Is it all Web 2.0?
Cultural heritage in a digital world

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Cultural heritage is increasingly digital heritage. To what extent are the lessons learned from archival and preservation practice as applied to traditional (non-digital) cultural heritage transferable to digital cultural heritage? This presentation notes some of the similarities and differences, and attempts to indicate where the major challenges ahead lie in digital preservation.
‘Cultural heritage is increasingly digital heritage’: output of digitizing programs

A New and Wonderful Invention: The 19th-Century American Trade Cards
http://nrs.harvard.edu/urn-3:hul.eresource:tradecds
‘Cultural heritage is increasingly digital heritage’: output of digitizing programs

‘Cultural heritage is increasingly digital heritage’: born digital materials

Construction of QV2, Melbourne, Australia, 2003–2005
‘Cultural heritage is increasingly digital heritage’: born digital materials

INDIGENOUS DIGITAL COLLECTIONS: AN EARLY LOOK AT THE ORGANISATION AND CULTURE INTERFACE

Martin Nakata, Vicky Nakata, Gabrielle Gardiner, Jill McKeough, Alex Byrne and Jason Gibson

This article identifies and provides some commentary on the key issues emerging from research into the digitisation of Indigenous materials in collections conducted in collaboration with three state libraries. It situates the research project within the broader context of related activity aimed at addressing the ongoing challenges of access, preservation and protection pertaining to Indigenous materials in libraries. It examines some of the practical issues that institutions have to engage with to respond to Indigenous needs and interests in the digitisation process. Some suggestions
Can archival & preservation practice be transferred to digital cultural heritage?

“Not much [about digital preservation] that deviates from standard practice in archives, libraries and museums. It’s all about mission” (Amy Friedlander)

- Similarities?
- Differences?
- How much of ‘traditional’ practice can be transferred?
- What new things do we need to learn?
The major challenges in digital preservation

- Physical threats
  - Media instability
- Technology threats
  - Changing technology platforms, software
  - Proprietary software
- Other (non-technological) threats
  - Funding is insufficient
  - Lack of standards
  - Ease of alteration threatens integrity
- Not possible to place digital objects on shelf and leave 100+ years
More major challenges in digital preservation

- Disasters e.g. virus or direct
- Access barriers e.g. password protection, encryption
- Inadequate skills
- Funding is not sustained over time
- Can’t negotiate legal permissions needed for preservation
- Digital materials may be poorly identified and described
- Too little contextual information
Digital preservation is more than technology

- Increasing realization that technical issues are
  - Relatively easy to deal with
  - Only a small part of the overall picture
- We also need to consider:
  - How to create ‘preservation-friendly’ data
  - How to ensure that data is unchanged over time
  - The end user: what might they want?
  - ‘New’ kinds of data – not just ‘static’ (e.g. digitized documents)
What ‘traditional’ practice works?

http://www.interpares.org/
Maintaining authenticity, reliability, integrity & usability of digital information over time

- **Authenticity**
  - To be what it purports to be
  - To have been created or sent by the person purported to have created or sent it
  - To have been created or sent at the time purported

- **Reliability** – Contents can be trusted as a full and accurate representation of the transactions, activities or facts to which they attest

- **Integrity** – Being complete and unaltered

- **Usability** – Can be located, retrieved, presented and interpreted, so retrievable, readable, interpretable

- Importance of metadata for digital preservation to demonstrate authenticity
What ‘traditional’ practice works? – examples

- Concepts that transfer:

  1. *Create preservation-friendly materials*
     PERMANENT PAPER cf
     OPEN-SOURCE STANDARD FILE FORMATS

  2. *Keep the original*
     KEEP NEWSPAPER AFTER DIGITIZING cf
     KEEP ORIGINAL BITSTREAM AFTER NORMALIZING and MIGRATING
What ‘traditional’ practice works? – examples

- Concepts that transfer:

3. *All copying introduces change – checking, validation of copies required*

MICROFILM COPY cf MIGRATED DIGITAL FILE

**ETC:** ideas from this conference, to be worked on further, include common notions of

- interoperability/collaboration
- documentation/metadata (the more the better)
- multiple copies/redundancy
- necessity of appraisal/selection
- The format matters (the more complex or large, the more problems we have)
What ‘traditional’ practice doesn’t work?

McGovern, Nancy (2007) ‘A Digital Decade: Where Have We Been and Where Are We Going in Digital Preservation?’ *RLG DigiNews* v11 no1

The organizational leg (the “what”) and the technological leg (the “how”) of the digital preservation stool need to be coordinated to develop compliant and feasible digital preservation strategies.
How effective are we at digital preservation?

Technology
– Well understood
– Digital archives are being established

Resources
– Insufficient money
– Skills shortages
– Funding not guaranteed over time

Organization
– Starting to understand requirements, e.g.
  Trusted Digital Repositories
How effective are we at digital preservation?

Some successes
- Collaboration eg EU projects, NDIIPP
- Standards being developed & applied, eg OAIS, METS

Almost there
- Tools, toolkits
- TDRs & evaluation/audit procedures

Considerable room for improvement:
- Resourcing on an ongoing basis
- More people with appropriate skills (what skills are required?)
The DCC Curation Lifecycle Model

CONCEPTUALISE

DISPOSE

CURATE

CREATE OR RECEIVE

TRANSFORM

APPRaise & SELECT

INGEST

STORE

ACCESS, USE & REUSE

MIGRATE

PRESERVATION ACTION

PRESERVE

COMMUNITY WATCH & PARTICIPATION

REPRESENTATION INFORMATION

DESCRIPTION

Data (Digital Objects or Databases)

PRESERVATION PLANNING
The curation lifecycle

- Developed by Digital Curation Centre (UK)
- DCC’s brief definition of digital curation:
  Digital curation, broadly interpreted, is about maintaining and adding value to a trusted body of digital information for current and future use
<table>
<thead>
<tr>
<th>CURATION LIFECYCLE</th>
<th>‘TRADITIONAL’ RESPONSES – NEA FALL ‘08 MEETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Watch &amp; Participation</td>
<td>Collaboration – Wilczek</td>
</tr>
<tr>
<td></td>
<td>Outreach – Caldera</td>
</tr>
<tr>
<td>Description &amp; Representation Information</td>
<td>Metadata – Wolfe</td>
</tr>
<tr>
<td>Preservation Planning</td>
<td>Funding – Quezeda, Friedlander</td>
</tr>
<tr>
<td></td>
<td>Planning – Heywood</td>
</tr>
<tr>
<td>Create or Receive</td>
<td>Digitization – Kolovos</td>
</tr>
<tr>
<td></td>
<td>Formats – Blake</td>
</tr>
<tr>
<td>Appraise and Select</td>
<td>Copyright – Dulong de Rosnay</td>
</tr>
<tr>
<td>Ingest</td>
<td></td>
</tr>
<tr>
<td>Preservation Action</td>
<td>Reformatting – Peterson</td>
</tr>
<tr>
<td>Store</td>
<td>Disaster response – Wolf, Glazebrook</td>
</tr>
<tr>
<td></td>
<td>Environmental control – Kerschner, Mahard</td>
</tr>
<tr>
<td></td>
<td>Security – Trinkaus–Randall</td>
</tr>
<tr>
<td>Access, Use &amp; Reuse</td>
<td></td>
</tr>
</tbody>
</table>
What ‘traditional’ practice doesn’t work?

Three-legged stool:
- Funding
- Skills
- Automated tools, toolkits

Curation lifecycle:
- Access, Use & Reuse
- Funding
- Skills
- Complex digital objects
Trends 2007 (European and international)

- **Ongoing strong interest**
  - ‘Community’: collaboration, coordination
  - Dissemination
  - Testing and evaluation
  - Toolkit development

- **New interests**
  - Standards
  - Public policy development and promotion
  - Skills identification and development
  - Links with ICT industry

- Recognition of relevance of archives theory & practice to digital preservation (eg InterPARES)
The questions answered?

Is traditional practice transferable to digital cultural heritage?

- Some is: e.g. archival theory, metadata
- Some isn’t: e.g. artifact-oriented practice

Major challenges in digital preservation

- Ongoing funding
- Skilled personnel
- Automated toolkits
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