

Addressing the Digital Skills Gap in Canadian Nonprofits: Designing Options for Solutions

JANUARY 2025

CANADIAN CENTRE FOR NONPROFIT DIGITAL RESILIENCE

Acknowledgements

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Project Partners











Advisory Committee

Alberta Nonprofit Network
CanadaHelps
CUPS Calgary
Head and Hands
Inclusion New Brunswick
Indigenous Friends Association
Information and Communications Technology Commission
Impact Organizations of Nova Scotia
Malvern Family Resource Centre
Ontario Nonprofit Network
Skills for Change
Social Economy Through Social Inclusion
Women's Economic Council
YMCA Winnipeg
Yukon Learn



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CANADIAN CENTRE FOR NONPROFIT DIGITAL RESILIENCE

The Canadian Centre for Nonprofit Digital **Resilience** (CCNDR) works to create a digitally-enabled nonprofit sector, where Canada's nonprofits use data and tech to multiply their impact.

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PROJECT OVERVIEW:

Futureproofing the community service workforce

Unlocking the nonprofit sector's digital skills to strengthen community services

he nonprofit sector is the cornerstone of community services in Canada, delivering invaluable support to people in every region of the country. But as in most sectors, nonprofits are responding to rapid changes to digital technology. A digitally skilled nonprofit workforce is increasingly essential to successfully serve the evolving needs of communities.

However, there is **limited research** that assesses the current skills and future demands for the nonprofit workforce in Canada. What we do know is that there is a **growing gap** between the **digital skillsets and capacity** they have now and what they need to continue delivering services effectively.

In response, **Futureproofing the Community Service Workforce** aims to understand, and then unlock, the nonprofit workforce's facility with Digital Skills Plus (DS+). DS+ encompasses digital as well as adjacent skills often deployed with digital tools, including communication, creativity, innovation, adaptability and problem-solving skills. With funding from **Employment and Social Development Canada (ESDC)'s Skills for Success program**—and driven by a consortium of organizations with expertise in nonprofit capacity building and the digital skills economy—the 17-month project has four strategic **Phases**:

- 1. Understanding the current supply and future demand for DS+.
- **2.** Analyzing the gaps in supply versus demand for DS+.
- **3.** Co-designing and rapidly testing solutions to close this gap.
- **4.** Creating a scalable DS+ talent model.

By the end of our project timeline, we hope to achieve the following **Objectives**:

- ▶ reinforce the evidence base in Canada on current and future needs for DS+ in the nonprofit sector, informing the sector's future training and talent strategies, increasing awareness of the forecasted demand for DS+ and enhancing the sector's ability to articulate and close the most pressing skill gaps;
- ▶ use this research to inform and test a prototype (or prototypes) of a scalable DS+ upskilling model that provides practical, tailored and broadly applicable training for the nonprofit workforce (in other words, to help them develop foundational and advanced digital competencies, fostering a culture of continuous learning and innovation); and
- ▶ mobilize findings and learnings via public reports, research briefs and recommendations to bring greater evidence-informed discussion to the nonprofit sector around its DS+ needs and paths forward.

Who We Are

Futureproofing the Community Service Workforce is led by a partnership between Imagine Canada, The Dais at Toronto Metropolitan University, the Digital Governance Council (DGC) and Blueprint. See below for a more detailed description of partners. The Canadian Centre for Nonprofit Digital Resilience (CCNDR) provides a platform to share information about this project at https://futureproof.ccndr.ca/.

Partners

Imagine Canada. Imagine Canada is a national, bilingual, charitable organization with a mission to strengthen and support Canadian charities and nonprofits so they may better serve and engage individuals and communities, here and around the world. Imagine Canada i) develops and delivers products and services that help charities and nonprofits operate at the highest level of governance and deliver the highest quality programs; ii) creates and mobilizes data, information, research and knowledge that help charities and nonprofits make wise decisions; iii) develops and advocates for public policies that assist charities and nonprofits; and iv) works to improve Canadians' understanding and perceptions of the charitable and nonprofit sector and its contributions to our quality of life.

The Dais. The Dais is a public policy and leadership think tank at Toronto Metropolitan University (TMU), connecting people to the ideas and power needed to build a more inclusive, innovative, prosperous Canada. Since 2015, its team has worked across Canada and internationally to develop new ideas and better leaders, resulting in measurable change in economic, education and technology policy and for thousands of people whose lives have been changed through their leadership programs. From its home at TMU, the Dais has direct access to scholars, students, entrepreneurs, leaders and networks who can develop new ideas and challenge old assumptions with national and global reach.

<u>Digital Governance Council</u>. The Digital Governance Council is a member-driven organization that acts as a cross-sector neutral convener for Canada's executive leaders to identify, prioritize and act on digital governance opportunities and challenges. The Council leads an Executive Forum for council members, sets technology governance standards through the Digital Governance Standards Institute and certifies the compliance of Canadian organizations in the management of the effective and efficient use of digital technologies. To learn more about the organization and its initiatives, visit www.dgc-cgn.org or contact info@dgc-cgn.org.

The Canadian Centre for Nonprofit Digital Resilience (CCNDR). CCNDR supports a digitally enabled nonprofit sector, where Canada's diverse nonprofits use data and tech to advance their mission and multiply their impact. It galvanizes people and mobilizes funding to support impactful initiatives; convenes diverse experts across sectors; and prioritizes ideas that can make a broad impact and deliver real progress.

<u>Blueprint</u></u>. Blueprint is a non-profit, mission-driven research organization dedicated to improving the social and economic well-being of Canadians by helping its clients solve complex public policy challenges. Blueprint works with all levels of government, foundations and nonprofits and socially conscious businesses to design and execute strategies to foster innovation, learn what works and deliver evidence-informed solutions to our most pressing social and economic issues.



Executive summary

ntering **Phase 3** of the **Future proofing the Community Service**Workforce, we continued to build on the findings from previous phases and moved into the co-design of options that can address the digital skills gap in the Canadian nonprofit sector. From our previous research, we know:

- 1. Digital skills are becoming increasingly critical for the Canadian nonprofit sector.
- 2. Financial and resourcing constraints are the most common challenges faced, followed by not knowing how or where to start building digital skills.
- **3.** The top three digital skill gaps identified were:
 - data privacy and security;
 - data-informed decision making and strategy; and
 - data management and analysis.

To prepare for the development of the prototype, a self-contained set of activities that nonprofits can use to enhance their digital skills and capacity, we recruited eight nonprofit design partners to co-design options for solutions and performed a scan of the available training and funding resources in Canada. We found the following:

- 1. There were limited funding opportunities available to nonprofits specifically for digital upskilling, though there were some general training or upskilling opportunities available.
- **2.** The training ecosystem is largely fragmented and difficult to navigate to identify and access the right training.
- **3.** Our eight design partners faced some or all common challenges described in our previous research.

Leveraging our findings and additional research, we developed the Digital Skills Plus Framework to articulate key digital skills applicable to nonprofits. This framework was created to be flexible and applicable to a broad range of nonprofits regardless of service delivery sector or size. This framework will be piloted alongside the chosen prototype solution to validate its applicability and relevance to the nonprofit sector.

The four co-designed prototype solutions were created to address specific challenges identified in our previous research. One will be selected, further developed, and piloted with our eight design partners to assess its feasibility, utility, and scalability. Our four prototype options are:

1. Identifying digital skills needs across roles.

- 2. Improving data management practices and processes.
- 3. Empowering highly skilled staff to coach/mentor.
- 4. Building data privacy and security IQ.

Following the selection of one prototype with the support of our design partners, they will pilot the selected prototype and provide in depth feedback about its utility, usability, and scalability. We will share the outcomes of this pilot, along with the finalized prototype in the upcoming Outcomes report.



Introduction

his report presents findings and insights from **Phase 3** of the **Futureproofing the Community Service Workforce** project. The primary goal of this phase is to identify practical solutions to address the nonprofit sector's pressing digital skills challenges, though the development of a set of self-contained, scalable prototypes.

In **Phases 1 and 2**, we conducted foundational research to understand the nonprofit digital skills landscape:

- We used Census 2021 data to understand the size and composition of the nonprofit sector, including the proportion of 'tech workers' in <u>Canada's</u> <u>Nonprofit Tech Workforce</u> (July 2024).
- We analyzed job posting data for 2023 to assess the demand for DS+ in different nonprofit roles in <u>The Demand for Digital Skills in Canada's</u> <u>Nonprofit Sector</u> (July 2024).
- ▶ We conducted research to better understand the nature of the digital skills gaps in Canadian profits, including an environmental scan, a new survey of the sector, and interviews and focus groups with nonprofit staff, in <u>Assessing the Digital Skills Gap in Canadian Nonprofits</u> (October 2024).

Our research identified significant challenges, including limited access to funding, fragmented training opportunities, and critical skill gaps in areas like data privacy, data-driven decision-making, and digital leadership. **Phase 3** builds on these findings and identifies four co-designed options, with the goal of selecting and testing one practical solution to close the digital skills gap.

This report has four sections:

- 1. **Preparing for co-design options** summarizes the recruitment of co-design partners and additional research conducted to ensure that proposed solutions are practical and relevant.
- **2. Key insights** highlights findings from Phase 3 research to inform options development.

- **3. The Digital Skills Plus Framework** introduces a new skills framework created to inform options design.
- **4. Four prototype options** outlines our four potential solutions for addressing digital skills gaps in the nonprofit sector.

This report is a critical step in developing actionable solutions that will be tested in real-world nonprofit settings. In **Phase 4**, one option will be selected, developed as a prototype, and pilot tested. Results will be shared in our upcoming Outcomes Report.



Preparing for co-design options

Te recruited eight nonprofit organizations as co-design partners and conducted additional research to address key challenges identified in earlier phases. These efforts will help ensure the prototypes are both relevant and actionable for the nonprofit sector.

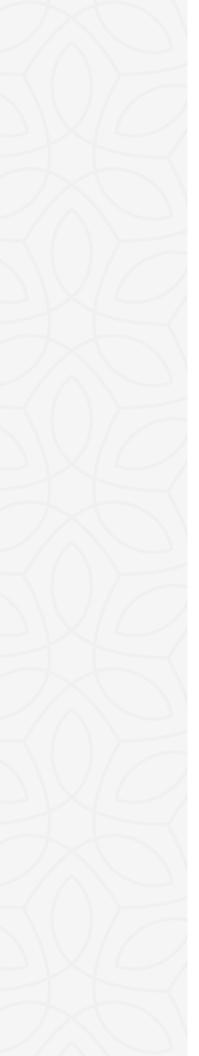
Recruiting and engaging co-design partners

We selected our co-design partners based on their geographic diversity, organizational size, sector focus, and capacity to participate. These organizations represent a range of missions, including education, youth services, and economic inclusion, and are located across Canada. During Phase 3, co-design partners participated in onboarding discussions and interviews to share their perspectives on digital skills challenges and potential solutions. Their input has been critical in shaping early designs.

Looking ahead, our partners will play a pivotal role in testing the selected prototype during the next phase. By piloting the solution within their organizations, they will provide valuable feedback on its feasibility, scalability, and impact and help refine and finalize the design.

Co-design partners:

- ► **CUPS Calgary** (Calgary, Alberta)
- ▶ **Skills for Change Metro Toronto** (Toronto, Ontario)
- ▶ **Malvern Family Resource Centre** (Scarborough, Ontario)
- ▶ **Yukon Learn** (Whitehorse, Yukon)
- ► **Head and Hands** (Montreal, Quebec)
- ▶ YMCA/YWCA Winnipeg (Winnipeg, Manitoba)
- ▶ Inclusion New Brunswick (Fredericton, New Brunswick)
- ▶ Women's Economic Council (Toronto, Ontario)



Scanning the landscape and engaging experts

In parallel with co-design partner recruitment, we conducted additional research to ensure the prototype options would be as practical and relevant as possible. Our earlier research highlighted significant barriers nonprofits face, including:

- ▶ limited access to funding for digital skills training;
- challenges navigating and aligning training opportunities with organizational needs; and
- critical skill gaps in areas like data privacy, security, and decisionmaking.

To ensure the proposed options address these challenges, we conducted a comprehensive scan of funding programs, training opportunities, and other supports available to nonprofits. This scan helped us identify gaps and opportunities in the current landscape, ensuring that the solutions we create complement existing resources.

We also interviewed seven advisory committee members with expertise in digital skills and nonprofit capacity building. These conversations provided additional insights into the challenges nonprofits face and practical strategies for addressing skills gaps.

Together, these activities provided a strong foundation for options co-design. By integrating the perspectives of co-design partners with insights from the broader landscape, we are ensuring that each option will be grounded in real-world challenges and designed to deliver meaningful impact.



Key insights

This section summarizes key insights from our co-design partners and our Phase 3 research activities.

What funding opportunities exist?

In earlier project phases, we identified funding and resource constraints as the most significant barriers to addressing digital skills gaps. Nonprofits indicated that grant opportunities were difficult to find (68%) or difficult to match to their specific needs (53%) (CCNDR, 2024c). Moreover, the funding options nonprofits were aware of often focused on individual upskilling rather than organization-wide capacity building.

Phase 3 findings

In this phase, we aimed to better understand the digital skills funding landscape. In our scan of funding opportunities, we did not identify any dedicated grants for nonprofit organizations to develop their digital skills. The funding opportunities that do exist tend to be tied to specific projects, or focus on upskilling at an individual level. Existing funding sources generally fall into four categories:

- Innovation project grants with a digital skills component.
 Some funders allow digital skills training as one component of a broader innovation project. Examples include the <u>Ontario Trillium Foundation</u> and corporate social responsibility programs like <u>Process Fusion's Social Impact Grants Program</u>.
- 2. Individual training grants. Programs such as the <u>Canada-Ontario</u>
 <u>Job Grant</u> subsidize training costs for employees (Ontario Ministry
 of Colleges and Universities, 2024). While these grants can directly
 support digital skills training, they often require matching financial
 contributions from employers and partnerships with eligible training
 institutions, such as colleges or universities.

- 3. Wage subsidy programs. Wage subsidy programs support employers in hiring skilled workers, including those with digital expertise (Government of Canada, 2023). However, these programs only support hiring talent versus training existing employees, and require coordination with programs that administer wage subsidies to identify suitable candidates.
- **4. Tax credits for individuals.** Credits such as the <u>Canada Training</u> <u>Credit</u> provide financial benefits to individuals pursuing skills development (Canada Revenue Agency, n.d.). While these programs don't offer direct funding to nonprofits, organizations can encourage their staff to leverage these benefits and provide flex time or paid time off to participate in training.

The full list of funding opportunities in our scan can be found in <u>Table A2</u> in <u>Appendix A</u>.

Implications for prototypes

To be effective, prototypes should:

- ▶ Address the challenges nonprofits face in identifying and articulating their digital skills needs.
- ► Include organizational capacity building as well as upskilling targeted to individuals.
- ▶ Include tools to help nonprofits map and prioritize their digital skill gaps.
- ▶ Be low-cost or no-cost to ensure accessibility across a wide range of nonprofits.
- Guide organizations in identifying and navigating funding opportunities to support their digital skills development goals.

What training opportunities exist?

In earlier project phases, we found that nonprofits struggle to navigate the fragmented ecosystem of training resources and match opportunities to their specific needs. Nonprofits expressed the most interest in free training, guidance, and support from funders and webinars, with peer learning in a



close fourth place. At the same time, many nonprofits indicated that existing self-serve training and resources, such as webinars, online communities, and online guidance, were most effective for individuals who already had a moderately high baseline of digital skills (CCNDR, 2024c).

Phase 3 findings

In this phase, we wanted to further investigate how the current Canadian digital skills training landscape was meeting the specific needs of nonprofits. Our analysis identified 268 learning opportunities, including a large number of resources maintained by **CanadaHelps** (n.d.). Of these, 61% were free, and 40% were designed specifically for nonprofits. Topics covered a range of digital skills, including data management, cybersecurity, and digital communications.

Training modalities

We categorized the most common approaches to digital upskilling into three broad modalities:

Table 1: Common training modalities

Modality	Examples and definitions
Self-directed learning	Includes online tutorials, webinars, and documentation. Effective for independent learners but requires staff to already have foundational skills.
Structured training opportunities	Includes formal courses, certifications, and workshops. While valuable, these can be expensive or time- and resource-intensive.
On-the-job learning	Includes peer learning, mentorship, and hands-on coaching. This approach is effective in nonprofits, where informal "accidental techies" often serve as internal trainers and digital champions. ¹

Despite the availability of resources, nonprofits face persistent challenges in identifying suitable training options and ensuring these align with their skill gaps. These issues stem from:

► The diverse and decentralized nature of training opportunities, which makes navigation difficult.

¹ The CanadaHelps 2023 survey points to the phenomenon of the "accidental techie": employees whose job descriptions do not formally include data and technology work but who find themselves providing services and support in these areas.

- ► A lack of tools to match staff with the "right" training based on organizational priorities and needs.
- ► The risks associated with investing in the "wrong" training, given how constrained funding is for digital skills development.

Implications for prototypes

- ▶ **Focus on navigation.** Prototypes should provide nonprofits with tools to identify and prioritize their digital skills needs and match staff with the most relevant training opportunities.
- ▶ **Leverage informal expertise.** Solutions should empower "accidental techies" through coaching and mentorship resources, enabling them to upskill other staff and build organizational capacity.
- ▶ **Promote accessible resources.** Prototypes must emphasize low- or no-cost training options and help nonprofits access structured training that aligns with their needs and budgets.
- ▶ **Streamline decision-making.** Nonprofits need guidance to effectively allocate time and resources to training that delivers high organizational impact.

By addressing these barriers, prototypes can help nonprofits navigate the training landscape more effectively, reduce reliance on ad-hoc solutions, and foster a culture of continuous digital learning.

What are the priority skills gaps?

In earlier project phases, we identified the following as the three largest digital skill gaps among nonprofits:

- 1. Data privacy and security. Employing policies, practices, and procedures to protect and control how information is collected, used, and shared.
- **2. Data-informed decision-making and strategy.** Leveraging data and associated insights to guide decisions, actions, and long-term strategies.
- **3. Data management and analysis.** Collecting, organizing, and interpreting data to generate meaningful insights.



In addition to these specific skills, we found that smaller nonprofits and those earlier in their digital journeys often lack dedicated technical staff, leaving critical responsibilities to non-technical leaders or general staff. Additionally, digital leadership emerged as a key enabler for fostering digital skills development and organizational transformation (Gibson, 2022).

Phase 3 findings

In this phase, we explored how these skill gaps manifest differently across organizations depending on their digital maturity and available resources. Through interviews with experts and co-design partners, we found three key factors influencing digital skills gaps across nonprofits:

1. Data skill gaps.

- As outlined in our previous research, experts concurred that data skills represented a critical gap for nonprofits.
- They further added that responses to digital skill gaps must be flexible, since they manifest very differently depending on organizational stage and resources.

2. Organizational stage and resources.

- Organizations further along their digital development journeys are better equipped with dedicated staff and systems to address skills gaps.
- Less mature organizations often face more significant challenges due to limited resources, fragmented responsibilities, and reliance on generalist staff.

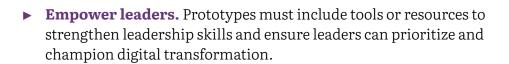
3. Digital leadership.

- Leadership plays a crucial role in prioritizing digital transformation. Leaders who lack digital literacy may slow progress, while those with strong digital skills can drive organization-wide improvements.
- Leadership development is critical to addressing skill gaps and fostering a culture of innovation.

Implications for prototypes

To address these gaps, prototypes should:

▶ **Support organizations at all levels of maturity.** Solutions should be scalable and adaptable to meet the needs of nonprofits with different capacities.



- ▶ **Focus on core data skills.** Prototypes should emphasize the development of foundational skills in data privacy, security, management, and decision-making.
- ► **Enable tailored approaches.** Solutions must account for the unique challenges of each organization, helping them prioritize their most critical gaps and build capacity over time.

By addressing these priority skill gaps, prototypes can create meaningful and lasting impacts, equipping nonprofits with the digital skills needed to thrive in an increasingly data-driven environment.

Summary of insights

Our new research activities have helped inform key constraints and considerations for prototype development. Based on our findings, effective prototypes should:

- **1.** Be accessible, low-cost, and user-friendly to reduce resource constraints.
- **2.** Address upstream challenges like articulating skill gaps and identifying relevant training and funding opportunities.
- **3.** Offer flexibility to support nonprofits of varying sizes and levels of digital development with a range of challenges.
- **4.** The prototype should go beyond structured training modules and should match nonprofits to resources and training tailored to their unique needs and challenges.

These insights provide a strong foundation for prototype development, ensuring solutions are both practical and impactful for nonprofits across Canada.



The Digital Skills Plus Framework

o guide the prototype development, we created the **Digital Skills Plus** (**DS+**) **Framework**. This framework defines and organizes the essential digital and complementary skills nonprofits need to navigate a rapidly evolving digital landscape. It is designed to be practical, flexible, and aligned with the diverse needs of nonprofits at varying stages of digital maturity.

What is the DS+ Framework?

The DS+ Framework includes both digital skills and the **adjacent enabling skills** that are critical for effective use of digital tools and technologies. These adjacent skills—such as communication, adaptability, problem-solving, and innovation—help nonprofit teams apply digital solutions to their work.

How did we develop the framework?

The DS+ Framework was informed by a collaborative and evidence-based process that drew on:

- ▶ **Digital skills typologies.** We reviewed Canadian and international digital skills typologies to anchor the framework in established industry expertise and approaches.²
- ▶ **Research findings.** We drew on insights from Phase 1 and Phase 2 to ensure our framework emphasized the digital skills most in demand in the nonprofit sector.
- ► **Canada's Skills for Success.** We aligned our framework with the Government of Canada's Skills for Success model to categorize digital

The typologies that were most relevant for our purposes included Huynh and Malli (2018)'s digital skills typology; Li, Kwok, and Hamza (2023)'s digital subcluster definitions; and the frameworks used in CanadaHelps' *Digital Skills Survey* (2023) and Amar and Ramsay's (2023) *Charity Digital Skills Report*.

enabling skills and ensure relevance to broader workforce development initiatives (Government of Canada, 2024).

- ▶ **Expert interviews.** Advisory committee members provided guidance on critical skills and effective capacity building approaches.
- ▶ **Co-Design partners.** Feedback from eight nonprofit organizations helped us identify skills that are most relevant and actionable for the sector.

This comprehensive approach ensured the DS+ Framework reflects the real-world needs of nonprofits while remaining adaptable to diverse contexts.

Key elements of the framework

The DS+ Framework organizes digital and enabling skills into six broad **skill areas**, each linked to specific skills, enabling skills from the Skills for Success framework, and digital skill subclusters used in our earlier phases of research. A summary of the framework is provided in **Table 2**, and a detailed version is available in **Appendix B**.

Table 2: DS+ Framework

Skill area	Skill	Enabling Skill for Success	Digital skill subcluster
Office tools	Word Processing	Writing	Workforce digital skills
	Presentation	Creativity, writing	Workforce digital skills
	Spreadsheet	Numeracy	Workforce digital skills
Communic-	Email	Communication	Workforce digital skills
ation and collaboration	Video conferencing or chat	Communication	Workforce digital skills
	Sharing documents on the cloud	Collaboration	Workforce digital skills
	Whiteboarding and other collaboration tools	Collaboration	Workforce digital skills
Marketing and website tools	Website management	Adaptability, creativity	Software/product development and data skills
	E-mail marketing	Communication, writing	Design and marketing skills
	Social media	Communication, writing	Design and marketing skills
	SEO (Search Engine Optimization)	Writing, reading, creativity	Design and marketing skills

Data management and analysis	Data management (crm and data systems)	Numeracy, problem solving, creativity	Software/product development and data skills
tool	Data analysis (spreadsheets and programming tools)	Numeracy, problem solving, creativity, adaptability	Software/product development and data skills
	Data driven decision making and insights	Numeracy, problem solving	Workforce digital skills
Al tools (Language Learning Models)	Al literacy and usage	Problem solving, adaptability, creativity and innovation	Workforce digital skills
	Al integration and workflow automation	Creativity, digital, problem solving	Software/product development and data skills
Cyber- security and data privacy	Cybersecurity practice	Communication, reading, problem solving	Cybersecurity and system infrastructure skills
	Data privacy and software assessment	Problem solving, adaptability, reading	Workforce digital skills

The DS+ Framework serves as a foundation for prototype design by:

- ▶ **Identifying priority skills.** Mapping gaps in digital and enabling skills ensures prototypes target the most pressing needs.
- ▶ **Promoting flexibility.** Prototypes can focus on foundational skills for smaller organizations or advanced capabilities for nonprofits further along in their digital journeys.

During the piloting phase, we will validate the DS+ Framework with codesign partners and incorporate it into the selected prototype. An updated framework, along with recommendations for further development, will be included in the Final Report. These recommendations will explore opportunities for formal assessment tools and consensus-based standards to enhance its applicability and impact.



Four prototype options

his section outlines four prototype options developed through research, consultation, and the DS+ Framework. These prototypes are designed as self-contained tools and resources that nonprofits can use to enhance their digital skills and capacity. Each prototype targets a specific challenge or opportunity identified in earlier project phases and is intended to be scalable, practical, and accessible. **Figure 1** provides an overview of the four prototype options:

Figure 1: Summary of four prototype options

1 Identifying digital skill needs across roles

Target objective: empower nonprofits to articulate and assess their digital skills needs to invest in targeted and relevant training.

2 Improving data management practices and processes

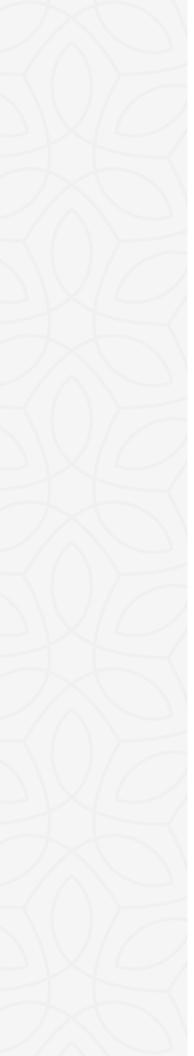
Target objective: build critical data management skills by guiding nonprofits through the analysis and improvement of their data management processes.

3 Empowering highly skilled staff to coach/mentor

Target objective: empower highly skilled staff to develop team members though digital skills coaching to create a sustainable skills development model.

Building data privacy and security IQ

Target objective: increase nonprofit's capacity to assess and improve their data privacy and security practices and align with industry best practices.



Prototype 1: Identifying digital skill needs across roles

Rationale

Data Management emerged as one of the largest skill gaps in our research. A key barrier identified was the absence of tools to map organizational processes to specific skill requirements. This challenge disproportionately affects smaller nonprofits, where roles are often multifaceted, blending administrative and technical responsibilities.

Additionally, nonprofits reported difficulty identifying high-priority skills, leading to ad hoc training efforts that do not align with organizational goals. This prototype addresses these gaps by providing structured tools to assess skills and training needs at an organizational level.

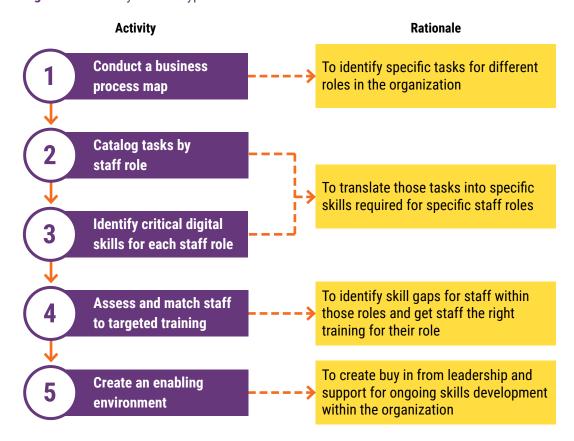
Key features and steps

- Map organizational processes using a business process mapping guide.
- Identify tasks and the skills required for these tasks using the DS+ Framework.
- ► Assess staff skills using an **assessment guide** and match gaps to relevant training options.
- Access guidance on creating an enabling environment for digital skills development.

Target outcomes

- Improved ability to assess and articulate organizational digital skill needs.
- ▶ Strategic allocation of training resources to areas of greatest impact.
- Streamlined hiring processes through better-defined digital skill requirements for roles.

Figure 2: Summary of Prototype 1



Prototype 2: Improving data management practices and processes

Rationale

Data management emerged as the largest skill gap in our research, with nonprofits reporting difficulties in maintaining data quality, streamlining workflows, and deriving actionable insights. This gap is particularly acute in areas such as donor management, impact measurement, and operational efficiency. Smaller nonprofits often rely on manual processes or outdated systems, while larger organizations face challenges in integrating data across departments (Blueprint, 2024).

This prototype provides nonprofits with tools to identify inefficiencies in their data processes and implement improvements. By addressing gaps in data management, nonprofits can increase efficiency, enhance decision-making, and reduce redundancies.

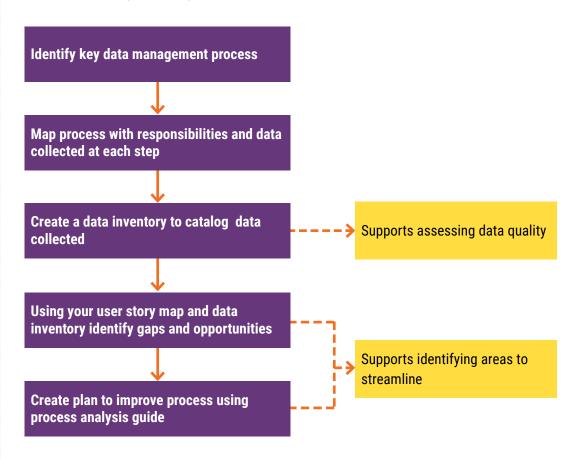
Key features and steps

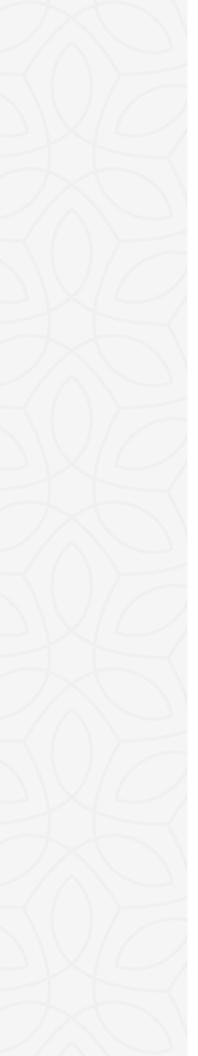
- ► Map data processes and identify responsibilities using a **user story mapping guide**.
- ► Create a data inventory and respond to guiding questions to identify gaps and opportunities for improvement.
- ▶ Use a **process analysis guide** to streamline data management practices and explore automation opportunities.

Target Outcomes

- ▶ Enhanced data quality and streamlined data-related processes.
- ▶ Improved capacity to analyze and use data for decision-making.
- ► Strategic identification and prioritization of technology and process improvements.

Figure 3: Summary of Prototype 2





Prototype 3: Empowering highly skilled staff to coach/mentor

Rationale

Our research highlighted the critical role of informal "accidental techies" in nonprofits—staff who acquire digital skills on their own and informally support colleagues. However, these individuals often lack structured support or tools to scale their impact. Nonprofits expressed a need for capacity-building approaches that leverage these internal champions to mentor other staff, reducing dependency on external consultants or one-time training sessions.

This prototype builds on the concept of peer mentorship by empowering skilled staff to coach their teams, fostering a sustainable model for ongoing skills development.

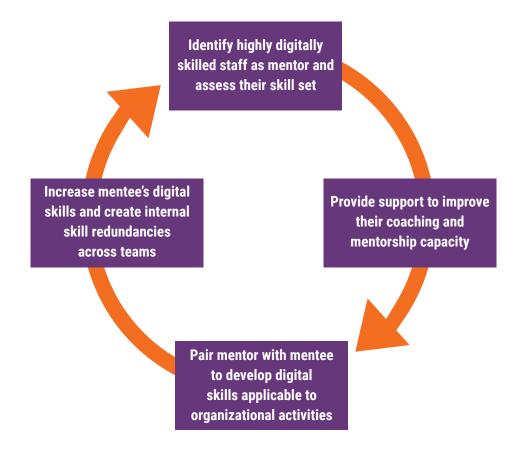
Key features and steps

- ▶ Identify digitally skilled staff using **guiding questions**.
- Assess their technical and coaching skills through a skills assessment guide.
- Develop mentorship plans using templates for structured coaching.
- ▶ Provide supplementary resources to enhance digital coaching capabilities.

Target outcomes

- ► Increased internal capacity through peer mentorship, using existing resources.
- ▶ Enhanced digital resiliency by creating skill redundancies across teams.
- Improved job satisfaction and retention of highly skilled staff.

Figure 4: Summary of Prototype 3

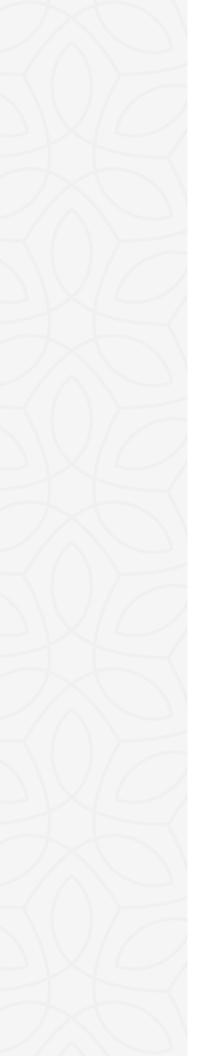


Prototype 4: Increasing data privacy and security IQ

Rationale

Data privacy and security were ranked as critical areas of concern by 88% of nonprofits surveyed (CCNDR, 2024c). Many organizations reported a lack of clear policies and practices, leaving them vulnerable to breaches and compliance risks. Smaller organizations, in particular, face challenges in understanding and implementing cybersecurity best practices.

This prototype directly addresses these gaps by equipping nonprofits with practical tools to assess and improve their data privacy and security practices, in addition to increasing their foundational awareness/knowledge (IQ) of these areas. It emphasizes alignment with Personal Information Protection and Electronic Documents Act (PIPEDA) and other relevant standards to ensure compliance (Office of the Privacy Commissioner of Canada, 2024).



Key features and steps:

- ▶ Assess current privacy and security practices using **guiding questions**.
- ▶ Identify improvement areas and specific needs based on the type of data managed.
- ▶ Incorporate best practices aligned with PIPEDA and industry standards.
- ► Create a tailored improvement plan using provided templates.

Target outcomes

- ► Strengthened data privacy and security aligned with industry standards.
- ▶ Improved staff confidence in maintaining and communicating secure practices.
- ▶ Clear accountability for privacy and security processes across teams.

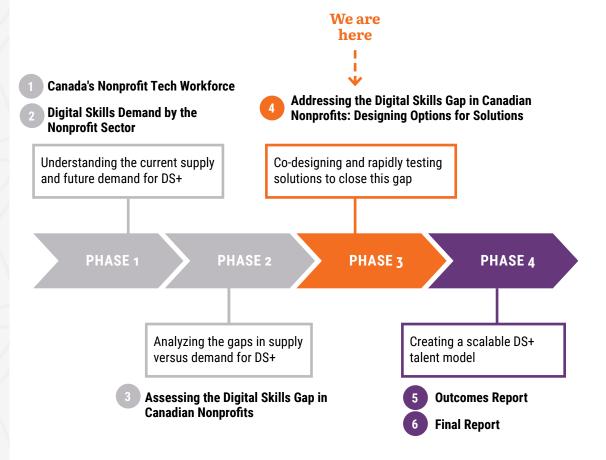
Figure 5: Summary of Prototype 4

Increasing Data Privacy and Security IQ Identify your data privacy and security tools and practices Assess and compare to best practices Identify areas for improvement Improve practices through a tailored and actionable plan

Next steps: Selecting and piloting a prototype

The prototypes presented will be reviewed by the project's design partners to identify the most promising option for pilot testing. The selected prototype will undergo pilot testing to evaluate its feasibility, utility, and scalability.

Figure 6: Summary of project phases



The selected prototype and findings from the pilot will be presented in the Outcomes Report in early 2025. This will describe the scalable Digital Skills Plus talent model for the fourth phase of this project. In the spring of 2025, we will release this project's final report with an updated Digital Skills Plus Framework and recommendations for further research or design activities to continue to address the digital skills gap in the Canadian nonprofit sector.



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Appendix A

Table A1: Training scan resources

Title of training	Organization	Audience	Туре	Cost
<u>Digital Transformation</u>	Charity Village	Nonprofits	Structured training/ learning	Paid
Jump Start Your Nonprofit: Creating a Fundraising System That Funds Your Mission	CharityHowTo	Nonprofits	Structured training/ learning	Paid
<u>Data-Driven Storytelling: How to Incorporate Impact</u> <u>Metrics into Your Nonprofit Marketing Strategy</u>	CharityHowTo	Nonprofits	Structured training/ learning	Paid
How to Create & Organize Your Nonprofit's Social Media Marketing Plan!	CharityHowTo	Nonprofits	Structured training/ learning	Paid
Easy, Effective Google Grant Ads for Non-Profits	Digital Charity Lab	Nonprofits	Structured training/ learning	Paid
Email Marketing for Charities & Non-Profits	Digital Charity Lab	Nonprofits	Structured training/ learning	Paid
<u>Digital Marketing For Non-Profits & Charities</u>	Digital Charity Lab	Nonprofits	Structured training/ learning	Paid
Digital Guidance®	Human Stack	Nonprofits	Structured training/ learning	Paid
<u>Digital Driver's Ed</u>	Human Stack	Nonprofits	Structured training/ learning	Paid
Guide to Landing Pages, by UX Expert Paul Boag	Digital Charity Lab	Nonprofits	Structured training/ learning	Free
<u>Digital Transformation</u>	First Nations Technology Council	Nonprofits	Structured training/ learning	Free
<u>Learn Excel</u>	Data Camp	General	Structured training/ learning	Paid
Data Scientist in Python	DataQuest	General	Structured training/ learning	Paid
<u>Data Analyst in Python</u>	DataQuest	General	Structured training/ learning	Paid
Business Analyst with Power BI	DataQuest	General	Structured training/ learning	Paid

Junior Data Analyst Program	NPower	General	Structured training/ learning	Free
Junior IT Analyst Program	NPower	General	Structured training/ learning	Free
Security Operations Analyst Program	NPower	General	Structured training/ learning	Free
Charity Growth Academy	Charity Growth Academy	Nonprofits	Self-directed learning	Free
Common Impact Data Standard	Common Approach	Nonprofits	Self-directed learning	Free
<u>Data: Resource Centre</u>	Ontario Nonprofit Network (ONN)	Nonprofits	Self-directed learning	Free
Build your capacity to gather and manage data	PolicyWise	Nonprofits	Self-directed learning	Free
Responsible Al Adoption in Philanthropy	Project Evident	Nonprofits	Self-directed learning	Free
Best Practices for Recruting Online	Volunteer Match	Nonprofits	Self-directed learning	Free
Al for anyone	Human Stack	Nonprofits	Self-directed learning	Paid

 Table A2:
 Summary of funding opportunities available to Canadian nonprofits

Name of Grant/Program	Description	Eligibility	Funding Details
Innovation project grants			
Ontario Trillium Foundation	Offers grants for projects that build healthy and vibrant communities, including digital capacity building.	Non-profit organizations in Ontario.	Funding varies by project scope; several grant streams available.
Process Fusion Social Impact Grants Program	Provides grants to Canadian nonprofits for capacity building, digital transformation and education and employment	Canadian registered charities or a social enterprise agency	Funding amount varies by stream and scope
Québec's Programme d'aide financière aux entreprises en matière de technologies de l'information	Offers financial aid to improve technology usage within organizations.	Businesses and non- profits in Québec undertaking tech projects.	Funding amounts vary; supports technology adoption projects.
Alberta Community Initiatives Program (CIP)	Provides funding for community programs and initiatives, including technology upgrades under the Organizational Development Funding.	Non-profit organizations in Alberta.	Up to \$15,000 for organizational development; additional funding for projects.
Enhanced Capacity Advancement Program (ECAP)	Offers multi-year operational funding to non-profits that build capacity in other non-profits, including through training and technology.	Capacity-building non- profits in Alberta.	Core funding of up to \$75,000 annually and up to \$150,000 annually; funding for training, technology, and equipment for up to three years

Training grants	Training grants					
Province-Canada Job Grants	Provides funding for employee training, covering costs for skills development, including digital skills.	Non-profit and for-profit employers in Canada.	Varies by province; generally covers up to two-thirds of training costs.			
Tax credits and grants for	individuals					
Canadian Training Credit	A refundable tax credit for individuals to cover half of eligible training fees, up to a lifetime limit.	Canadian residents aged 26 to 65 with qualifying income.	Accumulates at \$250 per year, up to \$5,000 lifetime.			
Canadian Worker's Benefit	A refundable tax credit to support low-income workers, which can be used towards training costs.	Individuals and families with low income.	Up to \$1,528 for single individuals and \$2,616 for families with children.			
Skilled labour incentives						
Mitacs Accelerate	Pairs university students with non-profit organizations to work on innovative research projects, including digital initiatives.	Non-profit organizations collaborating with academic researchers.	Funding for research internships; cost-sharing between Mitacs and the organization.			
Adapt at Toronto Metropolitan University (TMU)	Provides training and subsidized hiring for individuals in STEM fields, benefiting organizations seeking digital talent.	Organizations willing to hire trained individuals from TMU.	Wage subsidies for hiring eligible candidates.			
BC Tech Co-op Grants Program	Assists organizations in hiring co-op students from tech fields to support digital projects.	Organizations in British Columbia hiring tech co- op students.	Up to \$5,000 per co-op student hired.			

Appendix B

Table B1: DS+ Plus framework skill areas and definitions across levels of development

Skill Area	Foundational Essential skills for everyday tasks	Practical Skills that improve workflows and productivity	Advanced Expertise in automation, integration, and strategy	
Office Tools				
Word processing (Word, Google Docs)	 Open new or existing file and draft document Format text Add tables and images Use spell check 	 Format document using headers for navigation Set up a style template Use tracked changes and add comments Use downloadable templates from the internet 	 Mail merge Insert complicated text or image elements 	
Presentation (PowerPoint, Google Slides, Canva)	 Open new or existing file and create presentation Format slides using preexisting formatting options Insert images or icons Use spell check and add comments 	 Create slideshow theme to apply to entire file Create icons or diagrams from scratch Use speaking notes and presentation mode with timer 	 Record slide show with voice over Add video elements to slides Add charts or visualizations based on data from spreadsheet program 	
Spreadsheet (Excel, Google Sheets)	 Open new or existing file and input data Use column headers to filter data Identify duplicate data Format column headers and numbers (i.e. currency, percent, dates) Insert basic math functions that reference cell data Save as different file types (e.g., CSV, PDF) 	 Select/use available formulas Use conditional formatting and data validation Use data validation to prevent input errors (e.g., dropdown lists) Use pivot tables for analysis Collaborate on shared spreadsheets in real time Use shared templates for standard tasks (e.g., budgets, project trackers) 	 Use basic lookup functions to reference cells in workbook or spreadsheet Use Macros or PowerQuery to automate repetitive tasks Link/reference data from other spreadsheets or files (e.g., budget linking) 	
Communication and Collaboration Tools				
Email (Outlook, Gmail)	 Open, reply, reply all to emails CC and BCC recipients Send a meeting invite and check other's calendars for availability Change view settings 	 Set up folders and rules to redirect emails to folders Block senders and review junk folder for non-junk emails Set up reoccurring meetings 	 Set up POP email service and/ or inbox forwarding Automate email workflows (e.g., auto-replies) 	

Video conferencing or chat	 Open and sign into video conferencing tools on desktop, web, and phone Schedule meetings or messages to be sent out at a future date 	 Set up and initiate breakout rooms Identify and add auxiliary apps for intended purposes (e.g., transcription apps, calendar integration) Use screen sharing and collaborative whiteboards during meetings 	 Use Al features to summarize chats and create action items Manage team permissions and control meeting settings (e.g., host delegation, muting participants automatically)
Sharing documents on the cloud	 Create and save files to a shared drive Access sharable link 	 Set security permissions for single files or folders Remove permissions to a file or folder Grant access to files or folders upon request 	 Create, monitor, and administer cloud file-sharing services (e.g., SharePoint Admin or Google Docs Admin) Automate file-sharing workflows with integrations (e.g., syncing files with CRM or project management tools)
Whiteboarding and other collaboration tools	 Identify and select appropriate collaboration tool for purpose Log in and set up permissions for document 	 Invite others to collaborate or provide visitor link Export collaboration output 	 Use private mode/anonymous features Create and manage templates for collaborative workflows
Marketing and Websit	te Tools		
Website management	 Use basic no code website management tools and CMS. Update website to ensure it is mobile responsive 	 Incorporate basic HTML/CSS elements as required (e.g., embedding a video) Use website metrics to increase usability (e.g., track page load times) Scope and design website templates from scratch using no-code tools 	 Create a custom website or modify themes/templates with advanced CSS or HTML Leverage website analytics and reporting tools to guide UX improvements Implement complex SEO optimizations to increase visibility
Email marketing	 Draft and configure email campaigns using email distribution tools Manage recipients and confirm consent Track open rates for emails Draft email 	 Segment recipients for targeted campaigns (e.g., by donation history) Set up A/B testing to optimize subject lines or email content Use customizable tracking links to measure engagement 	 Configure full email campaign with follow-up sequences Integrate email tools with CRM systems for personalized communication Cross-reference CRM data with engagement metrics to identify trends
Social media	 Log into social media platform Draft content and schedule for future posting Access and review engagement metrics 	 Use social media coordination software to manage cross- platform posting Create a social media strategy and identify metrics Use paid ads features to increase reach 	 Adjust campaigns in real-time based on metrics Calculate ROI on paid ads and engagement Develop multi-platform campaigns integrated with other marketing tools (e.g., email marketing, CRM data)

SEO (Search Engine Optimization)

- Log into SEO tool or website feature and locate keywords
- Add and manage new keywords as needed
- Develop an SEO strategy that includes keywords and informs content on website
- Leverage built in reporting tools to improve website UI, content, and architecture
- Edit and update meta data of website to meet SEO needs
- Identifies and implements more complex SEO tracking metrics

Data Management and Analysis Tools

Data management (CRM and data systems)

- Access summary reports and dashboards
- · Export information as needed
- Create, edit, and update data entry fields
- Check data quality using basic reports
- Set up a data table in spreadsheet software
- Create, edit, and update summary reports and dashboards (e.g., to track metrics over time)
- Bulk upload data from spreadsheets to data systems
- Identify linking variables across tables for simple lookups (e.g., ID matching)
- Articulate data relationships and schemas
- Implement APIs or automation to streamline data flow between systems
- Export CRM data and combine with external datasets for deeper analysis
- Design database schemas (e.g., Salesforce or relational databases)
- Work with unstructured data (e.g., text, media)

Perform longitudinal analysis

Data analysis (spreadsheets and programming tools)

- Perform basic analytical functions (e.g., sum totals, averages)
- · Identify and remove duplicates
- Filter and sort data for reporting
- Summarize key findings and create basic reports using spreadsheets
- Transform, clean, and merge data for deeper analysis
- Use formulas to create summary variables (e.g., calculate age from birthdate)
- Use basic statistical tests (e.g., t-tests) with spreadsheets or programming tools
- Rename variables and modify data types for consistency
- to track trends over time
 Create workflow scripts for data cleaning and
 - for data cleaning and transformations (e.g., Python/R scripts)
- Perform predictive analysis (e.g., forecasting models using R or Python)
- Create interactive dashboards with Power BI or Tableau

Data driven decision making and insights

- Read and understand basic reports generated by data systems
- Recognize metrics used for funder reports, marketing, or program delivery
- Identify metrics aligned with organizational goals
- Identify missing metrics needed to track progress toward goals
- Use data for status updates or to guide operational decisions
- Create a multi-year monitoring strategy aligned with strategic goals
- Use advanced metrics to inform impact measurement frameworks

Al Tools (Language Learning Models)

Al literacy and usage

- Identify and select appropriate Al tools (e.g., ChatGPT, Copilot) for specific tasks
- Construct prompts that generate usable first drafts for emails, reports, or communications
- Confirm the accuracy and relevance of Al-generated content
- Ensure no sensitive or confidential data is entered into open Al models

- Reference Al outputs appropriately in reports and presentations
- Understand and apply ethical considerations for responsible AI use (e.g., bias awareness, transparency in AI-generated content)
- Evaluate new Al tools and assess risks (e.g., security, bias, compliance)
- Contribute to the development of Al usage policies
- Facilitate staff training on ethical Al use and best practices
- Assess the risks and security of Al adoption (e.g., compliance, bias risks, and privacy concerns)

Al integration and workflow automation

- Use Al-powered tools (e.g., Copilot, ChatGPT) for small, automated tasks (e.g., summarizing meetings, generating follow-ups)
- Explore pre-built AI features (e.g., automated replies, email drafting) to assist with daily activities
- Integrate Al tools with other platforms (e.g., CRMs, project management tools)
- Create simple workflows that automate tasks (e.g., Al-generated reports sent via email)
- Use tools like Zapier to connect AI to existing systems for automation
- Fine-tune AI tools using internal organizational data to generate more relevant outputs
- Develop custom Al solutions by leveraging APIs (e.g., connecting OpenAl tools to a CRM system)
- Contribute to Al governance frameworks by aligning automations with organizational strategy

Cybersecurity and data privacy

Cybersecurity practice

- Identify a phishing email
- Report phishing attempts to IT or the appropriate team
- Block senders of phishing emails
- Train colleagues to identify phishing emails and report them correctly
- Conduct phishing tests to assess staff awareness
- Understand how to reset passwords and set up recovery methods
- Enable and use multi-factor authentication
- Implement password managers and ensure passwords are shared securely through these tools
- Develop organization-wide training programs on phishing prevention and secure password practices
- Monitor and evaluate the effectiveness of security practices

Data privacy and software assessment

- Understand and assess what data will be shared with app and how it will be shared
- Review privacy policies or data use policies to assess if data aligns with organizational practices
- Assess if data is encrypted at rest and in transit before adoption of new software
- Determine if data will be transferred across jurisdictions (e.g., stored outside of Canada)
- Monitor and track the privacy policies of existing tools to ensure ongoing compliance
- Contribute to or develop organization-wide data privacy policies
- Conduct risk assessments for new software to evaluate potential security and privacy risks