



Persistence and Access to Information in the Government of Canada

Presentation by Cecil Somerton to
ERPANET Seminar on Persistent Identifiers

June 17-18, 2004

University College Cork





Legislative Context

The President of the Treasury Board is the Minister responsible for government-wide administration of the


- [Access to Information Act](#) - gives Canadian citizens the right to access information in federal government records
- [Privacy Act](#) - provides citizens with the right to access personal information held by the government and protection of that information against unauthorized use and disclosure



Legislative Context

The Secretariat, as the lead agency, co-operates with the Department of Justice in the area of legislative amendments and with the Privy Council Office regarding Cabinet confidences. The Secretariat also initiates and facilitates consultations with the Offices of the Information and Privacy Commissioners on policy matters.





Legislative - Messages

Library and Archives Act

- Conserve and facilitate access
- Classify and identify
- Union catalogue - identity
- National biography
- Cataloguing

Access to Information Act

- Published description of departmental information holdings
- Access to records
- Availability to public

Privacy Act

- Right of access





Policy Context

- Treasury Board policies on access and privacy reinforce information management principles inherent in the [Management of Government Information Policy](#) and the [Security Policy](#). They support the objectives of "duty to inform", "routine disclosure" and "service to the public" which are fundamental concepts within the [Communications Policy](#).





Policy - Messages

Management of Government Information

- Information collected or made available electronically must;
 - be accessible and useable over time and through technological change
 - have accountability frameworks in place where information is shared
 - provide consistent service regardless of how Canadians choose to obtain it

Security

- Access to classified information is limited

Access to Information

- Departments must provide descriptions of information holdings

Electronic Authorization and Authentication Policy

- Processes must positively identify the authorizer
- Transactions must be authenticated



Policy - Messages

Communications Policy

- Provide the public with open access to information
- Provide accurate, consistent information
- Must maintain an Internet presence
- Identify opportunities to inform
- Institutions to facilitate access to publications
- Catalogued and securely maintained to ensure long-term accessibility
- Corporate identity required



GoC Position - Access to Information and Persistence

Although the Government of Canada has not articulated a position on persistence relative to access to information the messages in the legislation and policy clearly recognize the importance of a commitment to persistence.

- Persistence
 - Uniqueness and constancy
- Preservation
 - Unaltered content accessible long-term
- Identity
 - the distinct property of an object regarded as a persisting entity:
 - (Webster) “collective aspect of the set of characteristics by which a thing is recognizable or known”



Why think about persistence?

- For the GoC it addresses the question of access and accountability over time
- Authenticity and authority
- Trusted communications
 - Between government and public
 - Partners interjurisdictional and business
 - Applications
- Sustainable Service Delivery
- Life Cycle mgmt of assets



What needs to be Persistent?

- Is it the information?
- Is it the location of the information?
- Is the identity of the information?



What types of information need to be Persistent?

- Programs and Services
- Tools - XML schema, RDF
- Objects - Web pages
- People - Canadian Citizens, partners



What do we have?

Legislation and Policy

Tools - registries/repositories

Infrastructure and Governance - DNS, Certificate

WGs - Metadata, PKI, Architecture



Investigating persistence in location and naming

- Persistent Locators for Federal Government Publications, prepared by Meredith Dickison for National Library of Canada, Nov 2002
 - <http://www.collectionscanada.ca/8/4/r4-500-e.html>
 - <http://www.collectionscanada.ca/8/4/r4-500-f.html>
- Discussion Paper: XML Namespace Management within the Government of Canada March 2004. prepared XIA Systems Corporation for Treasury Board of Canada, Secretariat



Persistent Locators for Federal Government Publications

Objective

Recommend steps to implement a system of persistent uniform locators in federal government publishing

Approach

Review current location and naming systems

- URNs
- PURL
- Handle System
- Digital Object Identifier
- Archival Resource Key
- OpenURL
- Other options



Persistent Identifiers /Persistent Access

“A critical part of persistence is establishing a clear definition that allows an institution to clearly communicate the level of commitment it is making to maintaining the availability (access to) of a resource online.”

“...the decision about what level of persistence of access to provide will be a matter of judgement, and this should be determined at the point of creation of the document.”



Implications

Lack of Persistence

- Lack of persistence in URLs can occur in any department and this makes it a government-wide issue, not just a library/depository issue.
- the goal is not to maintain a particular URL for its own sake, but rather to ensure that a particular electronic document located at that URL can in fact be found at that URL and accessed, as long as the electronic file is on the Intern
- issue of whether electronic records should be permanent forever (on the Web or somewhere else in their original format or some other format)



Implications

Costs and Risks

- Costs of URL link maintenance
- No way to calculate the cost to clients “There is no way to put a dollar value on their time looking for the information or any (potential) loss from not being able to access the information.”
- “bigger risks associated with lack of persistence, namely - the ability of the government to make effective decisions, when the government cannot efficiently access and use its own information and the ability to deliver a meaningful level of accountability.”



Situation

- Despite the development of global unique identifier systems, the Domain Name System (URLs) gives every appearance of prevailing as the main vehicle for accessing and locating web resources in the short to medium term
- the concept of persistence does not appear to be a top of mind issue or priority for departments/government as a whole
- good information management (including managing URLs) calls for much greater collaboration and co-ordination among central agencies
- Adoption of any of the existing managed persistent identifier systems at this time is medium/high risk due to their immaturity.
- The government has a general framework on which to build persistence and ensure access



Recommendations

Bring together federal government managers and staff from a wide variety of backgrounds, departments and agencies and perspectives and apply its expertise to a commitment to persistence through

- Awareness and promotion
- Strengthening Federal Standards and Guidelines
- Seeking Funding for Collaboration and Participation in Pilot Projects



Discussion Paper: XML Namespace Management in the Government of Canada

Objective

To further discussion on the subject of XML Namespace management and enhance the quality and cost effectiveness of XML investments within the Government of Canada

Approach

Review current state of XML Namespace and discuss XML management in;

- Inter-Enterprise Interoperability
- Enterprise Architectures
- Communities of Interest
- Application Clusters
- Logical Domain Namespaces
- Collections of XML Components



XML and Persistence

“XML Namespaces provide a simple method for *qualifying element* and *attribute names* used in Extensible Markup Language by associating them with namespaces identified by *unique* and *persistent* references.”



Implications

- “...XML Namespace Management stands as the proverbial ‘tip of the iceberg’, representing one key aspect of a much larger topic – that of the management and deployment of the XML components. These XML components have come to be recognized as the lynchpin within application interoperability frameworks, the type of which the Government of Canada is envisioning for the delivery of integrated, cross-jurisdictional services.”
- “An XML component ...becomes something that can be managed and something worth managing. It also becomes something that can be accessed meaningfully for use in other applications and in other contexts.”



Implications

- Addresses challenges to recognition and collision disambiguating the information being managed.
- Will enhance efforts directed at establishing government wide processes, practices and standards for creating and identifying XML components to support enterprise functions
- Public identification and persistence of XML components shared in independent web applications development or technology projects
- Support accountability for and ownership of portable XML components
- Re-use of managed components can reduce development time and costs.



Recommendations

- A strategy and coordinated approach to declaring, naming, managing and processing XML Namespaces
- Federate the namespace model to support responsibility by departments for creating and maintaining namespace designators
- Develop guidelines and conventions for XML namespace management
- Consider adopting URLs as the primary format for identifying namespaces
- Link its XML Namespace Identifiers to resources that facilitate access to associated components – a federated registry and repository
- Governance to support XML Namespace Management



What the GoC Needs

- Recognition of Persistence as key to IM
- Persistence Strategies in support of Metadata Implementation, IM Programs, Federated Architectures, XML Namespace Management
- Naming Authorities, Naming Conventions, Governance for Persistence Contracts
- Co-ordination of various identifier needs WGs (Metadata, PKI etc),
- Coordination of central agencies TBS LAC PWGSC and departmental clients
- Technology XML design templates, extensibility models, repositories, registries
- Culture Change



Partners in Persistence Challenges

- Identify shared needs
- Answer Who owns what?
- How to authenticate
- Working across jurisdictions
- Across applications
- Interoperability models
- Persistence Contracts

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