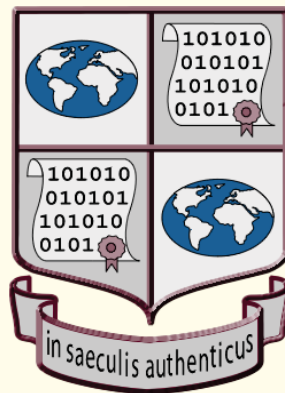# InterPARES Project

International Research on Permanent Authentic Records in Electronic Systems

The Future of Our Digital Memory

The Contribution of the InterPARES Project to the Preservation of the Memory of the World

InterPARES Project Goal

To develop the body of theory and methods necessary to ensure that digital records produced in databases and office systems as well as in dynamic, experiential and interactive systems in the course of artistic, scientific and e-government activities can be created in accurate and reliable form and maintained and preserved in authentic form, both in the long and the short term, for the use of those who created them and of society at large, regardless of technology obsolescence and media fragility.

Object of Inquiry: Records

Records are the means for carrying out our activities and their residue.

We create and maintain them in order to act, to refer to them, and to provide evidence of our actions and endeavours.

We preserve them over the long term for reasons of administrative and historical accountability to the next generations, and as sources for research of any kind, for cultural, business and personal purposes.

Qualities We Want to Protect

- **Reliability**: the trustworthiness of a record as a statement of fact. A reliable record is <u>complete</u> and generated according to a <u>controlled procedure</u>

- **Accuracy**: the exactness and correctness of a record content, dependent on the <u>competence</u> of the author and the <u>controls on the process by which data are recorded and transmitted</u> through space (i.e., between persons, systems or applications) and time (i.e., when stored off line, or when the hardware or software used to process, communicate or maintain it is upgraded or replaced)

- **Authenticity**: the trustworthiness of a record as a record. An authentic record is one that has not been tampered with or otherwise corrupted. Authenticity is maintained by protecting a record <u>identity</u> and <u>integrity</u>. It differs from

  Authentication: a <u>means of declaring authenticity</u> at a point in time

The Digital Records Challenge

- They do not exist as physical entities, but are constituted of **linked digital components** (the "manifested" record differs from the "stored" record)

- Their original manifestation disappears after being saved: we cannot maintain or preserve digital records, but only the **ability to re-produce or re-create them**

- The facility of reproduction and manipulation makes it **difficult to identify the final, official, reliable or accurate version**

The Digital Records Challenge (cont.)

- Most systems that should contain records do not, because the entities in them **lack fixed form and stable content**

- The systems that do contain records, contain bad records, primarily because of **lack of identifiable contexts and relationships** among themselves and with records outside the system

- **Technological obsolescence** makes digital records inaccessible in a very short time span

InterPARES Principles

- Technology cannot determine the solution to the reliable and accurate creation of digital records or to their authentic preservation over the long term: **organizational needs** define the problem and **archival principles** must establish the correctness and adequacy of each technical solution

- Solutions to the digital records challenges are inherently **dynamic** and **specific** to the cultural, disciplinary, administrative and legal situations

- Preservation is a **continuous process that begins with records creation**

- We must be able to **presume records trustworthiness**, till proof to the contrary is established

- We must be able to **infer authenticity** on the basis of the circumstances of records creation, maintenance and preservation

InterPARES Methodological Principles

- **Interdisciplinarity**

- **Transferability**

- **Open Inquiry**

- **Layered Knowledge Environment**

- **Multi-method design**: surveys, case studies, modeling, prototyping, diplomatic and archival analysis, and text analysis, etc.

InterPARES Research Activities

- Identification of **what constitutes a record** in each type of system and in each context, and **what record has the force of an original**

- Definition of **what a reliable, accurate and authentic record** is in the arts, science, law and administration

- Development of the requirements for the design of **a trusted record making system, a trusted recordkeeping system** and **a trusted record preservation system**

- Development of **methods and procedures for the creation, maintenance, appraisal, selection and disposition, and long-term preservation of digital records**

InterPARES Final Products

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

- **Guidelines for making and maintaining digital records** for individuals and small communities of practice

- **Guidelines for digital preservation** for archival institutions

- **Authenticity requirements** for records systems

- A **metadata registry** for the registration and analysis of metadata schemas

- Principles and criteria for adoption of **file formats, wrappers, and encoding**

- A **terminology database** including glossary, dictionary and ontologies

Results Usability and Effectiveness

- Produced by more than **100 co-investigators from 25 countries** and 5 continents, including civil law and common law countries, public and private sectors, academia and the professions, creators and preservers

- **159 graduate students** to date have taken part in research and development. Among those who have graduated, several work in South East Asia and Africa, and in international organizations, like the World Bank, the International Monetary Fund, the Red Cross and other UN organizations in Geneva, the European Central Bank and the European Parliament

- The team has produced **14 books, more than 100 refereed articles** and about 50 non-refereed, offered more than 100 lectures and workshops, given many interviews

- InterPARES has **formal partnerships** with several international research projects related to digital records

- InterPARES has submitted upon request **position papers** to commissions drafting legislation, such as the new copyright act; and several of its members belong into **standards setting bodies**, and work in projects, such as MoReq, that create de facto standards

Why the Success?

- **Multidisciplinary** and **multicultural**

- It does not break with the past, thereby **taking away the fear of the unknown**: it is based on the hypothesis that there is no record, record element or record making process we see today that we have not seen in the past six thousand years (e.g. blogs, GIS)

- It puts forward the figure of the records and information manager or archivist as the **trusted custodian**, defines its role as the neutral third party, and establishes its body of knowledge and qualifications consistently with every country's historical tradition (this is also consistent with oral traditions, entrusted to remembrancers)

The CLAID Team: Lessons Learned

CLAID Team: Mexico, Cuba, Argentina, Brazil, Peru'—2005-2006—2 3week workshops

- **Inadequacy of simple translations** into local languages
- **Need for interpretation of findings** based on local culture
- **Inability** of workshop audiences **to apply** what they have learned in their own organization
- **Concern about the products' downward-scalability** and their relevance to small and medium sized and to limited resource organizations
- Need for **direct discovery and testing of concepts and methods**
- **Action research and implementation**
- Need for **products providing criteria and parameters** rather than direct answers

Desired Products

- **Model policies, strategies, procedures and action plans** for low resource archival organizations or programs, and **guidelines** for the records creators whose records fall under their responsibility;

- **Criteria to determine "most-at-risk" materials** - like a checklist of age (date created, date last accessed), physical carrier, operating system, software used, equipment required and its availability, etc.;

- **Evaluation models for assessing the degree of success**, if any, of the chosen preservation action;

- **Cost-benefit models** for various types of archival organizations or programs and for various kinds of records and/or systems;

Desired Products (cont.)

- **Ethical models** that identify and make explicit the consequences for individuals and society of types of preservation measures or lack thereof;

- **Training and education modules** for archival organizations or programs, professional associations and university programs; and awareness and education modules for non archivists, such as IT professionals, vendors, and service providers; human resources and financial managers; doctors, communities of practice, members of the general public, etc.; and a strategy for delivering them; and

- **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.

How to involve Africa and South East Asia

Different **obstacles**, *ergo* different **strategies**?

- **Africa:** lack of financial and technological resources and of archival units
- **South East Asia:** lack of academic and scholarly resources for research (no real archival programs of education) and research grant programs

In both cases, we need

- **research conducted in place by people who has to implement the findings**,
- **clear, circumscribed, and achievable goals respecting local priorities**,
- **coordination between the university and the field researchers**,
- **cooperation among countries sharing similar contexts**

The contribution of the Records Management Trust
The contribution of the Memory of the World program

Findings and Products

All findings and products will be gradually made available on the InterPARES Web site:

www.interpares.org