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**Digital Service Delivery: Disruptive digital technologies, data privacy and governance**

This paper was prepared as background material to support dialogue at the fifth gathering of senior Canadian and Australian public servants under the Canada-Australia Public Policy Initiative (CAPPI)

Canada-Australia Public Policy Initiative

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***Executive Summary***

* Australia and Canada need to accelerate the transformation of service delivery to keep pace with their citizens’ expectations in an age of rapid digital transformation and disruption.
* However, while there have been gains and lessons learned in leveraging technology to improve service delivery, the large potential gains that will transform how citizens deal with government will come from whole of government service delivery transformation.
* Whole of government transformation that delivers one stop, “tell us once platforms” for citizens will require joined up approaches across departments and levels of government, broad-based community support for the greater sharing of data across jurisdictions, and stronger capability within government to lead and govern transformational change.
* While significant steps have been made, more work remains to build public trust in more data sharing and whole of government capability to drive, oversight, and govern transformational change.
* The Retreat provides an opportunity for both countries to focus on identifying ways to work together to drive reform, build trust and share best practice.

 ***Introduction***

Technology continues to change at an unprecedented rate and it has become not just accepted, but expected, that this will continue, at an accelerated rate, rather than slow down.

Over the past 20 years, citizens in both countries have embraced technological change, largely driven by the widespread availability of intuitive and elegant smart devices and widely-available broadband internet connectivity. Digital platforms, services and experiences have provided rich and enhanced value-propositions for citizens that have been irresistible and, as a result, have fundamentally changed citizen expectations in all areas of life, including how they interact with government.

There is a strong imperative for governments to respond to rising community expectations and leverage emerging disruptive digital technologies to transform how they deliver services, to become more efficient, responsive and user-friendly. In recent years, both countries have made significant investments in new technology and whole of government policy frameworks that will guide the further use of technology and inform strategic directions to transform how government interacts with citizens and businesses.

For example, progress has been made in leveraging new technology to transform the delivery of social welfare payments and services by the Australian Department of Human Services (DHS). The DHS experience highlights that technology alone will not be sufficient to transform service delivery to meet citizens’ expectations, and that success will require governments working in agile, user-centred ways.

Transformational reform will require whole of government change that delivers one stop, “tell us once platforms” for citizens. Reforms will require approaches that are joined up across departments and levels of government. Critical to achieving change on this scale will be broad-based community support for the greater sharing of data across jurisdictions and for governments to build joined capability and governance processes to drive and manage change.

While governments are developing frameworks to support greater sharing of data, more work is required to build public trust in a digital age. The challenge will be to identify the privacy arrangements that will foster trust in a digital environment and allows data about citizens to be shared. In using data to improve service delivery, governments will need to clearly articulate how they will use the data to develop customised services, identify key risks and describe how they will safeguard the data. Governments will need clear, proactive public communications strategies to account for deficits in public trust, and ensure their activities align with public expectations and community norms.

There is a trade-off, often unspoken, where citizens expose private data about themselves (ranging from personal information to credit card and banking details to political preferences) in exchange for better and more seamless access (to social networks, merchant sites, email, etc.). However, frequently citizens’ trust in these systems has been broken. Recent news cycles have been dominated by the Cambridge Analytica scandal, Wikileaks and other high profile breaches and misuses of personal data. Citizens’ feedback on current Australian Government initiatives, such as the *My Health Record* initiative and the DHS Online Compliance Intervention, also highlight that further work is needed to build trust and social licence to undertake data sharing to transform service delivery.

A modernized governance framework is required to drive transformation to oversight multiple departments and levels of government working together to achieve more joined up services for citizens. Central agencies within large governments such as Canada and Australia also face the challenge of encouraging individual departments to be both agile and innovative, while at the same time making sure that new information technology projects are interoperable, do not duplicate, and deliver value across government. Establishing governance without stifling innovation and without adding too many additional requirements to an already large reporting burden remains a significant challenge.

Capability gaps within the public service and private sector will need to be addressed in order to deliver whole of government transformation. For example, a report by the Australia Computing Society and Deloitte outlines that an extra 200,000 technology workers will be needed in Australia in the next 5 years.

This paper highlights the progress made by both countries, identifies remaining issues, barriers and opportunities for change, and raises key questions for discussion at the Retreat in regard to:

* utilising disruptive digital technologies to transform whole of government service delivery
* building social trust
* driving whole of government service delivery transformation, and
* building the capability of government to deliver service delivery transformation.

***Disruptive digital technologies***

***Canada***

Current Developments – Investing in Artificial Intelligence

The Government of Canada is actively engaged in a wholesale overhaul of existing information management and information technology policies and practices to keep pace with citizens’ expectations in an age of rapid digital transformation and disruption. One of the most visible areas where this is taking place is in the field of machine learning and artificial intelligence, both in their use by governments and by the private sector.

The Government of Canada has made a substantial investment in this field: over the last two years, the Government has invested in the Canadian Artificial Intelligence (AI) ecosystem. Successive budgets funded Can$125 million toward the [Pan-Canadian AI Strategy](https://www.newswire.ca/news-releases/canada-funds-125-million-pan-canadian-artificial-intelligence-strategy-616876434.html)  and Can$950 million for the [Superclusters initiative](http://www.ic.gc.ca/eic/site/093.nsf/eng/home), which are generating cutting-edge research, investment, and talent in Canada.

With the application of technology like machine learning to improve the delivery of benefits programs, predictive data analytics to improve decision making, and natural language processing to support translation services, the hope is this work can reduce backlogs and processing times while offering unprecedented convenience and personalized service to Canadians and businesses.

Managing Key Issues and Challenges with AI

The use of AI offers a lot of promise in improving the efficiency of service delivery in government, but there are also risks if this is not done with care. Small scale pilots using limited applications of AI have already drawn [media](https://www.macleans.ca/politics/ottawa/what-happens-when-artificial-intelligence-comes-to-ottawa/) [attention](https://www.cbc.ca/news/politics/artificial-intelligence-tax-justice-pilot-1.4817242), such as the use of systems to do the initial screening of refugee claims by the Department of Justice Canada and Immigration, Refugees and Citizenship Canada. Governments need to find ways to implement these types of tools in ways that maintain the trust and buy-in by their citizens.

It is critical that the use of AI be governed with clear values, ethics, and rules. In the coming months, Treasury Board of Canada will release a [Directive on Automated Decision-Making](https://docs.google.com/document/d/1LdciG-UYeokx3U7ZzRng3u4T3IHrBXXk9JddjjueQok/edit#heading=h.umd3sgrbb3d9), which will outline the responsibilities of federal departments using AI. This Directive, along with the [Algorithmic Impact Assessment](https://canada-ca.github.io/digital-playbook-guide-numerique/views-vues/automated-decision-automatise/en/algorithmic-impact-assessment.html) tool, will help institutions better understand and ensure the ethical and responsible implementation of AI. Much of this was built upon the ground-breaking work on the automated assistance of decision-making by the Government of Australia in 2007.[[1]](#footnote-2)

The challenge is finding the right balance between innovation and the application of technology within a strong ethical framework. The ability to identify patterns in vast data and to take automated action will help maximize benefit to the public through improved delivery of services. This will require the appropriate design, development, and enforcement of policy and regulations.

AI must be designed and implemented carefully and ensure the protection of human rights or we risk making erroneous decisions based on misinterpretations of data. We believe that AI should not only follow - but be built to improve - core principles of our respective societies, including **transparency, accountability, and procedural fairness.**

Best Practice Principles to Guide the Use of AI

Canada, along with fellow members of the Digital 9 recently agreed a set of best practice principles on the use of AI by governments for purposes other than national defence. [[2]](#footnote-3)

1. **Understand and measure the impact of using AI by developing and sharing tools and approaches.**
2. **Be transparent** about how and when we are using AI.
3. **Provide meaningful explanations** about AI decision-making, while also offering opportunities to review results and challenge these decisions.
4. **Be as open as we can** by sharing source code, training data, and other relevant information, all while protecting personal information, system integration and national security.
5. **Provide sufficient training** to ensure that the employees developing and using AI solutions have the ethical, design, function, and implementation skills needed to make government services better.

***Australia***

Whole of Government Transformational Strategies

Australia is also accelerating its transformation of public service delivery. Announced in November 2018, the new [Digital Transformation Strategy](https://www.dta.gov.au/node/594) (the Strategy) sets the direction for the work of the Australian Public Service (APS) to 2025, to make the APS one of the top three digital governments in the world. Reflecting the breadth of the change agenda, the Digital Transformation Agency (DTA) has developed the Strategy alongside the [Digital Economy Strategy](https://www.industry.gov.au/strategies-for-the-future/participating-in-the-digital-economy), the [Cyber Security Strategy](https://cybersecuritystrategy.homeaffairs.gov.au/), the [National Business Simplification Strategy](https://www.industry.gov.au/strategies-for-the-future/simplifying-business) and the [APS Review](https://www.apsreview.gov.au/).

The Strategy is accompanied by a [Roadmap](https://www.dta.gov.au/digital-transformation-strategy/roadmap-page), which includes the key projects and milestones to 2020 and some of the major transformation opportunities to 2025. The Strategy has three strategic priorities to provide focused areas of development to achieve the vision to transform public service delivery.

1. **Government that's easy to deal with**:
* Intuitive and convenient services.
* Integrated services supporting your needs and life events.
* Digital identity for easy and secure access.
1. **Government that's informed by you**:
* Smart services that adapt to the data you choose to share.
* Greater insights for better services.
* Trust and transparency.
1. **Government that’s fit for the digital age**:
* Expanding digital capability.
* Developing modern infrastructure.
* Providing accountability.

Led by the DTA, the Australian Government is working to enable government agencies to take advantage of the next generation of computing, including access to cloud services, protected utilities such as Office 365, and shared data and hosting services. The objectives are to provide teams with the ability to innovate, test and deliver better services to individuals and businesses, reduce costs and create efficiencies.

In 2017, the DTA launched the Secure Cloud Strategy, which provides guidance to government agencies to overcome barriers to entry and to make sure all agencies have the opportunity to make the most of what cloud has to offer. The strategy aims to lay the foundations for sustainable change, seizing opportunities to reduce duplication, enhance collaboration, improve responsiveness and increase innovation across the Australian Public Service (APS). To build on this strategy, the APS is soon to release a Whole of Government Platforms Strategy and a Whole of Government Hosting Strategy.

Led by the DTA, the Australian Government is also investigating blockchain technology for a number of initiatives such as welfare payments and a supply chain prototype to better facilitate international trade. The DTA is a part of an experiment with the FinTech industry. The New South Wales State Government is also experimenting with digital drivers’ licenses. Guidance is scheduled to be launched by the DTA in early 2019 providing an Australian Government view on the technical risks and opportunities of blockchain-based systems.

Managing Key Issues and Challenges with AI

The Australian Minister for Human Services and Digital Transformation, the Hon Michael Keenan MP, officially launched the DHS Augmented Intelligence Centre of Excellence (the Centre) in November 2018. The Centre aims to drive research and discussion on topics like ethics, human rights, privacy, behavioural psychology and societal readiness for AI and then pilot, industrialise and operationalise further applications of AI to benefit Australian citizens. The Centre will significantly contribute to the understanding of what policy factors need to be considered and business processes that need to be refined, while also ensuring the security, integrity and responsible use of data.

Example: Using Technology to Improve Social Welfare Service Delivery

At a practical level, DHS has been an early investor in exploring and developing AI capabilities to transform service delivery, along with building mobile and online accessibility. Since June 2017, DHS has used AI to deploy digital assistants to help both citizens and staff navigate legislation and policy to ensure they can fulfil their obligations in a simple and effective manner. DHS continues to explore further applications of AI, including piloting the use of AI to support real-time language translation in digital channels from July 2018.

For example, in July 2018, DHS deployed a new digital service offer for delivering income support to job seekers. The new service offer supports a dynamic, tailored, personalised and far more natural conversational interaction, supported by an AI driven digital assistant that allows a citizen to lodge their claim on any device, from any location at any time.

DHS makes use of predictive modelling techniques to predict behaviour to better target service delivery. These models leverage DHS’ substantial data holdings and machine learning techniques to enable new, more targeted customer interventions that will enhance fraud detection, streamline customer experience and optimise the use of departmental resources.

The DHS experience has been that re-designing the delivery of social welfare services requires a department-wide approach, with three critical focus areas: **customers,** **staff** and **technology**. DHS established the Chief Citizen Experience Officer (CCXO) role in 2017, to lift the focus on customer–centred approaches to innovating service delivery. Guided by ‘Voice of the Customer’ research, DHS is working with customers and policy agencies to shape service delivery. Transformation requires an understanding of customer needs, pain points and experiences with services, and collaboration with customers to design and develop services. Customer-led research, where DHS is connecting with hundreds of customers over long periods of time, underpins an active customer immersion program. The program works across DHS to support design activities by creating a shared understanding about customer behaviours and experiences. By the end of 2017-18, more than 5,000 customers had participated in DHS’ user research and design and innovation hubs.

*Case Study: User-centred transformation of student payments*

*DHS is progressively transforming its student payment systems by learning directly from real customers about how they use its services and redesigning those services around their needs. In 2017–18 this resulted in more than 45 online and behind-the-scenes system improvements that made it easier for students to claim and manage their payments.*

*In March 2018 the multidisciplinary team driving this project – the Student Transformation Agile Release Train (START) – held two student engagement sessions in the department’s Brisbane Design Hub to gather insights from customers. Twenty-five students participated in a variety of visual activities to help design, test and validate changes being developed by the START team. At each session, they described their individual experiences of claiming student support payments, which contributed to the final design of each online improvement.*

Transforming Service Delivery – We Need New Ways of Working

DHS is developing new frameworks to embed transformation within its operating models. DHS is progressing the development, implementation and embedding of a new Customer Experience Strategy, the supporting measurement system, and an End-to-End Design and Delivery Framework. The implementation of this work will create an enhanced operating model for how customer needs are considered and how efficiently DHS delivers these services. DHS will support this through a measured investment and return approach, which articulates clear financial drivers for government as well as broader public value.

Early experience in rolling out technology to transform service delivery highlights the need for governments to build the capability to quickly adapt their operating models. For example, DHS quickly changed customer engagement and communication strategies following community feedback on the introduction of the new online approach to compliance (Online Compliance Intervention) in 2016. These responses have included better use of data to target compliance reviews (refer Appendix 1 for more detail).

***Issues for Discussion***

Issues for discussion might focus on:

* How can governments best engage citizens to inform the development of new policy and service delivery models?

***Data Privacy***

***Canada***

Understanding and Managing Public Expectations and Opinion

In March 2018, the Treasury Board of Canada Secretariat (TBS) undertook public opinion research that examined citizens’ views on how government should collect, use, and disclose their personal information, specifically in the context of service delivery. The results suggest Canadians are receptive to a “tell us once” approach to Government services. Two thirds of respondents support having an option to provide their personal information only once to access services from all federal government institutions. That being said, the majority of respondents also indicated they want, and expect, to be asked for permission when the government wants to share their information. These results also highlight the need to better understand the other “one third” of respondents who do not support a “tell us once” approach and to address questions this approach raises in terms of individual consent and control, transparency, and citizens’ confidence in the Government’s ability to manage their personal information securely.

Clarifying the Legislative Framework

While there appears to be general support for better information sharing, and the technology to enable integrated and seamless service delivery exists, there remains some question as to the extent the existing legislative and policy framework is structured to support a balanced approach that enables improved service delivery, while at the same time ensuring personal information and privacy is safeguarded. For example, Canada’s *Privacy Act* was implemented well before the “digital era” and has not had substantial changes since 1983. At the same time, there are multiple other pieces of legislation that define the sharing or use of information in the public sector context.

Developing a Trusted Digital Identity System

A trusted digital identity system is fundamental and is a key enabler of seamless and frictionless security in digital systems. TBS will continue to evolve external and internal authentication. This includes enhancing Sign-in Canada, the authentication service for external, public-facing services, so that it can accept trusted digital identities from provincial and territorial governments.

To support internal government workers, TBS is working with Shared Services Canada to implement common internal identity and credential processes and technologies tailored to the level of assurance required for particular business processes. When developing digital services that require digital identity authentication, departments will make use of these common enterprise solutions to enable access to government services for authorized parties. TBS, Shared Services Canada and other departments will continue to work together to minimize the misuse, whether malicious or accidental, of any account that has elevated privileges. Sharing personnel screening information more quickly will also help reduce the risk of insider threats.

TBS introduced new [Digital Standards](https://www.canada.ca/en/government/publicservice/modernizing/government-canada-digital-standards.html) in 2018, which call for a balanced approach to managing security and privacy risks by implementing appropriate, but frictionless, privacy and security measures that do not place a burden on users. At the same time, TBS is working with departments to assess the applicable rules framework in order to identify how it can be improved to better support the sharing of information and improved service, while protecting personal information and privacy and ensuring transparency.

Exploring Tell-us-once Approaches

The 2017 to 2021 Government of Canada Information Management-Information Technology [Strategic Plan](https://www.canada.ca/en/treasury-board-secretariat/services/information-technology/strategic-plan-2017-2021.html) announced that TBS and departments would be exploring the potential of greater sharing of data in order to deliver better services while protecting privacy, and that the government was studying the feasibility of implementing “tell us once.”

From 2018 to 2020, TBS and key service delivery departments will identify policy and legal barriers to information-sharing and digitally-enabled services, and make recommendations for changes to the rules framework to allow service delivery departments to collect information digitally and share it for the purpose of easier delivery and seamless services, while ensuring privacy is protected.

Building Government-wide Interoperability

A platform for government-wide interoperability will lay the foundation for achieving the data-sharing vision of getting the right information to the right people at the right time while respecting privacy requirements. This will be critically important for the successful implementation of tell-us-once approaches and integrated services.

TBS will continue to work with departments and partners on building a digital exchange platform and providing a digital exchange toolkit that includes a suite of modern integration tools (for example, identity management and data transfer systems). This toolkit will serve the needs of a digital exchange ecosystem and enable the secure exchange of data between centralized systems, departments, governments and the public.

The capability to link internal departmental information with solutions for delivering programs and services will enable greater government-wide collaboration when designing digital services, while respecting privacy requirements. It will also enable business process improvement within the government and across jurisdictions, leading to improved program and service delivery for citizens and businesses.

***Australia***

Data Transformation Strategy

Priority two of the Digital Transformation Strategy refers to how the Australian Government protects, secures and utilises data. It outlines the opportunities to create better services if data can be leveraged but it also reflects on the importance of trust and privacy.

A new National Data Commissioner

The Australian Government tasked the Productivity Commission to undertake an extensive 12 month inquiry into data availability and use in Australia. While its [report](https://www.pc.gov.au/inquiries/completed/data-access#report) noted progress had been made, it also identified substantial barriers to data sharing and release in Australia, including:

* a culture of risk aversion
* a lack of a whole of government approach
* inconsistent and complex legal frameworks to navigate, and
* barriers between states and territories.

There are more than 500 existing data secrecy and confidentiality provisions across more than 175 different pieces of Australian Government legislation. The vast majority of these provisions prevent sharing of data, except in specific limited circumstances.

On 1 May 2018, the Australian Government announced its [response](http://dataavailability.pmc.gov.au/) to the Inquiry, including a
A$65 million investment over four years to improve data access and use, and strengthen safeguards around the Australian data system. The package of reforms included:

* Establishing a National Data Commissioner to implement and oversee a simpler, more efficient data sharing and release framework.
* Introducing legislation to improve the sharing, use and reuse of public sector data while maintaining the strong security and privacy protections the community expects.
* A new National Data Advisory Council to advise the National Data Commissioner on ethical data use, technical best practice, and industry and international developments.
* Introducing a Consumer Data Right to allow consumers to share their transaction, usage and product data with service competitors and comparison services.

As a package, these reforms are a substantial change to the way the Australian Government uses, manages, and shares its data, and will ensure the Australian Government is fit-for-purpose in a 21st century digital economy.

The Office of the National Data Commissioner was established on 1 July 2018. An Interim National Data Commissioner, Ms Deborah Anton, was announced on 9 August 2018. The Office of the National Data Commissioner is working to develop data sharing and release legislation in close consultation with government agencies, privacy advocates and the public.

Privacy and security continue to be an important issue for the Australian public. These reforms will allow the Australian Government to share more data more efficiently, strengthen safeguards, improve transparency and increase engagement with the public so that public trust is maintained. It will also protect citizens through better risk management and coordination of the data system.

Understanding Employers’ Expectations and Social Licence – Including The Single Touch Payroll Experience

DHS has been working with several other government agencies to develop an approach to exchange and use payroll data from the Australian Taxation Office’s (ATO’s) new Single Touch Payroll (STP) Program, which commenced from 1 July 2018, for use beyond taxation purposes. Using payroll or accounting software that offers STP functionality, employers send their employees’ taxation and superannuation information to the ATO each time they run their payroll and pay their employees. STP started gradually on 1 July 2018 for employers with 20 or more employees. Employers with under 20 employees may choose to report via STP.

STP is a significant step forward for Whole-of-Government data sharing, not only because of the number of Government agencies involved, but also because of the number of individuals who will be impacted (approximately 14 million working Australians). Almost certainly there will be legitimate community concerns expressed about privacy, social licence, the security of peoples information, as well as the impact of misapplication of this data.

To support STP, a pilot with a major Australian employer was undertaken to explore the concept of near real-time exchange of payroll data with the Australian Government for social security purposes. Findings from the pilot showed that while a vast number of customers contacted to participate in the pilot were happy to share their data, a small percentage (~5 per cent) opted out due to concerns about privacy or loss of control about how their data was to be applied. Further customer research has shown that, overall, people support the sharing and use of their data if it makes their experience better, as long as there is:

* **transparency** about who their data is being shared with and why
* an avenue to **correct** the data if it is wrong, and
* adequate measures to protect the data.

The Australian Government is working towards ensuring it has a strong social licence for its emerging data-related activities.

In its submission to the Productivity Commission, the Office of the Australian Information Commissioner noted that, *“Building the social licence for new data-related activities will require well-thought out data governance measures. Such measures will give individuals confidence about how their information will be managed, and give clear guidance to data custodians about how they should handle personal information. Privacy law, underpinned as it is by principles of transparency and accountability, will continue to be an essential component of any successful data governance framework” (Data Availability and Use — submission to Productivity Commission Draft Report| Office of the Australian Information Commissioner – OAIC December 2016).*

To support the development of this social licence, DHS has developed an Ethics Framework. The Ethics Framework is a roadmap for incorporating ethical assessments as part of project/data related activities, to help ensure that service offerings are ethical. As the Australian Government continues to explore the many potential benefits associated with data, it is essential that the collection and use of individuals’ data is not only legal and in line with applicable privacy and data protection guidelines, but it is also ethical.

To support the development of social licence across the Australian Government, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), in partnership with the Department of Innovation, Industry and Science, is developing an Artificial Intelligence Roadmap and Ethics Framework (the Roadmap and Framework) which will be released in early 2019. The Roadmap and Framework will list future government and non-government technology initiatives that will support the growth of AI and will provide voluntary guidelines to help government and non-government organisations ensure AI initiatives build in adequate protections, fairness, transparency, contestability, accountability and other factors necessary to achieve social licence.

The Office of the Australian Information will develop a suite of guidance materials to support best practice across the national data system. It is also consulting widely on the Data Sharing and Release legislation in development, to ensure the proposed actions possible under the legislation aligns with community expectations and norms while facilitating the greatest data sharing for innovation and policy development across the Australian Government.

Understanding Citizens’ Expectations and Experiences – Citizen Experience Survey

At the opening of Innovation Month in July 2018, the Secretary of the Department of the Prime Minister and Cabinet, Dr Martin Parkinson AC PSM, announced the development of a regular, national Citizen Experience Survey that measures satisfaction, trust and experiences of the APS.

The survey fills an important gap in understanding of the public’s overall experiences and perceptions of the diverse range of Australian Government services. The survey also aligns with the mechanisms many APS agencies currently undertake to understand user satisfaction in their services.

Understanding how the public navigates multiple services is a key goal of the survey, which will inform how coordination across APS services can be improved. Measuring public satisfaction and trust will also enable APS services to be more responsive and track improvements, as well as contribute to a more citizen-centered APS culture.

Cyber Security

In December 2017, the Australian Government established the Department of Home Affairs. While having a strong focus on National security and law enforcement functions, it has also been given responsibilities in regards to cyber security. This includes leading the development of cyber security policy for the Australian Government, including the implementation of the Government's Cyber Security Strategy and Action Plan, and the Cyber Resilience Taskforce. In addition, Home Affairs also provides operational support to other departments during cyber events in order to close issues quickly, cross-pollinate agency experience, and ensure legal requirements are met.

While the Australian Government has a ‘[Cloud First’](https://www.dta.gov.au/our-projects/secure-cloud-strategy) policy, this has been implemented with a strong focus on cyber security. This policy requires providers who wish to service the Australian Government to satisfy a certification program before they commence providing services. This has been extensively supported by industry with vendors such as Amazon and Microsoft undergoing certification early in the process.

Both the Department of Finance (Finance) and the DTA are examples within government where the Cloud First policy has been adopted. Finance transitioned the “Parliamentary Document Management System” into the SlicedTech Cloud in September 2018. The DTA has commissioned “cloud.gov.au” as a secure mechanism for agencies to setup digital services quickly.

Testing and Piloting new approaches - Digital Identity Program

The Government is also launching a new Digital Identity Program, [myGovID](https://www.dta.gov.au/our-projects/digital-identity/creating-digital-identity). For the first time, the Australian Government’s digital identity program will allow people to verify their identity online and reuse this verified digital identity across multiple government services.

On 31 October 2018, the Government announced the first pilot program with a new online system for tax file number (TFN) applications. This is the first time myGovID will be used by real people for a real service, using real data.

The current process for applying for a TFN involves completing a form, printing it and then taking it with identity documents to a post office. The myGovID pilot brings this entire process online, reducing the waiting time for a TFN from up to one month to just minutes.

More pilots with different government services will follow over the coming months, allowing more people and businesses to get a myGovID and test the program. The program will continue to be expanded for use with state and territory government services, and in the future, within the private sector.

Key Issues and Challenges

Citizen feedback on major Australian Government initiatives highlights the challenge of needing to build broad based citizen trust in greater data sharing.

*My Health Record*

The [*My Health Record*](https://www.myhealthrecord.gov.au/) initiative allows individuals to have their medical records in a safe and secure electronic location. With consent, these records can be accessed by health professionals to create efficiencies and reduce errors in miscommunication. Doctors have identified that one of the biggest problems they face in healthcare is the disconnect between various systems.

Previously, individuals could opt-in and have their health information stored in an online My Health Record. However, from 16 July 2018 the system changed to an opt-out method where every individual would have a My Health Record created for them.

There has been significant debate about the benefits and risks of the My Health Record since the opt-out period commenced on 16 July 2018. Issues have been raised around privacy, security and the potential for misuse, including the risk that certain cohorts are disproportionately affected (e.g. people with mental health issues).

The Australian public’s reaction to the My Health Record initiative highlighted the need for the Australian Government’s arrangements to embed strong safeguards to protect people’s privacy and security, and in instances where questions do arise, processes are swiftly put in place to protect and preserve the privacy of Australians.

To help address the public’s concerns, the Australian Government has put in place a Notifiable Data Breaches scheme, requiring organisations covered by the *Privacy Act 1988* to notify any individuals likely to be at risk of serious harm by a data breach. Previously, notifications to individuals were voluntary.

The Australian Privacy Commissioner has also released an Australian Government Agencies Privacy Code, which was developed to support the public data agenda. While many Australian Government agencies have already implemented these requirements, the Code will provide consistency in data privacy governance across the APS.

*Online Compliance Intervention*

The challenge of customers trusting government to do business digitally is also illustrated by the issues experienced by DHS in relation to the Online Compliance Intervention in late 2016, referred to earlier in this paper. The experience reinforces the view that while customers are already willing to work with digital technologies in the private sector in relation to banking, restaurant bookings, online shopping and the like, government needs to find the right balance to enable customers to trust it to the same degree as the private sector. The concept of allowing government to use technology to deliver services including compliance appears to be difficult for the community to accept. This may be because there is a perception that ‘big brother is watching’ or some other hidden agenda is at play.

The experience further suggests there is some way to go before the community will place complete trust in government to deliver services using disruptive digital technologies. Slow and incremental change done well may be the key to finding this balance.

***Issues for Discussion***

Issues for discussion might focus on:

* How can governments better balance the demands of providing seamless, efficient service delivery while at the same time maintain a high-degree of trust in citizen-state interactions?
* At what point - if any - does it make sense for government to not implement efficiencies if there is a danger of the public not being comfortable with the technology and privacy implications? How do governments balance conflicting public views about the risks associated with certain types of technology?

***Governance***

***Canada***

A New Digital Investment Framework

A new governance system for IT projects called the Digital Investment Framework (Framework) is being set up. This system is critical to long-term benefit realization across government. Therefore, specific mechanisms and opportunities are being put in place to influence and ensure there is alignment to the Digital Standards from the initial concept to delivery of the respective initiative. There are three significant governance mechanisms under this Framework:

1. **Concept Case**

Concept cases provide an examination of a business problem or opportunity before the solution to resolve that problem has been considered. It encourages departments to provide well‑defined problem statements and desired business outcomes, as well as identifying the business owner. This interaction allows the Government of Canada Chief Information Office to provide early guidance, ensure alignment to the Digital Standards, and promote best practices to solving problems. The best results from concept cases have occurred when they are completed as early in the process as possible.

1. **Enterprise Architecture Review Board**

The Government of Canada (GC) has established the Enterprise Architecture Review Board (EARB) to help implement the “whole of government as one enterprise” vision. This governance mechanism “[…] is integrated into the larger GC governance structure and examines the alignment of initiatives; the system and solution gaps and overlaps; the development of new digital capabilities and innovation opportunities; the definition of technology standards; and the information management and information technology investment direction”[[3]](#footnote-4).

This Board is mandated to define current and promote target architecture standards for the Government of Canada, and review departmental plans to ensure alignment to those government-wide architecture expectations and standards[[4]](#footnote-5). More precisely, it provides technical recommendations on organization proposed solutions on the problem identified in the Concept Case and endorse it if need be. Concretely, EARB conducts technical review on solutions that are enterprise and/or common in nature; public facing; emerging or disruptive technology; cloud services; long-term contract renewals for existing solutions; or proposed architectural exemptions to currently established reference architectures for all departments.

1. **Oversight**

Since large multi-stakeholder digital projects continue to be challenging for most organizations, a number of those projects are subject to specific oversight. The objective of TBS project oversight is to confirm that digital investments are defined and managed in a way that is conducive to a successful delivery that support the achievement of expected outcomes and benefits. Project oversight involves a broad range of activities including ongoing interactions with the project team in the departments; participation in project governance as ex-officio member; provision of enabling tools, advice and guidance; and review of monthly project status reports.

This work aligns to the recent release of the Clerk of the Privy Council: A Data Strategy Roadmap for the Federal Public Service. The Strategy sets the foundation for the Federal Public Service to create greater public value from the data it collects, manages and creates. The report highlights four themes: (1) stronger governance; (2) improved data literacy and skills; (3) enabling infrastructure and legislation; and (4) more focused treatment of data as a valuable asset. These themes form the basis for a series of recommendations, which acknowledge that there is not a “one-size-fits-all” approach for data, and that departments will have different needs based on their own lines of business.

***Australia***

Australian Digital Council

The [Australian Digital Council](https://www.pmc.gov.au/news-centre/public-data/streamlining-all-government-data-and-digital-services) (ADC) is bringing together all nine ministers responsible for data and digital transformation across federal, state and territory governments. Meeting for the first time on 14 September 2018, this collaboration is driving smarter service delivery and improved policy outcomes on data and digital transformation initiatives. The ADC was convened and chaired by the Minister for Human Services and Digital Transformation, the Hon Michael Keenan MP, and the Prime Minister opened the first meeting.

Each state and territory has nominated two members to join the Senior Officials Group sub-committee. This sub-committee supports the ADC and leads implementation of the ADC’s priorities, some of which focus on cross-jurisdiction collaboration on data and digital transformation related initiatives.

The ADC has already identified life events to focus on, and multi-disciplinary teams (MDTs) across jurisdictions are being created to tackle these life events.

*Scoping Whole of Government Platforms*

The ADC is being used to help communicate opportunities to work together and to experiment on whole of government initiatives. In regard to whole of government platforms, the Australian Government is working to reduce the duplication of platforms across government to:

* give users an easier and more consistent way of interacting with government
* lower the cost of information and communications technology (ICT) for government agencies, and
* reduce the need to customise processes and integrate new technologies.

While there is support for change, implementation will be challenging. Each government agency has its own requirements, legacy technology, cultures, ways of working and measures of success. To develop a platform that will endure and work for the whole of government will require transformation skills around engagement, stakeholder buy-in and change management (refer section under Capability).

The program of whole of government platforms is a part of the Digital Transformation Strategy with the first platform, Digital Identity, launched in October 2018. The upcoming platforms for launch in 2019 include a Tell us Once platform, Notifications and improvements to myGov.

*Scoping Whole of Government Approaches to Managing Life Events*

When events happen in citizen’s lives they currently need to deal with multiple agencies or government layers. They need to fill in multiple forms or respond to different requirements. For example, with the birth of a child, a citizen may want to:

* find a midwife
* register the baby’s birth
* apply for child care benefits, and
* see the baby’s health records.

The Australian Government, led by the DTA, is developing a program to make these services more easily accessible and link them together. This work aims to remove existing complexity by connecting government services behind the scenes. The work recognises that individuals and businesses want a consistent experience when dealing with government, regardless of whether the service comes from federal or state/territory agencies.

While the potential benefits for Australians will be high, there are also benefits for government in developing services around life events. This approach would remove the cost and inefficiencies of duplicate services across multiple agencies and layers of government. Opportunities for better servicing some life events are being explored within the ADC across all levels of government. A life event community of practice hosted by the DTA has proven to be pivotal in connecting government agencies that can impact the lives of people and business during a life event.

Arrangements within the Australian Government

While the ADC provides governance across the jurisdictions, the Australian Government also has internal governance mechanisms to manage government investment in ICT and digital services. The DTA oversees ICT and digital projects and programs and looks for opportunities to help government agencies lift their capabilities. The DTA also provides strategic advice to Cabinet meetings on the investment proposals to inform decision making.

***Issues for Discussion***

The critical challenge in both countries will be implementing the new governance arrangements. Issues for discussion might focus on:

* How can governments work across boundaries to improve whole of government service delivery?
* What are some of the key ways to encourage and share innovation across complex sets of departments and agencies without imposing additional red tape?

***Capability for Change***

**Canada**

Establishing a new Digital Academy

To effectively enable digital government, the public service must promote digital literacy among all public servants. Digital literacy goes beyond basic computer skills, and public servants need to be able to use various technologies to extract high-value insights from the wealth of available information and data, use collaboration tools, and communicate in digital spaces.

The Government of Canada is launching a Digital Academy with the goal of increasing the offerings available to public servants who want to increase their digital literacy and understanding of key areas such as service design, data analytics and new technologies as they apply to their work. Informed by examples in other jurisdictions, they will build a made-in-Canada model that will lead to a better understanding of how digital can improve how government functions and enable better services. The Canada School of Public Service will lead the delivery of the Digital Academy, in partnership with TBS, the Canadian Digital Service, Statistics Canada, other government departments, and partners in the non-profit, academic or private sectors.

The development of the Digital Academy will be especially guided by the principles of open by default, collaborating wisely, and iterative development. Initial courses were piloted in September 2018, and the Government of Canada will aim for this service to be available beginning in 2019.

**Australia**

Building Digital Capability Program

The DTA is working with the Australian Public Service Commission on a program known as ‘Building Digital Capability’. Its objectives are to identify and document the digital skills required for the APS, to inform training, recruitment and career development. To date, learning standards have been developed, a training program for senior executives has commenced and peer group learning circles have been launched. In addition, there are also central programs in place to recruit digital emerging talent through internships, cadetships and graduate placements, data fellowships and a Women in Technology Executive Management mentoring program.

Through initiatives such as the Independent Review of the APS, the Australian Government is assessing how it can improve on borrowing capability across agencies. There is a need to establish better ways to allow for mobility of key skills and teams across government agencies, academic, not for profit organisations and the private sector.

Digital literacy is an APS-wide focus, as reflected through the APS Census questions. For example, DHS is undertaking a capability assessment to identify the skills required to support the organisation into future.

There are many other specific examples of initiatives across the APS that will improve its capability to drive transformation. These include:

* senior leaders in DHS championing cultural change in how DHS works with policy agencies to explore ways to better share insights and utilise DHS service delivery and transformation expertise to inform policy
* an award winning Women in IT Executive mentoring program with the aim to reduce the large gender imbalance in leaders across the APS
* innovation hubs to support cross-agency collaboration in an incubated space to help remove physical and departmental barriers, and
* communities of practice and learning events like [GovHack](https://www.govhack.org/about-us/) to encourage sharing and innovation across the APS.

Strengthening Capability to Manage Relationships with Private Partners

The DTA is working towards transforming the Australian Government sourcing arrangements to improve the experience of buyers and sellers and to ensure government is purchasing value for money technology and services. The underlying model being implemented is known as the ‘Digital Sourcing Framework’. It includes principles, policies, guidance and tools. It also involves rebuilding the digital panels and marketplaces agencies utilise for purchasing. The transformation is being rolled out incrementally in consultation with businesses and agencies. A contemporary approach is critical to ensure Australian companies and their workforces can play a lead role to help deliver digital transformation.

Governments will require new capabilities to manage partnerships with private providers to leverage technological advances, particularly where providers are multi-national and offer solutions that might involve sharing government data across national jurisdictions. There may be benefit in governments sharing strategies to develop consistent approaches towards managing such relationships including such matters as:

* experiences in contracting with large US-based firms, including managing any implications from US firms being subject to data legislation that may affect contracts with foreign governments
* the process of obtaining external assistance, including indemnities, confidentiality clauses and local legislation on issues such as secrecy provisions or privacy protections and trans–border data flows
* maximising the clarity of contract arrangements and providing transparency on arrangements for relevant bodies including auditors, privacy commissioners and Parliament, and
* achieving aligned contracts with suppliers working for more than one part of government.

***Issues for Discussion***

Issue for discussion might focus on:

* What can governments learn from one another about building skills and capability within the public service to support change?
* What can governments learn from each other in managing contract arrangements with private partners in delivering change?
* How can governments better use visual technology and data to support decision making on significant policy initiatives?

***Questions for discussion***

* **How can governments best engage citizens to inform the development of new policy and service delivery models?**
* **How can governments better balance the demands of providing seamless, efficient service delivery while at the same time maintain a high-degree of trust in citizen-state interactions?**
	+ **At what point – if any - does it make sense for a government to not implement efficiencies if there is a danger of the public not being comfortable with the technology and privacy implications? How do governments balance conflicting public views about the risks associated with certain types of technology?**
* **How can governments work across boundaries to improve whole of government service delivery?**
	+ **What are some of the key ways to encourage and share innovation across complex sets of departments and agencies without imposing additional red tape?**
* **What can governments learn from one another about building skills and capability within the public service to support change?**
	+ **What can governments learn from each other in managing contract arrangements with private partners in delivering change?**
	+ **How can governments better use visual technology and data to support decision making on significant policy initiatives?**

***Interesting Reading Material***

* Government of Canada’s Digital Government Strategic Plan for 2018 – 2022: Toward the Government of Tomorrow (web link to come)
* Government of Canada Digital Standards (<https://www.canada.ca/en/government/publicservice/modernizing/government-canada-digital-standards.html> )
* Kick-Start the Conversation on Digital ethics: <https://www.gartner.com/smarterwithgartner/kick-start-the-conversation-on-digital-ethics-2/>
* Australian Government Digital Transformation Strategy (<https://www.dta.gov.au/strategy>)
* Australian Government Secure Cloud Strategy (<https://www.dta.gov.au/our-projects/secure-cloud-strategy>)
* Department of Human Services submission to the Independent Review of the Australian Public Service(<https://uploadstorage.blob.core.windows.net/submission-uploads/fil053a9c29a67dceb4202fb.pdf>)

**Appendix 1: DHS Online Compliance Intervention Strategies**

This appendix outlines actions taken by DHS to respond to feedback from the introduction in 2016 of new online approaches to compliance. The new compliance checks focus on where there is a discrepancy between income that a customer reports to DHS and information held by other parties, including the Australian Taxation Office. The process gives the customer the opportunity to explain the discrepancy.

DHS has worked to enhance the online portal and associated compliance letters. DHS has done this through extensive user testing and consultation with community and welfare organisations.

**Enhancing communication**

DHS has taken long and complex letters and improved them by using more simple language, and including all key information on the first page, a call to action box and clear next steps required, such as the documents they will need to provide. Experience has found that communication is more effective when concise and simple language is used.

**Placing the customer at the centre of design (customer centric)**

DHS seeks to ensure that customers, for whom new products are targeted, are included in the design process. This means engaging early with customers to gather feedback on how best to deliver services. Systems need to be designed in a way that make them accessible to the entire customer base, including the most vulnerable members of the community. DHS also consults community, legal organisations and other government agencies throughout system development.

**Applying behavioural insights**

Traditional views about communication have evolved, particularly with advances in behavioural insights, such as using visual prompts and other tools that may be more effective at communicating than text. DHS has learned from behavioural science:

* While the vast majority of people do the right thing, some people deliberately defraud the system, and others need a reminder to keep their details up to date.
* advising people on the probability of consequences can increase compliance for people who are not morally motivated.

**Making better use of data to target compliance reviews**

Significant work is being undertaken to improve the user experience and productivity of undertaking compliance reviews through the use of ‘big data’. For example, DHS has enhanced data analytics tools to predict with confidence income discrepancies that are likely to result in either a zero or very low debt outcome. For these discrepancies, DHS is able to finalise a compliance review without directly engaging with the customer.

1. Government of Australia, Automated Assistance in Decision Making 2007, Better Practice Guide https://www.oaic.gov.au/images/documents/migrated/migrated/betterpracticeguide.pdf [↑](#footnote-ref-2)
2. Government of Canada, News Release, https://www.canada.ca/en/treasury-board-secretariat/news/2018/11/canada-welcomes-leading-digital-nations-into-the-digital-9.html [↑](#footnote-ref-3)
3. Government of Canada Strategic Plan for Information Management and Information Technology 2017 to 2021 (last modified on November 28, 2017), <https://www.canada.ca/en/treasury-board-secretariat/services/information-technology/strategic-plan-2017-2021.html> [↑](#footnote-ref-4)
4. TB Policy on the Management of IT (last modified on April 1, 2018), <https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12755#appA> [↑](#footnote-ref-5)