



Government
of Canada

Gouvernement
du Canada

Canada

Metadata Interworking – Not there yet!

Canadian Metadata Forum 2005
Convergence and Extensibility in the
Metadata Domain

Fay Turner
Canada Business, Industry Canada
September 2005

Canada
Business

Services for entrepreneurs

Objective of Presentation

- Share my personal observations on metadata implementation within the Government of Canada (GoC)

Coverage:

- Status of metadata in GoC
- The missing pieces required to enable **resource discovery**
- What is required to move the agenda forward

Hypothesis

- The **promise of metadata is becoming *more elusive*** with the growth of interest in metadata in & outside the GoC
- Resource discovery across organizations through metadata is not on the immediate horizon

Why?

- Fundamental problems not being addressed
- GoC not paying sufficient attention to developing the practical mechanisms that will actually enable use of metadata for resource discovery

History of Metadata within the GoC

GoC early and avid supporter of metadata:

- 1990's: Government Information Locator Service (GILS)
- **2000: The Common Look and Feel (CL&F) Standard for the Internet - specified 5 mandatory metadata elements for Web resources**
- **2001: TBITS 39.1 specifies use Dublin Core metadata element set for the 5 CL&F elements; deadline for implementation Dec. 2002**
- 2001: TBITS 39.2 specifies use GoC Core Subject Thesaurus as default thesaurus for dc.subject
- 2001- : TBS GOL Metadata Working Group
- 2001: CMS Project for Gateways and Clusters – groundwork for creation of centralized metadata repository and metadata management system (including search engine, harvesting, CAU)

Results of GoC Policies and Projects

- Millions of metadata records throughout GoC departments and clusters
- GoC Metadata Implementation Guide; guidelines for developing application profiles, developing controlled vocabularies, usage of individual elements, e.g. dc.coverage
- Controlled Vocabularies: Core Subject Thesaurus, controlled vocabularies for dc.audience, dc.type and dc.format; LAC Registry for controlled vocabularies
- Web resource site (IMRC): http://www.tbs-sct.gc.ca/im-gi/meta/meta_e.asp

The Good News

- Several departmental and cluster successes where metadata is used for *resource discovery*
 - Natural Resources Canada – Earth Sciences Sector
 - Environment Canada – CIO Branch
 - Industry Canada – SchoolNet, Learning Resources
 - National Research Centre
 - HRSDC (Service Canada), DND, etc.
 - Public Safety Cluster
- Pockets of metadata usage limited to within individual organizations

The Bad News

- Silos of implementation – no interworking, convergence
- A central GoC search engine configured to index metadata elements - provides no query interface to support metadata searches
- The majority of metadata records are not conformant to the GoC Metadata Implementation Guide
 - Dec.'03 analysis of GoC metadata records found that only 4% of documents in the gc.ca domain fully comply with the standards and formats
 - Tags missing, improper use of encoding schemes, variations in the tag name, e.g. 20 variations for dc.date.modified

The Problem

- Not enough GoC activity devoted to analyzing the problems and developing the practical solutions to permit interworking
- GoC shift of focus to high-level IM enterprise and metadata modelling initiatives, e.g.

Meta metadata:

- High-level modeling to define and specify the meaning of metadata elements
- ISO 11179 provides a framework for developing meta metadata and a registry of the data

Active Metadata:

- Use metadata, meta metadata and other data coming out of enterprise architecture modelling **to drive** strategic planning and government policies (transformation)
- Metadata as the “DNA of Government”: foundational asset to successfully transform and manage GoC program and service

Registries, etc.

The Problem con't

- Shift in GoC focus drawing resources away from finding practical solutions to pressing problems
- Lack of balance between long-term IM architecture and transformation activities (organization-facing) and metadata operational needs (client-facing)
- No formal inter-jurisdictional metadata collaboration
 - All governments are fundamentally the same – have similar objectives and the same client
 - Developing unique metadata solutions for similar problems is expensive and duplicative – rules, controlled vocabularies
 - In most cases it is possible to build on or customize existing solutions

What is Missing? (reality check)

- Inter-jurisdictional metadata forum to foster collaboration

Solution:

- Pan-Canadian Metadata Committee

- National agreements on rules and guides for metadata implementation across government organizations

- mandatory elements, controlled vocabularies, schemas

Solution:

- Minimal Canadian application profile

What is Missing? (reality check)

- Mechanism for testing the accuracy of metadata implementations
 - Test coding, schemas, controlled vocabularies, formatting

Solution:

- Build a national test lab or develop distributable software
- Provide guidance for quality of metadata
- Search engines configured to use Dublin Core and GoC metadata to search across different systems; interface to support client-centric searching

Moving forward ...

- **Adopt a culture of collaboration to find solutions**
 - For all levels of Can. governments; with all stakeholders: policy makers, metadata system developers, standards development community, practitioners
- **Forge a consensus across jurisdictions**
 - Find common ground, build on the work already started, e.g develop flexible, lightweight agreements to enable interworking across systems
- **Specify and act on our obligations**
 - Roles and responsibilities of all stakeholders: governance, collaboration, standardization and adherence to agreements
- **Find the balance to achieve both short term and long term goals for metadata usage and IM success**

Metadata Interworking – Not There Yet!

Thank you for allowing me to share my views.

- Are there other missing pieces?
- Are there other solutions?

Fay Turner
Senior Project Manager
Canada Business, Industry Canada
turner.fay@ic.gc.ca
613-946-9961