The Digital Future of Cultural Heritage

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“Digital documents last forever – or five years, whichever comes first.”

--Jeff Rothenberg
“History is an unending dialogue between the present and the past.

--Edward H. Carr
Culture – Cultural heritage

**Culture:** Everything that we as human beings produce

**Cultural heritage:** Intellectual and artistic works, objects, structures, performances, buildings, performances, etc.
Internet Technologies: 2nd Gutenberg Revolution, J. MacKie-Mason

Source: https://www.youtube.com/watch?v=qgJ6vl2lHjQ
An Organizing System is a collection of resources arranged in ways that enable people or computational agents to interact with them.
What can we organize?

1. Resources / objects themselves

2. Metadata or surrogates of physical resources/objects

3. Digital metadata or surrogates of digital resources/objects (bits)
## Data standards
*(By memory institutions)*

<table>
<thead>
<tr>
<th>Data Structure</th>
<th>Museum</th>
<th>Library</th>
<th>Archive</th>
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<td>CDWA</td>
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<td>VRA</td>
<td>BIBFRAME</td>
<td>AMS EAD</td>
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<td>Core</td>
<td>DC</td>
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<td>Data Content</td>
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<td>AACR2, RDA ISBD, LCSH, NAF, VIAF</td>
<td>DACS</td>
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<td>XML</td>
<td>MODS, METS</td>
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Source: Adapted from Elings ve Waibel, 2007 & Baca, 2016
Resource discovery

• Each library/archive/museum catalog had to be searched individually in the past
• Now through Google..
• The source is used if available on the Web
• If not, library catalogs are searched
• Or. . . Are they?

“If it is not online, it doesn’t exist”
“If it is not mobile, it doesn’t exist”
Fig. 1. Traditional Preservation Versus Digital Preservation

Digital content requires active management throughout its entire period of use.

Traditional Preservation

- creation
- distribution
- library/archives collection
- preservation action
- long-term access

Digital Preservation

- creation
- distribution
- library/archives collection
- preservation action
- preservation action
- preservation action
- long-term access

Dynamic and smart digital objects

- Web sites, blogs, wikis, virtual worlds, video games, digital art exhibitions, digital archeological sites, etc.
- Complex preservation methods required

(Lynch, 2002, European Commission s. 19)
Preservation approaches

• Preservation of resources / objects
• Preservation of the “behaviors” of resources / objects

Digital preservation strategies

- Life of digital objects is too short
- Digital preservation is based on copying
- Migration
- Museum
- Emulation
- Re-enactment

Why is Digital Cultural Heritage Management is Difficult?

- Technological obsolescence
- Content diversity
- Immersive experiences
- Number and types of stakeholders
- Basic legal concepts are interpreted differently
- . . .

Source: The digital dilemma, 2000
The way forward: What can memory institutions do?

• Public support
• Access – Preservation relationship
• Cultural heritage management infrastructure (technical mechanisms and standards)
• Distributed preservation strategies
• Sustainability and funding models
“Bad libraries build collections; good libraries build services (after all a collection is only one type of service); great libraries build communities.”

--R. David Lankes
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