

Building an Institutional Research Repository from the Ground Up: The ARROW Experience

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The ARROW Project is funded by the Australian Commonwealth Department of Education, Science and Training under the Research Infrastructure 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 Swinburn University of Technology.

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 Australian research repositories online to the world

MONASH University

UNSW

SWINBURN UNIVERSITY OF TECHNOLOGY

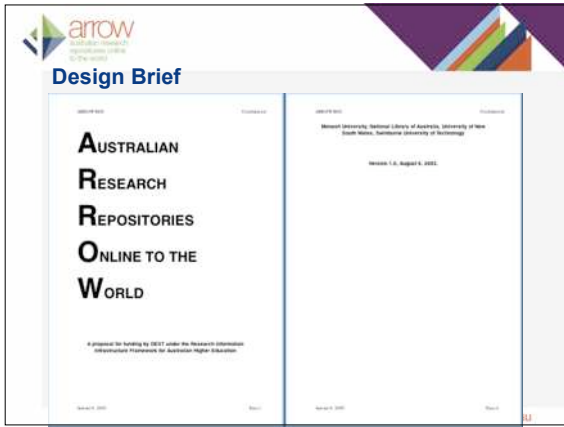


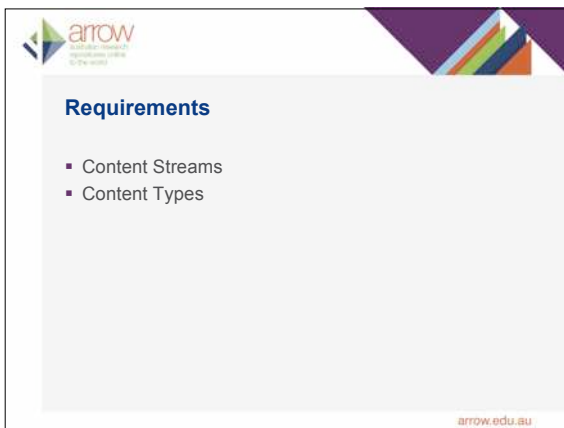
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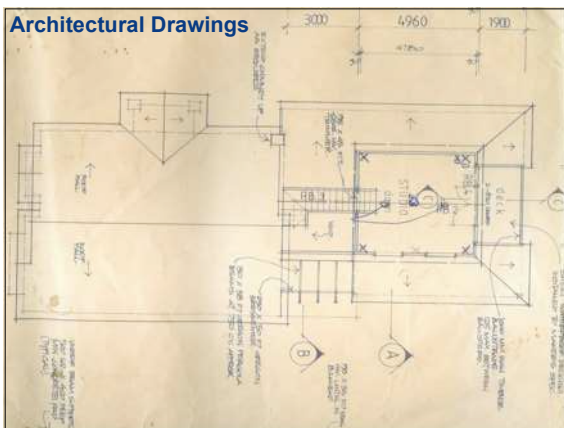
Context

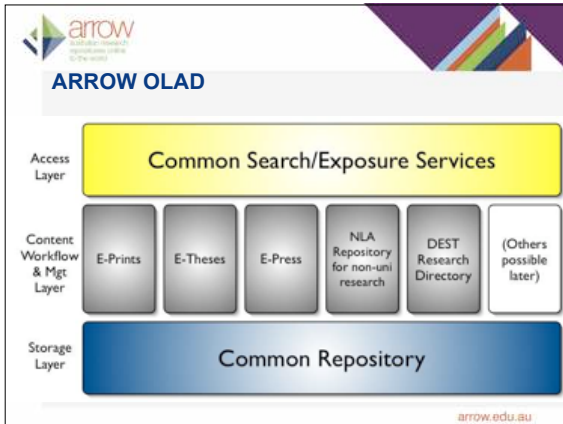
- Global focus on digital content as institutional asset
- DEST RII call for bids in June 2003
- Four successful:
 - ADT
 - APSR
 - MAMS
 - ARROW

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Repository

- Lots of options available (refer Open Access Guide referenced in paper)
- Careful examination of alternatives narrowed quickly to focus on DSpace & FEDORA
- After lots of due diligence, decided to go with FEDORA:
 - better/cleaner underlying architecture (flexible not hierarchical)
 - easier to build on top of (APIs exposed as web services)
 - designed from ground up as services provider and mediator (not packaged application)
 - powerful idea of objects and disseminators

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Sub-Contract or DIY?

- Original bid assumed that project would hire and manage dev team
- ARROW Project Manager realised we could do much better by sub-contracting dev work to company familiar with FEDORA:
 - outsource risk
 - save time by avoiding initial learning curve
 - partner in way that met ARROW and company needs
 - increase attractiveness of FEDORA
 - build a sustainable support and enhancement model

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ARROW and VTLS

- Entered into contract with VTLS to
 - acquire VITAL 1.0 (and successor versions)
 - extend the functionality of FEDORA either by contributing back to the core FEDORA code or by writing a series of ARROW-commissioned modules
- ARROW-commissioned modules to be open-sourced using the same license as the FEDORA code
- VTLS will be able to build products on top of these new ARROW-commissioned modules, but so will anyone else

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Application Framework

- ARROW-commissioned modules will
 - call FEDORA API-A and API-M
 - expose themselves as Web Services
- Possibility that combination of ARROW-modules and FEDORA will lead to refactoring of existing APIs into:
 - API-A (Access)
 - API-S (Search)
 - API-M (Management)
 - API-W (Workflow)

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FEDORA Development Consortium

- Announced at same time as ARROW-VTLS deal
- Joint activity of FEDORA, VTLS, ARROW, and others
 - partners selected on ability to contribute and resources to make it happen
- Rest of 2004 will be spent working out how this might function
- Work towards API-W will be used as process testbed
- Andrew Treloar will be Australian representative in this consortium
- Interested in hearing from others interested in using/extending FEDORA

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Building Materials - Doors and Windows





Search and Exposure

- Exposure of metadata for OAI-PMH harvesting
- Support for direct searching via SRU/SRW
- Exposure of full text (including derived full text) for spidering by Google (and potentially other search engines)
- Local search gateways at each ARROW site
- National Resource Discovery Service offered by NLA

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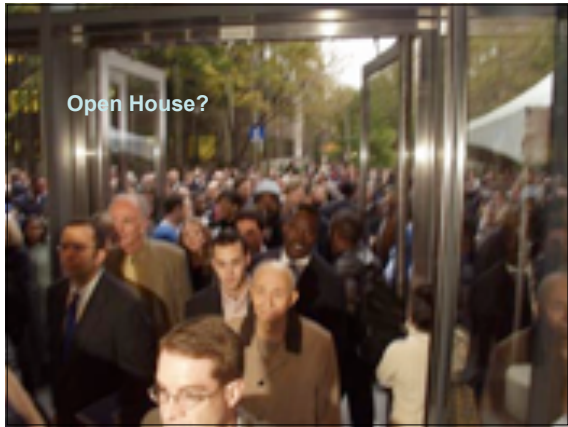
Building Site



State of Development

- Funding commenced in February
 - A\$ 3.66*10⁶ over 3 years
- Project Manager appointed in February
- Contract with VTLs signed in June
- FEDORA Phase 2 funding secured in June
 - US\$ 1.4*10⁶ over 3 years
- Anticipated delivery of ARROW Phase 1 functionality in August/September
- Anticipated delivery of ARROW Phase 2 functionality in January/February 2005

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 **ARROW Availability**

- ARROW partners (NLA, Monash, UNSW, Swinburne) will be testing and refining beta software this year and early next year
- Hope to be able to offer ARROW more broadly around mid-2005
- Stay tuned to <http://arrow.edu.au/> for news and more information

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 **Questions?**

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 - Project web site

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