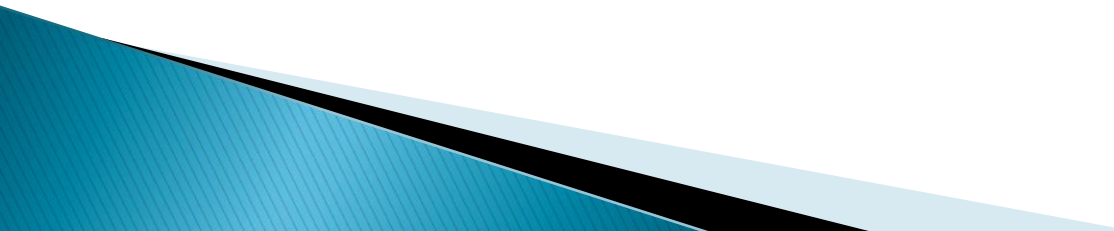


Is it all Web 2.0? Cultural heritage in a digital world

Ross Harvey
GSLIS, Simmons College
November 15, 2008

Is it all Web 2.0?

- ▶ 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:tradedcs>

'Cultural heritage is increasingly digital heritage': output of digitizing programs

Greene, H. Diary, 1886-1887. Schlesinger Library, Radcliffe Institute. Call No.: A/G7995. National Archives of Australia


NOVEMBER, TUESDAY I. 1887.

Up early, though Spinn was already up & reading in Mrs Woods bible.

About nine o'clock they started, we were all cheerful, Ethel & I are keeping house & run at two o'clock she is asleep & the very quietness appears like death after having a family of thirteen so long. Marts has

returned, they left about one o'clock for Sincin Paints for Alex 10 cts.

D 27700

AUSTRALIAN  MILITARY FORCES.

AUSTRALIAN IMPERIAL FORCE.

Attestation Paper of Persons Enlisted for Service Abroad.

No. 2186 Name Frank Harvey
Unit 4th Rein 26th Batt
Joined on June 18th 1915

4th. Rein's.
20th. Battalion.

Questions to be put to the Person Enlisting before Attestation.

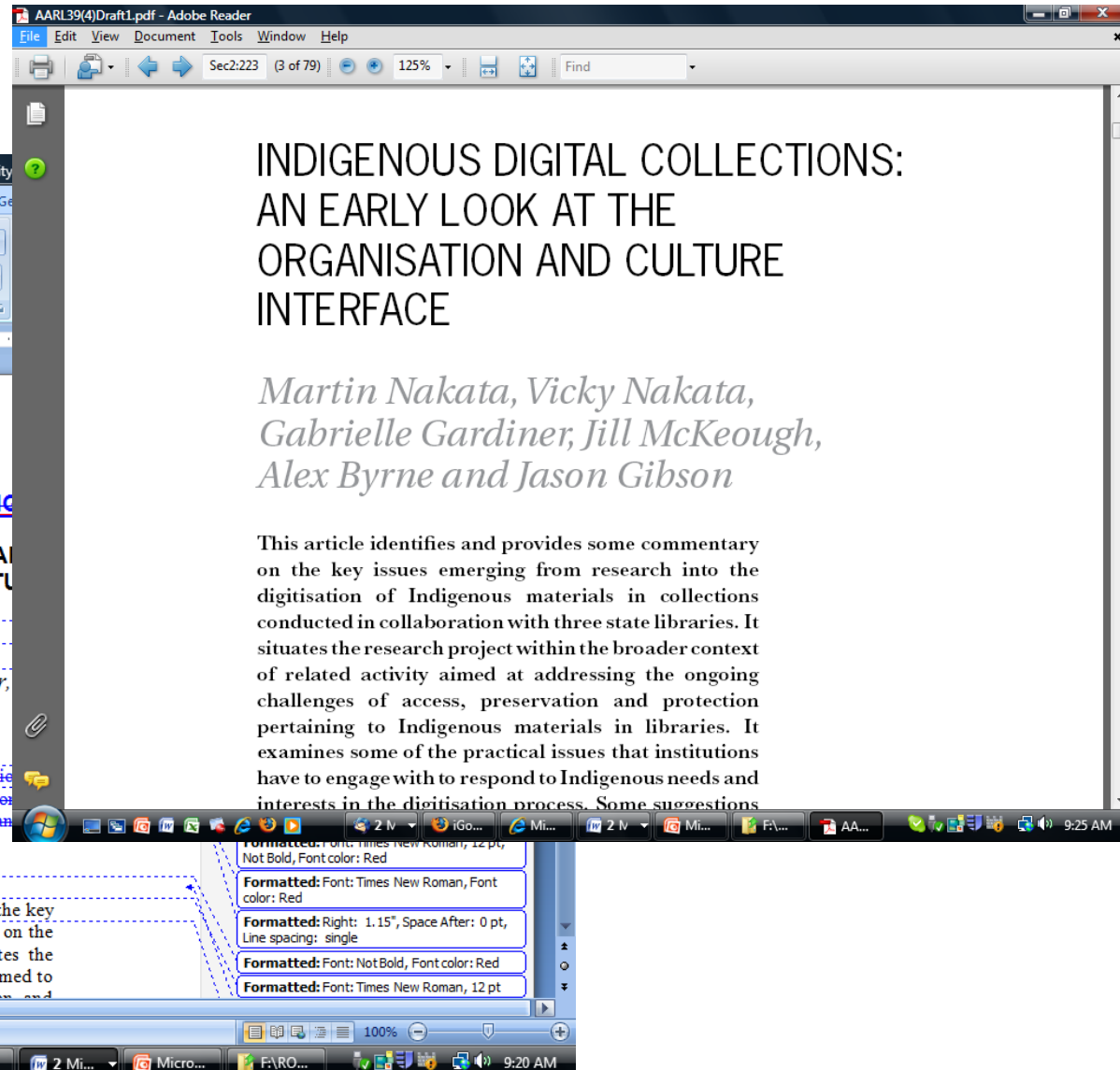
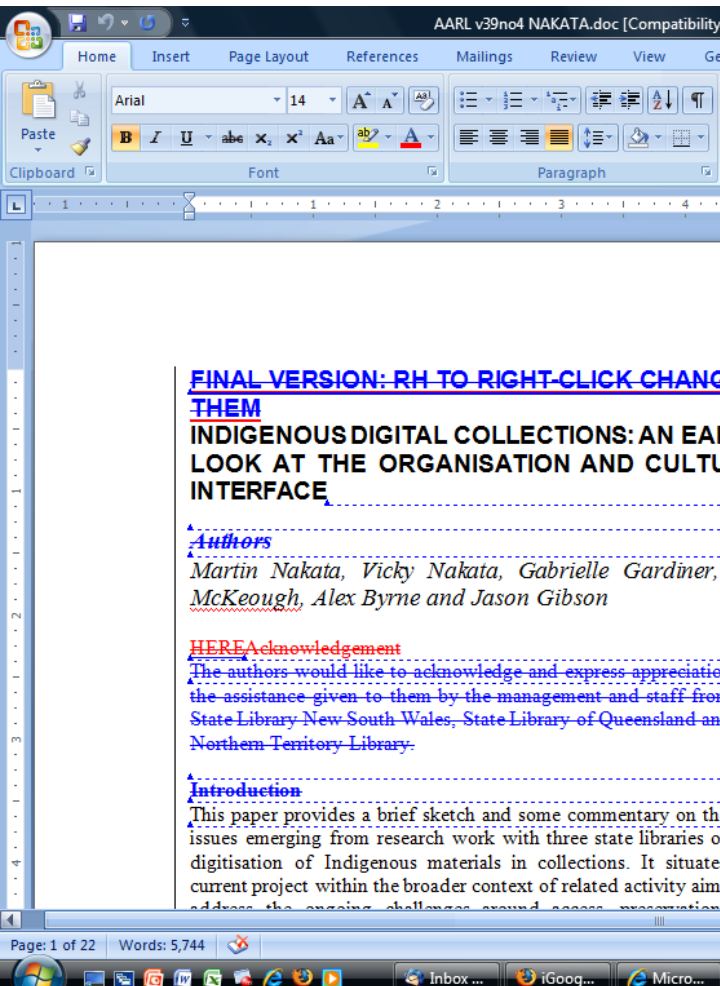
1. What is your Name?	1. <u>Harvey, Frank.</u>
2. In or near what Parish or Town were you born?	2. In the Parish of _____ in or near the Town of <u>Lismore</u> in the County of <u>N. S. Wales</u>
3. Are you a natural born British Subject or a Naturalized British Subject? (N.B.—If the latter, papers to be shown.)	3. <u>Yes.</u>
4. What is your age?	4. <u>20 years.</u>
5. What is your trade or calling?	5. <u>Stockman</u>
6. Are you, or have you been, an Apprentice? If so, where, to whom, and for what period?	6. <u>No</u>
7. Are you married?	7. <u>No</u>
8. Who is your next of kin? (Address to be stated)	8. <u>Father: of affid John Harvey, N. S. Wales</u>
9. Have you ever been convicted by the Civil Power?	9. <u>No</u>
10. Have you ever been discharged from any part of His Majesty's Forces, with Ignominy, or as Incurable and Worthless, or on account of Conviction of Felony, or of a Sentence of Penal Servitude, or have you been dismissed with Disgrace from the Navy?	10. <u>No</u>
11. Do you now belong to, or have you ever served in, His Majesty's Army, the Marines, the Militia, the Militia Reserve, the Territorial Force, Royal Navy, or Colonial Forces? If so, state which, and if not now serving, state cause of discharge	11. <u>No</u>
12. Have you stated the whole, if any, of your previous service?	12. <u>Yes.</u>
13. Have you ever been rejected as unfit for His Majesty's	

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

Construction of QV2, Melbourne,
Australia, 2003–2005

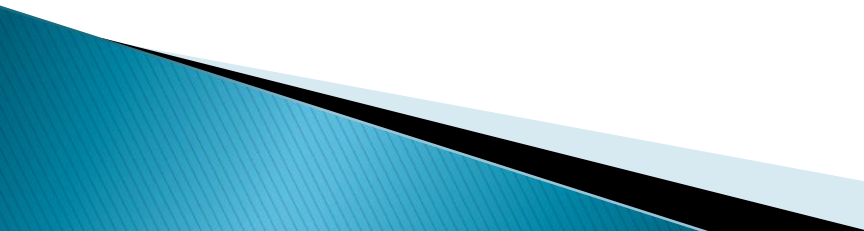


'Cultural heritage is increasingly digital heritage': born digital materials



Can archival & preservation practice be transferred to digital cultural heritage?

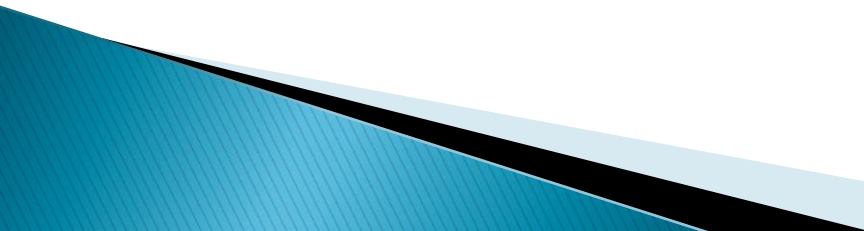
“Not much [about digital preservation] that deviates from standard practice in archives, libraries and museums. It’s all about mission” (Amy Friedlander)

- ▶ 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
- 

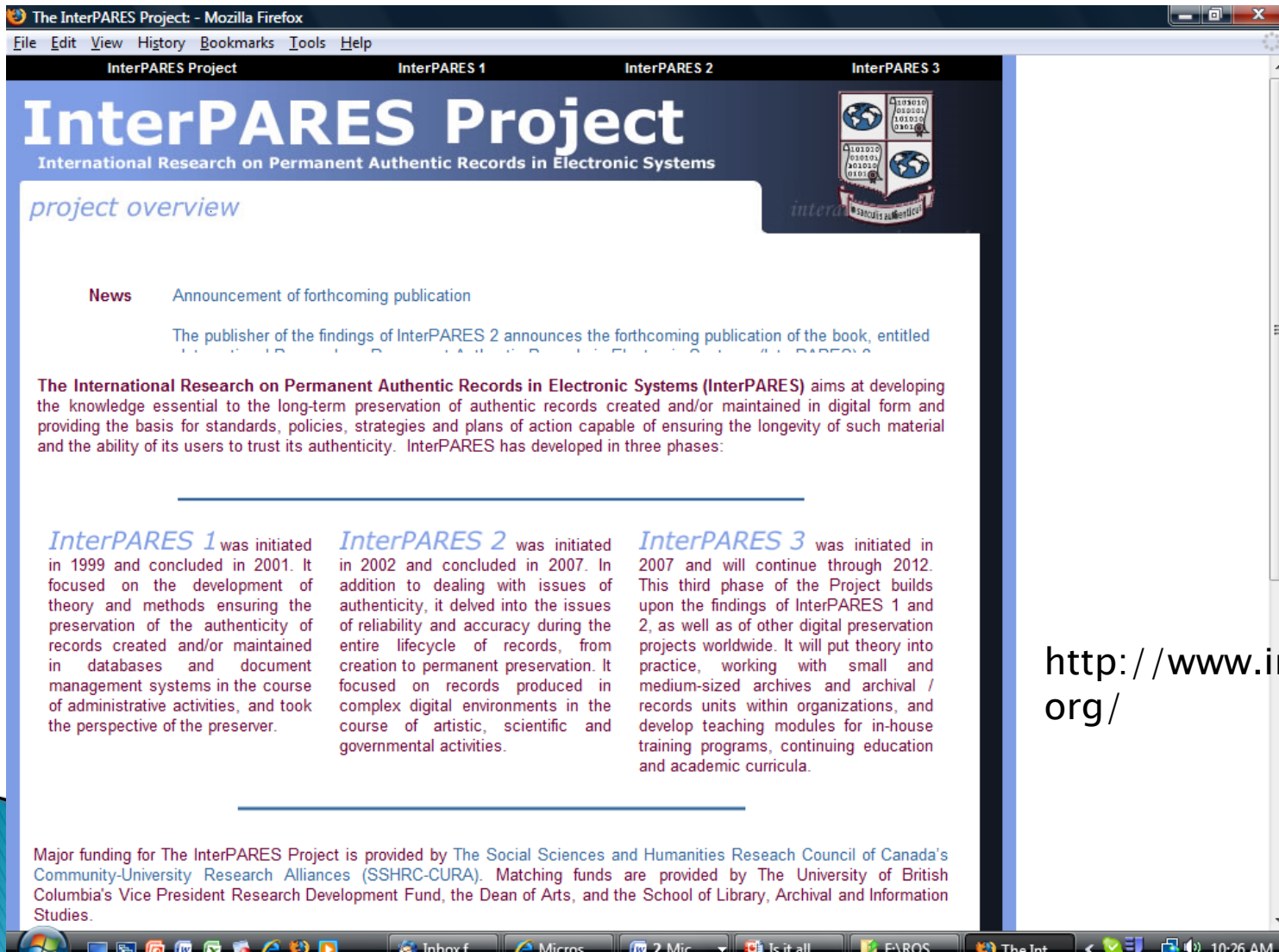
More major challenges in digital preservation

- ▶ Disasters eg 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?



The InterPARES Project: - Mozilla Firefox

File Edit View History Bookmarks Tools Help

InterPARES Project InterPARES 1 InterPARES 2 InterPARES 3

InterPARES Project

International Research on Permanent Authentic Records in Electronic Systems

project overview

News Announcement of forthcoming publication

The publisher of the findings of InterPARES 2 announces the forthcoming publication of the book, entitled *The International Research on Permanent Authentic Records in Electronic Systems (InterPARES)*.

The International Research on Permanent Authentic Records in Electronic Systems (InterPARES) aims at developing the knowledge essential to the long-term preservation of authentic records created and/or maintained in digital form and providing the basis for standards, policies, strategies and plans of action capable of ensuring the longevity of such material and the ability of its users to trust its authenticity. InterPARES has developed in three phases:

InterPARES 1 was initiated in 1999 and concluded in 2001. It focused on the development of theory and methods ensuring the preservation of the authenticity of records created and/or maintained in databases and document management systems in the course of administrative activities, and took the perspective of the preserver.

InterPARES 2 was initiated in 2002 and concluded in 2007. In addition to dealing with issues of authenticity, it delved into the issues of reliability and accuracy during the entire lifecycle of records, from creation to permanent preservation. It focused on records produced in complex digital environments in the course of artistic, scientific and governmental activities.

InterPARES 3 was initiated in 2007 and will continue through 2012. This third phase of the Project builds upon the findings of InterPARES 1 and 2, as well as of other digital preservation projects worldwide. It will put theory into practice, working with small and medium-sized archives and archival / records units within organizations, and develop teaching modules for in-house training programs, continuing education and academic curricula.

Major funding for The InterPARES Project is provided by The Social Sciences and Humanities Research Council of Canada's Community-University Research Alliances (SSHRC-CURA). Matching funds are provided by The University of British Columbia's Vice President Research Development Fund, the Dean of Arts, and the School of Library, Archival and Information Studies.

<http://www.inter pares.org/>

InterPARES

- ▶ 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

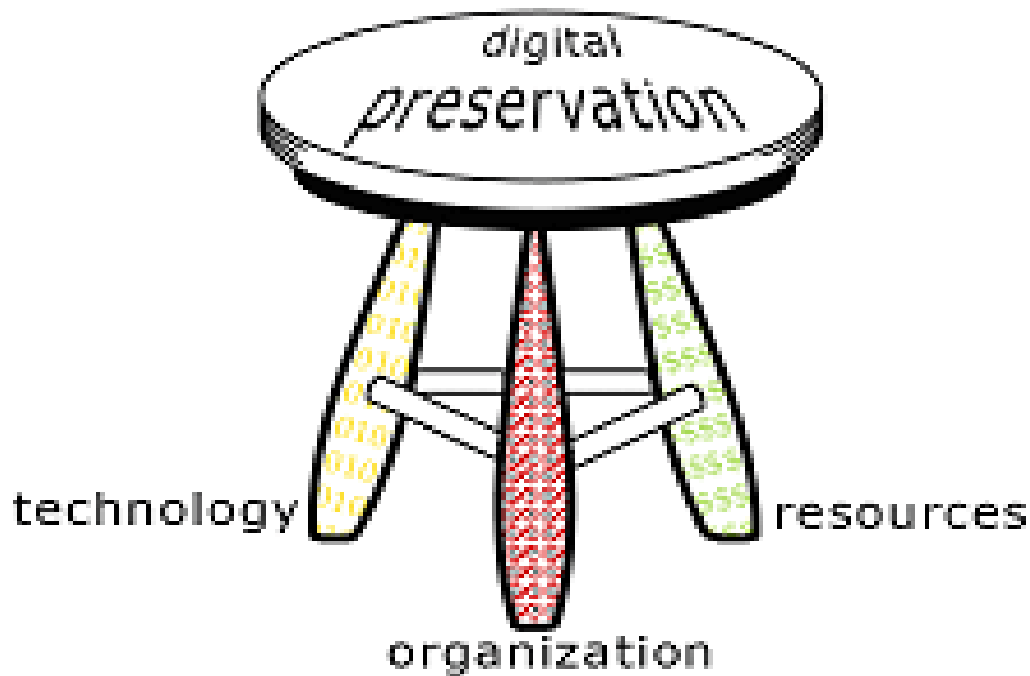
MIGRATED DIGITAL FILE

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

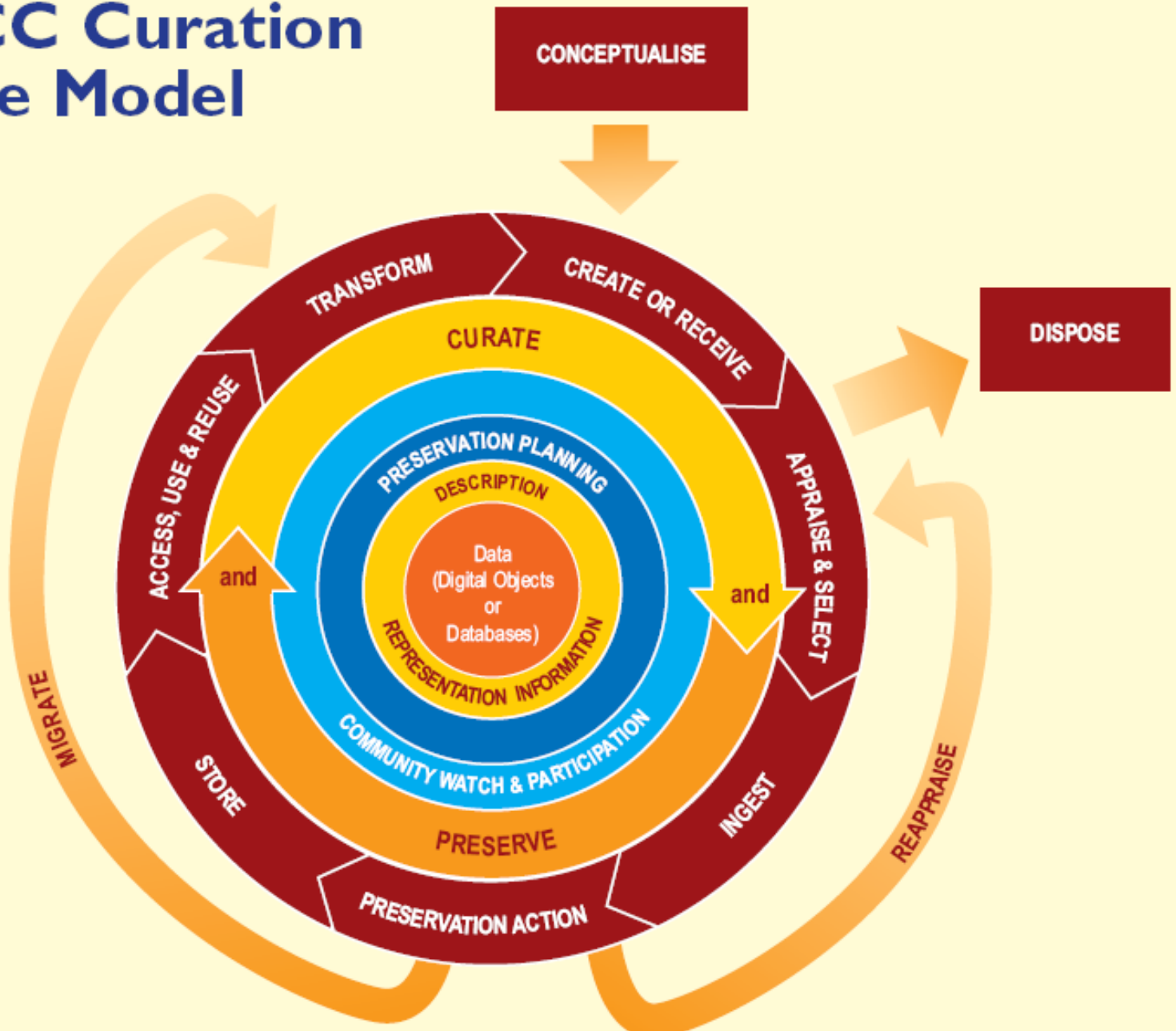
- Tools, toolkits
- TDRs & evaluation/audit procedures

Considerable room for improvement:

- Resourcing on an ongoing basis
- More people with appropriate skills (what skills are required?)

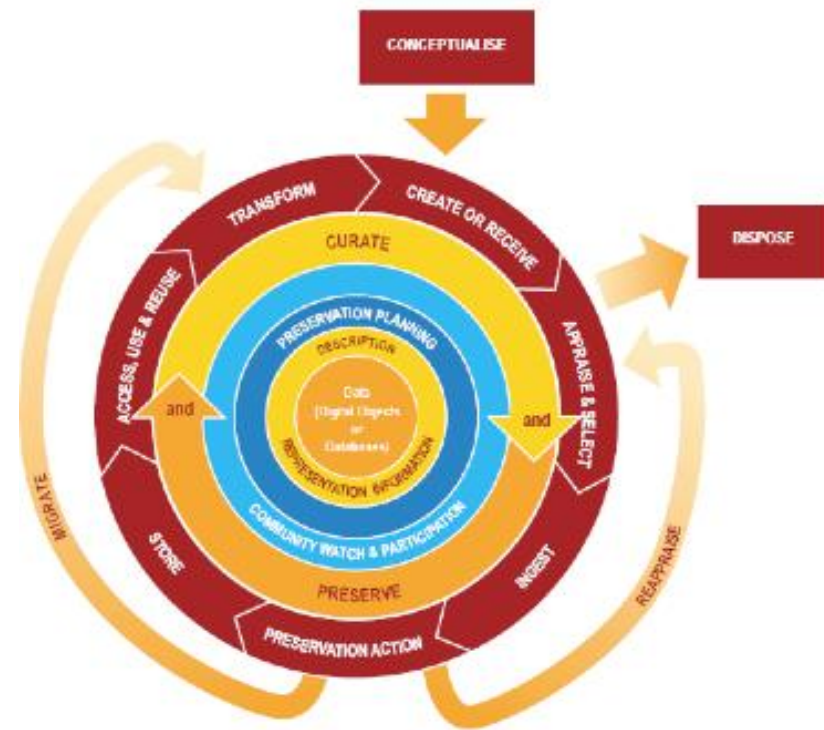


The DCC Curation Lifecycle Model



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**



CURATION LIFECYCLE	'TRADITIONAL' RESPONSES – NEA FALL '08 MEETING
Community Watch & Participation	Collaboration – Wilczek Outreach – Caldera
Description & Representation Information	Metadata – Wolfe
Preservation Planning	Funding – Quezada, Friedlander Planning – Heywood
Create or Receive	Digitization – Kolovos Formats – Blake
Appraise and Select	Copyright – Dulong de Rosnay
Ingest	
Preservation Action	Reformatting – Peterson
Store	Disaster response – Wolf, Glazebrook Environmental control – Kerschner, Mahard Security – Trinkaus–Randall
Access, Use & Reuse	

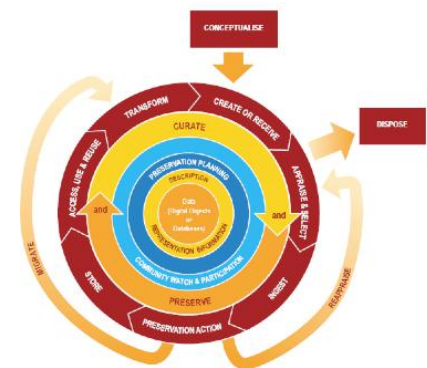
What 'traditional' practice doesn't work?

▶ Three-legged stool:

- Funding
- Skills
- Automated tools, toolkits

▶ Curation lifecycle:

- Access, Use & Reuse
- Funding
- Skills
- Complex digital objects



Trends 2007 (European and international)

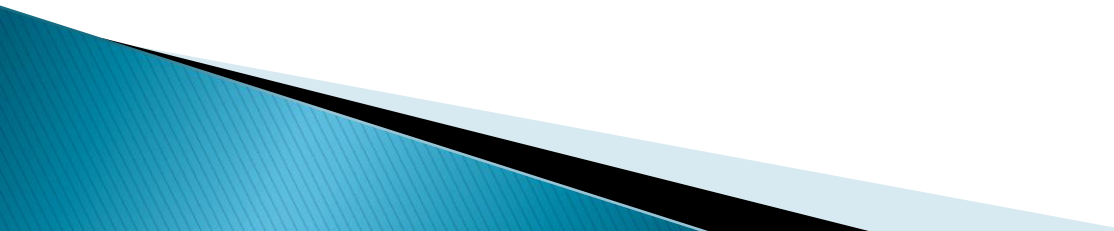
- **Ongoing strong interest**
 - ‘Community’: collaboration, coordination
 - Dissemination
 - Testing and evaluation
 - Toolkit development
- **New interests**
 - Standards
 - Public policy development and promotion
 - Skills identification and development
 - Links with ICT industry
- Recognition of 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
- 

Speaker contact information

Graduate School of Library and Information
Science, Simmons College

Email: ross.harvey@simmons.edu