InterPARES 3 Project

International Research on Permanent Authentic Records in Electronic Systems

TEAM Canada

InterPARES General Studies: Independent, Mixed Methodology Research in Support of the Case Studies

Luciana Duranti

InterPARES Project Director

International Symposium

Kuching, Malaysia

18 June 2011

General Studies

General studies (4 types):

1. Studies carried out by **one TEAM or a group of TEAMs for the benefit of all** TEAMs (e.g., Annotated Bibliography of International Standards, E-mail Preservation)
2. Studies in which **all TEAMs** take part (e.g., Terminology Database).
3. Studies conducted by a TEAM that will prove **useful for that TEAM only** (e.g., Annotated Canadian Standards)
4. Studies conducted by **a group of TEAMS for its own benefit** (e.g. Protocol Register)

General Studies (collaborations)

- Web 2.0/Social Media (Canada and Turkey)
- Terminology (International Alliance)
- Digital Preservation Projects (International Alliance)
- International Standards Relevant to IP3 (International Alliance)
- Bibliographic Database
- **E-mail Preservation (Italy)**
- **Protocol Registry (Catalonia, Italy, Brazil)**

General Studies (TEAM Canada)

- Canadian Standards Relevant to IP3
- Community Archives e-Records Assessment
- Public Sector Audit Report for Digital Recordkeeping
- University IR/IRK Survey
- Records Management Policies and Procedures Template
- Cost-benefit Models
- Ethical Models
- File Viewers
- **Education Modules**
- **Open Source Records Management Software**
- **Metadata Applications Profiles**
- **Organizational Culture & Risk Assessment**

Education Modules

- Address the identified gap in educational resources in digital preservation strategies for small and medium sized organizations
- Produce in-house training kits for staff of small and medium sized archival organizations plan digital preservation program
- Assist professional associations in providing training and career development for members
- Provide university programs with content and structure for courses in digital preservation
- Provide non-archivists with necessary tools to create, manage and preserve authentic records
- Select effective delivery and dissemination tools

Education Modules-list

Introductory Module

Introduces the set of modules and explains how to use them, outlines objectives, and summarizes the contents of each module. It includes resources for institutional readiness and self-assessment tools, lays out the logic for the chain of preservation model and summarizes the findings of InterPARES.

Module 1: Development of a Digital Preservation Policy

Module 2: Management and Preservation of E-mails

Module 3: Management and Preservation of Records in Web Environments

Module 4: Selection and Appraisal of Digital Records

Education Modules-list

Module 5: Organizational Culture and its Effects on Records Management

Module 6: Planning a Shared Drive Migration to a Controlled Records Environment

Module 7: Management and Preservation of Records in Specialized Environments

Module 8: Cloud Computing Primer

Module 9: Metadata

Open Source Records Management Software

- Numerous proprietary electronic records management systems (ERMS) are currently on the market, but their high cost place them out of reach of small and medium-sized organizations
- Several open-source ERMS have emerged, introducing the possibility of implementing electronic records management without paying heavy software licensing costs
- Focus on Alfresco Records Management, the most widely used product and the only one certified to comply with the *Design Criteria Standard for Electronic Records Management Software Applications* (DoD 5015.2)
- Purpose: determining whether an organization would be likely to deploy it successfully
- Concluded that Alfresco does not provide an open-source electronic records management tool that is feasible for use in small to medium-sized organizations

Metadata Applications Profiles

- Draft functional requirements for archival metadata.
- Metadata used to aid in the presumption of authenticity of digital records.
- This would allow others who wanted to use the same metadata to understand what functionality they would gain from adopting this system.
- Interoperable metadata if it is clearly defined both for humans and machines: synchronic interoperability because it is happening at one point in time (now); diachronic interoperability – systems working through time.
- Intentional interoperability is when it is linked to an application profile

Metadata Applications Profiles

There are two sets of three things we need to examine in the social world of metadata:

1. **Meaning**: Semantics, Syntax, and Pragmatics
2. **Interoperability**: Synchronic, Diachronic, and Intentional

We are currently working through many issues in our work with an IP AP. Here are two:

1. **Units of analysis** (record / aggregation)
2. **Attestations** (explicit identity metadata) vs. **Contextualization** (can we from context infer and later describe these attributes of the body of records?)

We must continue to reaffirm **purpose, function, and context** for metadata vs. description in digital preservation.

Case Studies Findings

- "institutional culture" as obstacle to completion of a case study
- organizational culture "uncommitted to good records management practices"
- similar E-mail case studies yielding drastically different outcomes
  - need of an e-mail general study
- similar recordkeeping case studies requiring drastically different development procedures
  - **need for an organizational culture general studies**

Organizational Culture & Risk Assessment

Definition:

The specific collection of values and norms that are shared by people and groups in an organization and that control the way they interact with each other and with stakeholders outside the organization

General Study on Organizational Culture

Purpose:

- to develop a consistent framework to analyze the impact of organizational culture on recordkeeping and preservation practices across various case studies
- to draw from organizational theory, sociology, information systems and information management perspectives
- to use qualitative analysis of interviews, research proceedings, and documentary sources from case studies

Research Questions

- How does organizational culture **affect the selection and implementation of recordkeeping and/or digital records preservation systems?**
- To what extent does organizational culture **affect the ability of InterPARES 3 in carrying out its research in the test-bed sites?** What conditions would be necessary with respect to organizational culture for InterPARES 3 to carry out its research in the test-bed?
- What are the **fundamental similarities and differences** in organizational culture with respect to recordkeeping and/or preservation practices of different organizations within and across similar industries?

Research Questions (cont.)

- Within the same organization, what are the **variations of sub- or professional cultures** that shape recordkeeping and/or preservation practices?
- What are the **varying levels of expectations** stakeholders have in terms of their roles and responsibilities in recordkeeping/and or preservation as well as their expectations of other stakeholders?
- What are the **methodologies** for facilitating the selection and implementation of recordkeeping and/or digital records preservation systems?

Hypothesis 1

Corporate and/or occupational subcultures may lead to tensions and conflicts amongst stakeholders and are a significant barrier towards the successful implementation of recordkeeping and/or preservation system.

- Partially supported.
- While conflicting subcultures exist and have an impact, other internal and external factors are at play, such as the creator's low awareness of the issues, lack of controls on access to records, belief that there is time to think about preservation, blind trust in technology, reliance on the memory of staff.
- Fiscal climate

Hypothesis 2

An organizational climate that values the sharing of knowledge with multiple stakeholders in an organization is more receptive towards developing a sustainable records and/or preservation infrastructure.

- Partially supported
- Support from management is important but commitment is crucial
- Have an advocate
- Collaborate with all users and get the support of all staff
- Establish an overall integrated governance structure, an incentive and a monitoring program

Hypothesis 3

The varying levels of support amongst the stakeholders of an organization are an impediment to the successful completion of research and product implementation.

- Supported.
- Multiple roles of records professionals
- Conflict between one or more of the subcultures of the organization with those roles
- Need to withdraw from one or more roles

Hypothesis 4

There are both converging and diverging views of records as well as recordkeeping and/or preservation issues among various subcultures and in the same subculture.

- Supported
- There may be subcultures which identify more strongly with the prevailing institutional culture, while others may associate with their professional subcultures in the form of professional organizations and networks outside the formal organization structure.
- Within the records professionals subculture there is not a common view

Hypothesis 5a

Different groups of stakeholders have differing understandings and expectations of their roles and responsibilities in recordkeeping and/or preservation as well as the roles and responsibilities of other stakeholders in recordkeeping and/or preservation. These differing levels of expectation are potential sources of tension and barriers for the successful implementation of a recordkeeping and/or preservation system.

- Supported: contribution conflicts and systems conflicts
- No shared views among creators, archivists, and IT people about the role of IT; no shared goals and objectives for recordkeeping

Hypothesis 5b

The implementation of a recordkeeping and/or preservation system in itself can bring about a change in the organization which can be a source of tension.

- The data supports this hypothesis.
- Differing levels of expectations amongst stakeholders on the value of adopting a recordkeeping system and as to what the recordkeeping symbolizes is a source of tension and can result in user resistance.
- The interviews also reflect that different groups of stakeholders may have different goals and objectives in terms of developing a recordkeeping infrastructure.

Summary of Initial Findings

- Developing, learning and teaching **how to use** the structural features of an application or a system **is important**
- **More important is learning the spirit behind those features**
- **Users who are not acquainted with archival principles and methodologies may** – intentionally or unintentionally – **appropriate an application or a system "unfaithfully"** more easily than records professionals
- **With digital tools**, which are **mostly developed by IT experts** outside the organization that will use them and often without consulting archival professionals, **unfaithful appropriations are likely to happen more frequently**
- **Interpretive flexibility** or lack of it may determine acceptance or rejection

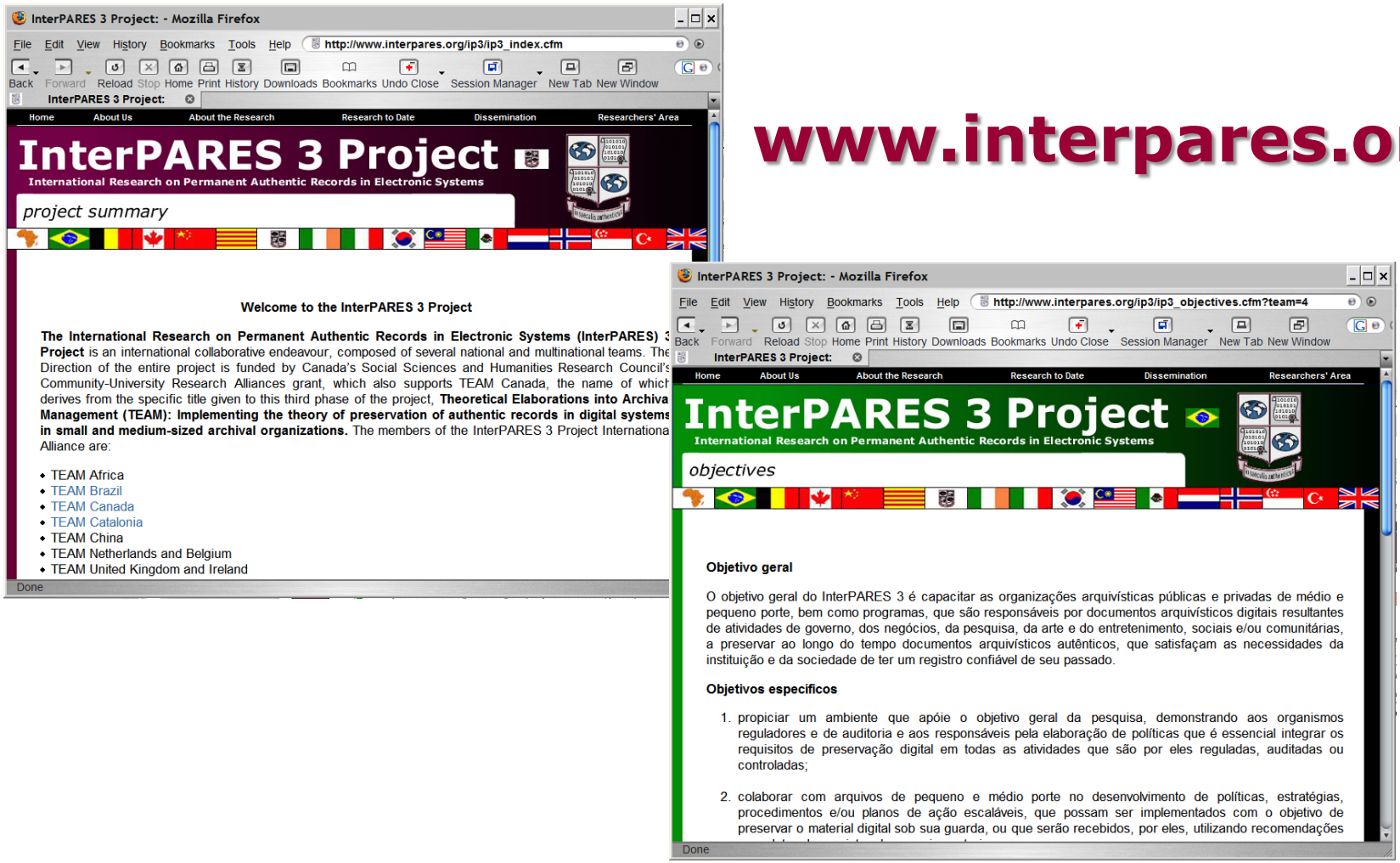
Summary of Findings (cont.)

- **Training** for users of applications and systems **"emphasizes details of use rather than general philosophy."**
- **Time is important**: the moment of the launch of a new system is very critical for its success
- **Managers favor** the **explicit knowledge** that is incorporated in organizational artifacts like processes, structures, documents, and technology
- Thus, it has been common to design **systems primarily focused on the codified, explicit organizational knowledge**
- Management reporting systems, decision support systems, and ERMS, are all focused on the identification, collection, and dissemination of this knowledge type

Summary of Findings (cont.)

- We must pay more attention to **knowledge management** literature
- **A core competency for implementers requires *know-how***, i.e. "the particular ability to put know-what into practice"
- **Fostering this more complex form of organizational capital should be the focus of our case studies**
- The outcome of our efforts will be successful only if
  - we are able to make the archival environment **understand the spirit of what we recommend**
  - we will be able **to incorporate into our recommendations the outlook and way of working of those whom it intends to serve.**

InterPARES 3 Web Site



www.interpares.org