

# InterPARES 3 Project

International Research on Permanent Authentic Records in Electronic Systems

TEAM Canada

## Congratulatory Address

Luciana Duranti  
InterPARES Project Director

International Symposium  
Kuching, Malaysia  
17 June 2011



**InterPARES Project**

Luciana Duranti  
Project Director

# Thank you!

Chief Minister of Sarawak Government  
Sarawak State Library (PUSTAKA)

Thank you so much for hosting the 9th  
International Summit and Symposium of  
InterPARES 3



# Goal of InterPARES 3 (2007-2012)

To **enable** public and private **archival organizations and programs** with limited resources **to preserve** over the long term **authentic records** that satisfy the requirements of their stakeholders and society's needs for an adequate record of its past.


It does so by building on the products of the first two phases of InterPARES (1998-2006)



# Key IP 1 & 2 Products

## Policy Framework

A framework of principles guiding the development of policies for records creating and preserving organizations

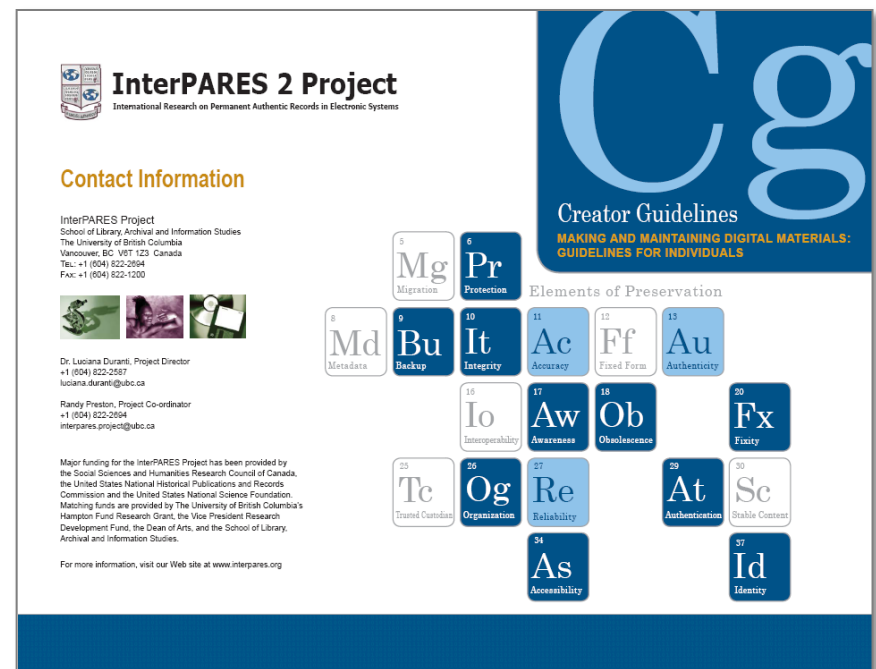
 <b>InterPARES 2 Project</b> International Research on Permanent Authentic Records in Electronic Systems	
<b>Title:</b> A Framework of Principles for the Development of Policies, Strategies and Standards for the Long-term Preservation of Digital Records	
<b>Status:</b> Final (public)	
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<b>Writer(s):</b> Luciana Duranti, Jim Suderman and Malcolm Todd	
<b>Project Unit:</b> Policy Cross-domain	
<b>URL:</b> <a href="http://www.interpares.org/display_file.cfm?doc=ip2/pub/policy_framework_document.pdf">http://www.interpares.org/display_file.cfm?doc=ip2/pub/policy_framework_document.pdf</a>	
<b>Policy Framework, v1.2 (March 2008)</b> L. Duranti, J. Suderman and M. Todd	
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# IP 1 & 2 Products

## Creator Guidelines

Recommendations for making and maintaining digital materials for individuals and small communities of practice



The image shows the cover page of the InterPARES 2 Project Creator Guidelines. The page is titled "InterPARES 2 Project" with the subtitle "International Research on Permanent Authentic Records in Electronic Systems". It includes contact information for the project, listing the School of Library, Archival and Information Studies at the University of British Columbia. The page also features a periodic table of elements, where each element is represented by a box containing its symbol, name, and a brief description of its properties. The elements are arranged in a grid, with the first row containing Mg (Migration), Pr (Protection), and the second row containing Md (Metadata), Bu (Backup), It (Integrity), Ac (Accuracy), Ff (Fixed Form), and Au (Authenticity). The third row contains Io (Inoperability), Aw (Awareness), Ob (Obsolescence), and Fx (Fixity). The fourth row contains Tc (Trusted Custodian), Og (Organization), Re (Reliability), At (Authentication), and Sc (Stable Content). The fifth row contains As (Accessibility) and Id (Identity). The page is designed with a blue and white color scheme, and the title "Creator Guidelines" is prominently displayed in a large, stylized font.

**InterPARES 2 Project**  
International Research on Permanent Authentic Records in Electronic Systems

**Contact Information**

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Major funding for the InterPARES Project has been provided by the Social Sciences and Humanities Research Council of Canada, the United States National Historical Publications and Records Commission and the United States National Science Foundation. Matching funds are provided by The University of British Columbia's Hampton Fund Research Grant, the Vice President Research Development Fund, the Dean of Arts, and the School of Library, Archival and Information Studies.

For more information, visit our Web site at [www.interpares.org](http://www.interpares.org)

**Creator Guidelines**  
MAKING AND MAINTAINING DIGITAL MATERIALS:  
GUIDELINES FOR INDIVIDUALS

**Elements of Preservation**

5 Mg Migration	6 Pr Protection			
8 Md Metadata	9 Bu Backup	10 It Integrity	11 Ac Accuracy	12 Ff Fixed Form
		13 Io Inoperability	17 Aw Awareness	18 Ob Obsolescence
25 Tc Trusted Custodian	26 Og Organization	27 Re Reliability	29 At Authentication	30 Sc Stable Content
	34 As Accessibility			37 Id Identity




**InterPARES Project**

Luciana Duranti  
Project Director

# IP 1 & 2 Products

## Preserver Guidelines

Recommendations for digital preservation for archival institutions



**InterPARES 2 Project**  
International Research on Permanent Authentic Records in Electronic Systems

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For more information, visit our Web site at [www.interpares.org](http://www.interpares.org)



**Pg**  
Preserver Guidelines  
PRESERVING DIGITAL RECORDS:  
GUIDELINES FOR ORGANIZATIONS

**Elements of Preservation**

5 Mg Migrating	9 Fe Feasibility	
8 Be Benchmark Requirements	10 Id Identifying	11 Pr Preserving
	12 Ac Accuracy	13 St Storing
	14 De Describing	15 Ma Managing
16 Tc Trustworthy Custodian	17 Op Outputting	18 Ba Baseline Requirements
		19 Ac Acquiring
		20 Ob Obsolescence
		21 Au Authenticity
		22 Mo Monitoring
		23 Ap Appraising
		24 Tr Transforming
		25 Do Documenting



**InterPARES Project**

Luciana Duranti  
Project Director

# IP 1 & 2 Products

## Benchmark and Baseline Requirements

Authenticity requirements for assessing and maintaining the authenticity of digital records

### << REQUIREMENT SET A >>

To support a presumption of authenticity the preserver must obtain evidence that:

#### REQUIREMENT A.1: Expression of Record Attributes and Linkage to Record

The value of the following attributes are explicitly expressed and inextricably linked to every record. These attributes can be distinguished into categories, the first concerning the identity of records, and the second concerning the integrity of records.

##### A.1.a Identity of the record:

- A.1.a.i Names of the persons concurring in the formation of
  - name of author<sup>a</sup>
  - name of writer<sup>b</sup> (if different from the author)
  - name of originator<sup>c</sup> (if different from name of author)
  - name of addressee<sup>d</sup>

##### A.1.a.ii Name of action or matter

##### A.1.a.iii Date(s) of creation and transmission, that is:

- chronological date<sup>e</sup>
- received date<sup>f</sup>
- archival date<sup>g</sup>
- transmission date(s)<sup>h</sup>

##### A.1.a.iv Expression of archival bond<sup>i</sup> (e.g., classification code)

##### A.1.a.v Indication of attachments

##### A.1.b Integrity of the record:

##### A.1.b.i Name of handling office<sup>j</sup>

##### A.1.b.ii Name of office of primary responsibility<sup>k</sup> (if different from the handling office)

##### A.1.b.iii Indication of types of annotations added to the record

##### A.1.b.iv Indication of technical modifications<sup>m</sup>

#### REQUIREMENT A.2: Access Privileges

The creator has defined and effectively implemented access privilege modification, annotation, relocation, and destruction of records.

### << REQUIREMENT SET A (cont) >>

#### REQUIREMENT A.3: Protective Procedures: Loss and Corruption of Records

The creator has established and effectively implemented procedures to prevent, detect, correct loss or corruption of records.

#### REQUIREMENT A.4: Protective Procedures: Media and Technology

The creator has established and effectively implemented procedures to guarantee the identity and integrity of records against media deterioration and across technological changes.

#### REQUIREMENT A.5: Establishment of Documentary Forms

The creator has established the documentary forms of records associated with each process either according to the requirements of the juridical system or those of the creator.

#### REQUIREMENT A.6: Authentication of Records

If authentication is required by the juridical system or the needs of the organization, the creator has established specific rules regarding which records must be authenticated, by what means, and by whom.

#### REQUIREMENT A.7: Identification of Authoritative Record

If multiple copies of the same record exist, the creator has established procedures that identify which record is authoritative.

#### REQUIREMENT A.8: Removal and Transfer of Relevant Documentation

If there is a transition of records from active status to semi-active and inactive status, the creator has established and effectively implemented procedures determining what documentation has to be removed and transferred to the preserver along with the records.

### << REQUIREMENT SET B >>

The preserver should be able to demonstrate that:

**REQUIREMENT B.1: Controls over Records Transfer, Maintenance, and Reproduction**  
The procedures and system(s) used to transfer records to the archival institution or program; maintain them; and reproduce them embody adequate and effective controls to guarantee the records' identity and integrity, and specifically that:

**B.1.a** Unbroken custody of the records is maintained;

**B.1.b** Security and control procedures are implemented and monitored; and

**B.1.c** The content of the record and any required annotations and elements of documentary form remain unchanged after reproduction.

#### REQUIREMENT B.2: Documentation of Reproduction Process and its Effects

The activity of reproduction has been documented, and this documentation includes:

**B.2.a** The date of the records' reproduction and the name of the responsible person;

**B.2.b** The relationship between the records acquired from the creator and the copies produced by the preserver;

**B.2.c** The impact of the reproduction process on their form, content, accessibility and use; and

**B.2.d** In those cases where a copy of a record is known not to fully and faithfully reproduce the elements expressing its identity and integrity, such information has been documented by the preserver, and this documentation is readily accessible to the user.


#### REQUIREMENT B.3: Archival Description

The archival description of the fonds containing the electronic records includes—in addition to information about the records' juridical-administrative, provenancial, procedural, and documentary contexts—information about changes the electronic records of the creator have undergone since they were first created.

# IP 1 & 2 Products

## File Format Selection Guidelines

Principles and criteria for adoption of file formats, wrappers and encoding schemes

 <b>InterPARES 2 Project</b> <small>International Research on Permanent Authentic Records in Electronic Systems</small>	<small>Selecting Digital File Formats for Long-Term Preservation</small> <small>E. McLellan</small>
<b>Title:</b> General Study 11 Final Report: Selecting Digital File Formats for Long-Term Preservation	<b>Table of Contents</b>
<b>Status:</b> Final (public)	Introduction .....1
<b>Version:</b> 1.1	1. Terminology .....1
<b>Release:</b> March 2007	1.1 What is a file format? .....1
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<b>Writer(s):</b> Evelyn Peters McLellan	1.3 "Standard" file formats .....4
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<b>URL:</b> <a href="http://www.interpares.org/display_file.cfm?doc=ip2_file_formats(complete).pdf">http://www.interpares.org/display_file.cfm?doc=ip2_file_formats(complete).pdf</a> [English]	1.5 Standardizing terms .....5
<a href="http://www.interpares.org/display_file.cfm?doc=ip2_file_formats_fichiers_numeriques.pdf">http://www.interpares.org/display_file.cfm?doc=ip2_file_formats_fichiers_numeriques.pdf</a> [French]	2. Selection criteria .....6
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# IP 1 & 2 Products

## Terminology Database

Including a glossary, a dictionary and ontologies

The image displays a screenshot of the InterPARES 2 Project Terminology Database website in a Mozilla Firefox browser window. The website features a navigation menu with links to Home, About Us, About the Research, Research to Date, and Dissemination. The main content area is titled "InterPARES 2 Project" and "terminology database". It includes a list of letters (A through W) for navigation and a description of the database's purpose: "The Terminology Database has been designed to support multidisciplinary communication in the InterPARES 2 research project. By extension this Database now stands as a contribution to the development of records in dynamic, interactive, and experiential systems in arts, sciences, and humanities." It also mentions that it contains three terminological instruments: a Glossary, a Dictionary, and an Ontology. Below this, there are links to "InterPARES 2 Project Glossary", "InterPARES 2 Project Dictionary", and "Ontologies".

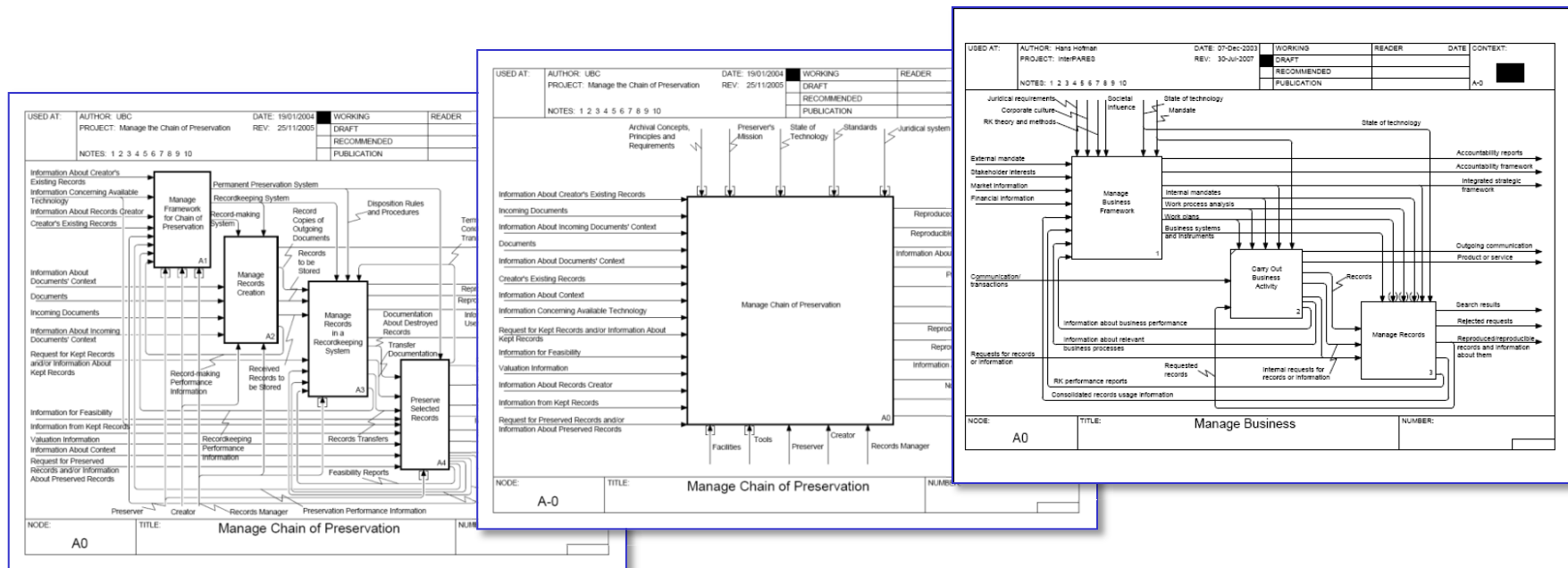
Two ontologies are also shown:

- InterPARES 2 Project ONTOLOGY A: Concept of a Record**  
This ontology is a hierarchical tree structure. At the top is "Archives", which branches into "Records" and "Digital Components". "Records" further branches into "Intellectual Components" and "Attributes". "Intellectual Components" branches into "Acts", "Persons", "Archival Bond", "Context", "Content", "Medium", and "Form". "Persons" branches into "Addressee", "Writer", and "Author". "Context" branches into "Juridical-administrative", "Provenance", "Procedural", "Documentary", and "Technological". "Content" branches into "May include" and "May not include". "May include" branches into "Edit", "Text", "Data", "Supplies", "Subs", "Print", "Exhibit", "Object", "Apparatus", "Class", "Object", "Qualification", "Secretariat", "Formulae", "Media", and "Collaboration".
- InterPARES 2 Project ONTOLOGY C: Trustworthiness of a Record**  
This ontology is a hierarchical tree structure. At the top is "TRUSTWORTHINESS", which branches into "Is conferred to a record by its degree of". This branches into "RELIABILITY", "AUTHENTICITY", and "ACCURACY". "RELIABILITY" branches into "Is established by examining a record's", which further branches into "COMPLETENESS" and "CREATION PROCEDURE". "AUTHENTICITY" branches into "Is the degree to which records are", which further branches into "PRECISE", "CORRECT", "TRUTHFUL", and "PERTINENT". "ACCURACY" branches into "Has two components", which further branches into "INTEGRITY" and "IDENTITY".

# IP 1 & 2 Products

## Two Records Management Models

Chain of Preservation (COP) Model (lifecycle)  
Business-driven Recordkeeping (BDR) Model (continuum)



# IP 1 & 2 Final Products

## Two books:

Luciana Duranti, ed. *The Long-term Preservation of Authentic Electronic Records: Findings of the InterPARES Project* (San Miniato: Archilab, 2005). Available on line at

<http://www.interpares.org/book/index.cfm>

Luciana Duranti and Randy Preston, eds. *InterPARES 2: Interactive, Dynamic and Experiential Records* (Roma: ANAI, 2008). Available on line at

<http://www.interpares.org/ip2/book.cfm>.



# InterPARES 3 International Alliance

- **Teams:** TEAM (**T**heoretical **E**laboration into **A**rchival **M**anagement) Canada (including US); Africa; Brazil; Catalonia; China; Colombia; Italy; Korea; Malaysia; Mexico; Norway; Singapore; and Turkey.
- **Director:** Luciana Duranti
- **Headquarters:** UBC - SLAIS (facilities provided by UBC)
- **Staff:** Project Director, Project Coordinator, Technological Coordinator, Administrative Assistant.
- **TEAM's Plenaries:** Twice a year each team meets.
- **Summits and Symposia:** Twice a year, each time hosted by a different country.
- **Networking:** One common Web site+individual TEAMS' sites
- **Funding:** SSHRC, and various sources from each country



# 3 Primary Components

## 1. **Research component**

(short-term and long-term projects, including case studies and general studies)

## 2. **Education and training component**

(in the context of research projects, apprenticeships, activities credited as part of coursework, etc.)

## 3. **Knowledge-mobilization component**

(workshops, seminars, colloquia, policy manuals and other publications, public lectures, etc., that meet the needs of both academic and community partners)



# Methodology (general)

## Action Research

- Practical, collaborative, pragmatic research directed toward producing solutions that are **directly useful** to a group of people
- Research **subjects are co-participants** and stakeholders in the process
- We **jointly** define research objectives and goals, co-construct research questions, pool knowledge and **develop solutions** and performance tests that implement specific strategies



# Methodology (general - cont.)

## Action Research

Two distinct methods of research:

- 1. Prototype development research**
- 2. Ethnographic research**



# Methodology (general - cont.)

## Prototype development research

- **User-centered, collaborative** prototyping approach that explores the interplay between theory and practice
- **Proof-by-demonstration**
- Comprises three major **iterative** stages:
  1. concept building (which we have done)
  2. system building
  3. system evaluation





# Methodology (general - cont.)

## Ethnographic research

- Creators of records, their users and archivists form a community of practice—**the archival environment**—for which social interaction creates meaning and defines values
- Researchers place themselves within an archival environment to **gain the cultural perspective** of those responsible for records
- **Observation** of the environment with detailed description, extensive **interviewing and analysis** of the documents



# Case and General Studies

- **Case studies** (3 types):
  1. Dealing with specific groups or types of **records**.
  2. Dealing with record/information **systems**.
  3. Dealing with **policies**.
- **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)



# Products

- **Policies, strategies and procedures** for archival organizations or programs, and **guidelines** for the records creators whose records fall under their responsibility.
- **Action plans** for the specific case studies carried out in the course of the Project.
- **Criteria to determine “most-at-risk” materials** e.g., checklist of age (date created, date last accessed), physical carrier, operating system, software used, equipment required and its availability, etc.



# Products (cont.)

- **Evaluation models for assessing the degree of risk**, if any, involved in the chosen preservation action.
- **Cost-benefit models** for various types of archival organizations or programs and for various kinds of records and/or systems.
- **Ethical models** that identify and make explicit the consequences for individuals and society of types of preservation measures or lack thereof.



# Products (cont.)

- **Training and education modules** for preservers, professional associations and university programs; and **a strategy for delivering them.**
- **Position papers** directed to key regulating, auditing and policy-making bodies, advocating the vital need of embedding planned digital preservation in the requirements they issue for the activities they regulate, audit or control.



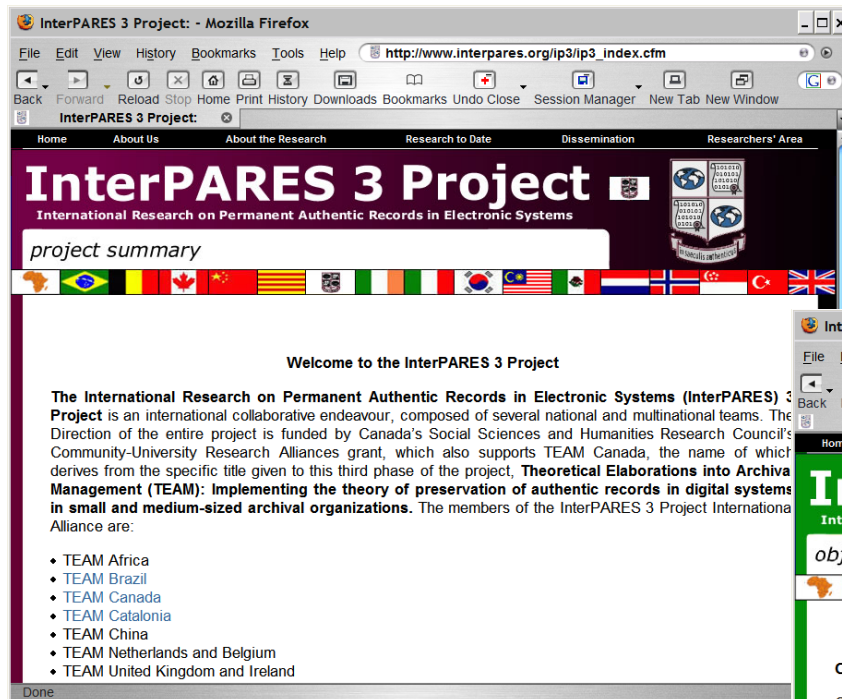
# Malaysia's Contributions

**TEAM Malaysia**, using PUSTAKA as the test bed, has been working on the development of a **policy for digital preservation**, and this will benefit the Sarawak government as PUSTAKA is the custodian of State Government archives.

It has also worked on **ERMS Recordkeeping Functional Requirements for the Superior Courts** of Malaysia, on **web archiving** and other topics, which you will hear about tomorrow.



# InterPARES 3 Web Site



[www.interpares.org](http://www.interpares.org)



**InterPARES Project**

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