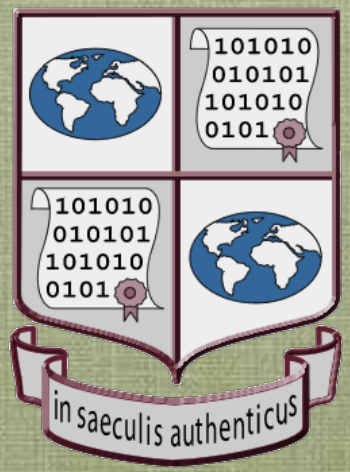
Meeting the challenge of accuracy and authenticity in e-Government, e-Science and e-Art



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Authenticity

The trustworthiness of a record as a record

An authentic record is one that has not been tampered with or otherwise corrupted

Bases for a presumption of authenticity

- Presence of visible formal elements
- Creation and transmission control
- Uninterrupted line of legitimate custody

…with digital records

- Reconfiguration of formal elements
- Bypassing of production control
- Elusive physical custody
- Disappearance of the original record

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 Products

- Selection and preservation methods and procedures (e.g. models representing procedures and responsibilities)

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

InterPARES Products (cont.)

A body of concepts and principles and a series of analytical instruments for studying new types of digital documents and developing new requirements and methods as needed

Authenticity Requirements for those who generate and keep entities and for those who preserve them (e.g. metadata for identity and integrity, access privileges, etc.)

Fundamental concepts

Record:

- Fixed form
- Unchangeable content

Authenticity:

- Identity
- Integrity

Authenticity requirements

- Metadata related to identity and integrity
- Access privileges
- Protective measures against loss, corruption, obsolescence
- Determined documentary forms
- Established authentication procedures
- Identified authoritative records
- Procedures of removal and transfer

Dynamic and Experiential Digital Entities

A dynamic entity depends for its content upon data extracted from databases which may have variable instantiations. The main challenge for its authenticity is the lack of a fixed form and resides in the ability to preserve track of change

An experiential entity is an object whose essence goes beyond the bits constituting it to incorporate the behaviour of the rendering system. Its authenticity depends on the ability to preserve the environment in which the system was experienced

Interactive Digital Entities

An interactive entity is one in which each user's intervention causes a response and/or a change in its substance. Its authenticity depends on the tracking and preservation of the changes, and perhaps of the functionality of the creating system

Challenges

- Repurposing
- Proprietary systems also used as portals
- Obsolescence
- Reliability
- Accuracy
- Definition of record

Reliability

The authority and trustworthiness of a record as a representation of what it is about

Its trustworthiness as to content, its ability to stand for what it speaks of

It depends on completeness of form and degree of control on creation

It is the sole responsibility of the individual or organization making the record

Accuracy

An accurate record is one that contains correct, precise and exact information and/or data

Accuracy may also refer to the absoluteness of the data in the record, to the perfection of the record, or to its exclusive pertinence to the matter in question

Definition of record

- Substituting completeness, stability and fixity with the capacity of the system to trace and preserve each change

- Regarding each entity as existing in two modes, as a record in becoming during the process of creation, and as a complete record at any given time it is viewed

InterPARES 2 Goal

To ensure that the portion of society's recorded memory digitally produced 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 it and of society at large, regardless of digital technology obsolescence and media fragility.

Research in progress

- A study of the concepts of accuracy, reliability and authenticity in the visual and performing arts, in the sciences and in e-government, and their implementation

- A guide to encoding formats that can be preserved over the long-term

- Guidelines for individuals who are not part of government or large organizations to help them to create works than can be preserved

- Registers of metadata schemata for different types of work

Research in progress

- Methods of selection of dynamic, experiential and interactive records

- Methods and strategies for keeping such records in authentic form over the long term

- Processes for analyzing and criteria for evaluating advanced technologies for the implementation of the above methods in ways that respect cultural diversity and pluralism

- A framework for policies and strategies dealing with intellectual property, copyright and privacy issues in the dynamic, experiential and interactive digital environment

Hypotheses being tested

- They derive from facts observed in the context of case studies

- They address issues related to the interaction of each entity with other entities, with or without human or technological mediation, and issues related to the identification of the boundaries of the record, for the purpose of maintaining each entity in a way that its accuracy/reliability and authenticity can be ensured

- They are based on the fact that the only way of maintaining a digital record is to preserve the ability to re-create it as an authentic copy

The records of the arts

- Performing arts
- Visual arts

The records of e-government

- Spread across several technologies
- No boundaries
- Changing continuously
- Reflecting a whole matter rather than a transaction

The new like the old

- The records of all arts as in the performing arts
- The records of e-government as in the notarial imbreviaturae
- The accurate and authentic record of our past as a potential re-creation that may never need occur
- The trusted custodian as the key figure in the future of digital records

InterPARES Web Site

www.interpares.org