Preservation Pressure Points: Evaluating Diverse Evidence for Risk Management

Plenary II: Certification
iPRES2006
Cornell University, Ithaca NY
October 2006

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Introduction

- Independent measuring of repositories is seen as essential aim
- Taken as axiomatic that certification is one marker for trustworthiness of repository
- We seek to develop the debate a debate on the evidence required for objective and transparent assessment
- Two earlier pieces form a backdrop to this talk:
Defining Activities and Context

- UK’s Digital Curation Centre (DCC)
- RLG-NARA Audit Checklist
- Center for Research Libraries’ (CRL) Certification of Digital Archives project
- Network of Expertise in Long-term Storage of Digital Resources (nestor)
- Deutsche Initiative für Netzwerkinformation (DINI)
Pilot Audits

- DCC Audits
  - Engage in Three Audits – National Library, Research Centre, and Scientific Date Centre
  - Three more in the pipeline

- Rationale
  - establish evidence base
  - establish list of key participants
  - refine metrics for assessment
  - contribute to global effort to conceive audit processes
Why Evidence?

• It contributes to consistency
• It creates a mechanism that ensures conclusions can be validated and replicated
• It appears insufficient consideration has been given to the evidence base supporting assessment
• Practical, applicability depends on identification of objective means to demonstrate compliance
• Efforts must probe for evidence of *concrete* processes, structures and functionality
• Selection and evaluation of evidence must be regularised.
An Evidence Based Approach

- Documentary
- Testimonial (interview based)
- Observation-based
Archive X

- Majority of conclusions drawn from written self-assessment and staff interviews.
- Little documentation available before visit most available on-site
- Time constraints meant that there was little time to subject the documentation provided on-site to formal analysis
- Questions focused on those responses that demonstrate non-compliance with RLG-NARA Checklist
- Visit did not involve demonstration or give auditors chance to see system in operation
Archive Y

- Less documentation available than in Archives X or Z
- No self-assessment completed
- Documentation gathered before site visit (e.g. system procedures/functionality, resources)
- Archive did not familiarise themselves with checklist before visit—saw audit as a passive process (had not imbibed the culture of the checklist)
- Demonstrations provided at this archive essential foundation for evidence
Archive Z

- Self-assessment completed, range of staff available to auditors
- Abundant documentation gathered before site visit (e.g. system procedures/functionality, resources)
- Level of documentation meant audit could focus on assessing actual day-to-day practice and observation
- Demonstrations provided at this archive essential foundation for evidence
- Audit was investigative
- Checklist provided a pivotal structural framework
Archive Z provided (i)

- Sometimes mere presence will be encouraging, other times content will require scrutiny
- Several example documents
  - Repository Mission Statement
  - Example Deposit Agreements (including legal arrangements)
  - Job Descriptions
  - Organisational Chart
  - Staff Profiles/CVs/Resumes
  - Annual Financial Reports
  - Business Plan
  - Risk Register
  - Policy Documents
Archive Z provided (ii)

- System Procedure Manuals
- Technical Architecture
- Maintenance Reports
- Results of Other Audits
- Other Documentation Records
- Document management processes provide insights
- Privacy concerns must be addressed
- Evaluation methods must be refined
Proposed Process & Outcomes

• Pre-visit documentation
  • technical,
  • financial, *and*
  • organisational insights

• Direct subsequent onsite activities

• Three outputs from each pilot audit
  • report for host organisation
  • public report detailing necessary refinements
  • Suggestions for revision criteria to be delivered to RLG-NARA and *nestor*
Methodology Shortcomings

- Shortcomings reflect pilot nature of process
- None of the operations of any of the repositories were investigated sufficiently
- Pilot nature has created a ‘balance of power’ problem for auditors (e.g. Auditor gratitude)
- Length of audits insufficient
Evidential Impact

• What is documented?
• What documentation is available?
• What do staff or stakeholders believe, think, or know happens within the archive?
• What actually happens within the archive?
Primary Documentation
- Corroborated Stakeholder Testimony
- Unsubstantiated Stakeholder Testimony

Secondary Documentation
- Supervised Practical Demonstration
- Auditor Directed Demonstration

Documentation-based
- Primary Documentation
- Corroborated Stakeholder Testimony
- Unsubstantiated Stakeholder Testimony

Commitment-based
- Primary Documentation
- Supervised Practical Demonstration
- Auditor Directed Demonstration

Capacity-based
- Primary Documentation
- Corroborated Stakeholder Testimony
- Unsubstantiated Stakeholder Testimony

Resource-based
- Primary Documentation
- Corroborated Stakeholder Testimony
- Unsubstantiated Stakeholder Testimony

Planning-based
- Primary Documentation
- Corroborated Stakeholder Testimony
- Unsubstantiated Stakeholder Testimony
Testimonial Evidence

• Useful means to:
  • highlight where omissions exist in documentation
  • validate whether documented aspirations are realised in reality

• Roles for interview:
  • Repository Administrators
  • Hardware and Software Administrators
  • Repository Function-specific Officers
  • Depositors
  • Information Seekers

• Questionnaire templates being formulated by DCC
Observation of Practice Evidence

- Less objectively quantifiable, but nevertheless important
- Especially appropriate in terms of procedure and workflow
- Might include
  - walkthroughs
  - testing and measurement of characteristics of objects after preservation action
  - deposit and assessment of test objects (perhaps incrementally over several audits)
Where are we?

- Evidence will play a crucial role: an agreed base is necessary for consistency and replication
- Will also assist new repository development
- Require evidence base and metrics for evaluating it
- Downside: highlights cost of process
- Need to better understand how to combine, collect, and use evidence
- Need to conduct more audits
Other Outstanding Issues

• In what circumstances can quantitative metrics be established for assessing whether individual criteria have been adequately satisfied?

• How might the qualitative merits of evidence be assessed consistently by different auditors?

• What document procurement powers should be conferred to auditors?

• Will the loss of transparency arising from use of non-disclosure agreements and the lack of detail about how auditors reach their trustworthiness decisions impact on public acceptance of the audit outcome?
Issues to consider

- Process of Audit is effected by the culture of the organisation being audited. All three here different.
- Self-assessment good starting point, but must not be taken at face value
- Likely variation in audit process needs to be recognised reflecting organisation culture and context
- What evidence does your organisation have in place to support audits?