

Towards Content Management Software Tools and Infrastructure for the Computer History Museum — Repository

SCC Meeting 27th April 2005

H.M. Gladney

Candidate Repository SW

DSpace

Greenstone

Fedora

IBM Cloudscape

IBM DB2 Content Manager Express

~60 additional offerings

Web service SW is separate, w/interfaces

Uwe M. Borghoff u. Mitarbeiter. [Vergleich bestehender Archivierungssysteme](#), Nestor Kompetenznetzwerk Langzeitarchivierung, 2005.

Digital Infrastructure: Problem or Opportunity?

“Experts are both in awe and in frustration about the state of the internet. They celebrate search technology, peer-to-peer networks, and blogs; they bemoan institutions that have been slow to change. ... The experts are startled that educational institutions have changed so little, ...”

Fox et al.

"... digital is not generally viewed as a suitable long-term preservation archival surrogate for print. ... As a preservation medium, [it is seen] as unstable, experimental, immature, unproven ... and unreliable in the long-term."

Anonymous British Library spokesperson

“The weakness of NSF strategies and policies governing long-lived data collections ... [has] the National Science Board ... concerned about the current situation.”

Draft NSB Report, 30th March 2005

Fox, Susannah. Anderson, Janna Quitney. Ranie, Lee. [The Future of the Internet](#), Pew Internet and American Life Project, January 2005.

Anonymous from the British Library, [Digital versus print as a preservation format – expert views from international comparator libraries](#), 2005.

NSB, *Long-Lived Digital Data Collections: Enabling Research and Education in the 21st Century*, draft report, March 2005.

An Analogy

Choosing infrastructure for digital holdings is like choosing a building for physical artifacts

Significant consequences for future expenditures

Affecting public perception of the institution

Any structural weaknesses likely to be hidden until they become problems

Many people think they know how to choose and manage a building

Few are comfortable with choosing or managing software

But the considerations and process are similar

Focus and Future Topics

Start with infrastructure requirements analysis

For the moment, limited scope—repository

Topics excluded today are:

- Tools for curators to prepare visual tours

- Tools for staff to help organize its thinking

- File formats and metadata

- Long-term preservation of digital content

Will be discussed in other presentations

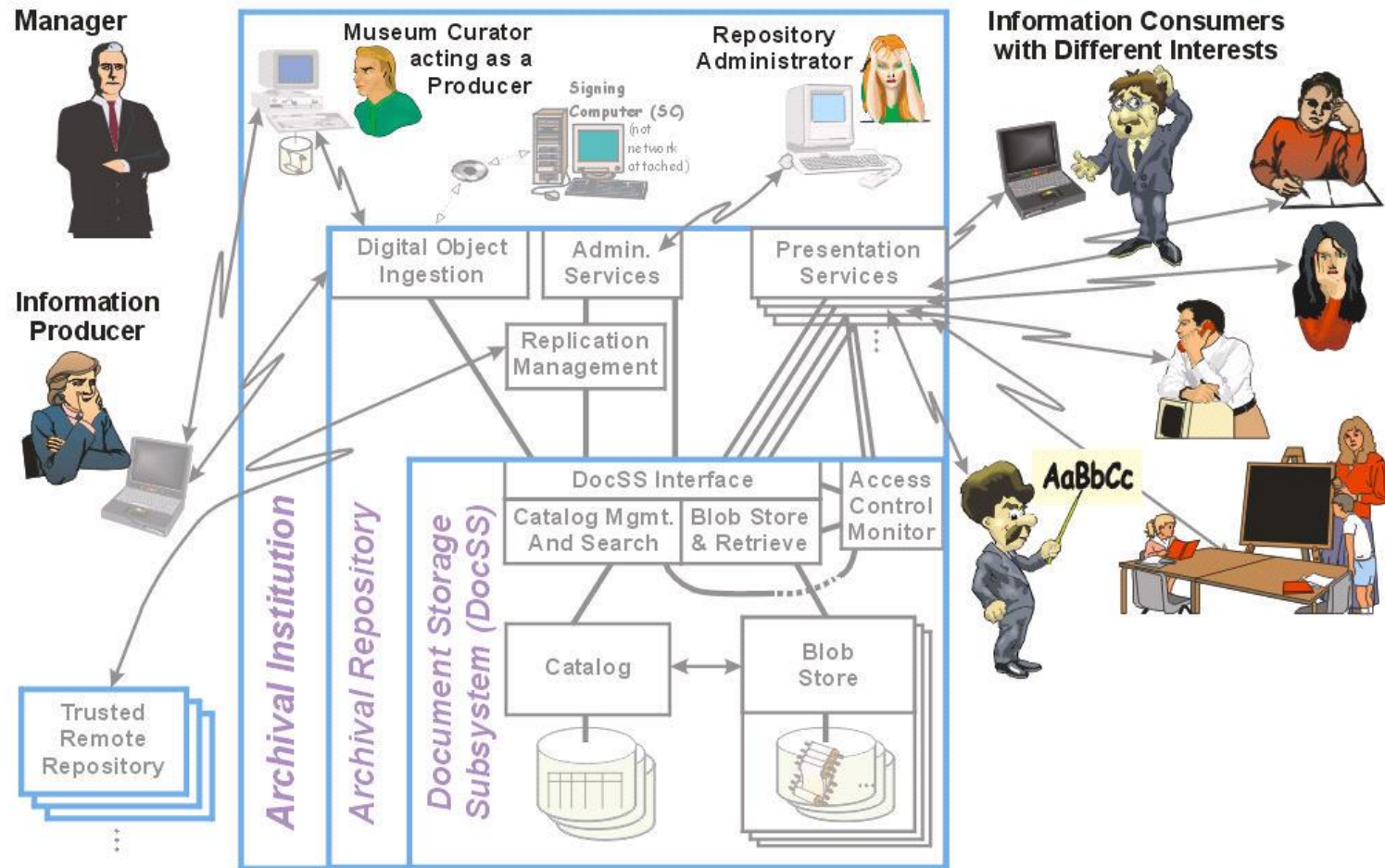
Capturing, Storing, and Protecting a Cyber-Museum Collection

- To most people, perhaps a tedious topic
- Noticed mostly when shortfalls encountered

Want an affordable content management base

- Pleasing to all kinds of user
- For all forms of digital information
- For all CHM needs (no islands of automation)
- With security against all sorts of mischief
- Maintaining integrity of digital object links
- For the long term

Different Behaviors for Different Human Roles & Varied Applications



[Johnson, Tana. Mitroff, Dana. Samis, Peter. Of Ansel and Atomz: Surfacing Deep Content On-line and On-Site at SFMOMA](#), Archimuse Conference, April 2005.

Focal Topics at the Moment

Durable infrastructure reliability

Durable content integrity and security

Ready information interchange (in & out)

Reasonable overall cost

- Generic user roles and classes of holding

- Semi-automatic (rule-based) administration

- Minimal opportunity for human error

Exploiting software components from many sources (now and in future years)

Suggested Plan and Schedule

Write & review requirements analysis

Install, use **Greenstone**

Practical tool for ~2 years

To learn by trying “hands on”

“As is”, even w/functional shortfalls

Only by CHM staff and volunteers

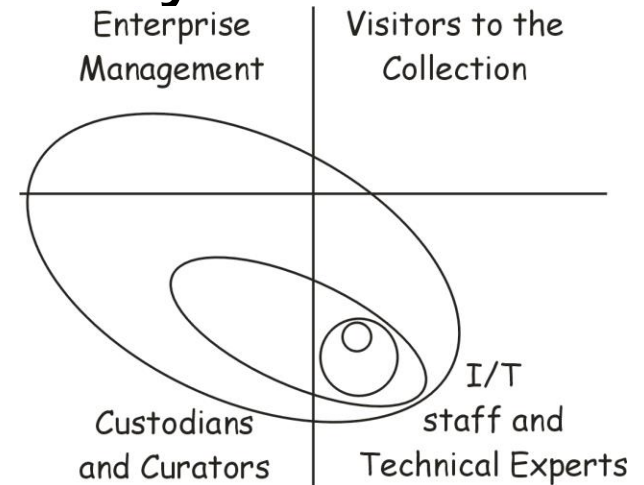
Choose durable SW base for long-term

Choice ~1 year from now

Adapt, test for ~1 year, then phased deployment

Minimal call on CHM staff time

Frequent interaction with Collections and I/T staffs



Requirements Analysis Status

Version 0.1 draft almost ready (~60 pages)

First reviewers: M. Walton & G. Wiederhold

Later reviewers in gradually larger sets

Greenstone on home machines for hands-on experience

Changes wanted to this plan?