The Devil’s in the Details: working towards global consensus for digital repository certification

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The Call for Certification

“A critical component of the digital archiving infrastructure is the existence of a sufficient number of trusted organizations capable of storing, migrating, and providing access to digital collections…

A process for certification of digital archives is needed to create an overall climate of trust about the prospects of preserving digital information.”

Other Calls for Certification

- **Open Archival Information System Reference Model (ISO 14721:2002)**
  - Identified potential OAIS-related standards to be developed, including “standards for accreditation of archives”

- **Trusted Digital Repositories: Attributes and Responsibilities (2002)**
  - Defined “trusted digital repository” and affiliated attributes, recommended development of a process for certification
Task Force on Digital Repository Certification

- Bibliothèque nationale de France
- Cornell University
- Digital Preservation Coalition, UK
- Harvard University
- Internet Archive
- Koninklijke Bibliotheek
- Library of Congress
- National Aeronautics and Space Administration (NASA US)
- National Archives and Records Administration (NARA US)
- OCLC
- RLG
- Rutherford Appleton Laboratory, Council for the Central Laboratory of the Research Councils, UK
- Stanford University
- University of London Computing Centre
Task Force Remit

- Identify a list of certifiable elements (attributes, processes, functions, activities) of a digital repository or types of repositories
- Create a standard certification process or a framework that can be implemented across domains or types of digital repositories.
- Develop a certification plan
- Define the conditions for revocation of certification and suggest appropriate action plans for endangered digital information
Certification – Difficult Questions

- Levels of certification?
- Self certification?
- Bit preservation?
- Information preservation?
- Certifiable elements?
- Certifying body/organization?
- Duration of certification?
- Consequences of revocation?

Is a domain-neutral, global certification possible?
Emerging Certification Framework

- Dual purpose toolkit
  - Self evaluation
  - Independently administered certification

- Certification
  - Baseline requirements
    - Based on OAIS and Trusted Digital Repositories
  - Additional levels or “modules” likely
    - Domain-specific needs/mandates
      - National libraries, archives, data centers
Certifiable Elements (1 of 2)

- Minimum Attributes (Requirements)
  - Trusted Digital Repositories
    - Compliance with OAIS
    - Administrative responsibility
    - Organizational viability
    - Financial sustainability
      - Transparency, etc.
    - Technological and procedural suitability
      - Existing “computer center” practices of requirements
    - System security
      - Back-up, recovery, etc.
    - Procedural accountability
      - Policies, practices documented, etc.
Certifiable Elements (2 of 2)

- Minimum attributes (continued)
  - Minimum preservation level
    - Storing objects with metadata
    - Retrieval
    - Rendering?

- Curatorial aspects

- Audit aspects

- "Customer perspective"
  - Levels of service

- Other…
Overlap with other processes

- Metrics must take into account existing, related standards and best practices
  - ISO 9000 family of standards?
  - BS 7799/ISO 17799?
  - Country-specific legislation?
- May point to pieces/parts of relevant standards as metrics
Domain-Specific Issues?

- Legal mandates, remits
  - Legal deposit, authenticity, etc.
- The role of the collecting policy
  - Clearly relevant to research libraries
  - Relevancy for other sorts of repositories?
- Third-party service providers
  - Usually removed from pre-ingest functions that are critical to other repositories
Who Will Seek Certification?

- Cost of certification will influence this
- Relevancy to mission, goals, remit
- As envisioned:
  - National libraries, archives, data centers with legal remit/mandate
  - Large research libraries
  - Consortial/federated repositories
  - Third party service providers

Not all repositories will seek or need certification!
Important Questions Still Needing Answers

- Is peer review acceptable? Achievable?
- What will repositories pay for certification?
- What is their incentive to pay?
- Nature of certifying body?
- Who bankrolls the process at the outset?
Next steps

- Draft document(s) will be issued for public review
  - Draft framework – very soon
  - Report for comment – December 2004
- Modules or community-relevant components most likely to be developed as necessary
- Revision
- Certification plan to follow
- Design and implementation of an organizational structure and program for certification
For More Information…

Task Force on Digital Repository Certification