

InterPARES Trust

A world map in shades of blue and white, overlaid with a network of glowing yellow and orange lines that connect various points across the globe, symbolizing global connectivity and data flow.

Ethical metadata: Authenticity and provenance in the cloud

Corinne Rogers ❖ August 14, 2014 ❖ Session 109

2014
Archives ★ Records
ENSURING ACCESS



Metadata, *Mutatis Mutandis* – Design Requirements for Authenticity in the Cloud and Across Contexts

InterPARES Trust North American Team Study 16

- What are the ideal and realized requirements for authenticity in systems with suspect or unclear controls?
- What new metadata requirements surface from this new systems context?
- How can we inform better systems design optimizing for the keeping and reproduction of authentic records?



Research sub-questions

- Does the model of record authenticity guaranteed by identity and integrity metadata hold for records in online environments?
- What is the relationship of authenticity metadata (documents/records) to provenance information (data)?
- What metadata elements are required to support the presumption of authenticity or support secure provenance?
- How, and by whom are those metadata elements accrued, maintained, preserved, and accessed over time?
- What are the ethical issues to consider and how are they reflected in the design of record systems?



Design assumptions about information systems

- Assumptions:
 - The document the system ‘sees’ is the same as the document the user would retrieve
 - Metadata can be trusted as an accurate description of the resource
- “These core design assumptions are completely at odds with the realities of the distributed information environment found on the World Wide Web today.”

Clifford Lynch (2001)



2001 to 2014... *are we there yet?*

- Cameco Corporation v. The Queen (TCC 2014)
- List of Documents: documents identified by author and date, collected from application metadata
- These do not always match the author/date appearing on the face of the document
- Presiding judge asked that documents be identified only by their unique document identifier number



Ethics of metadata— part of information ethics

- Many domains share information ethics issues
- Professional convergence around:
 - Intellectual rights
 - Privacy
 - Confidentiality, privilege
 - Social justice, equality
 - Ownership of information



Place of metadata in codes of ethics - archivists

Association of Canadian Archivists:

- B. Preservation
 - Protect intellectual and physical integrity
 - Document all actions which may alter the record
- C. Availability and Use
 - Fullest possible access through description
 - Protect privacy & manage access restrictions
 - Protect intellectual rights



Place of metadata in codes of ethics - archivists

Society of American Archivists – Core Values:

- **Accountability**
 - Through documentation & access
- **Preservation**
 - For the benefit of the future & concerns of the past



Place of metadata in codes of ethics – archivists

Society of American Archivists - Code of Ethics

- Authenticity
 - Continuing usability
 - Protect intellectual & physical integrity
 - Document change
- Security & protection
- Access & use
- Privacy & confidentiality



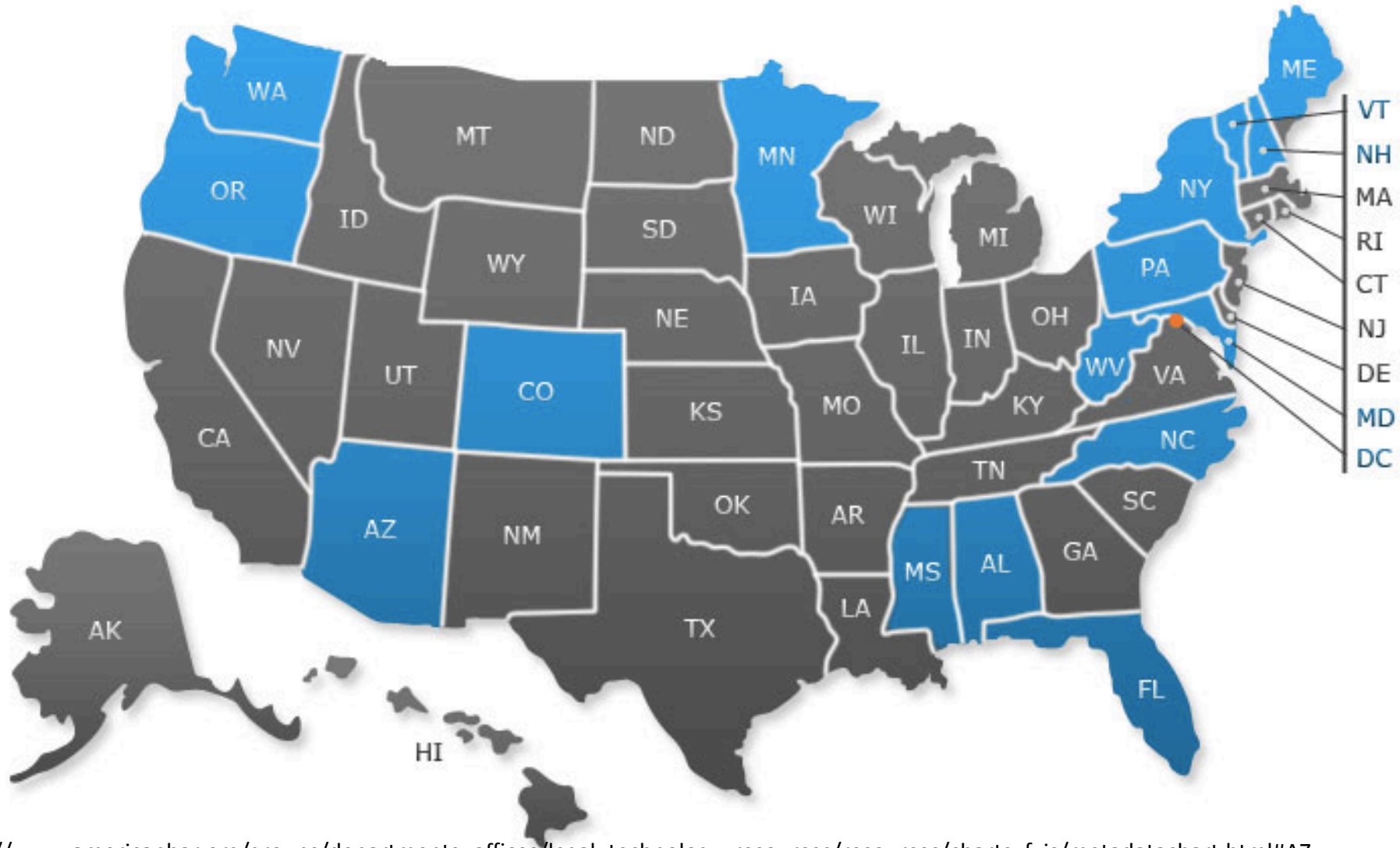
Ethics of metadata - law

Two facets:

- Duties of lawyers in using metadata
 - What is the sender's duty when transmitting metadata?
 - May the recipient review or mine metadata?
 - Must the recipient notify the sender if metadata is found?
- Metadata preservation or production



Map of US opinions on ethics of metadata



Place of metadata in codes of ethics – lawyers

Canadian Bar Association – Guidelines for practicing ethically

- Comply with legal requirements for retention for ESI
- Preservation without alteration
- Protection from corruption, spoliation, deletion
- “Appropriate archival methods should be used to preserve electronically-stored information that is not on the law practice’s active computer system”



Place of metadata in codes of ethics – lawyers

CBA – cont.

Metadata

- Overview of elements ~ computer-generated
- May be harmful when distributed
- “Best practices”
 - Ethical obligation to exercise reasonable care
 - Minimize creation
 - Remove before distribution (unless prohibited by legal requirements)



Sedona Conference on metadata

- *The Sedona Conference® Commentary on Ethics and Metadata* “focuses on the ethical considerations surrounding the inclusion and review of metadata in the non-discovery and discovery contexts... this Commentary explores significant ethical duties of attorneys in handling metadata, which may constitute client confidences to be protected or evidence to be produced, depending on the circumstances”
- *The Sedona Principles Second Edition*, and *Sedona Principles Canada* contain detailed information about the ability to access and produce metadata



What metadata do we need, when, and for what purpose?

“Authentication of records is one of the most critical reasons why metadata merits discussion”

“When it comes to declaring electronic records, information governance professionals have been struggling for some time with the issue of what metadata to preserve.”



Why do we have this problem?

- Metadata often not classified according to function, but according to source
- Definitions of records and metadata lack an understanding of the *nature* of records and the cumulative effect of the metadata that is an integral part of the records, and that establishes their authenticity and provenance
- The role of metadata is not considered in the structure and completeness of the record or digital object it describes

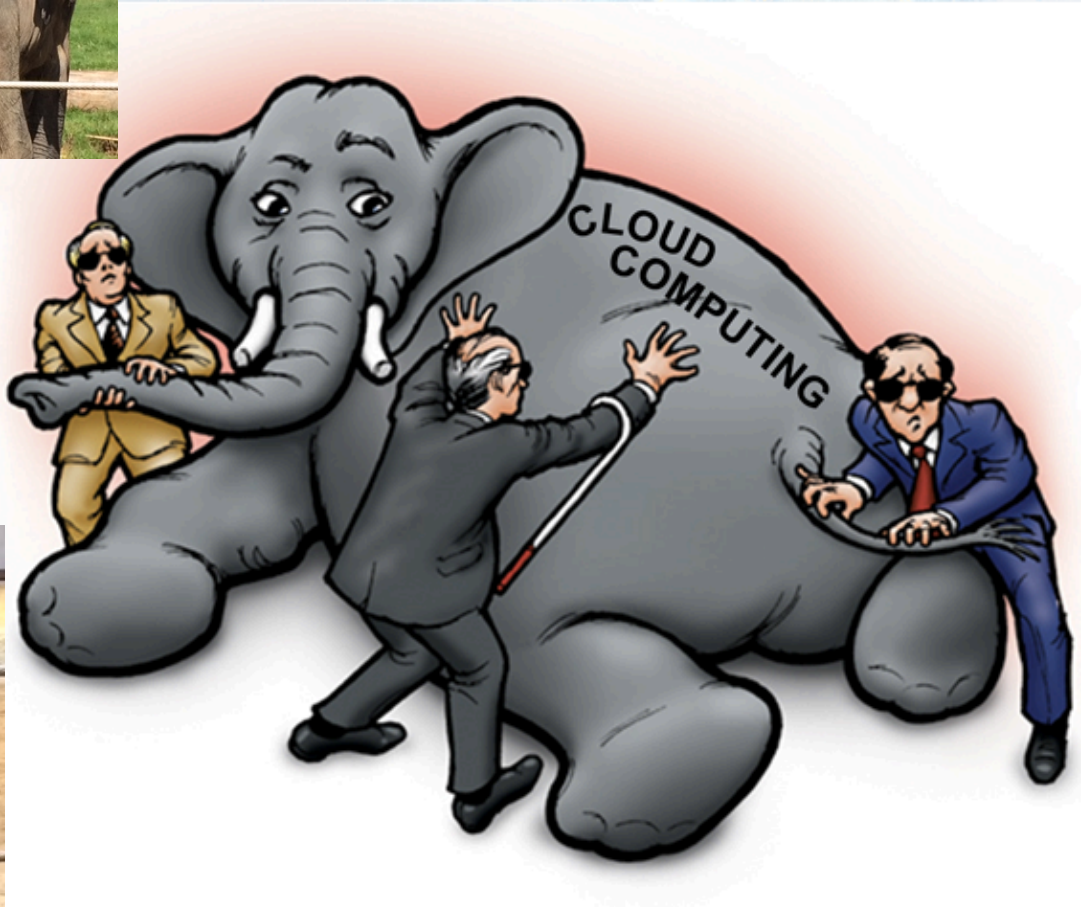


IPAM – Functional requirements for authenticity metadata

- Presumption of authenticity
- Interoperability between systems and across time
- Parsimony
- Adequacy for archival description
- Retrieval
- Meaningful display



Metadata in the Cloud



Who adds/owns metadata?

Creator/Owner

Service Provider

Identity/integrity

Integrity/maintenance

“event horizon”



Enrique, C.-L., Shekhar, M., & Harmon, R. (2013). On the Concept of Metadata Exchange in Cloud Services. *Service Technology Magazine*, (LXXI)

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Thank you!

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