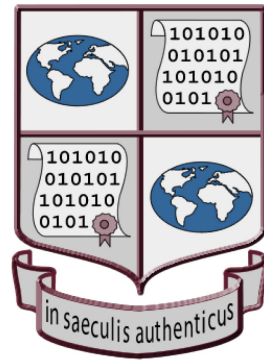


InterPARES 2 Project

International Research on Permanent Authentic Records in Electronic Systems



The Power of Archives

The Findings of InterPARES



InterPARES Project

Dr. Luciana Duranti
Project Director

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, if there is one—we might have only form data, content data, and composition data)
- Their **original** manifestation disappears when they are saved: **we cannot maintain or preserve digital records**, but only the ability to re-produce or re-create them, or to protect their capacity to instruct or enable the making of records
- The facility of reproduction and manipulation makes it **difficult to identify the final, official, reliable or accurate version**
- **Technological obsolescence** makes digital records inaccessible in a very short time span
- **Intellectual property and privacy rights** are hard to protect



The Digital Records Challenge (cont.)

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

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

- In dynamic systems they depend for their content upon data extracted from a variety of other systems which may have variable instantiations (VanMap).
- In interactive systems, each user intervention or input from another system causes a change of content and/or form (Alsace-Moselle).

These digital entities, regularly produced by public and private agencies, only exist in their hands. They are either trusted implicitly, when they should not be, or not trusted, when they are trustworthy (VPD)



Archival Tradition

Sir Hilary Jenkinson, *Manual of Archival Administration*. London, 1922.

- The archivist's **primary duty is to the records**
- The archivist's **secondary duty is to the user**

By serving the records we serve their users



InterPARES Project

Dr. Luciana Duranti
Project Director

Serving the Records

It means to maintain intact their characteristics:

1. **Naturalness** (by preserving the sedimentation)
2. **Interrelatedness** (by archival description)
3. **Impartiality** (by planned selection)
4. **Authenticity** (by protecting their identity and integrity through a chain of unbroken legitimate custody).

With digital records, these functions are still necessary, but no longer sufficient.



What Else Is Needed

The traditional **concept of preservation** must include the processes necessary to transmit the record through time, including conversion and migration

The **unbroken chain of preservation** must begin at creation and continue from the record-making system to the recordkeeping system and the record preservation system

The new emphasis on accountability allows the archives to fulfill these needs by **presenting itself as the trusted custodian**



Archivist as Trusted Custodian

The trusted custodian is a person who

- acts as a **neutral third party**, i.e., demonstrates that he/she has no stake in the content of the records and no reason to alter records under his/her custody, and that he/she will not allow anybody to alter the records either accidentally or on purpose,
- is equipped with the **knowledge and skills** necessary to fulfil its responsibilities, which should be acquired through formal education, and
- establishes a **trusted preservation system** that is capable of ensuring that accurate and authentic copies of the creator's records are acquired and preserved;
- But, mostly...



The Archivist's New Functions

1. Positions him/herself at the **beginning of the record life-cycle**, taking the role of “designated” trusted custodian
2. Assesses the **authenticity of the records** and **monitors it** throughout their existence
3. Identifies the records to be preserved at the moment of their creation and **monitors their transformation through time**



The Archivist's New Functions (cont.)

4. Determines the **feasibility of preservation** on the basis of the archives technological capacity
5. Determines a **preservation strategy** independently of technological trends (tries to influence the industry through the adoption of standards, but not viceversa) and maintains a focus on interoperability
6. Controls the **accuracy of the records** after each conversion or migration
7. Develops **procedures** that address issues of **intellectual rights and privacy**



The Archivist's New Functions (cont.)

8. Recognizes to **archival description a primary authentication function**

- The authentication function of archival description is a **collective** attestation of the authenticity of the records of a *fonds* and of all their interrelationships as made explicit by 1) their administrative, custodial and technological history, 2) the illustration of their scope and content, and 3) the hierarchical representation of the records aggregates
- The unique function of archival description is to provide an **historical view of the records and of their becoming** while presenting them as a whole in which the individuality of each member is subject to the bond of a common provenance and destination



The Archivist's New Functions (cont.)

9. Is constantly **involved in research and development projects** similar to those carried out by the industry, addressing questions like the following:
- What entity constitutes the record in each dynamic or interactive system
 - What instantiation of such entity can be regarded as the record (manifested or stored entity)
 - How to keep such entities accurate and authentic through time
 - How to enable users to verify such authenticity over time

We must abandon the old ways!



The Old Ways

Academics conduct research which very few read and even less try to implement, usually unsuccessfully (as demonstrated by research)

Archival associations establish committees who **issue guidelines**, usually expressing the minimum common denominator shared by the experiences of the members, rather than research findings

ISO issues standards under the pressure of groups who need basic guidance and either develop their own (see OAIS) or are ready to adopt the ways of the most involved parties (see RM standard)

Legislators issue laws too often based on the expertise of IT professionals and without serious consultation with archivists (see the European Directive on digital signatures)

Governments make technological choices without consulting with archivists

Archives have to **respect** often unreasonable laws, **implement** far too generic standards, and **preserve** unidentifiable and non preservable material



Why It Does Not Work

Technology changes very rapidly while national and international consensus of any kind is very slow

General standards and laws **need much adaptation** to specific contexts to be implemented

Research results must be translated in concrete terms to be understood by professionals

Research has demonstrated that **solutions to digital records preservation are dynamic and specific**

The financial, technological, and knowledge **resources of archives are very different**



A Better Way

Each **archives becomes a locus of research** by establishing a partnership with academics involved in international research, professionals involved in standards development, experts in law and information technology and, most importantly, with the creators of the records that fall under their jurisdiction.

Each **archival association promotes an environment supportive** of the archives goal by demonstrating to regulatory and auditing bodies, and policy makers that they ought to embed digital records preservation requirements (not rules) in any activity that they regulate, audit or control.

This results in 1) the generation of **new knowledge**, 2) the achievement of **action-oriented outcomes**, 3) the **education** of all participants, 4) results that are **relevant to the local setting**, 5) a **sound** and appropriate research and development **methodology**, and 6) and the **empowerment of the archives**.



The Power of Archives

Each archives will then be able to establish a **policy** for the institution, **strategies** for implementing it, **plans of action** for specific aggregations or types of records, and **detailed procedures**, and to **update** all of the above continuously according to changes in available technologies, records produced, and resource availability

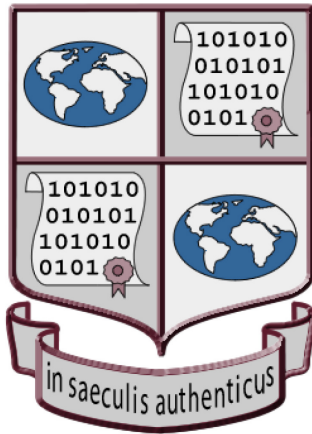
This is what we are beginning to do in **InterPARES 3 (2007-2012)** in an effort to **place the archives at the center of society as an instrument of accountability and a point of reference** for any institution, organization, community or person who needs guidance in the creation, maintenance and preservation of its records, a neutral third party to take care of the digital evidence of its activities, or an expert witness who attests the authenticity of digital records presented as evidence in legal proceedings.



InterPARES Project

Dr. Luciana Duranti
Project Director

InterPARES Web Site



www.interpares.org



InterPARES Project

Dr. Luciana Duranti
Project Director