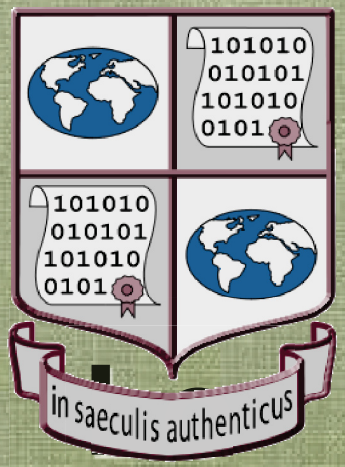
Lost in Obsolescence:
The Future of Our Digital Documents



Dr. Luciana Duranti
InterPARES Project Director

Advantages of the Digital Medium

- **Digital documents do not fade or become yellow and brittle**
- **It is easy to alter them without leaving a trace for editing purposes, for repurposing or just for reading them better**
- **They occupy very little storage space**
- **They can be copied an infinite number of times**
- **They can be shared over the internet**
- **They can be sent and received across the world within seconds**

Disadvantages of the Digital Medium

- **A computer is needed to read digital documents: The medium does not contain documents but only bit-strings**
- **It is not possible to preserve digital documents but only the ability to reproduce them**
- **There is no longer an original**
- **Authenticity is no longer verifiable on the document**
- **The easiness of reproduction makes it difficult to identify the official version**
- **With databases, especially GIS, and with interactive and dynamic systems, often we have only views, not documents**

…and more

- The internet makes data privacy increasingly difficult to protect
- Viruses and technology failures make it easy to lose everything
- Technological obsolescence makes documents inaccessible very fast
- Documents including text, images, graphics, etc. are broken down and stored in different parts of the memory
- Images are very limited in their variety of colours
- The information provided by the materiality of the document does no longer exist

…and bad habits make it worse

- Hybrid systems
- Creating documents in different applications and leaving them there
- Not doing any back-up of files
- Not keeping media in the right climatic **environments**
- Not refreshing the media

and worse…

- Not migrating the documents
- Not protecting the documents from malicious or accidental tampering—by access
- Using protection systems—encryption or digital signatures—that do not allow for preservation
- Trusting brand names

InterPARES Goal

To develop the theoretical and methodological knowledge essential to the permanent preservation of authentic records generated and/or maintained electronically, and, on the basis of this knowledge, to formulate model policies, strategies and standards capable of ensuring that preservation.

InterPARES (1999-2006)

- Major funding from SSHRC, NHPRC, NSF, UBC
- 20 countries in 5 continents, 100 researchers
- Public and private sectors
- Academics and professionals (20% to 80%)
- Archival science, diplomatics and records management; music theory, composition, performance; film theory, production, description; dance and theatre theory; a variety of hard and social sciences methodologies; jurisprudence; computer science and engineering

InterPARES Products

- Authenticity Requirements for those who generate and keep documents and for those who preserve them
- Selection and preservation methods and procedures
- A body of concepts and principles and a series of analytical instruments for studying new types of digital documents and developing new requirements and method as needed

InterPARES Products (continues)

- A framework for the development of policies, strategies and standards related to the proper creation, maintenance and preservation of documents that are reliable and accurate, and that can be proven authentic over time

And yet to come (among other things):

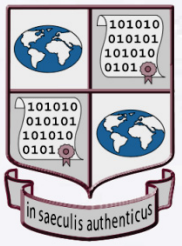
- Guide to encoding formats that can be preserved

- Guidelines for individuals who are not part of government or large organizations

but, while waiting for them…

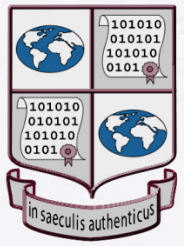
- **Backup all your documents as a regular routine**
- **Keep analog versions when possible**
- **Refresh the support on a regular basis**
- **Migrate to a new system**
- **For offices: develop a “trusted record-keeping system” and use a “trusted custodian.”**

Trusted Recordkeeping System



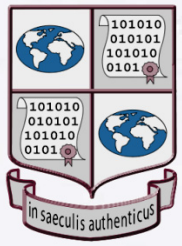
A trusted record-keeping system comprises the whole of the rules that control the creation, maintenance, and use of the records of the creator and that provide a circumstantial probability of the authenticity of the records within the system.

Trusted Recordkeeping System



The first requirement of a trusted recordkeeping system is that it is capable of controlling all the records of the creator, regardless of their physical form.

Trusted Recordkeeping System

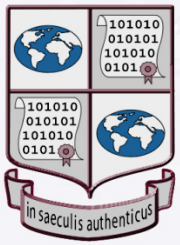


- A classification system
- A metadata system
- Access privileges
- Procedures to prevent, discover, and correct loss or corruption of records
- An audit trail of every transmission within the recordkeeping system

Trusted Recordkeeping System

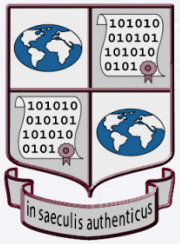
- Procedures to guarantee the continuing identity and integrity of records against media deterioration and across technological change (e.g., migration, microfilming)
- If multiple copies of the same record exist, procedures that identify which record is authoritative
- If authentication is required by the legal system or the needs of the organization, specific rules regarding what must be authenticated, by whom, and the means of authentication
- Procedures determining what documentation has to be removed and transferred along with the records to a trusted custodian

Trusted Custodian



To be considered a trusted custodian, the person responsible for keeping the records must demonstrate that he/she has no reason to alter them or allow others to alter them, and is capable of implementing all of the requirements for a trusted recordkeeping system

Reference



- InterPARES website:

  www.interpares.org

- Canadian Conservation Institute website:

  www.cci-icc.gc.ca