

2024 WORKSHOP SUMMARY REPORT



Data and Analytics **WORKSHOP**

Putting Data to Work: Igniting Collective Potential



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Acknowledgements

This Workshop would not have been possible without the efforts of many from start to finish. Our sincere appreciation to all involved, from the planning team to the speakers, facilitators and volunteers, to all the participants who engaged to the fullest. Thank you all for making this event a great success.





Uniting to Ignite

On April 17, 2024, York Region hosted its first Data and Analytics Workshop, *Putting Data to Work: Igniting Collective Potential*. It was a resounding success, drawing in a diverse group of 200 participants from the Region, nine local municipalities, two conservation authorities, two school boards and York Regional Police. It underscored our dedication to fostering collaboration and driving progress.

Participants engaged in rich discussions on how to build a foundation of data literacy to support digital transformation. About the importance of data governance and stewardship to ensure quality data. How to maximize collaboration through data sharing within and between organizations. Using storytelling to better communicate insights that will help drive decision-making. Harnessing the transformative potential of AI to enhance the work we do. And talent acquisition strategies to help attract and retain the right people – because none of this work happens without people!

We've done great work together over the past 25+ years through the YorkInfo Partnership, with a long-standing commitment to work collaboratively to make a difference in our communities. The Workshop proved how committed we are to continuing to think about

what's next, and this forward-thinking approach ensures our collective expertise is harnessed to its fullest, fostering an environment where knowledge sharing and skill enhancement thrive.

Four overarching goals were set for the day: to network and make new connections, learn new things to build skills, contribute positively by sharing ideas and – through it all – to have fun.

We also issued a call to action for participants to embrace their role as a data ambassador. And based on the captured notes and feedback received, we know we met these goals...in spades. The day concluded with a sense of accomplishment, knowing our goals were not only met, but exceeded, and participants were enthusiastic about being data ambassadors for their organization.

This Summary Report captures the essence of the Workshop, reflects a shared vision for the future and captures immediate, short-term and long-term actions determined by participants to support our collective interests in furthering our data and analytics growth journeys. As the digital landscape continues to evolve, this blueprint for action will undoubtedly light the way for continued excellence, partnership and innovation... ***igniting our collective potential!***



Leveraging Existing Collaborative Success: The YorkInfo Partnership

Since its inception in 1995, the YorkInfo Partnership has been a beacon of collaborative success, bringing together 14 organizations including York Region and our nine local municipalities, two conservation authorities and two school boards. Initially focused on optimizing GIS investments, the Partnership pooled resources to collect data and fund software, hardware and staff. By 2015, all partners were equipped with GIS capacity, so the focus shifted to data and analytics, driving even greater organizational impact.

Remarkably, the Partnership has already collaborated to develop four multi-year plans – a testament to our commitment to collective action. And in 2020, we were honored with the ESRI President’s Award, the highest accolade in GIS, chosen from more than 350,000 organizations worldwide. This distinguished recognition underscored the Partnership’s innovative approach to data sharing and integration, setting a global benchmark for other organizations.

The YorkInfo Partnership’s accomplishments are vast and varied, with ongoing initiatives that continue to demonstrate the power of collaboration in achieving shared objectives. These include All-Pipes (water and wastewater infrastructure for reporting and operations), All-Construction (capital plans from seven organizations to coordinate activities), Data Co-op (data exchange platform), joint data purchases (\$700,000+ in savings), joint data editing (five organizations capturing address and roads data in support of NG-911) and a shared public safety app to support near-real-time situation awareness in emergencies.



Knowledge Sharing and Innovation: A Data and Analytics Workshop

This invite-only event was organized to provide participants with ample opportunities to connect, learn and share the many ways data impacts their organization, and to discuss further opportunities for collaboration. Introductory remarks from York Region’s Commissioner of Corporate Services, Dino Basso, and the keynote address by the Region’s Director of Data Analytics, and Visualization Services, John Houweling, set the tone and context for the day by discussing the importance of data to governments and the importance of collaboration in the digital age.

The remainder of the day included a series of concurrent sessions on organizational use of generative AI, data sharing, data storytelling, talent acquisition strategies for data and analytics, data literacy and data governance. The format was a 75-minute session which allowed time for a short presentation by subject matter experts, followed by lengthier facilitated round-

table discussions. Guests were encouraged to sit with those they didn’t know to build their networks, learn different perspectives, challenges and opportunities – all with the goal of finding opportunities to collaborate. The sessions generated 118 pages of notes which, along with the pre- and post-event survey results, were analyzed by AI and used to develop this report.

We closed out the day with our emcee, Julie Millson, Program Manager Partnerships at York Region, providing a summary from each of the Workshop sessions, including key outcomes and insights, guiding the discussion on practical next steps in each area and challenging them to become Data Ambassadors in their organizations.

By the Numbers

200
participants

Diverse group of people
who work with data



6 concurrent
sessions

23 speakers and facilitators



800+ minutes of
facilitated discussions

118 pages of notes gathered
and analyzed using AI



15 organizations

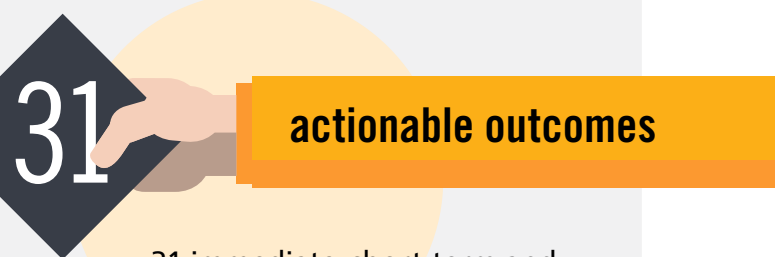
Nine municipalities,
two conservation
authorities, two
school boards,
YRP, York Region



31

actionable outcomes

31 immediate, short-term and
long-term actions identified



317

survey responses

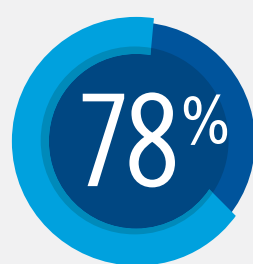
164 pre-event and 153 post-event
surveys completed



78%

of respondents
rated the Workshop
extremely valuable

Credited to the
nine networking
opportunities provided



Measuring Success: Setting Participant Goals

The success of the Workshop was based on four overarching goals,
which were shared with participants during the opening remarks:

- 1. Network:** Participants were encouraged to mingle with others beyond their usual counterparts to discover future synergies
- 2. Learn:** The day was filled with content to build individuals' data and analytics skills
- 3. Contribute:** Participants had opportunities to share their ideas, experiences and gain knowledge through facilitated discussions
- 4. Have fun:** Hoping a full day, in-person event would help participants make the most of their experience







“Data and analytics professionals are not just practitioners. They are essential drivers of innovation and strategic decision-making within organizations.”



Putting Data to Work: Igniting Collective Potential



The Workshop’s opening keynote address spoke to several important key messages:

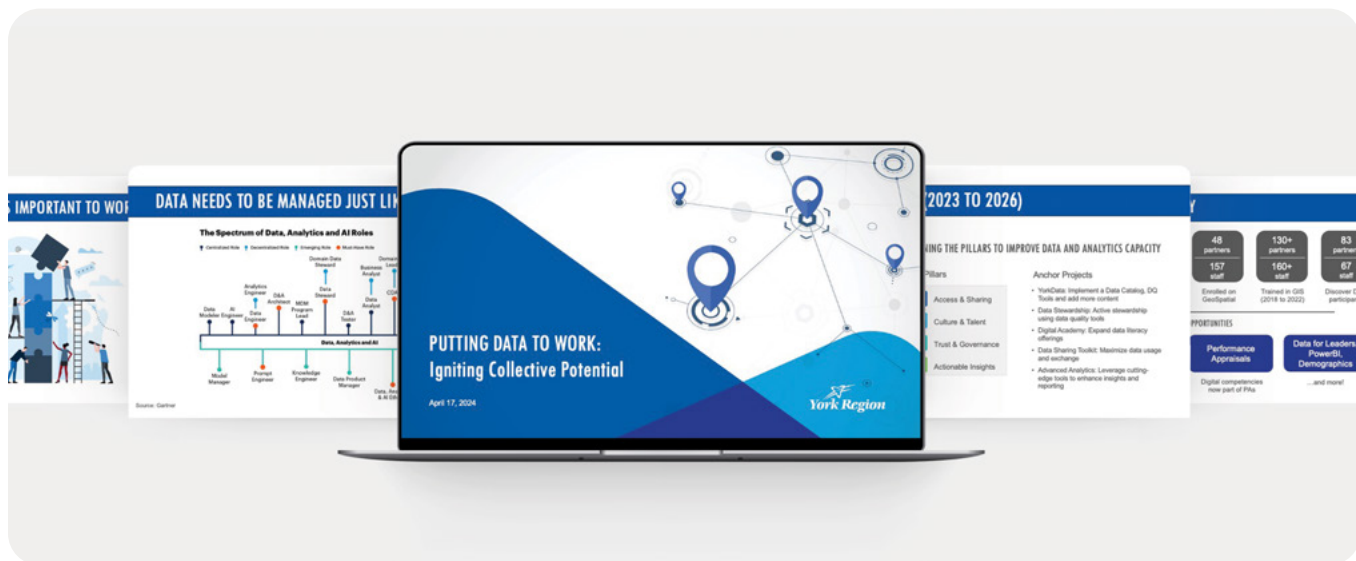
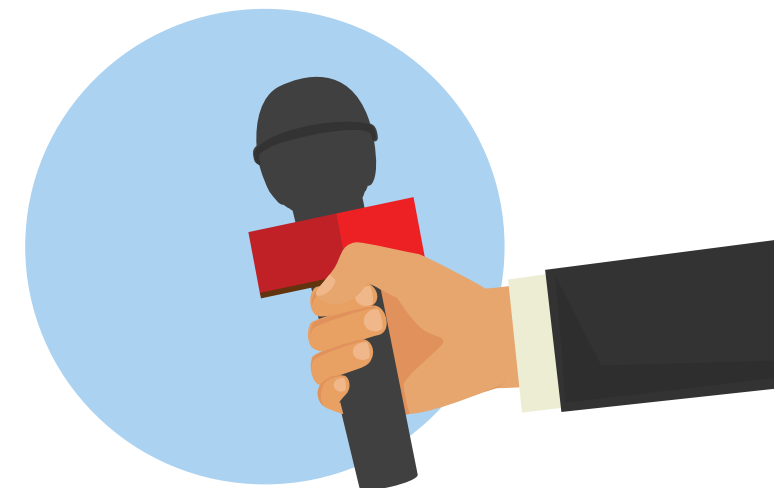
Data is an Enterprise Asset: Data has emerged as a pivotal enterprise asset for municipal governments, which informs evidence-based decision-making, enhances service delivery, and fosters transparency and innovation across multiple programs and services. The importance of data is further emphasized by obligations such as asset management reporting and investor interest in tying Environmental, Social, and Governance (ESG) objectives to municipal bonds, emphasizing the necessity of investing in data management for program improvement and innovation.

Collaboration for Greater Impact: Collaboration among municipal organizations is crucial for optimizing shared services, achieving cost savings and improving service delivery – which also enhances transparency, accountability and public safety. By pooling expertise and resources, we can leverage diverse perspectives to develop comprehensive solutions efficiently, ultimately delivering greater value and impact for residents and businesses. The YorkInfo Partnership is an excellent example of 14 organizations working together using data to make a difference in their communities.

Data and Analytics is a Profession: Managing data effectively and unlocking its potential requires specialized skills and expertise. Over the past 10 years, data and analytics has emerged as a profession to lead organizations in navigating the complexities of data holdings, including roles in AI and advanced analytics. Data professionals play a pivotal role in preparing organizations for AI readiness, driving efficiencies, innovation and strategic decision-making through effective data management.

Become a Data Ambassador: A data ambassador champions the use of data as a strategic asset to drive improvements in decision-making and service delivery. They lead the charge in fostering a culture where data makes a difference, inspiring collaboration and championing best practices to unlock the full potential of data within their organization. Working with others, they help transform government operations and deliver value by harnessing the power of data by putting it to work!

Building a Data-Empowered Organization: A data-empowered organization gives individuals the autonomy, resources and skills to use data effectively in decision-making. York Region’s journey began with a comprehensive data strategy, focusing on governance and guided by key pillars and knowledge areas, which laid the groundwork for defining data services, projects and measuring progress across the organization. Initiatives like the Digital Academy, Data Heroes and Data Sharing Toolkit promote a digital mindset and responsible data sharing, fostering a culture where data drives operational excellence and innovation.



COLLABORATION IN ACTION



Data Literacy: A Key to Digital Transformation

In today's rapidly evolving digital landscape, organizations are increasingly recognizing the importance of data in driving innovation, efficiency and better services. To successfully embark on digital transformation projects, organizations must build a solid foundation of data literacy.

By fostering a data-literate workforce, we can unlock the full potential of our data and drive impactful change across departments and organizations. These concepts were illustrated in this session through presentations from the Town of East Gwillimbury and York Region.

Key Insights

88% of participants identified their digital literacy as intermediate (44%) or advanced (44%)



76% of respondents indicated lack of time and opportunities to practice as issues; this was more prevalent among advanced learners



Respondents expressed keen interest in AI/Machine Learning (38%) and data storytelling (20%)



Facilitated Discussion

Discussion focused on how to build a data-literate workforce that fosters a digital mindset to effectively contribute to an organization's digital transformation journey.

1. What strategies does your organization use or could it use to build data literacy capacity?
 - Expand York Region's Digital Academy offerings to partner organizations
 - Leverage YorkInfo Partnership for peer-to-peer learning
 - Employ York Region's digital personas to build training pathways
 - Use performance appraisals to encourage data literacy upskilling
2. How can we collaborate to promote/build data literacy capacity in our organizations?
 - Promote the importance of data literacy to digital transformation to senior management
 - Pursue opportunities for joint purchases of data literacy training
 - Open York Region's Digital Academy to partner staff



Suggested Actions and Next Steps

Immediate Actions

- Deliver a training session on digital personas
- Deliver training on scheduled courses: Data Quality, Discover Data, Discover Digital, Dashboard in a Day

Short-Term Considerations

- Schedule and deliver data storytelling workshops and AI courses (2024 and 2025)
- Determine how York Region can provide partners easy access to the Digital Academy

Long-Term Considerations

- Explore opportunities for joint purchases of data literacy courses (2025)

COLLABORATION IN ACTION



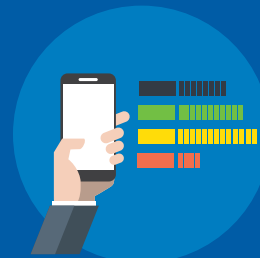
Data Governance: Unlocking the Potential of Your Organization's Data Assets

This session started with examples of the practical steps taken to remediate poor data quality impacting operational activities and reporting at the City of Vaughan and the agencies they work with. Data quality problems can be complex to deal with, but a good understanding of the concepts of data quality is an important starting point.

The Workshop continued with presentations from York Region staff on the data quality core concepts, and the role of the data stewardship team and their accountability for data quality. Because many processes can be managed with less than perfect data, stakeholders need to carefully consider how good data needs to be, field by field, to fulfill their business objectives.

Key Insights

Measurable and actionable dimensions of data quality include completeness, timeliness, validity, integrity and consistency



The stewardship team needs to consider the needs of all stakeholders in setting actionable data quality targets that can be regularly monitored



Perfect data is not always necessary to fulfill business functions



Hands-On Experience

Instead of a facilitated discussion, participants had a chance to work through a sample data quality target setting process and discuss the best ways for data stewards to engage with data stakeholders. By adopting roles (intake clerk, nurse, health analyst, vaccine inventory technician and data steward) for an example based on vaccine clinic operations, participants learned the dynamics that occur in data quality target setting. Through the exercise, it became clear that perfect data is not always necessary to fulfill business functions, but the quality required in each field differs by role.



Suggested Actions and Next Steps

Immediate Actions

- Share data governance materials between organizations when requested
- York Region's data quality course will be made available to other organizations through the Digital Academy and YorkInfo Partnership, with courses scheduled for 2024

Long-Term Considerations

- Develop advanced data quality training materials

COLLABORATION IN ACTION



The Power of Data Sharing: Maximizing Opportunities Through Collaboration and Awareness

Data fuels our business processes and informs our analysis. But sometimes getting the data you need when you need it is harder than it should be – with concerns including data privacy and data security sometimes presenting unwarranted barriers. During this session, representatives from the Town of Whitchurch-Stouffville and York Region demonstrated how YorkData, the Data Sharing Toolkit, the Data Co-op and the YorkInfo Partnership help them achieve their collective goals.

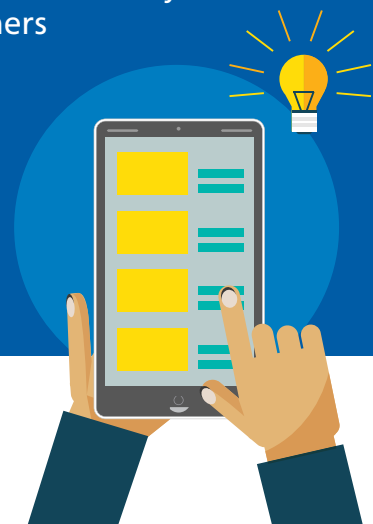
Key Insights

Benefits of data sharing vary by persona; management valued enhancing decision-making the most while GIS professionals valued the elimination of duplication

Participants who were further along on their digital journey utilized more methods for data sharing (from e-mails and Sharepoint to APIs and databases)

Access to trusted data can be achieved through good governance and tools

The YorkInfo Partnership and joint procurements are heavily valued by all partners



Facilitated Discussion

Discussion focused on how we can share data within and between our organizations, including strategies to foster a culture of data sharing and collaboration.

1. What strategies or practices have you found effective in breaking down sharing barriers and data silos?
 - Establishing governance with clear data stewards, policies and toolkits
 - Centralizing data repositories for easier access to a single source of truth
2. What can we do collectively/together to help foster a culture of data sharing and collaboration?
 - Promote open sharing within and between our organizations through education and awareness initiatives
 - Engage leadership to endorse and encourage sharing as good government



Suggested Actions and Next Steps

Immediate Actions

- Share the Data Sharing Toolkit Framework with Workshop participants
- Act as data sharing ambassadors, championing the benefits within our organizations
- Spread awareness of the YorkInfo Partnership and the Data Co-op for data sharing

Short-Term Considerations

- Seek out additional opportunities for sharing data to support business needs in accordance with internal data strategies and the YorkInfo Partnership Multi-Year Plan

Long-Term Considerations

- Review/consolidate current agreements for expedited sharing between organizations
- Advocate for expanded open sharing between government organizations of all levels

COLLABORATION IN ACTION



Data Storytelling: Unleashing the Power of Insights through Compelling Narratives

Data storytelling is the art of combining data analysis with compelling narratives to effectively communicate insights, educate the audience and drive action. The importance of data storytelling and ways to enhance our storytelling abilities were discussed during a session where staff from the Town of Georgina and York Region shared impactful data story examples.

Key Insights

Following a simple six-step process can help create impactful business stories supported by data (see page 19)



Ethics matter in data storytelling – don't let your personal views bias your message



78% of participants have not taken a data storytelling course



Facilitated Discussion

Participants shared effective storytelling techniques used in their organizations and identified training necessary to more effectively translate data insights into meaningful narratives that connect with the public, stakeholders and decision-makers.

1. What storytelling techniques do you use? What challenges do you face?
 - **Techniques:** Simple dashboards, story maps and SCQA (Situation, Complication, Question, Answer)
 - **Challenges:** Not having integral and quality data, struggling to adjust content to match audience interests and pinpointing the key message(s) to convey
2. How can we collectively build data storytelling skills together?
 - Share best practices and templates across organizations
 - Deliver data storytelling training to staff

Suggested Actions and Next Steps

Immediate Actions

- Share storytelling templates from "The Data Storyteller's Handbook" through the Digital Academy and Data Co-op
- Create a set of questions to guide the creation of effective data stories

Short-Term Considerations

- Catalogue and share examples of successful data stories
- Create a cross-organizational working group (local municipalities, York Region departments and DAVS representatives, YRP) to review storytelling course material

Long-Term Considerations

- Data storytelling course delivered through the Digital Academy (2025)

The Six Ws to Support Impactful Storytelling



COLLABORATION IN ACTION



Harnessing the Potential of Generative AI: A Path Forward

Generative AI (GenAI) made waves with the masses in 2023 in the form of ChatGPT. More recently, Microsoft Copilot has ventured into the public sector. For local government, GenAI-powered tools have the potential to enhance our work, such as writing, research and programming, to name a few. In this session representatives from the City of Markham and York Region shared their experiences in using GenAI within their organizations.

Key Insights

The use of GenAI is consistent across organizations and the majority have exposure to GenAI capability (e.g., ChatGPT)

Post-survey results indicated this session was a top three learning outcome

Opportunities for GenAI within the workplace are better recognized, with significant interest in further learning and collaboration



Facilitated Discussion

Participants explored the opportunity to surface solid use cases of GenAI, challenges they may face and how, by working together, these challenges can be addressed.

1. Where do you think the most significant opportunities are to advance the use of GenAI in our organizations?
 - Senior staff more strongly recognize the value of using GenAI-powered chatbot(s) to enhance services for residents
 - Data professionals/analysts strongly recognize the potential for GenAI capability to ease data tasks such as acquisition and processing (GenAI-powered assistant)
 - Those who self-identified at an “advanced” level of data literacy are more tempered, perhaps appreciating the necessary checks and balances to have in place
2. How might we work together to advance the use of GenAI in our organizations? What actions can we collectively take?
 - Form working groups and champions to continue collaboration
 - Expand participation in pilot projects to evaluate licensed GenAI products
 - Share guides and learning materials, with resources



Suggested Actions and Next Steps

Immediate Actions

- Share available, finalized resources produced by York Region and others
- Engage Microsoft to arrange an open session on Copilot

Short-Term Considerations

- Arrange a GenAI course for staff and partners (2024 to 2025)
- Confirm interest in setting up a GenAI “knowledge sharing” group

Long-Term Considerations

- Explore interest to achieve a harmonized resident chatbot experience
- Expand to the broader AI domain by enhancing the policy framework and advancing procurement practices

COLLABORATION IN ACTION



Building a Dream Team: Talent Acquisition Strategies for Data and Analytics Resources

The demand for skilled data scientists, analysts and other data and analytics professionals is high, while supply remains limited. In this session, representatives from the City of Richmond Hill and York Region provided background on their approaches to hiring and growing data and analytics talent. We discussed what positions are needed and the challenges we've been encountering in attracting applicants, recruiting, onboarding and retaining good people.

Key Insights

Data and GIS positions have the highest self-ranking on the digital transformation scale of 1 to 10



Management personnel (directors, managers) tend to rank themselves lower on the digital transformation scale



Biggest challenges in digital transformation are funding and resources, as well as skills and training



Facilitated Discussion

This session explored effective talent acquisition strategies, obstacles faced by organizations and opportunities to address these challenges collaboratively.

1. Based on the Must-Have and Emerging Data, Analytics and AI Roles (Gartner SDAO Survey 2023), what roles would you like your organization to have? What are the main obstacles you perceive in recruiting, integrating and retaining that talent?
 - Data governance roles, prompt engineers, AI engineers and developers, data systems specialists, and business analysts are the top five roles organizations would like to have
 - Competitive compensation packages that reflect the market value of their skills are needed
 - Collaboration between data and analytics teams and other departments/ organizations to demonstrate the impact of their work needs to be encourage
2. What opportunities are there for us to collaborate in the realm of data and analytics recruitment (e.g., sharing successful tactics, job descriptions, recruitment channels)?
 - Standardize data and analytics roles and responsibilities across different organizations
 - Collaborate with universities for talent opportunities
 - Upskill current staff interested in data and analytics roles
 - Build a strong employer brand using social media platforms like LinkedIn to change perceptions and attract talent
 - Leverage HR analytics to make informed decisions by using data about talent acquisition, development and retention

Suggested Actions and Next Steps

Immediate Actions

- Share job descriptions for data and analytics roles

Short-Term Considerations

- Initiate discussions on developing a partnership with a university to acquire talent and secondment opportunities across organizations
- Host a workshop for HR professionals on the collection, analysis and interpretation of HR data to assist with data-informed decision-making
- Host a workshop on data storytelling to present business needs in a way that is engaging and easy to understand, to help support data and analytics roles

Long-Term Considerations

- Develop career paths for data and analytics professionals outlining growth and advancements
- Explore providing skills and training through the Digital Academy aligned with career paths

COLLABORATION IN ACTION



Reflections: And the Survey Says...

After a successful day of collaboration, it's clear there is strong interest among our partners to work together more effectively on all things data and analytics. We're all eager to break down barriers within and between our organizations to find synergies, remove duplication of effort and technology, create cost efficiencies, and more.

Reflecting on the four goals we set out for participants, through post-event survey feedback, we learned the Workshop delivered.

Network

- 78% of survey respondents found the event to be extremely valuable, with one of the largest reasons being the networking opportunities provided
- Participants felt the Workshop "was a perfect mix of presentations, group collaboration and networking" and that they "came away with some new contacts and some great new ideas"



Learn

The day was filled with content to build participants' skills and knowledge, and they agreed they learned a lot, including about:

- Each other (44%) – what others are doing, sharing knowledge, collaboration, networking and connecting with people
- AI (41%) – uses, opportunities and ethics
- Data literacy (29%) – implementation strategies, personas, Digital Academy and potential training, learning materials

Participants wish to learn more about:

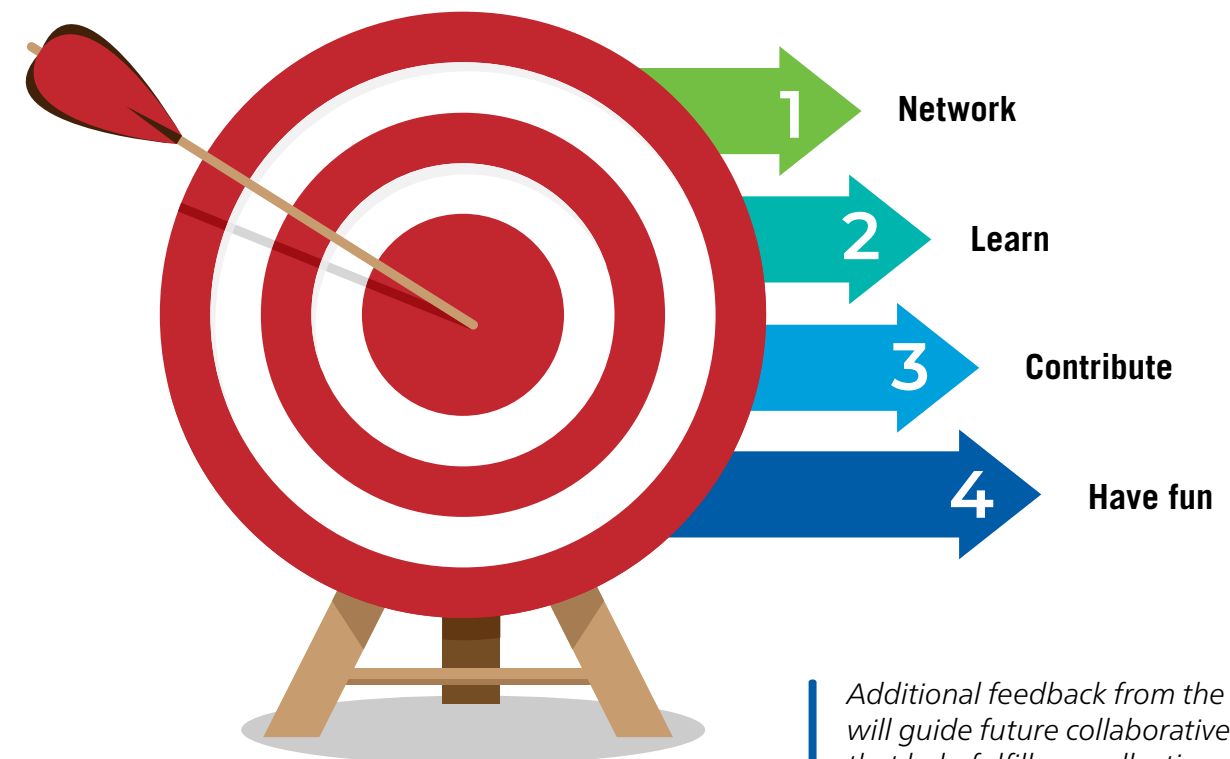
- AI and machine learning (43%) – more around applications, ethics, governance, guidelines, opportunities, uses, adoption, guidelines, techniques and demonstrations
- Data storytelling (20%) – more examples, techniques, toolkits and visualizations
- Data lifecycle (12%) – governance, architecture, cleaning, collection, integration and accessing scaling

Contribute

- The facilitated discussions left participants feeling empowered, with 40% of survey respondents reporting they were ready to apply what they learned right away
- Participants appreciated the event "had everyone engaged, talking and forward thinking in a safe collaborative space"

Have fun

- The strong audience presence and reactions during our closing remarks indicated our goals had been met, if not exceeded
- Participants reflected, "it was a magical experience to be together again with such an engaging audience" and the Workshop "surpassed their expectations in terms of learning and networking opportunities"



Additional feedback from the Workshop will guide future collaborative initiatives that help fulfill our collective potential.



Igniting and Uniting Data Ambassadors

In addition to our overarching goals, we put forward a call to action for participants to embrace their role as a data ambassador. To become the voice for data within their team, department and organization. To champion the use of data as a strategic enterprise asset, driving improvements in decision-making, service delivery and overall performance. Suggested actions included:

- Advocating for effective and ethical use of data
- Promoting data literacy training
- Asking data questions
- Facilitating data sharing with internal and external partners
- Becoming a great storyteller using data
- Showing how data helps solve business problems

Through our post-event survey, we learned 80% of respondents feel equipped to be data ambassadors. They feel armed with the right mix of qualifications, skills and enthusiasm to lead the charge in fostering a culture where data makes a difference. One participant stated: "I couldn't be more excited to be a 'data ambassador' and apply the learning."

The other 20% cited a need for more education, practice, training and exposure to feel equipped. With this in mind, we must now turn our attention to ensuring all our data and analytics professionals are supported enough to be a true data ambassador.

We must continue exploring, together, new ways to ignite and unite our teams, revolutionizing government programs and services by putting data to work!





FOR MORE INFORMATION

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