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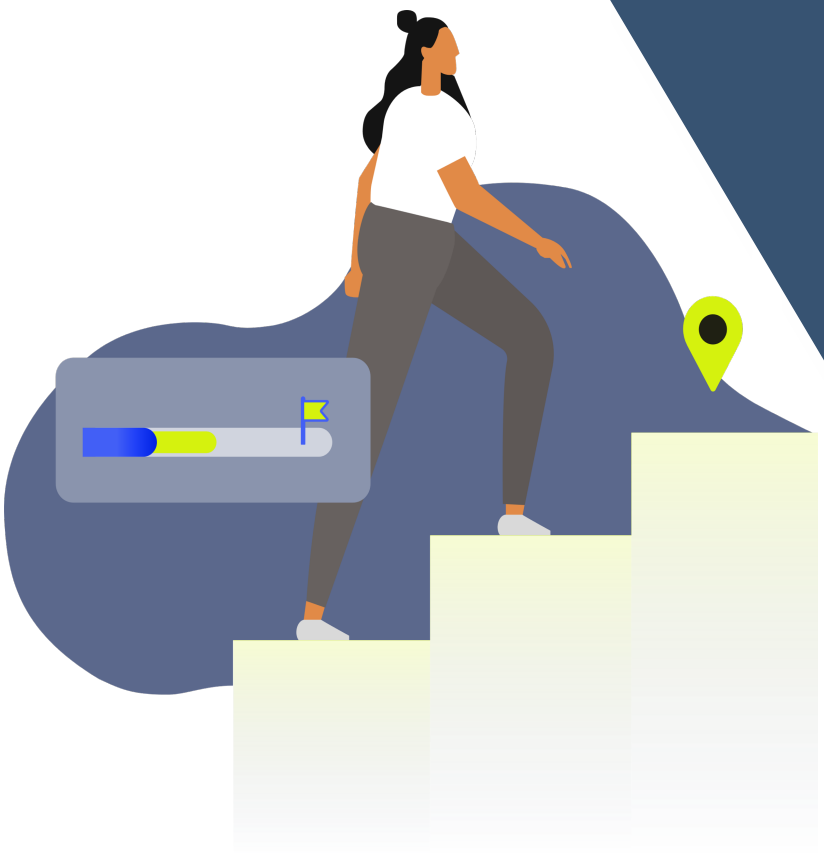

Future Skills Centre

Evaluation of PIPSC's Navigar Project

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FSC is a forward-thinking centre for research and collaboration dedicated to preparing Canadians for employment success. We believe Canadians should feel confident about the skills they have to succeed in a changing workforce. As a pan-Canadian community, we are collaborating to rigorously identify, test, measure, and share innovative approaches to assessing and developing the skills Canadians need to thrive in the days and years ahead. The Future Skills Centre was founded by a consortium whose members are Toronto Metropolitan University, Blueprint ADE, and The Conference Board of Canada

The opinions and interpretations in this publication are those of the author(s) and do not necessarily reflect those of the Future Skills Centre or the Government of Canada.

Executive Summary

The Future Skills Centre funded the Professional Institute for the Public Service of Canada (PIPSC) from 2021 to 2024 to develop Navigar, an online skills development platform designed to provide insight into the future of work while giving members access to high quality training programs and career path guidance. The project looked to fill the gap opened by the lack of a centralized training and development strategy in the Canadian public service.

R. A. Malatest & Associates assisted in the evaluation of the project to assess the extent to which project objectives were met and, where possible, to assess the impact of project activities on the short-term outcomes associated with the project. Data were collected at multiple milestones throughout the project. Data most significant to the final pilot of the platform were collected through a survey and interviews of pilot participants, as well as informal conversations at the 2024 PIPSC Annual General Meeting. This document summarizes the evaluation's design, methods, results and implications.

The key findings of this evaluation are that the pilot users found the platform useful and look forward to continued use as it transitions into full access. More than half of pilot testers who responded to the survey indicated that:

- They are likely or very likely to continue using Navigar.
- Navigar equipped them with knowledge to transform their career;
- The courses and recommended training materials offered aligned with their career goals.

Further, the development process led to some lessons about the need to begin such projects with user experience design and the importance of robust monitoring when multiple systems are working together.

Moving forward, PIPSC is encouraged to build on its robust evaluation activities, continuing to collect data on user experiences and to examine progress to short term outcomes such as user understanding of technology's impact on their profession, acquisition of relevant and diverse skills, and sense of job security. They are also encouraged to add measures to examine progress towards medium- and long-term outcomes such as use of Navigar by Canadian government agencies and departments as well as other unions, and level of satisfaction managers hold in the skills of their workers, which they are already planning.

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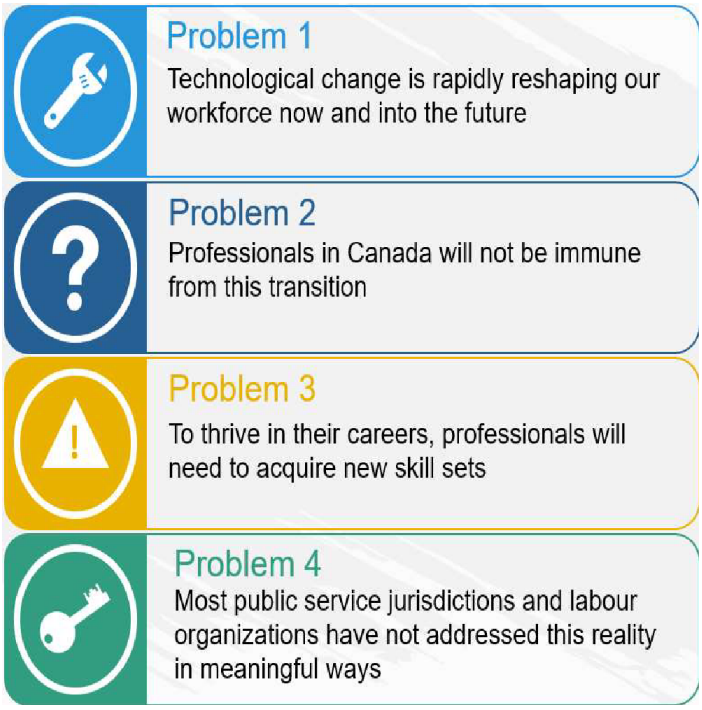
1. Project Background and Description

The Professional Institute of the Public Service of Canada (PIPSC) is a union incorporated under the *Canada Not-for-Profit Corporations Act*. It represents over 70,000 professionals working in provincial and federal public sectors across Canada. Having served public sector professionals for a century as both professional association and a bargaining agent, PIPSC can leverage its current strengths to adapt to new employment realities. With funding from FSC, PIPSC developed Navigar, an online skills development platform that offers members of PIPSC insights on the future of work. With these insights, PIPSC members gain the knowledge needed to advance their careers and to access tailored training.

1.1 Need for Navigar

Figure 1: Problems Navigar aims to address



The pace of technological change is accelerating and brings a new set of challenges for the workforce (see Figure 1).[1] Public sector workers are not immune to the challenges that come with such uncertainty. Although there is a stated policy to promote a "continuous learning environment," the Canadian public service does not have a centralized training and development strategy.[2] The public sector struggles with atrophying skills as government workplaces increasingly favour outsourcing emerging skills rather than upskilling the current workforce.

Workers need to understand the problems and opportunities these changes will present on an ongoing basis. To keep up with the pace of change, PIPSC members need to access up-to-date skill-related information and insights on trends emerging across all professions and industries.[3] Workers need to increase their awareness of currently in-demand and future skills that will likely be in demand across professions. They need easily digestible trends and case studies in skills development, including such trends in public service jurisdictions.

[1] (Autor, Chin, & Salomons, 2024) (Dell Technologies, 2018)
[2] (Government of Canada, 2021)
[3] (The Navigar Team, 2023)

PIPSC strives to provide its members the career intelligence and access to targeted training they need to thrive in this ever-changing world. PIPSC conducted a major study of its members in summer 2019 to get a sense of member satisfaction with the Institute and their level of support for expanded services. Seventy percent of PIPSC members expressed a strong desire to see the Institute expand its educational and professional development offerings to include career planning and skills training. Members were similarly interested in training for core professional competencies that would improve their communications capabilities in their professional lives.

The support for career planning and training increases to 83% for younger PIPSC members. Members 40 and younger are more likely to prioritize career advancement over other workplace issues. They also are more likely to prioritize networking and job-hunting support. Additional services to help them with career advancement would drive greater member satisfaction and support for their union.

1.2 Responding to the Need

PIPSC responded to this need by building an online platform, Navigar, to provide information on skills and occupations to its members. By selecting their current and future roles and creating a custom profile, users access information pertinent to their profession. Armed with this career intelligence, users are then connected to online learning platforms and resources, and over time, other training and certification programs and mentorship opportunities. Users have access to a library of learning materials through partner organizations, covering a broad range of in-demand core competencies and technical skills. In responding to this need, PIPSC has leveraged its network of professional associations to fine-tune its research and offerings, taking into account the broader profession-specific concerns confronting workers.

1.3 Theory of Change

PIPSC built Navigar through several steps. The logic model below highlights how the development and implementation of this platform aims to help its members understand and react to the changing nature of their professions and broader workforce whose skills are up-to-date.

Navigar Logic Model

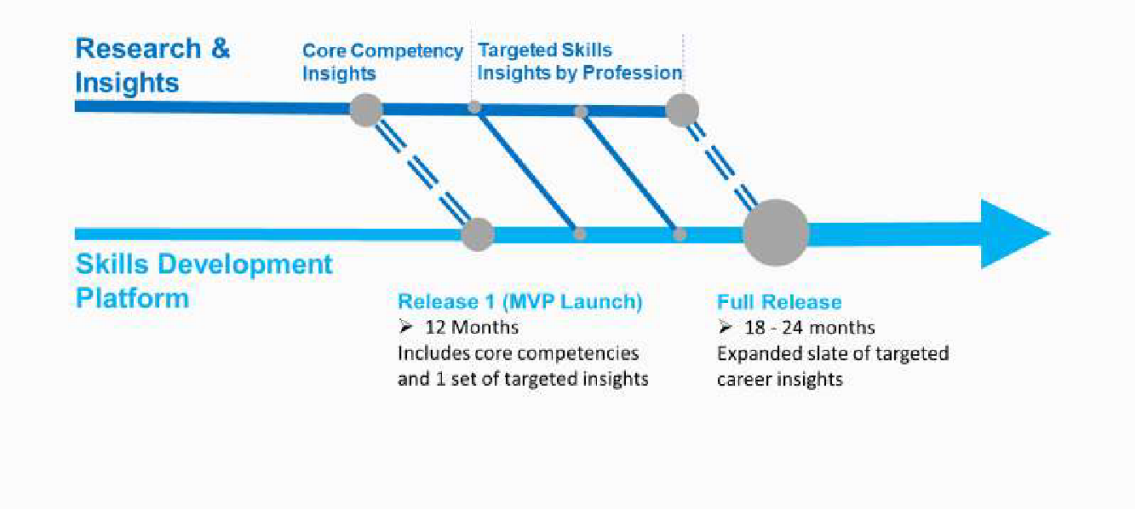
- PIPSC researches the changing nature of work
- PIPSC builds Navigar as a platform that details this information and directs users to skills development resources
- Users log-on to Navigar to access this information and to understand how best to update their skillsets to meet these changing needs
- Users select their target careers
- A custom learning plan, linked to training, is generated for each skill area
- Users update their existing skillsets and expand them in emerging areas

- Users remain competitive in an evolving labour market and move into in-demand careers
- Canada, including government, has a leading-edge workforce that can compete globally

1.4 Activities

The project followed two work streams. The first was to conduct research that would create evidence-based advice for public service professionals navigating the workforce of the future and incorporate that advice into a skills development plan to achieve their goals. (see Figure 2).

Figure 2: PIPSC activities in developing Navigar



1.4.1 Conducting background research

The research aimed to address four research questions:

- As artificial intelligence (AI), automation and technological changes are introduced into a profession, what will be the changing nature of the skills required of professionals to perform their jobs?
- How will different professional occupations' tasks change as a result of the introduction of these changes?
- What tasks might be eliminated in different professions? What could be the resulting employment impacts of the introduction of AI, automation and technological changes to different professions?
- What new tasks might be created for different professions and what will the corresponding skills and jobs be?

In answering these questions, the research team built a body of knowledge on how skills and tasks are changing in professional occupations and how AI, automation and technological changes are being introduced and used in the public sector.

To conduct this research, PIPSC partnered with Faethm to determine the potential impacts of technological change on a broad range of their members' professional occupations. Faethm is an AI platform that predicts the workforce impact of dynamic forces such as AI, COVID-19 and Robotics on current and future jobs.

To help users navigate the rapidly shifting landscape as the workforce undergoes fundamental change, the Navigar team drew upon the work of experts, including those from the fields of technology, adult education and workforce planning. This input will help users consider the future of work as a determining factor in their career success. Using this research, Navigar is intended to provide an assessment of the threats and opportunities facing PIPSC members in the years ahead.

The research also allowed the platform to cover ethical issues that accompany rapid transformation such as privacy and security. The platform also showcases best practices and interesting models from around the world as well as features unions' responses to the changing workplace, including advocacy, bargaining and consultation efforts. Occupation-specific research and insights are always changing and PIPSC aims to be at the forefront, incorporating and categorizing information into the platform so users can have up-to-date, career-specific information at their fingertips. It is hoped in time, platform users can access tens of thousands of online learning resources to pursue their re-skilling goals.

1.4.2 Building a skills development platform

The career insights generated through research and analysis guide individuals in their choices for skill development. Learners may wish to acquire emerging skill sets for existing employment or embark on new learning paths to prepare themselves for transition to new roles. The project team created a skills development platform to provide learners with access to top-tier learning experience providers to equip learners with the skills and knowledge needed to thrive in the new economy.

Industry best practice calls for the use of a minimum viable product that allows a beta release of a base level of functionality with services that meet users' initial needs, without building out the full solution. PIPSC shared the beta version with a small but representative group of users and gathered feedback. This feedback informed the next round of development, which led to another minimal product, which led to more feedback, and so on in cycles until the full product was complete.

Building in short iterations, with informed adjustments made to the plan at regular intervals, aimed to ensure that stakeholder and end-user concerns were considered not just at the beginning and end of development, but at every stage of the process. The intended result is a platform driven by user needs with high user engagement. While gathering this feedback was designed as part of the iterative development process, this data is also useful for the purpose of evaluating both the process and the product.

During the first phases of development, PIPSC's Navigar team worked with an already-established group of 30 members who represented all professions, regions and diversity groups. Members of this group had identified unique experience and interest in career development and training, and thus were a perfect fit to brainstorm and test ideas. This group was especially helpful with the planning of the broad-based skills section of the platform. The team analyzed Faethm's data along with labour market data, member surveys, interviews with decision makers and collaboration with partners to generate insights on professional competencies and learning paths.

After the launch of the pilot program, the Navigar team focused on maintaining the relevance and currency of the product while assessing the success of the beta version of the platform. The assessment focused on information about user engagement on the platform and the number of users who took the next step by accessing learning opportunities from the platform. They then further analyzed the importance of profession-specific insights to users and planned the next phases of profession-specific research accordingly.

The system Is designed to monitor activity and gather feedback at key touchpoints to map user flows and match workers with projected future skill requirements. This design also includes identifying points of reduced engagement and flagging these automatically, allowing refinement of the system, informed by usage. In addition, each learning content provider provides data on user engagement in their systems, providing information about course engagement and completion for each user.

1.4.3 Considering equity, diversity, inclusion and reconciliation

The project team developed an equity, diversity, and inclusion portfolio by adopting a Gender Based Analysis Plus framework throughout the development of surveys, interviews and analysis of existing research. The aim of applying an intersectional perspective was to identify how the project can assist members from equity groups in accessing skill development opportunities. This perspective assisted the Navigar team in creating relevant content, analysis and advice.

PIPSC intends to continue to monitor use of the platform to ensure that it is engaging with a diversity of groups and use monitoring data to improve equity gaps that may emerge by working with impacted groups to improve access.

1.5 Expected Outcomes

To meet the current and future labour market needs, Navigar aims to enhance short-term outcomes for individuals, mid-term outcomes for institutions, and long-term outcomes for professional training systems more broadly.

1.5.1 Short-term outcomes on individuals

The aim of Navigar is to allow PIPSC members to:

Understand technology's impact on their profession: by providing our members with insights into the future of work, they can be empowered in their career and skills conversations.

Acquire and diversify their skills: the learning platform offers relevant courses for each career field and the opportunity to look at professions that have a high skill alignment, which means members can change career paths with minimal training. Ultimately, members will broaden and diversify relevant skills so they can keep up with the pace of increased augmentation and automation. These measures are provided through:

- The skills assessment tool
- The learning plan
- Training Playlists

- Courses offered by partners, Percipio, GoFLUENT, Pluralsight and the Canadian School of Public Service.
- Insights from relevant research
- On-demand and accessible training and resources

Increase their job security: members are less likely to be impacted by job displacement due to automation and to changes in technology due to the targeted and flexible personalized training.

1.5.2 Mid-term outcomes on institutions

In time, these individual level outcomes should have positive impacts on institutions through the wide scale adoption of Navigar by:

Canadian government agencies and departments where PIPSC members are employed: As more members use the platform, and more and more funding requests (for the annual training subscription) are approved, Navigar is expected to see an overall increase in its use. Navigar is designed to be scalable and accessible - so any member, anywhere in Canada can access the same high quality training materials.

Other Canadian federal unions: These unions have been closely following the Navigar Web Application build with the intention of potentially adopting it for the benefit of their own members.

1.5.3 Long-term outcomes on systems

Over the coming decade, Navigar can impact the workforce more generally by:

Developing a better-trained public service: This kind of change comes once Navigar is proven successful and a useful resource for the public service members of PIPSC. If this is achieved, then the Canadian government potentially benefits from a better trained public service with a far more diverse set of skills and abilities.

Supporting the diversity of skills within organizations: Navigar allows users to explore our entire offering of skills and courses. As more people learn new skills, out of interest, or to benefit their existing work, the workers we support have a greater chance of learning something not found in the existing system that poses a net gain. For example, a programmer learning user interface and user experience (UI/UX) could become a stronger asset for their team and improve the quality of their work.

1.6 Assumptions

This project is founded upon a few significant assumptions about the need for the platform and the process of creating that platform.

PIPSC members are in need of training guidance and career development. This assumption was confirmed in a survey to PIPSC members in 2019. Almost 70% of members reported a need for union support with regard to their career development.

The world of skills is constantly evolving and new technologies will require new skills. With almost 40% of jobs being impacted by AI and automation, new skills will be in demand. Fully understanding these changes will be imperative to the success of our members.

Each development phase requires active participation from PIPSC members. At each phase, members proved responsive, whether it was sharing job information or participating in betas as early users.

1.7 Contextual Factors

PIPSC has taken on this project because they believe that, as a union, they are in the best positions to create a skills training platform that focuses on the interests of the learners. According to PIPSC, neither the private sector nor government have the right mix of worker-based motivation, ease of central access, user benefits, or the trust of employees (see Figure 3 below). Each of these factors are important to ensure employee agency and incentive for continued use.

Figure 3: Comparison between PIPSC, private sector and government positions for hosting skills development platform

	PIPSC	Private Sector	Government
Motivation	Yes	No	No
Ease of Access	Yes	No	Some
User Benefit	Yes	Some	Yes
Trust	Yes	No	Some

Motivation

- PIPSC: The driving motivator behind the creation of the Navigar skills training platform is the desire to better serve and support PIPSC membership through career development and transitions.
- Private Sector: The main motivator behind a skills training platform for the private sector is ensuring workforce capabilities to increase efficiency and profitability for the company.
- Government: Similar to the private sector, the government wishes to keep its workforce efficient rather than necessarily focusing on career success.

Ease of Access

- PIPSC: The Navigar platform provides access to skill development and job training information in one central location. There is no need to search outside Navigar to receive personalized training.
- Private Sector: As the private sector is fragmented into many companies, there is no centralized tool or service that provides employees training across all industries. As a result, employees are typically left to find training on a course-by-course basis, within the confines of their schedule.
- Government: The government has launched multiple training programs and platforms, but they are disconnected from being one cohesive platform and are based on a particular industry versus being skills focused.

User Benefit

- PIPSC: Navigar is designed to specifically support union members by facilitating training, with pathways for employer funding. All the training offerings are geared around skills development

based on members' job descriptions. Learning plans provide a clear path to improving skills to meet career goals, be it to upskill or reskill.

- Private Sector: Platforms designed in the private sector for their own workforce, or as a product for an industry, are primarily benefiting the employer as it gives the employer control over what courses are offered and taken.
- Government: Often government job training platforms are geared specifically towards one field or transition from one industry to another. This limits the learning an employee receives, as they typically only are able to seek new skills and knowledge related to their current employment.

Trust

- PIPSC: A union is structurally suited for job training platforms and programs as their sole intention is to support their members. This support engenders trust in the union, by its members, to act in their best interests.
- Private Sector: Job training is ultimately done to improve profitability for the employer. The training offered primarily serves this purpose and not necessarily be in the employee's best interest. Additionally, training outcomes in the private sector have a much higher likelihood of being used to affect an employee's performance or promotion.
- Government: While more interested in the training outcomes of their workforce, governments still often look at job training as a method to manage promotions and determine employee performance.

1.8 Articulating Success

The Navigar project team plans to assess the effectiveness of strategies through the following key performance indicators and sources.

Figure 4: Key performance indicators and sources

1.8.1 Key performance indicators

PISPC has defined a series of key performance indicators to be tracked over time:

Open rate and click-through to platform: This category measures the initial engagement of the target audience with Navigar communications and marketing emails. Industry standards for member-based organizations are an average of 18-20% open rate and 2-4% click-through rate.

Member consumption of insight and analysis: This category tracks member behaviour on the platform to see what part of offered advice they are consuming. Navigar is designed to track traffic on the website, the number of pages visited per session, session duration as well as a heat map of what attracts member attention on the website to determine the most valuable assets in the advice and analysis provided to members.

Conversion rate from insight to action: This category measures and tracks the percentage of members who take the step from reading advice to taking action by searching for curated training content.

Employer funding approval: This category tracks the number of members who choose a training to enroll in and gather the necessary information to make a case to their management for funding. It also tracks the percentage of successful approvals, as well as rejections.

Training enrollment and completion: This is the goal completion metric for this project. Throughout the project, the goal is to bring the users from the initial email or ad they see about the platform to the completion of their training. Operationally, the Navigar team aims to reduce the drop-off rate from every stage of the user journey to this completion goal.

1.8.2 Sources

PIPSC has identified several ongoing data collection sources to populate these key performance indicators.

Member experience surveys: Based on the analytics, the Navigar team plans to create targeted surveys to measure member satisfaction and refine the use journey. These surveys can identify friction points along the way that cause drop-offs between the initial contact and completion goal.

Community recommendations: The Navigar team also plans to review organic searches for the platform, organic web traffic, community buzz about the program and targeted focus groups to further understand and refine the member experience and improve the offerings and platform.

Tracking activation: Through Cognito (AWS), PIPSC is able to track activation rates on which members activate their Navigar Account.

Tracking usage: The Navigar Team Is able to track usage of training, as well as track the type of training members are engaged with.

2. Stakeholders and Evaluation Goals

Navigar is a skills development platform that seeks to futureproof members of PIPSC. The project was evaluated to assess the extent to which project objectives were met and, where possible, to assess the potential impact of project activities on the longer-term outcomes associated with the project. The evaluation:

- Assessed the effectiveness of the development of the Navigar platform and activities prior to launch.
- Incorporated both qualitative and quantitative methods and included the collection of benchmarking data where possible.
- Collected data in 2023 and 2024.
- Summarized the findings into this report.

One integral aim of Navigar is to clarify the sea of information associated with online learning and skills development. By the time an employer maps their employees' skills, figures out which learnings their employees need, and closes the gap between the two, it is often too late. This leads to PIPSC's central research question: **"To what extent will Navigar assist our members in navigating the world of online learning and skills development?"**

The hypothesis is that Navigar will cut the time spent on researching new content and will provide meaningful insights to help PIPSC members develop their skills and progress in their careers. The platform will also provide members with thought leadership on the future of work - which will be integral to better understanding the current (and future) labor market.

2.1 Program Key Stakeholders

Figure 5: Stakeholder groups engaged

Stakeholder Group	How were they engaged?
PIPSC Members	Workshops, Presentations, Interviews, Demo, Beta and Pilot testing
PIPSC President and Board Members	Presentations, Briefing Notes, Demo
Federal Government (Treasury Board Secretariat, Dept. of National Defense and Canadian School of Public Service)	Presentations, Demo – Canadian School of Public Service courses linked to Navigar training plans
Project Stakeholders (PIPSC)	Weekly meetings with all stakeholders and a weekly project update. Break off meetings with select stakeholders as well to target specific tasks/deliverables.

Project Partners (see below)	Consultations and presentations as needed.

2.2 Project Partners

The project benefited from partnering with organizations in preparing for and addressing the transition to a new, differently skilled workforce.

Professional Unions Network of Canada*:* This collaboration of unions came together to share knowledge and strategies to address common issues among its memberships of professionals employed in public service jurisdictions across Canada. The first signature project of the network was the original AI research that led to the development of this platform proposal. Partner unions span the federal public service as well as the public services of Quebec, Ontario and British Columbia. Collectively, over 100,000 members employed in more than 60 professional occupations are represented in the network.

Partner unions are closely watching PIPSC's progress in developing the platform and PIPSC plans to offer them the opportunity to benefit from the effort through ongoing partnership and support for the platform.

"We are 100% behind Navigar conceptually and financially. This is the kind of innovative solution that unions representing professionals need to invest in. We're thankful that PIPSC has begun that work and as soon as the system is ready to take on more members, AMAPCEO will be ready and eager to join in."

Dave Bulmer, AMAPCEO (formerly known as the Association of Management, Administrative and Professional Crown Employees of Ontario) President

"PIPSC's commitment to its members' professional development is evident with the Navigar project. As a fellow federal union committed to offering professional development to its members, we here at ACFO-ACAF are truly impressed by the scale of this undertaking and would be keen to explore ways to be part of it in the future. "

Dany Richard, ACFO-ACAF (the Association of Canadian Financial Officers) President

Faethm: Faethm is an AI platform that predicts the workforce impact of dynamic forces such as AI and Robotics on current and future jobs. Faethm is an analytics platform that models the impact of emerging technologies on the economy, industries, organizations and jobs through billions of workforce data points. Partnership with Faethm allows for a greatly accelerated research program bringing the full benefits of the platform to members years earlier than originally anticipated.

Filtered: Filtered is a learning tech company that helps organizations get the best return on their learning and development spending. As Navigar requires hundreds of role- and topic-specific learning

pathways to be curated to shape the learning platform and guide users, Filtered plays an important role in compiling high quality content.

The Future Skills Centre: Partnership with the Future Skills Centre and its consortium partners provides a gateway to original research and analytics, established knowledge leaders and digital social innovation initiatives.

Percipio: PIPSC has partnered with a leading provider of top-tier online learning content, Percipio. This partnership provides users with access to tens of thousands of regurlarly updated learning materials including videos, e-books, podcasts and webinars. Percipio also curates learning and certification paths across a wide variety of subject areas, including the most sought-after and emerging skill sets. In many cases, these resources would not be available to individuals or could not be accessed at an affordable price point. PIPSC can use the power of a collective memberships to negotiate for wide and diverse accessibility to these platforms and libraries.

Canadian School of Public Service: PIPSC has partnered with the Canadian School of Public Service to provide access to the standardized Government of Canada curriculum. This curriculum leads to common knowledge, skills and competencies for public servants to best serve Canadians.

2.3 Evaluation Activities

Throughout the lifecycle of the Navigar development, various initiatives have been launched aiming to measure the potential impact of the project. At each stage of Navigar's evolution, an assortment of data collection tools and methods, such as interviews and surveys, have been developed and implemented to capture both the progress of the project and its potential effect on PIPSC members.

PIPSC has only just begun to receive the pertinent feedback and insights needed to assess the impact of Navigar. While the knowledge gathering process is still in its early stages, the collected feedback data has already begun to inform their approach as they address the questions raised by Navigar.

The aim of the data collected to date has been to ensure that Navigar provides PIPSC members with access to the resources, knowledge, and training required to keep pace with the future of work. To that end, PIPSC has relied on members, beta and pilot testers, and other external user feedback for this learning and evaluation plan. As development of the platform has progressed, the first users provided feedback on their experiences through:

Filtered test case: In developing course content, the course catalogue was curated by utilizing Filtered's technology. By partnering with Filtered, PIPSC was able to develop a case study to measure the effect of their resources on the project.

Alpha testing: A guided tour of the Navigar project with eight PIPSC members provided early feedback that assisted ongoing development.

Beta testing: The aim of the beta testing process was to establish first impressions on the state of the Navigar project and the resources it offers. It was able to draw out some perspectives and insights into how users felt about the larger objectives of the project, from areas related to job profiles and career pathways, to general ease of navigation throughout the interface. Of the 111 participants in the beta testing, 38 completed the evaluation survey.

Collecting feedback at a booth at the AGM: PIPSC held their 104th Annual General Meeting as hundreds of attendees from across Canada came to Montreal, Quebec for four days in November 2023. Navigar was the topic of a mainstage presentation and a conference booth that invited attendees to use the platform. PIPSC engaged in informal conversations with attendees on the Navigar platform as a means to gather feedback from potential users.

Pilot Testing. In April 2024, a pilot test was conducted with 1,300 users. The testing group consisted of members from PIPSC's IT group, the research team, union members and other users. The research team also encouraged pilot testers to come to a pre-launch webinar that discussed the platform features, access, and then held a question-and-answer session. After the pilot test, feedback was gained through a survey. 105 participants completed the survey. The survey questionnaire can be found in Appendix C. Additionally, an interview was conducted with an IT supervisor and member of the IT training fund steering committee.

While all data collected worked to evaluate the platform at various stages, the feedback from pilot testers forms the largest set of data and provides the evidence for most of the current evaluation.

2.4 Evaluation Questions

PIPSC developed four evaluation questions to assess success of the development of the platform, including the beta and pilot testing. The full evaluation matrix can be found in Appendix B.

- What did we learn about how the program is being implemented?
- What did we learn about the experiences of pilot users?
- What did we learn about how to use resources more efficiently to achieve the desired outcomes?
- To what extent can outcomes be causally attributed to the project intervention?

2.5 Evaluation Limitations and Other Considerations

A few limitations and other considerations are worth noting when considering this evaluation.

Data is on development, rather than operation

The Navigar platform has only just launched. While PIPSC has considered evaluation questions based on user experience, they are not all answerable at this time. This evaluation focuses on the initial experiences of pilot users. Some data has been collected that speaks specifically to awareness of labour market issues and skills training.

Evaluation based primarily on limited quantitative data

The majority of data was captured during the development stage and was sourced through surveys during the beta and pilot. In the end, 38 beta testers completed the beta survey and 105 pilot testers completed the pilot survey. Although it is understandable that this is the best data available, it is a modest size. Given the size and reach of PIPSC's membership, it is likely that further evaluations will be able to examine greater volumes of data.

Quantitative survey data was supplemented through a few interviews with pilot testers and in-person discussions with PIPSC delegates at the AGM. These methods of data collection provided value in both contextualizing quantitative data and providing unique perspectives that are difficult to capture through far-reaching practices. Overall, these alternative data collection methods did not fully confirm or contest many key findings, rather they provided new insights, issues, or solutions, areas for exploration, and further avenues of thought.

3. Findings on Process Learnings

Evaluation Question: What did we learn about how the program is being implemented?

3.1 UI/UX design should come first

PIPSC concludes that while it is common in technology builds for UI/UX and development to reciprocally impact each other, the basic UI/UX design needs to be finalized well in advance of platform development, so the development team can use the designs as they build. Given the timeline, UI/UX design work took place almost in parallel to development work and as a result delays ensued in both work areas. As a result, PIPSC experienced instances where the UI/UX and development did not align, resulting in the development being re-built. Re-builds take significantly more time than doing it correctly the first time, resulting in delays. Beginning with UI/UX design would have provided a framework on which to build the development, thus potentially using resources in a more efficient way.

3.2 Expect system bugs

The pilot was launched in April 2024 to approximately 1,330 members. The goal of the pilot was to collect feedback about the Navigar platform and to highlight gaps in the Webapp. As is the case with many technology projects, certain features of the Webapp did not function as expected. Many users were unable to access the training materials due to a failure in the technical link between Navigar and the training provider, Percipio.

However, the Navigar team promptly identified the technical challenges and collaborated with their partners to resolve them, ensuring the continued provision of training content to users. This scenario underscores the vulnerabilities that can arise when systems are interdependent and emphasizes the importance of rigorous testing and user feedback in identifying and addressing gaps, thereby informing future improvements.

3.3 The complexity of the Navigar build was underestimated

Navigar was a dynamic project with no existing blueprint to follow. It was, and still is, continuously evolving and adapting. The team tried to develop an adaptable work plan to recognize the complexity of the project. However, they could only guess at the level of effort needed. The development team was not entirely dedicated to Navigar and had other organizational demands to meet. This meant that they were stretched thin at times and as a result were unable to meet the needs of Navigar development. The complexity of the Navigar Webapp build was at times underestimated, and as a result established timelines were often unobtainable.

4. Findings on Meeting Objectives

Users had a positive experience with Navigar. Users indicated they found the platform informative about employment issues and led to useful training programs. Many indicated they were looking forward to the full launch. In addition to user feedback, the Navigar team also learned three valuable lessons during the project implementation process.

4.1 Pilot User Experiences

Evaluation Question: What did we learn about the experiences of the pilot users?

Overall early users have provided positive feedback in using the platform. This interest is observable in the following ways.

4.1.1 Users are interested in using Navigar

Overall, survey respondents who completed either the beta or pilot test indicated that their experience with the Navigar platform was positive and deserved further exploration. Almost 70% of respondents who completed the beta test were interested in continuing to use Navigar beyond the beta test phase to further develop their skills and knowledge. Pilot test survey respondents indicated that the platform was helpful for identifying career pathways, for accessing relevant training materials, for capturing their skill sets, and for providing insightful analysis towards understanding the trends affecting their jobs. Additional feedback from the interview indicated that amongst the various elements that compose the Webapp, Navigar offered an "appropriate" conceptualization of what skills would be needed in the future.

After completing their Pilot experience, 61% of respondents indicated that they are likely or very likely to continue using Navigar throughout the future. The interview participant noted that he viewed Navigar as a potentially valuable tool for promoting career advancement amongst his colleagues. He found that many within the IT industry "cannot articulate very well what they want their career path to look like", and a tool such as Navigar would be a "great" help. Furthermore, there was an indication that contributing IT Training Committee resources to Navigar would remain a goal of his as he sees Navigar having a possible role in future IT workforce development.

During PIPSC's Annual General Meeting, Navigar was introduced and had its first mainstream exposure to wider membership. Navigar was showcased with a dedicated booth and a main stage presentation. Navigar booth visitors, especially younger members, showed enthusiasm. Users primarily engaged with their skills profile for self-assessment and learning plan exploration. Overall, many attendees at the meeting had positive interactions with Navigar at the booth and often left the Navigar team with the one repeated phrase "Navigar has huge potential".

4.1.2 Navigar has shown to be an intuitive platform

Pilot test users indicated that they had a relatively easy experience navigating the Webapp and engaging with the various Navigar features, with 74% of survey respondents specifically reporting a good or very good experience.

One AGM attendee expressed her views on Navigar:

"It is a useful tool to navigate where to go next, what skills do I have, where can I go, and what do I have to build on. A lot of people are having trouble with that pathway, how do I get there? Navigar is a tool that can help people get there."

4.1.3 Navigar provides relevant training materials

In comparison to the other features Navigar offers, the relevance of the training materials received the highest approval from respondents who had completed the pilot test. More than half (59%) of respondents found that it was easy or very easy to identify relevant training materials based on their personal career plan. Moreover, 59% of respondents agreed or strongly agreed that the courses and recommended training materials offered aligned with their career goals.

4.2 Program Effectiveness

Evaluation Question Continued: To what extent can outcomes be causally attributed to the project intervention?

While the project remains in development, survey respondents who engaged with either the beta or pilot versions have reported an appreciation for how Navigar impacted their awareness of the labour market and Navigar's function in providing training materials. Following the full launch of the project, subsequent impact assessments can continue to help illustrate the outcomes of Navigar and begin to assess the degree to which these outcomes are directly caused by the platform.

4.2.1 Awareness

Members have become more aware of how the labour market is evolving and what the future of work implies. Survey results indicated that many respondents, after engaging with Navigar, have developed a greater understanding of what trends and shifts are affecting both their industries and jobs. Furthermore, the data shows that respondents have become more informed on how their required career related skill set might transform. More than half (57%) of pilot test survey respondents indicated that Navigar equipped them with knowledge to transform their career in the near future. As an educational tool, the beta and pilot survey data indicates that Navigar noticeably contributes towards informing its target audience.

4.2.2 Training

The pilot survey noted that members have become more connected to relevant training materials. Survey and interview data indicates that Navigar was successful in helping users identify training materials that aligns with their career goals. Specifically, 60% of pilot survey respondents agreed or strongly agreed that the courses and recommended training materials offered aligned with their career goals, while 59% agreed that it was easy or very easy to identify relevant training materials based on their personal career plan

4.3 Efficiency

Evaluation Question: What did we learn about how to use resources more efficiently to achieve the desired outcomes?

Navigar combines a custom developed platform with content from leading online learning providers, and curating software from the partner company, Filtered.

To test whether this collaboration is greater than the sum of its parts, the Navigar team conducted a test of Filtered's curation ability compared to the platform provided by the main content provider, Percipio. This test revealed that when accessing Percipio's learning content, Filtered came up with learning pathways that were at a much higher level of diversity and quality, twice as quickly (7 mins vs 14 minutes), as Percipio's own curation software. Filtered allowed the research team to more effectively sort and curate lists for the various skills underpinning Navigar. This sorting and curating reduced the volume of content for users to review and choose from, gaining both efficiency and speed. Furthermore, by analyzing materials more suitable for selected skills, a higher quality content was included to help members reach their learning goals.

5. Discussion and Implications

Navigar's next steps involve continual improvement and expansion. This work should be done while maintaining the same robust evaluation cycle of the development process.

5.1 Next steps

As the Navigar Webapp is launched for full membership access, PIPSC can move to the next steps in evaluation and implementation.

5.1.1 Expansion

Navigar was designed so that PIPSC could expand the catalog to include more training providers, to provide members with a broader offering of training that is best suited to their needs. In October 2024, Navigar was launched to the IT Group (PIPSC's largest member group at 23,000 members), through the IT Training Fund, a $4.75 million training fund negotiated in their most recent collective agreement. The training catalogue was expanded to include goFLUENT (language training) and Pluralsight (technology training), to complement Skillsoft (Percipio) and CSPS training catalogue. This 'Learning Bundle' showcases skills growth through the Navigar Training Plans, with targeted knowledge and skills.

The skills development platform could be used to inform and empower virtually any group of workers. While this project involves specific unions and their members, the platform could accommodate separate, white-labeled platforms for multiple other organizations.

If the Navigar project can attract a critical mass of federal public servants into the platform, then the Canadian government may agree to provide funding support.

5.1.2 Continued effectiveness

As Navigar continues with its implementation, future evaluations can also assess the intended outcomes of the platform including short-term individual goals, mid-term institutional goals and long-term system goals as described in section 1.5.

As PIPSC monitors its progress, it has stated that the following questions constitute the core research interests going forward:

1. Did Navigar increase user knowledge of emerging skills and trends in the digital age?
2. Did users feel as though Navigar assisted in obtaining greater job security?
3. Does Navigar contribute to providing PIPSC members with the union's key commitments to members?
    - Stay informed
    - Learn
    - Receive support

Furthermore, the following metrics are already being measured.

Figure 6: Navigar metrics being measured

Future evaluations can determine the effectiveness of the platform also based on these metrics.

5.2 Recommendation

The Navigar team has evaluated Navigar throughout the iterations of the development. As the platform is fully launched, robust evaluation should be continued so as to maintain and improve the product according to user needs. PISPC already plans to achieve this.

Complex projects need robust and flexible timelines and resources

The Navigar team noted that they had underestimated the complexity of this development project. It would be prudent for funding organizations such as FSC to ensure a robust allotment of time and resources, with flexibility, to cover the needs of such a multi-system, multi-task project. Because the needs of such a unique project may be unclear at the beginning, an embedded set of contingency budget and timeline could be beneficial. Flexibility creates an environment that allows for projects teams to create innovative products and rigorously test them without time constraints.

Appendix A: Works Cited

Autor, D., Chin, C., & Salomons, A. M. (2024). New Frontiers: The Origins and Content of New Work, 1940-2018. *The Quarterly Journal of Economics, 139*(3), 1399-1465.

Dell Technologies. (2018). *Realizing 2030: A Divided Vision of the Future.*

Government of Canada. (2021). *Policy on People Management*. www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=32621The Navigar Team. (2023). *2023 Canadian IT Labour Market Outlook: Closing the automation skill gap.* Professional Institute of the Public Service of Canada.

The State of Black Canadians in STEM. (2022, May 13). Retrieved from Obsidi: https://obsidi.com/the-state-of-black-canadians-in-stem/

Appendix B: Evaluation Framework

Evaluation Question	Indicator(s)	Methods	Data Sources
What did we learn about how the program is being implemented?	User retention Activated Percipio accounts Access to Navigar Active users	Survey Ticketing system feedback	Beta Feedback Survey Pilot Feedback Survey Pilot FreshDesk ticket system feedback.
What did we learn about the experience of the pilot initiative?	Overall rated experience Understanding labour trends on user career Training recommendation relevance Training accessibility Skill assessment accuracy Career Recommendation relevance Continued use	Survey Interview QR code scans Email subscribers Website views Third Party Outreach	Beta Feedback Survey Pilot Feedback Survey Pilot User Interview AGM Handout QR Code Email signups Website views during the period Feedback from AMAPCEO and ACFO-ACAF Presidents

What will we learn about how to use resources more efficiently to achieve the desired outcomes?	Ongoing tickets Activated Percipio accounts	Interview In-person user feedback	FreshDesk Ticketing Data Pilot Interview Stage
To what extent can outcomes be causally attributed to the project?	Understanding of labour market trends Relevance of training materials Ease of identifying training materials Skills assessment accuracy Relevancy of Job Recommendations	Surveys Interviews In-person discussions	Beta Feedback Survey Pilot Feedback Survey Pilot Interview Stage

Appendix C: Questionnaire for Pilot Testers

1) How would you rate your overall experience navigating and engaging with the Navigar platform?
Very Good - Very Poor

2) Did Navigar help inform you on how your required career related skill set might transform in the near future?
To a great extent - Not at all

3) To what degree were these insights helpful in understanding the trends and shifts affecting your job?
Very Helpful - Not helpful

4) Do you agree that the courses and recommended training materials offered aligned with your career goals?
Strongly agree - Strongly disagree

5) How easy was it to identify relevant training materials based on your personal career plan?
Very Easy - Very Difficult

6) Did the skills assessment accurately align with your current skill set?
Very much - Not at all

7) Were the recommended jobs relevant to your future career goals?
Very much - Not at all

8) How likely are you to continue using Navigar following the Pilot?
Very Likely - Very Unlikely