ARROW Project presentation to Fedora Developers Group Meeting

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The ARROW Project is funded by the Australian Commonwealth Department of Education, Science and Training, under the Research Information Infrastructure Framework for Australian Higher Education.

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The ARROW Consortium comprises Monash University [lead institution], National Library of Australia, The University of New South Wales and Swinburne University of Technology.

arrow
australian research repositories online to the world

MONASH University

NATIONAL LIBRARY OF AUSTRALIA

UNSW

SWiN BUR NE
SWINBURNE UNIVERSITY OF TECHNOLOGY

Outline

- What is ARROW?
- What is VITAL and how does it relate to Fedora?
- Where ARROW is now
- ARROW Projects
- ARROW Stage-2
  - Future directions
  - PILIN

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What is ARROW?

ARROW Project:

- Funded for 3 years until December 31, 2006
- Funded by the Australian Commonwealth Department of Education, Science and Training, under the Research Information Infrastructure Framework for Australian Higher Education.

"The ARROW project will identify and test software or solutions to support best practice institutional digital repositories comprising e-prints, digital theses and electronic publishing."

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What is ARROW?

- A development project
- Combining Open Source and proprietary software:
    - Fedora™
    - VITAL
    - Open Journal Services (OJS)

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Who is ARROW?

Founding ARROW Members:

- Monash University (lead institution)
- National Library of Australia
- The University of New South Wales
- Swinburne University of Technology.

ARROW Partners:

- University of South Australia
- University of Southern Queensland
- Queensland University of Technology
- Central Queensland University
- University of Western Sydney
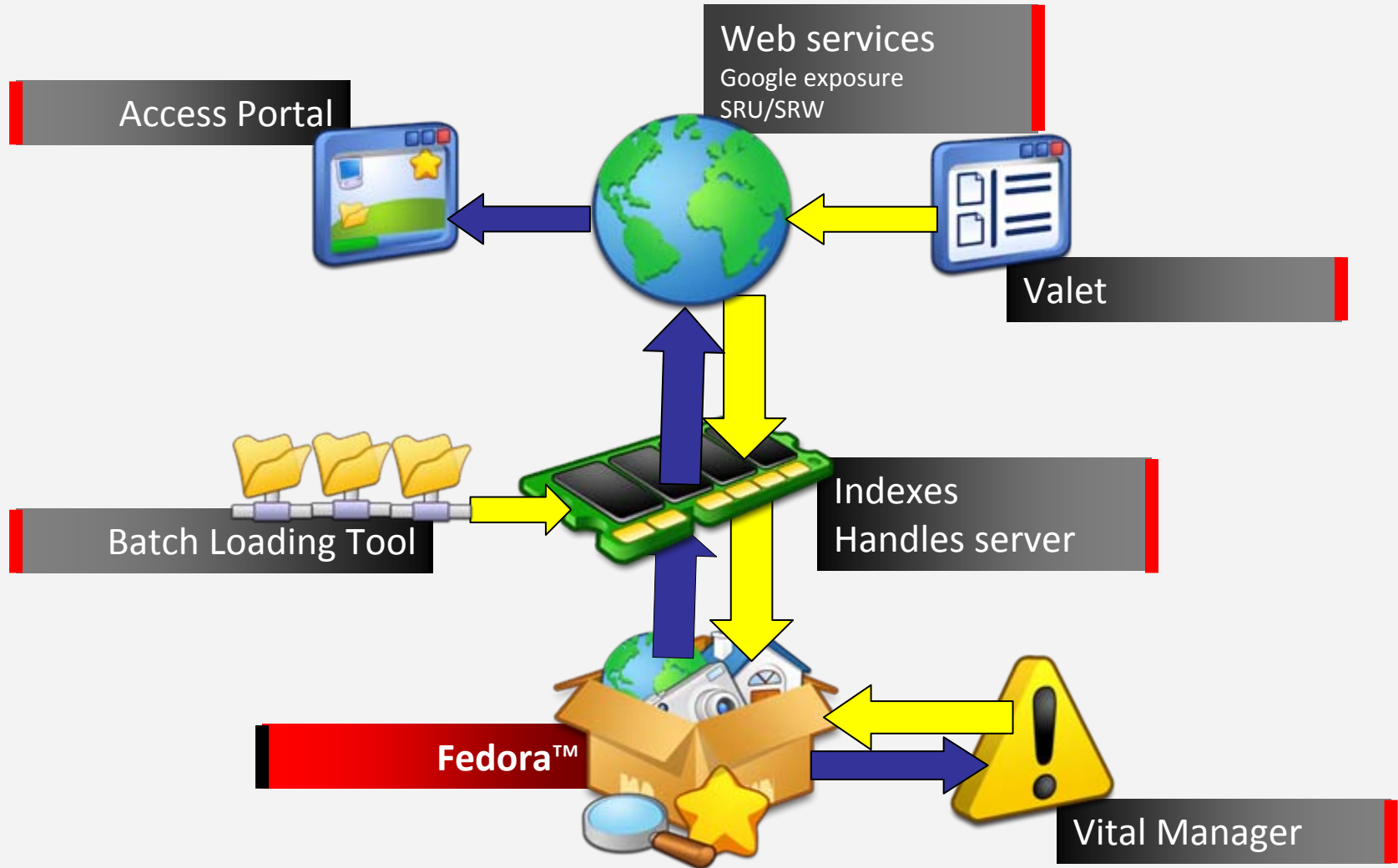- La Trobe University
- RUBRIC has asked to join

Together they form the ARROW Community

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What is VITAL?

ARROW specified software created and fully supported by VTLS Inc. built on top of Fedora™ that currently provides:

- VITAL Manager
- VITAL Portal
- VITAL Access Portal
- VALET - Web Self-Submission Tool
- Batch Loader Tool
- Handles Server (CNRI)
- Google Indexing and Exposure
- SRU / SRW Support

VITAL architecture overview

Access Portal

Web services
Google exposure
SRU/SRW

Valet

Batch Loading Tool

Indexes
Handles server

Fedora™

Vital Manager

Where are we now?

2004
- Developed architecture
- Selected, tested Fedora™ OJS
- VITAL 1.0

2005
- VITAL 1.3
- Started populating repositories
- OAI-PMH harvesting
- ARROW Discovery Service
- Open sources tools released
- VITAL 2.0

2006
- VITAL 2.1
- **VITAL 3.0** (in test)
- Authentication/Authorization Services
- Enhanced Content Models
- Usage and access statistics
- User configurable interfaces
- Movement towards a pure Web based interface
- Support for OAI sets
- Integration with 3rd party modules like federated search

2007
ARROW Stage-2

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ARROW and Fedora™

Since the beginning of the project ARROW has worked actively and closely with Fedora™ and the Fedora Community

- ARROW Project Technical Architect is a member of Fedora Advisory Board
- ARROW staff sit on Fedora Development Group

This is reinforced by VTLS Inc.

- VTLS President is a member of Fedora Advisory Board
- VITAL Lead Developer sits on Fedora Development Group

ARROW Projects

ARROW is planning a number of local projects targeting local and community needs. These will interact directly with Fedora™ and VITAL where appropriate. The development is being done within the ARROW Community.

- Building Rules for Access to Controlled Electronic Resources (BRACER)

    - Will develop a GUI interface to create and apply XACML rules and policies for objects in a FEDORA™ repository

        - Initial focus is a feasibility study

- Other projects currently being reviewed

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ARROW Stage-2

"The Australian Research Repositories Online to the World (ARROW) project has been very successful in providing tools to enable accessibility and discoverability of research from institutional repositories.

ARROW Stage-2 will build upon this success to support the building of institutional repositories for project partners and advise new members on how to proceed and what to expect.

An important aspect of the ARROW Stage 2 project will be the establishment of sustainable pathways for institutional repositories beyond the term of the project."

Excerpt from the Minister Julie Bishop's media release: **Research capability to be boosted by improved collaboration,** 31 July 2006

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ARROW-Stage-2 future directions

Supporting the RQF

- Inclusion of all discrete pieces of evidence, regardless of content type
  - Including traditional text evidence and less traditional evidence, such as art works and music compositions or performances
- Provision for maximum possible exposure of content
  - Subject to copyright constraints.
- Inclusion of metadata+links to content in commercial resources.
- Reporting through multiple channels
  - Such as Research Master, or direct to the repository.
- Support for access and authorisation regimes.
- Retention of all evidence
  - To build institutional research profiles over time.

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ARROW-Stage-2 future directions

Creative development of ARROW institutional repositories

- Inclusion of multimedia and creative works produced in Australian universities.
  - To date have had limited exposure nationally or internationally.
- Addition of annotation capability
- Inclusion of datasets and other research output not easily provided in any other publishing channel.
  - This would dovetail with proposed development in the DART (ARCHER) Project. (Link)
- Exploration of the research-teaching nexus by facilitating multiple uses of content held in repositories.

  Fedora developers in America are experimenting with exciting capability in this area, which would be of benefit to Australia. The integration of repository material into learning objects as packages will be of great interest to many.

- Integration with or development of new tools that will allow value added services for repositories.
  - For instance the creation of e-portfolios or CVs of research output of individual academics.

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ARROW-Stage-2 future directions

Supporting Australian engagement with institutional repositories

- It is clear that the FRODO and MERRI projects have resulted in a significant leap in the levels of understanding and engagement with repositories in Australia, however this is yet to translate into substantial repository activity.

  - The newly formed ARROW community is intended to provide a central platform for support and the exchange of information.

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ARROW-Stage-2 future directions

Building partnerships to further enhance repositories

- Through partnerships with other projects ARROW will endeavor to use best practice and new innovations to further enhance Australian repositories beyond their current limitations.

  These include:
  - APSR
  - ARCHER
  - DART
  - ICE
  - LAMS/MAMS
  - OAK-Law.
  - RAMP/RAMS
  - RUBRIC
  - Sakai

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Persistent Identifiers Linking Infrastructure

The emphasis in this project will be on building identifier management infrastructure based on a technology that is now under development through the auspices of CNRI to underpin sustainable global identifier infrastructure.

Project Outline:

- Planning and investigation
- Share FRODO and MERRI identifier experience
- Pilot identifiers within a large e-Research data collection
- Pilot shared identifier infrastructure
- Develop identifier management tools
- Integrate with e-Research AAA and Grid Handle infrastructure
- Support additional identifiers
- Plan for sustainable shared identifier infrastructure

Questions?

For further information about the ARROW project contact:

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