



Data Management – Enabling Open Data and Interoperability

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Outline

- Purpose
- Emerging Themes & Challenges
- Data Management to the Rescue
- Initiatives and Opportunities
- How Can You Contribute?
- Q&A



Purpose

- Discuss the role of Data Management as a key enabler for Open Data and Data Interoperability
- Highlight the important role Data Management Professionals will play moving forward



Emerging Themes & Challenges

- **Data Explosion:** A need to quickly change the way data is managed in the federal government
- **Open Data:** A need to make federal data available to citizens
- **Data Interoperability:** A need to find ways to allow information and data to be shared easily across government
- **Doing More with Less:** A need to manage the data explosion, enable Open Data and data interoperability in a cost effective way

Data Explosion



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Data Explosion

Mobile Services:

- Mobile data traffic is due to increase 26-fold to 75 exabytes annually

Military:

- In 2009, the USA's UAVs alone generated 24 years' worth of video if watched continuously.

Medical:

- 1 TB or 800.000 Books generated for one patient, for one data set over 5 seconds



Data Explosion

The Government faces substantial challenges:

- Increased security and privacy challenges;
- Escalating operational costs (hardware, utilities, support, etc.);
- Uncertainty around data integrity and reliability;
- Preservation and long-term accessibility issues; and
- Demands to provide federal data to the public (e.g., Open Data).



Open Data

- Government leaders around the world are beginning to understand that increasing access to public data can fuel unforeseen economic and social benefits.
- In many jurisdictions, government data is now being viewed as a public asset to be leveraged by citizens, businesses, and communities



Open Data

The Goal of Open Data in the GC

- To expand access to federal government data to promote participation by the public and create socio-economic opportunities.

Open Data Portal (data.gc.ca)

- Launched in March 2011, was the first step towards meeting GC goal.

The Ongoing Challenge

- Making data that is trusted and non-sensitive in nature (e.g. without privacy or national security implications) broadly available in reusable formats to Canadian citizens.

Data Interoperability





Data Interoperability

- There is an increasing demand within Government to share information and data across programs and departments to maximize productivity, reduce costs and support decision making inside the GC
- Government systems need to be able to exchange information and data efficiently, and in a timely and secure fashion



Doing More with Less

GC needs to manage its data resources more effectively and efficiently to maximize value to Canadians by:

- Reducing total cost of ownership of data assets
- Eliminating redundancies to minimize the number of data holdings
- Increasing collaboration, interoperability, sharing, and reuse of data
- Reducing complexity and employing standards and standardized practices
- Planning and acting as one



Emerging Themes & Challenges

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Data Management to the Rescue

- Data Management is a key enabler of Open Data and Data Interoperability, and is fundamental to managing the data explosion

“Data management is the development, execution and supervision of plans, policies, programs and practices that control, protect, deliver and enhance the value of data and information assets”

DAMA-DMBOK

- GC is defining Data Management in a similar way to DAMA
- DAMA breaks Data Management into nine components, TBS believes they are applicable to the Government context

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Benefits of Data Management

- Improved decision support, and integrated planning and reporting
- Reduced cost of information collection and management
- Drives consistent and standardized practices
- Added business value through re-use, sharing of data assets, and common design for collaborative systems and services
- Improved timeliness, consistency, quality of information
- **All contributing to improved resource management and better service delivery**

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Challenges Around Moving Ahead

- Data Management practices need to improve to support open data and data interoperability
- Culture must be changed to value and promote data management, interoperability and open data sharing
- Employees will need to be trained and developed to support GC-wide data management practices
- An environment of collaboration and trust regarding data management and data sharing must be cultivated and maintained for success



Initiatives

- **Data Stewardship Directive & Supporting Policy Instruments:** will provide direction and guidance on how to implement effective Data Management practices in the GC
- **Aging IT Systems Renewal:** opportunity to explore shared solutions and interoperability on the strength of data management best practices
- **Open Data Portal:** sharing and re-use of GC data that can be made available in machine readable formats, to increase its value
- **iCOE:** Interoperability Centre of Excellence project aimed at designing and delivering GC common system interoperability architecture and services

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Opportunities

- Improve Data Management practices across the Federal Government
- Align the Federal direction on Data Management with DAMA
- Highlight the importance of Data Management professionals in the public service



You are part of the Solution

- Share your expertise and best practices related to data management at forums such as this and on GCPEDIA, including iCOE and IM Community sites
- Participate as an active member of CIOB Data Stewardship Working Group to develop policy and guidance - info on GCPEDIA
- Realize that your expertise and professional skills are very important to addressing the challenges facing GC



Questions?

Links:

- www.data.gc.ca
- [www.gcpedia.gc.ca/wiki/Data Management Body Of Knowledge](http://www.gcpedia.gc.ca/wiki/Data_Management_Body_of_Knowledge)