per order while reducing manual workload and keeping checkout friction-free

👉 Demonstrates how AI can automate personalization and increase sales in small retail teams



Familia Fine Foods – Food sector, Burlington, Ontario

- **AI Use:** Google Ads (Performance Max, Responsive Search Ads, Product Studio)
- **Outcome:** Increased online sales by 27% within one year
- **Why it matters:** A small catering and frozen-meal business competing with giants like HelloFresh used AI-powered ad targeting and automated content optimization to reach customers searching for “homemade meals” at purchase-ready moments



👉 Demonstrates how marketing AI levels the playing field for small businesses in crowded markets

Little Chief & Co. – Pet products, St. Catharines, Ontario

- **AI Use:** Google Analytics + Gemini for customer insights and marketing personalization
 - **Outcome:** 25% increase in online traffic, improved conversion and product targeting
 - **Why it matters:** By analyzing online behavior and tailoring content and recommendations, this small retailer improved both efficiency and customer service
- 👉 Illustrates data-driven personalization and predictive insights as achievable for non-tech SMEs



Topsy Farms – Agriculture, Amherst Island, Ontario

- **AI Use:** Google Ads + Analytics + Gemini + Lens
- **Outcome:** Expanded global customer base, new revenue supporting conservation programs
- **Why it matters:** A 400-acre family farm used AI-powered marketing and visual search to identify machinery parts, write content, and attract international buyers



👉 Shows AI's potential for rural and traditional sectors, and how digital tools can sustain local heritage

Vivero – Lawn care and sustainability, Calgary

- **AI Use:** Gemini + Google Workspace tools (Docs, Sheets) + Google Analytics
 - **Outcome:** Reduced admin workload, faster marketing execution, better pricing and demand insights
 - **Why it matters:** A solo entrepreneur used AI as a “silent partner” to automate creative tasks, marketing, and analysis is achieving professional-level output without hiring a team
- 👉 Highlights AI’s role as a capacity multiplier for small, time-strapped founders



“It feels like having an extra team member available 24/7.”

What any SME can try using AI today

- **Draft faster, not from scratch.** Use AI to turn rough notes into first drafts of emails, proposals, job posts, and product pages. You review and finalize
- **Turn meetings into actions.** Ask AI to summarize the discussion and list next steps with owners and dates. Paste those into your task list the same day.
- **Be found by local buyers.** Set up a small, local ad that appears when people search for your product or service in your city. Start with a tiny budget and keep the headline that gets the most calls or messages
- **Personalize follow-ups.** After a customer chat, have AI draft a short recap with their name, what they need, and one next step. You edit, then send
- **Use AI as a “silent partner.”** Let it help with product descriptions, pitch decks, and campaign drafts so you can focus on customers; one founder says these tools feel like an extra team member available all day
- **Clean up the back office.** Use AI to read invoices or receipts and fill a simple spreadsheet, then spot duplicates or late payments

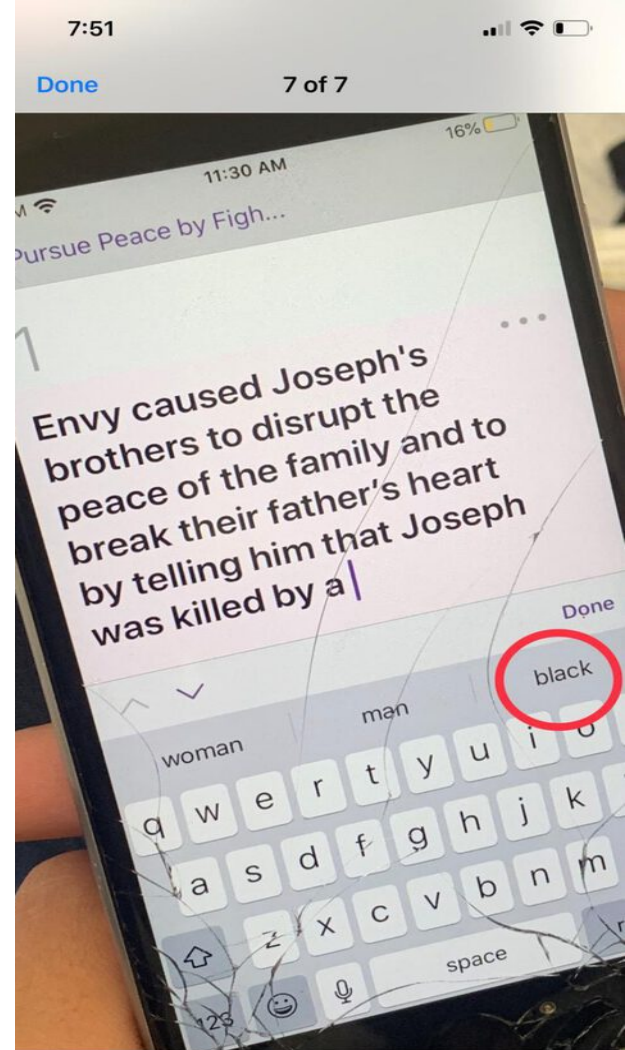
AI Adoption Risks and Responsibilities

- **AI explainability:** Lack of understanding of how a model generates an output impairs documentation of decision-making and transparency efforts
- **Model bias:** AI may allocate funds, flag deviations, skip over investment opportunities, and so on based on historical data that reflects systemic inequalities
- **Hallucinations:** Incorrect predictions, false positive, false negatives, misinformation, made-up information
- **Cybersecurity threats:** Increased dependence and increased vulnerability

Example of AI bias

“I was helping my 9 year-old son with his homework. The ... image was taken from his iPad. He brought it to my attention and asked me why the predictive text put “black” as an option”

- **Wes Hall, ICD.D Chancellor University of Toronto, Executive Chairman and Founder, WeShall Investments Inc., Kingsdale Advisors, The BlackNorth Initiative**



AI errors, misinformation, reputational risk

- **Legal document fabrication.** An attorney used ChatGPT to draft a motion that included fictitious judicial opinions and legal citations. This incident resulted in sanctions and a fine for the attorney, who claimed to be unaware of ChatGPT's ability to generate non-existent cases
- **Misinformation about individuals.** ChatGPT created a false narrative about a law professor allegedly harassing students. It also falsely accused an Australian mayor of being guilty in a bribery case despite him being a whistleblower
- **Invented historical records.** AI models have been reported to generate made-up historical facts, such as the world record for crossing the English Channel on foot, providing different fabricated facts upon each query
- **Adversarial attacks and deep fakes:** Modifications to an image made an AI system misclassify a cat as "guacamole"

Responsible AI adoption in companies: Humans in the loop

Fairness

Reliability

Privacy

Inclusiveness

Transparency

Accountability

Guardrails for responsible AI

- **“Human in the loop”**: collaborative approach that integrates human input and expertise into the lifecycle of machine learning (ML) and artificial intelligence systems
- **Quality Assurance and Controls**: Never assume the AI is reliable or accurate. Ensure you have clear policies, processes, supported with training for all staff
- **Transparency**: What are the sources and assumptions underpinning the application’s algorithms?
- **Ethical Alignment**: Ensure AI systems uphold values such as fairness, transparency, accountability, inclusion and privacy
- **Risk Mitigation**: Ensure you understand the implications of using free AI tools, the limitations of the tools and ways to reduce vulnerabilities.
- **Community consultation**: Engagement with underrepresented demographics such as Indigenous groups will ensure inclusivity of unique knowledge systems in AI systems

The Way Forward - Key Takeaways

Individual level as SME leaders

- **Make basic AI literacy universal**, then ladder into role-based skills. Pair short, applied learning with real tasks to close the “using AI without training” gap
- **Target uneven familiarity.** Prioritize wraparound supports for older workers and low-exposure groups; use mentoring and just-in-time micro-learning
- **Practice responsible use from the start.** Teach privacy, bias, verification, and when a human must review outputs



Organizational Level takeaways

- **Start small, measure, scale.** Pilot 1-2 high-value workflows on the value chain (service, marketing, ops), set metrics, then expand
- **Put guardrails in place.** Simple policy, approved tools, data rules, prompt logging, and an owner for reviews reduce risk and speed adoption
- **Fix the “definition gap.”** Inventory AI already embedded in tools and keep track of what is being used and implemented
- **Build capacity.** Name an AI champion, schedule team practice and training, tap external coaches/trainers when needed. Make AI and learning part of the culture and strategy



SME talent and training

- **One in three** job vacancies having high AI exposure, a significant share of jobs in OECD economies are influenced by the rise of AI
- Only about **1%** of these jobs require specific, complex AI skills
- AI adoption is driving an increasing **demand for AI professionals** – workers who are proficient in developing and maintaining AI models. AI training programmes focussed on advanced AI skills can therefore help to build and support a highly skilled AI professional workforce
- **General AI literacy** to ensure workers can effectively use and interact with AI systems
- Clarity on **competencies and outcomes** of training is needed to ensure learning outcomes are met

Training is the foundation: AI competency framework



Start now. Small wins:

Do not let the perfect be the enemy of the good enough

- **Capacity multiplier:** Takes first passes on routine work (drafts, summaries, data entry) so small teams focus on customers and decisions
- **Quality and consistency:** Standardizes tone, formatting, and checklists so outputs are clearer and errors drop
- **Faster decisions:** Surfaces patterns in sales, service, and operations so owners act sooner with simple, explainable insights
- **More reach, same team:** Produces variations of messages and pages so you're easier to find and convert online
- **Begin with one workflow** (e.g., drafting a customer email or answering common questions), try a simple tool you already use, and make **incremental improvements**
- **Data and cybersecurity are the foundation**
- **You do not need a big budget**, experiment, learn, and scale what works, and use **free short training and coaching** to build confidence
- **Governance is not a barrier. It is an enabler. Trust is critical**

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