



November 29, 2019

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**RE: Response to Ontario Data Strategy consultation, discussion paper three: advancing better and smarter government.**

On behalf of the Ontario Society of Professional Engineers (OSPE), we are pleased to present the following response to the Ontario Data Strategy consultation.

OSPE is the voice of the engineering profession in Ontario. We represent 85,000 professional engineers and 250,000 engineering graduates in the province. Ontario's engineers are uniquely positioned across several industries – including mobile internet, automation, cloud technology, and advance manufacturing, amongst others – that contribute directly to Ontario's data economy.

Engineers have been essential in the design and development of technology that already exists today, and engineers possess the technical expertise and ingenuity to lead our transformation to a data driven economy. OSPE's Research and Innovation Task Force has provided leadership on matters pertaining to data collection, data privacy and the impact of technology on users. Engineers believe that careful consideration must be used when thinking about how new technologies will impact the privacy and quality of life of citizens. The design and deployment of new technologies must always consider the ethical implications of their application.

**4.4.1 Improving data management, discussion questions:**

**As an Ontarian, what concerns you the most about how the government manages data?**

The major concerns are the risk of data breach for personal, privileged or high value data, as well as the misuse of public/open data. This can include large corporations, political parties or foreign states using private data to gain an unfair economic or political advantage by using the data to exploit or influence Ontarians in an unethical manner.

We are also concerned with the lack of commitment/continuity in reporting data consistently, and over a long period of time, and how this impacts the usefulness of data to serve all Ontarians. Guidelines should be put in place so that an agreement to publish open data in a

standard format be tied to a commitment to do so over at least 5 years. This allows much needed continuity in reporting, as longitudinal data is necessary for businesses to establish trends and extract insights. Individual snapshots of bits and pieces of government data are less informative and harder to draw conclusions from.

### **How can government make its open data most useful and helpful for Ontarians?**

The government must ensure transparency and consistent communication regarding the availability and collection of data. Further, the government must:

- Commit to providing the data at regular intervals, with consistent quality and over a sufficiently long amount of time to allow for trends to be established.
- Allow citizens to access government services through a single channel (particularly for authentication).
- Adhere to the EU “Once Only Principle” of data collection so that data is collected only once. Allow citizens to update/manage their data and determine which Ministry (or, in future, external validated partners) can access it through one central point or one single channel.
- Allow communication and sharing of data between Ministries through the creation of an independent government entity under the Chief Digital & Data Officer that manages a distributed, secure and standard based data repository for all Ministries.
- Standardize datasets as much as possible (e.g. if looking at labour data, use same formatting across years and different government dept's) by giving power to the Chief Digital & Data Officer to define and enforce data standards, as well as power to audit ministries (and, in future, trusted external partners) for adherence to data security, standards and ethical use of the data.
- Include context and data collection methodology with each dataset (e.g. if looking at financial data, accrual vs cash basis accounting).
- Partner with agencies such as OCE, MaRS, or Communitech, to provide data concierge services, where companies can approach these agencies to get help with finding the right data.

### **How can the government best inform citizens about new investments and developments that support data sharing and data linking?**

Encourage participation from industry through the brokerage of data, joint grants, data sharing projects and by the creation of a secure data repository where anonymized data can be stored and exchanged.

Educate the public on data literacy (i.e. personal vs. anonymized aggregated data) and the benefits of better data collection and data sharing for all Ontarians.

Ensure visibility through the creation of a single channel government portal where citizens have access to their personal data. Citizens will understand that their data is only collected once and will have the ability to update/change it. Citizens should also be able to choose to share additional data (anonymized or not) with different ministries (or, in future, external validated partners) and access all government services through a centralized single channel.

As most data-driven businesses are linked to postsecondary institutions (colleges or universities) or regional innovation organizations (e.g. OSPE, OCE, MaRS, Communitech, Haltech) government should look to partner with these organizations to generate awareness through their workshops and announcements.

### **What barriers exist in the government that you're aware of that limit the sharing of data?**

Barriers include different formats of data, a lack of guidelines on storage, no enforcement of existing protocols, inconsistent sharing, and few tools to offload data management. Also, there is currently no external entity that can be entrusted to manage access and maintain security.

There is a lack of enforcement capabilities, sufficient incentives to participate, or tools that would make data sharing easier and safer (old and legacy systems).

The lack of incentives to broker data between ministries discourages co-operation. (e.g. if one ministry shares data that would be useful to another, they would get a reward they can use to entice another ministry to share data they need)

The risk averse nature of government policy translates to "red tape" for businesses and citizens when accessing government services. The Chief Digital and Data Officer needs to have enforcement, audit and data access powers, as well as funding to build the right platforms and incentives to encourage ministries to participate.

### **4.4.2 Building the data skills of Government of Ontario employees, discussion questions:**

#### **What are essential skills that public servants need for working with data in the 21st century?**

To work effectively with data, public servants will require:

- Skills in data analysis using Microsoft Excel or other spreadsheet tools
- An understanding of privacy laws
- Skills in engaging stakeholders to discover their data needs and match these with government data

#### **Looking ahead, how can the government effectively promote culture change to encourage broader adoption of data skills by government employees?**

To effectively promote culture change, the government must implement continuous learning plans, data literacy certification and incentives.

#### **What models should the government adopt to rapidly retrain and upskill our staff?**

Staff should be provided with paid time to participate in approved curriculum (cost sharing), better tools to advance their skills rapidly, and incentives for those those who participate in the

change process as champions or agents of change (i.e. data champion awards, data sharing project of the year award for teams, etc.).

#### **4.4.3 Leveraging data-sharing to design better services, discussion questions:**

##### **Looking to the future, how can government best use data to improve services for the people of Ontario?**

This is an opportunity for government to create new business models that share and use data from citizens to provide services, while using collected data to improve and evaluate services. The government should host hackathons that bring together students and programmers of all diversity dimensions to find and solve problems using open data. This would raise awareness about the open data strategy and leverage the public brain trust to address challenges of all kinds affecting Ontarians.

##### **How can government best ensure that feedback from citizens is collected and used to continually improve services?**

The government should ensure regular feedback collection through “polls.” Results should be anonymized, and usage data be made public. Further, it is imperative to create a direct link between the results and concrete actions taken by the government.

Lastly, the Ontario Government should work with industry to leverage existing technologies that enable government to adopt an open data strategy and provide streamlined single channel access for citizens. The government does not need to re-invent the wheel to develop its own technologies and tools, but should work towards creating opportunities for greater industry-government collaboration, that will have a positive outcome for business growth, government and citizens.

Thank you for the opportunity to participate in this important discussion around the data economy. OSPE would be pleased to provide our subject matter experts to meet with the Ministry staff to further expand on these points and provide additional commentary. For questions or comments regarding this submission, please contact Andrea Carmona, Lead, Policy and Government Relations, at [acarmona@ospe.on.ca](mailto:acarmona@ospe.on.ca) or (416) 223-9961 ext. 243.

Sincerely,



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