Research repository models: Can one size fit all?

Ann Morgan
Mark Baldock
University of South Australia Library

• The Library’s role
• Repositories developed by the Library
• Future of research repositories at UniSA
The Library’s Role

- Provides access to materials used in research
- Research workshops
- Regularly deal with Research outputs and repositories
- Excellence in Research for Australia (ERA) initiative

Repositories Developed by UniSA Library

- Archival repository for the Hawke Library (2009)
- Archival repository for the Architecture Museum (ANDS funded project) (2010 – 2011)
- Repository for SA.NT DataLink (2011)
- Public Health Research Data Management System (2012)
Bob Hawke Prime Ministerial Library – Overview

www.library.unisa.edu.au/bhpml

Bob Hawke Prime Ministerial Library - Solution

• Build a centralised Metadata Repository to describe and control the entire archival collection

• ISO standards for Metadata and Archival description

• Provide access to digitised items
Bob Hawke Prime Ministerial Library Repository - Model

- **Provenance / Collection**
  metadata describing a collection
e.g. Bob Hawke Collection

- **Series**
  metadata describing a group of records on a similar theme
e.g. Election campaign records and congratulatory messages

- **Folder**
  metadata describing items in a folder
e.g. 1987 Election material

- **Item**
  metadata describing an individual item
e.g. A message from Bob Hawke leaflet (include digitised file)

Bob Hawke Prime Ministerial Library Repository - Technology

- **Application architecture:**
  - Public interface
    - The Fascinator
  - Staff digital object management
    - Microsoft ASP.NET application (C#)
    - Temporary Microsoft Access database
  - Storage
    - RedBox / Fedora

- **Inputs/Outputs:**
  - Staff manually enter metadata via web based forms, validating data and storing data in the database.
  - Public users search and view metadata and digital objects online.
Bob Hawke Prime Ministerial Library Repository – Management Module

Metadata entry for a Provenance Record

Bob Hawke Prime Ministerial Library Repository – Public Interface

Public user interface to the repository

www.archivaldatabase.library.unisa.edu.au
Bob Hawke Prime Ministerial Library Repository – Outcomes

- Repository to save metadata and provide access to the public
- 5,500+ records
- Digitised items are available online
- Records will be harvested to Trove in future

Issues:
Limited use of The Fascinator software as it was still in development

UniSA Architecture Museum - Overview

www.unisa.edu.au/artarchitecturedesign/architecturemuseum
Architecture Museum - Solution

This project was supported by the Australian National Data Service (ANDS)

ANDS is supported by the Australian Government through the National Collaborative Research Infrastructure Strategy Program and the Education Investment Fund (EIF) Super Science Initiative

Australian Government
Department of Innovation, Industry, Science and Research

Architecture Museum Repository - Model

Hawke Library Repository model

Architecture Museum Repository Model
Architecture Museum Repository - Technology

- Microsoft Windows Server
- Internet Information Services (IIS)
- Microsoft SQL Server 2008 R2
- Microsoft ASP.NET (C#)
- OAI-PMH harvester triggers the metadata to be transformed from the database into an appropriate XML format

- See sourceforge.net/projects/metatecture/

Architecture Museum Repository – Editing Metadata
Architecture Museum Repository – Public Interface

www.metatecture.unisa.edu.au/public

Architecture Museum Repository - Outcomes

• Collaboration with Ian Wark Research Institute and University of Adelaide Library staff
• October 2010: First set of records from South Australia
• 150 collection and party records harvested to RDA
• Public user interface: www.metatecture.unisa.edu.au/public/
• Reporting functionality and Finding Aid generation
SA.NT DataLink - Overview

SA.NT DataLink provides a high quality data linkage service to support research, policy development, service planning and evaluation.

We are government bodies that we should have access to the most accurate and unbiased information to make well informed policy decisions and easier, and data linkage is an important contribution to that. The quality of the database is evident. As a result, it is more inclusive, representative, and unbiased, but also much more cost effective and efficient than conventional studies based on surveys.”

Minister HR, SA Minister for health at the SA NT DataLink launch November 2009

The collaboration between the Northern Territory and South Australia provides a foundation for

www.santdatalink.org.au

SA.NT DataLink – Solution

- Repository to store Metadata describing collections (datasets), parties (people, groups or institutions) and activities (applications for linked datasets)

- Agile Project Management Methodology
SA.NT DataLink Repository Model

SA.NT DataLink Repository – Technology

- Application code written in Microsoft ASP.NET
- Fedora Repository software
- MySQL Database server
- Dublin Core and RIF-CS schemas for Metadata
- OAI-PMH compliant
SA.NT DataLink Repository – Public Interface

SA.NT DataLink Repository – Projected Outcomes

• Currently working on Timebox 4 for this project: Dataset Management and Repository schema

• A centralised secure repository, storing metadata about:
  – Available datasets linked or in the process of being linked
  – Research studies requesting or using the linked data

• Application integrated into existing content managed site
UniSA Public Health Research Group - Overview

Public Health Repository – Proposed Solution

• Repository for metadata and datasets

• A pilot system for the development of similar research management tools for other areas within UniSA

• Promote a high level of consistency in data management and curation

• Allow for greater sharing of research data among peers
Public Health Repository – *Proposed Model*

- Activity
- Collection
- Party
- Dataset
- Item

Public Health Repository – *Projected Outcomes*

- Project has been approved by the Division of Health Sciences and Library
- Awaiting funding
- Phase 1: A metadata and research data repository
- Phase 2: Normalisation of data and editing of datasets
- Phase 3: The Research project
Future UniSA Research Repositories

• Deliver the Public Health repository as a pilot

• Scale the system for other divisions of UniSA

• Meet the needs of the researchers

• Develop a one-stop-shop for researchers to use during the entirety of their research projects

Research Repository Models: Can one size fit all?
Ann Morgan (ann.morgan@unisa.edu.au)
Mark Baldock (mark.baldock@unisa.edu.au)