CHARTERED PROFESSIONAL ACCOUNTANTS CANADA

Digital and Data Transformation Roundtable

POSITIONING CANADA TO LEAD IN A DIGITAL AND DATA-DRIVEN ECONOMY

Overview

On September 13, 2018, Chartered Professional Accountants of Canada (CPA Canada) hosted a roundtable in Toronto to provide an opportunity for stakeholders to share views on how to position Canada to excel in the digital and data-driven economy of the future and compete as a global innovation leader.

The roundtable was hosted by CPA Canada in response to the National Digital and Data Consultations, which were launched by Innovation, Science and Economic Development (ISED) in June 2018.

In addition to representatives from ISED and CPA Canada, the roundtable was attended by CPAs and business leaders from a range of sectors and diverse backgrounds including finance and accounting, audit and assurance, risk management, cybersecurity, financial technology,

data protection and privacy, education, and innovation and governance. Together they provide representation from small to large businesses and accounting firms in Canada.

During our roundtable discussion, we focused on the following ISED themes:

- **Unleashing innovation** — How to ensure that Canadian businesses can remain competitive, adapt traditional approaches and identify, adopt and implement digital and data-driven technologies
- **Trust and privacy** — How to ensure that frameworks have the right balance between supporting innovation and protecting privacy interests while promoting trust when it comes to data
- **Future of work** — How new technologies could impact the way we work, the jobs of tomorrow and the employment landscape

CPA Canada looks forward to engaging further with ISED as it develops its National Data strategy. If you have any questions regarding this report, please do not hesitate to contact Michael Wong (michaelwong@cpacanada.ca), Principal, Research, Guidance and Support.

Summary

Based on our roundtable discussions, we observed the following prevailing thoughts around each theme:

- **Help needed to support innovation** — Canadian innovation is strong, but government and large organizations need to play a more active role in supporting, fostering and growing innovation to reach scale. Such support could be in the form of incentives for professionals and organizations to adopt digital technologies as well as a friendlier regulatory environment that enables the creation of open frameworks around data and new technologies.
- **Data and privacy regulation** — Organizations irrespective of size should be subject to an overarching framework for responsible data use. The potential for a recognized "certification" in this area should be further explored.
- **A changing workplace** — The use of emerging technologies underscores the importance of a continuous learning mindset and enhanced professional judgement and communication skills. Larger organizations are leading in this area, having embedded a number of global programs designed to prepare their workforce for the future by leveraging technology and innovative digital platforms.

CPA Canada is actively researching these areas to understand the impact to our members and Canadians more broadly. One example is CPA Canada's recently launched Foresight initiative which is a digital, multi-stakeholder consultation looking at the impact of technology and emerging trends on the future of the CPA profession. We continue to develop resources and programs to equip our members with the knowledge and skills necessary to adapt to a rapidly-evolving business environment.

Key Observations by Theme

Below is a report of the discussion and views from the participants, followed by key questions raised by participants during the interactive roundtable discussion.

Theme: Unleashing Innovation

Question 1

What are some of the barriers to adoption and deployment of big data and digital technologies?

What we heard

- Canadian organizations need a common definition of data. Organizations also face challenges understanding the data in their possession (i.e., what is collected, how it is used and how systems interconnect) and the applicable laws and regulations related to the storage and use of that data. For example, what organizational data can and can't be shared? How do regulatory frameworks for managing personal data differ among jurisdictions, and how does this affect business operations?
- Some enterprises feel that there is a lack of clarity surrounding their regulatory obligations for data collection and use. Others have the perception that overlegislation and competing regulations around data and disruptive technologies may hinder innovation and adoption.
- In Canada, businesses tend to be more risk averse. Therefore, regulators need to move faster, be less restrictive and encourage businesses to take more upside risk (e.g., risks that can bring value to an organization). An uncertain regulatory landscape deters companies from taking risks.
- There is a divide in digital investment in Canada between large organizations and small and medium enterprises (SMEs). Large organizations are willing and able to invest in digital infrastructure. However, the barriers for SMEs are tighter budgets and not knowing where to invest for greatest impact.
- Customer banking information and associated financial data are protected assets of the Canadian banks and have historically been inaccessible by third-party companies. However, open banking initiatives (like those being adopted in Europe and the U.K.) will support Application Program Interface (API) access to closed banking data and allow for new and innovative services to be delivered to bank customers by third-party companies.

> **"Innovation in Canada is not publicized as much as it could be. The tech corridor between Toronto and Waterloo is really rich with innovation, creativity, and ideas."**

Question 2

How can we best encourage and support the use of big data and the adoption of digital technologies? Who can unlock this potential and how?

What we heard

- Canadian businesses require encouragement to (1) take new risks and (2) take advantage of new technologies. Government and large enterprises need to set an example by taking the lead in innovating and fostering investment in technology.

> **"People don't know where to start. The amount of data residing in organizations is daunting and lacks the structural hygiene needed to obtain information from it."**

- A Canadian framework on how data should be used would allow organizations to:
  - Responsibly obtain and leverage data, particularly for SMEs, which may be more risk averse and resource constrained than large enterprises.
  - Gain an understanding of how to (a) build data into their core business strategy and (b) articulate outcomes.
  - Place more trust in technology to analyze/evaluate data.
  - Facilitate data sharing and use among internal departments and among sectors.
  - Grow and better compete at the international level.
- Such a framework should not be overly restrictive to avoid inhibiting innovation.
- Professional bodies such as CPA Canada can ensure that those entering and continuing in the profession are well-positioned to adapt to technological shifts.
- Incentives are required to encourage professionals and organizations to scale their technology and innovation in Canada rather than pursuing opportunities abroad.

> **"Canada is a compliance-based economy. We have too many competing regulations that companies have to address."**

Questions for further consideration

- How can Canada promote the design and implementation of new technologies so that they are not merely facilitating faulty processes from the past?
- How can Canada encourage the adoption of new technologies to facilitate more innovation?
- How can Canada better highlight, build, foster, and grow our existing innovation assets such as our talent, ideas and research?

> **"Businesses need encouragement to build data into their core business strategies."**

Theme: Frameworks to Foster Data Privacy and Trust

Question 1

How can we gain trust and confidence from citizens on the use of their data while not impeding innovation?

What we heard

- Citizens require a greater sense of control over who has access to their personal data and how it is used so that they are able to make informed decisions.
- Impact of international legislation such as the European Union's General Data Protection Regulation (GDPR) should be made more relevant for the Canadian context and more understandable for the general public.
- While obligations to protect data privacy should be universal, considerations should be given to the size of the business when it comes to actual compliance requirements in order to avoid overburdening smaller organizations.
- Disclosure is important. Organizations need to be transparent about how they are using data and for what purposes.

> **"Canada has a consent-based framework for data. It is quite prescriptive and will be getting more prescriptive. That's going to cost SMEs more money to comply, but we don't know if it will help consumers."**

"This is an opportunity to shift our approach to information. We need to stop trying to analyze data and let the machine do that. We need a framework to enable people to trust in the machine."

Question 2

How can we best ensure the privacy and willing consent of citizens in the digital and data-driven economy?

What we heard

- Canada largely utilizes a consent-based framework. For a consent-based framework to be effective, the following conditions would be desirable:
  - Consent needs to be infrequent.
  - Imminent risks need to be made apparent.
  - Requests for consent need to be understandable.
- At present, if citizens do not perceive an imminent risk for providing consent, they are likely to give consent rather than repeatedly read lengthy privacy statements written in legal terminology.
- Government and organizations need to educate citizens and increase the citizens' awareness of risks related to sharing their data.
- Legislation could provide a simpler and clearer privacy/consent statement format for citizens, in plain language. Other countries' simplified data-consent mechanisms (i.e., through which citizens give through one application consent for their data to be used among many different services) could also be considered for the Canadian context.
- The government could play a role in defining organizations' responsibilities for acting as data custodians. This may be accomplished via a legislated overarching framework stipulating how all organizations store, manage, secure, and use data.
- Compliance with a trust-based framework could be self-regulated, accompanied with "privacy by design" certification by an independent third party.
- Development of such a framework for storing, managing, securing, and using data would need to be transparent and require a multidisciplinary approach: expertise from various sectors such as financial, legal, security, and engineering are required to address personal risk, personal rights and economics.

"If we want people to trust in technology, we have to ensure that our data-protection systems are military grade, in other words, an operational level of proven trust in a system for military purposes."

"Younger generations appreciate organizations that wear their heart on their sleeve and define what they stand for. The first bank to do that will outshine all others in terms of gaining clients' trust."

Questions for further consideration

- How would Canada maintain a balance on respecting data privacy and fostering innovation while supporting companies who do business

globally with countries who may view data privacy differently from us?
- What mechanisms could be put in place to increase simplicity and clarity of citizens' consent to data sharing?
- Would a trust-based framework for privacy and consent, with which companies could show their compliance through certification, be desirable for transparency and accountability?

> "CPAs have an amplified responsibility to protect their clients' data. Our clients want to trust in more than just the apps that are being used for accounting purposes."

Theme: The Future of Work

Question 1

What are the critical implications of changes underway in the labour market, and how can we ensure all Canadians are able to adapt and thrive?

What we heard

> "We need to focus on the skills to acquire skills: the future of work is about adaptation and change."

- Due to emerging technologies, such as artificial intelligence (AI) and robotic process automation (RPA), there is likely to be a work/skills gap for many years to come.
- Some organizations are already experiencing difficulties recruiting in the areas of cybersecurity, privacy, risk, and IT general controls.
- Technology is disrupting the way we do things today, and it will continue to do so in the future. Therefore, most important is for governments and organizations to provide and support lifelong learning opportunities for their workers.
- To help the existing and future workforce adapt and thrive, organizations have launched initiatives such as digital bootcamps, internship programs specific to innovation, and online learning platforms (e.g., PwC's digital boot camp, RBC's Amplify program and EY's Badges initiative). Professional associations, like CPA Canada and the CFA Institute, are also incorporating more data and analytics and information technology elements into their curriculum.
- Recruitment models will need to facilitate the building of multidisciplinary teams with diverse skillsets.
- From the primary grades through to post-secondary education and professional programs, students of today need to be taught how to be their own teachers. Facilitate focus on developing core skills that can be applied to any job in the future rather than encourage the pursuit of a single career path.

Question 2

What are the general skills we need to be training future workers with, and are there additional specific skill areas we know will be critical to leading in the digital and data-driven economy?

> "For the CPA profession specifically, the definition of 'finance' should be narrowed so that it is less all-encompassing. The CPAs of tomorrow require an education that's relevant for the ages. They don't need to be trained for everything."

What we heard

- In all sectors, the future of work will require critical and creative thinking and adaptability. In addition, the future workforce will expect increased flexibility and mobility enabled by technology;

therefore, communication skills and professional judgement will also be essential.
- Accelerated support of continuing education or certification programs in core technical skills is important (e.g., blockchain, cyber security, etc.) to ramp up the workforce.

"Clients are identifying skills gaps across the board through responses to job postings."

Questions for further consideration

- How might the role of the CPA change in the future? What skills can be taught now to prepare for that role?
- How could employers be supported in assessing candidates' potential rather than the qualifications they possess today?
- How can Canada and organizations encourage lifelong learning for their citizens and employees, and to support continuing education?