LOST IN MIGRATION – INTERPARES II E-GOVERNMENT CASE STUDIES

INTRODUCTION

The records of central government form the core nucleus of the archives of tomorrow. They are required to maintain juridical and evidential weight in addition to informational value as to the decisions and revisions made by governments, ministers, departments, and civil servants.

The penetration of the personal computer and network technologies into this sphere of activity is such that the computer maintains a ubiquitous presence on the desk, or in the hands of government officials.

Focus 3 within IP2 is tasked with examining the use of such technologies and the records they create and generate within the scope of e-government. E-government has become a strong buzzword for many governmental and other agencies and can be a particularly loaded term. IP2’s terminology database defines e-government as:

‘The delivery of government information and services online through the Internet or other digital means. It includes co-operation among governments. This involves IP networking, WWW technologies and standard browsers for easy and flexible access to information and to interactive services.’

Among the many aspects of daily life transformed by the phenomenon of the Internet over the last decade has been the way in which governments and their citizens interface and interact. Closer to home, in the world of archives and libraries there has been some debate about how best to document this transformation. To what extent is communication across this medium transactional and record creating? To what extent is it just a new form of publication? Is it, in other words, the concern of the librarian or of the archivist?

As part of the research work of IP2, Jim Suderman of the archives of Ontario in Canada earlier this year coordinated a timely and worthwhile study of government websites from Australia, Canada (including Ontario and British Columbia), India, Ireland, Singapore, and selected states within the United States[1]. Each website was classified under one of the following headings:

- Static websites and web resources
- Static websites and web resources with form-based interactivity
- Websites and web resources based on dynamic data access
- Dynamically generated websites and web resources[2]

In all, a total of 321 websites from twenty jurisdictions were surveyed. The results are as follows.
41% were classified as Static, 34% as Static with forms, 19% as Dynamic data access, and 6% as Dynamically generated sites. Note that one website might fall into several categories, e.g., it might have static pages as well as static pages with online forms. In such cases websites would be counted in both categories.

Based on the result of this survey it appears that only 25% of government Internet sites are creating or accessing dynamic content. However, given the speed of developments in network and wireless technologies, it is obvious that this number will increase and that InterPARES 2 is well positioned to build on the work of IP1 and undertake detailed research in this area.

The speed of market penetration within government, business and other sectors of technologies such as distributed tier technologies and dynamically generated content, only adds to the pressure on governments to offer websites with dynamic functionality and services, both corporately to public officials, and externally to citizens.

The challenge facing archivists and records managers tasked with ensuring the integrity and accessibility of records created by these systems is compounded by the very flexibility offered and advertised, and by the limitations to appraise critically and assess the records they contain.

**Migration**

The challenge to ensure what is essential to the record is affected by the potential to alter a record's content, format, behavior or appearance. This may include the migration of records from an older system, or perhaps onto new media. The record may move through several migrations in its lifetime as departments or agencies update their record keeping systems and manipulate the byte stream.

Many of the case studies are grappling with the problems of records created in dynamic systems. However many of them are also concerned with issues of integrity and fixity. By fixity I mean the moment or decision when a record is declared valid. This usually precedes a decision to seal or encrypt the record.
denying any ability to edit further or delete a record. Should files be stored in their native format, or migrated to standard formats? If the latter option is selected, what are the criteria for adopting a particular format? Complex legal issues surrounding non-repudiation of data, authenticity and integrity still require a degree of stability within these systems.

The complex issue of migration entails the introduction and management of an explicit audit trail noting creation, editing, deletion and export decisions. Preservation metadata must be recorded and maintained in association with any digital objects marked for long-term preservation. A key question is when such metadata is created and the frequency of updating and describing the changes.

The increased use of encryption, particularly regarding financial or legal data adds a further dimension to the debate. Will we require that files are unsealed and resealed during the migration process? How do we overcome the use of encryption technologies? In fact, how do we as archivists, ensure that what we will accession is readable, let alone authentic?

All of these questions revolve around the central issue of identifying clearly and unambiguously the essential elements of the record within the ebbs and flows of change. Is it the entry in the database, or the entire database? Do we focus solely on the text on a website and ignore the widgets and Flash animations? As yet we do not have the answers to many of these questions but we hope that the following case studies, in association with those underway within the creative and scientific focuses will assist us in addressing these problems and issues.

All the case studies are attempting to obtain information to enable the researchers answer a set of 23 specific questions dealing with subjects such as the creation, input and management of digital entities in a variety of systems. It is the task of the researcher to ensure that he or she articulate their specific questions in a manner that enables the extrapolation of data and facilitate the consistent modelling so as to discover areas of comparison or contrast between the various systems. To facilitate the modelling, the Modelling cross-domain group is devising a unified model that will enable the processes and data to be presented accurately and objectively.

**CASE-STUDIES**