Oxford DAMS – Design for Longevity

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DAMS Design Principles

• The Theory...
  – Content centred design
  – Layered component architecture
  – Generics over specifics
  – Capability focus

• Hindsight is a wonderful thing...
Content Centred Design

• “Librarian's View”
  – People change
    • Requirements & processes change
  – Buildings/containers change
    • Only the content persists
• User requirements/process modelling can only take us so far
  – End up as limitations
Layered Component Architecture (1)

- Systems and standards change rapidly
- “Big bang” implementations are a bad fit
  - Infrequent, inflexible, failure-prone
- Loosely coupled components
  - Web services model (REST > SOAP)
- Any component can be replaced
  - Design/select with a view to replacement
- Few, simple, well-defined API's
Layered Component Architecture (2)

- Storage
  - Honeycomb
  - Thumper
  - ZFS
  - HFS

- Object Management
  - Fedora
  - Fedora
  - Fedora
  - Fedora

- Tools & Services
  - Search
  - Reporting
  - Scheduling
  - Job Mgt
  - Virus Scan
  - Text Extract

- Applications
  - ORA
  - Digitised Books
  - Ingest
Generics over Specifics

• Identify generic operations in applications
  – Push into the tools layer
  – Simplifies future application development
  – Replacement can upgrade all applications
• A generic capability is much less likely to become obsolete than a specific one
  – Protects investment in development
Capability Focus

- Every design decision should be reviewed...
  - What does it allow us to do?
  - What might it prevent us from doing that we will really regret later?
- Scalability will always be an issue
- Short focussed workflows
  - Decouple actions as much as possible
  - Avoid packaging – metadata changes!
DAMS Architecture

• The practice...

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