Integration of Research Repositories and Research Management Systems: Cutting through with a SWORD

Presentation by Janet Copsey

University Librarian, The University of Auckland New Zealand

To CNI Spring 2010 Meeting

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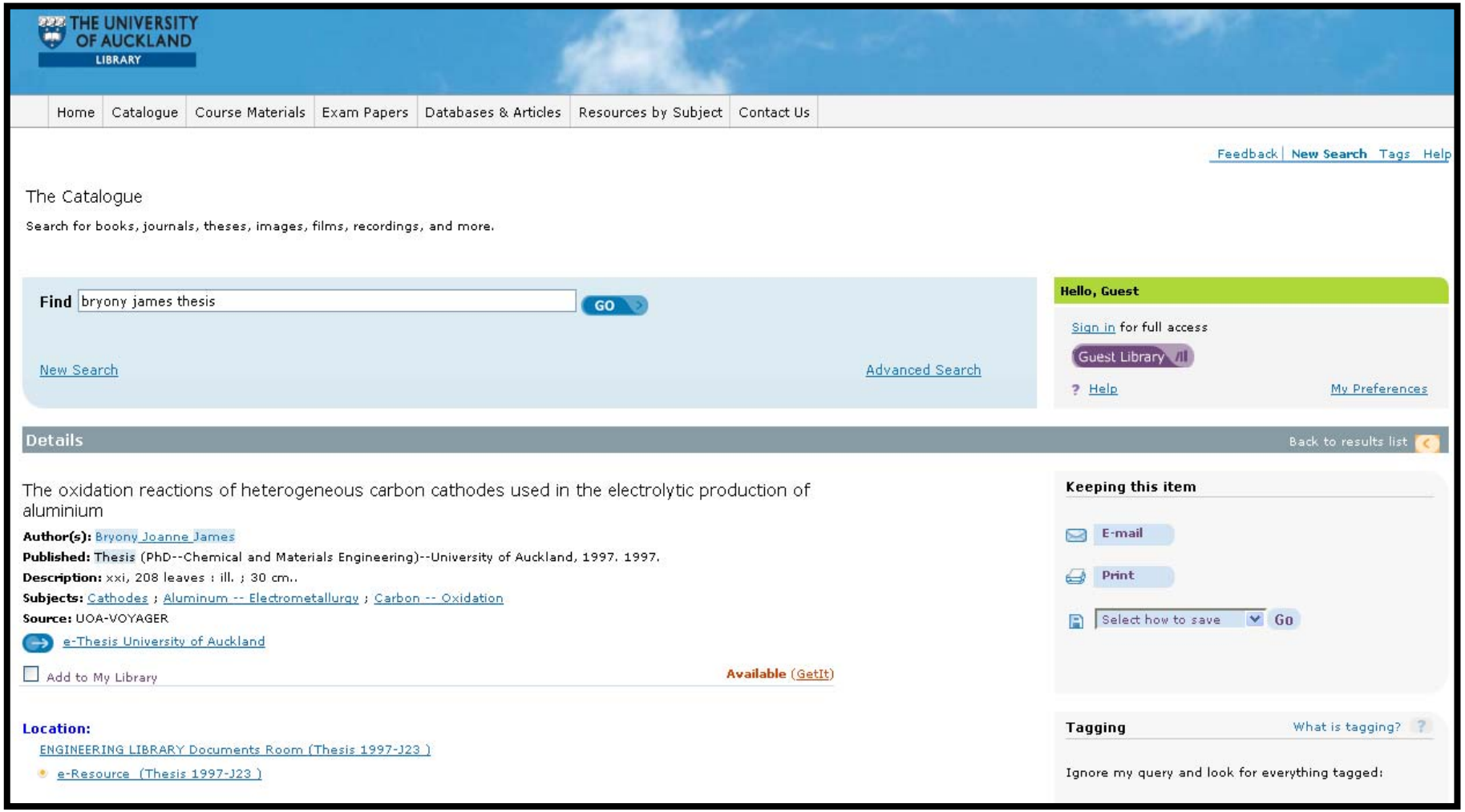
The University of Auckland

- 31,500 FTE students
- 4,600 FTE staff including 100 professional librarians

UoA Library – core systems

- Ex Libris – Primo, Voyager, MetaLib, SFX and DigiTool
- Partner in Primo Central/MetaLib development
- OCLC VDX interlibrary loan system with end-user requesting and direct interfaces to a number of national and international systems
- DSpace – Stuart Lewis, UofA Library staff member, was international release manager for latest version of DSpace – 1.6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The oxidation reactions of heterogeneous carbon cathodes used in the electrolytic production of aluminium
Author(s): Bryony Joanne James
Published: Thesis (PhD--Chemical and Materials Engineering)--University of Auckland, 1997. 1997.
Description: xxi, 208 leaves : ill. ; 30 cm..
Subjects: Cathodes ; Aluminum -- Electrometallurgy ; Carbon -- Oxidation
Source: UOA-VOYAGER
e-Thesis University of Auckland
Add to My Library
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ENGINEERING LIBRARY Documents Room (Thesis 1997-J23)
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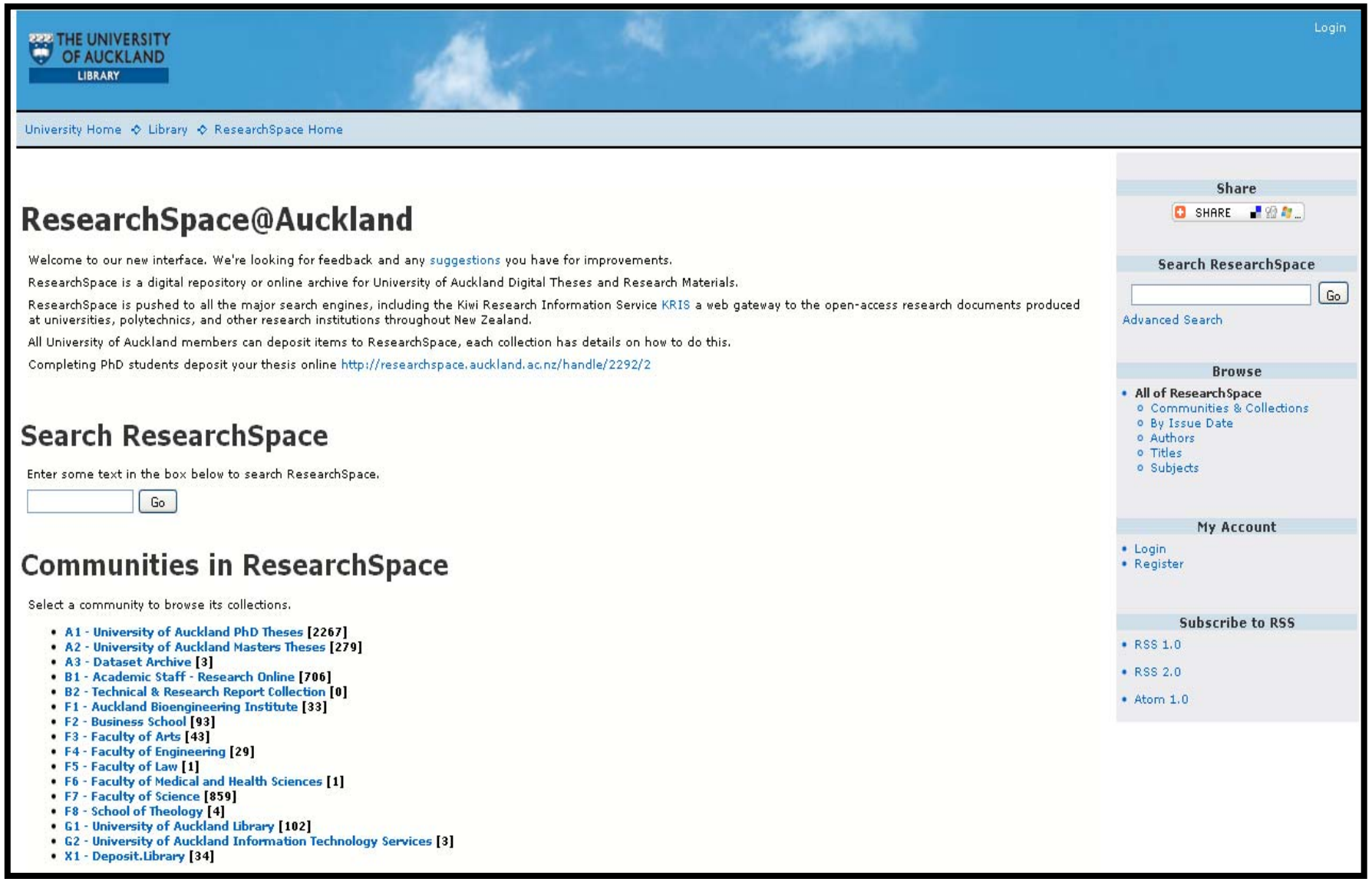

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Welcome to our new interface. We're looking for feedback and any suggestions you have for improvements.

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ResearchSpace is pushed to all the major search engines, including the Kiwi Research Information Service KRIS a web gateway to the open-access research documents produced at universities, polytechnics, and other research institutions throughout New Zealand.

All University of Auckland members can deposit items to ResearchSpace, each collection has details on how to do this.

Completing PhD students deposit your thesis online http://researchspace.auckland.ac.nz/handle/2292/2

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- B2 - Technical & Research Report Collection [0]
- F1 - Auckland Bioengineering Institute [33]
- F2 - Business School [93]
- F3 - Faculty of Arts [43]
- F4 - Faculty of Engineering [29]
- F5 - Faculty of Law [1]
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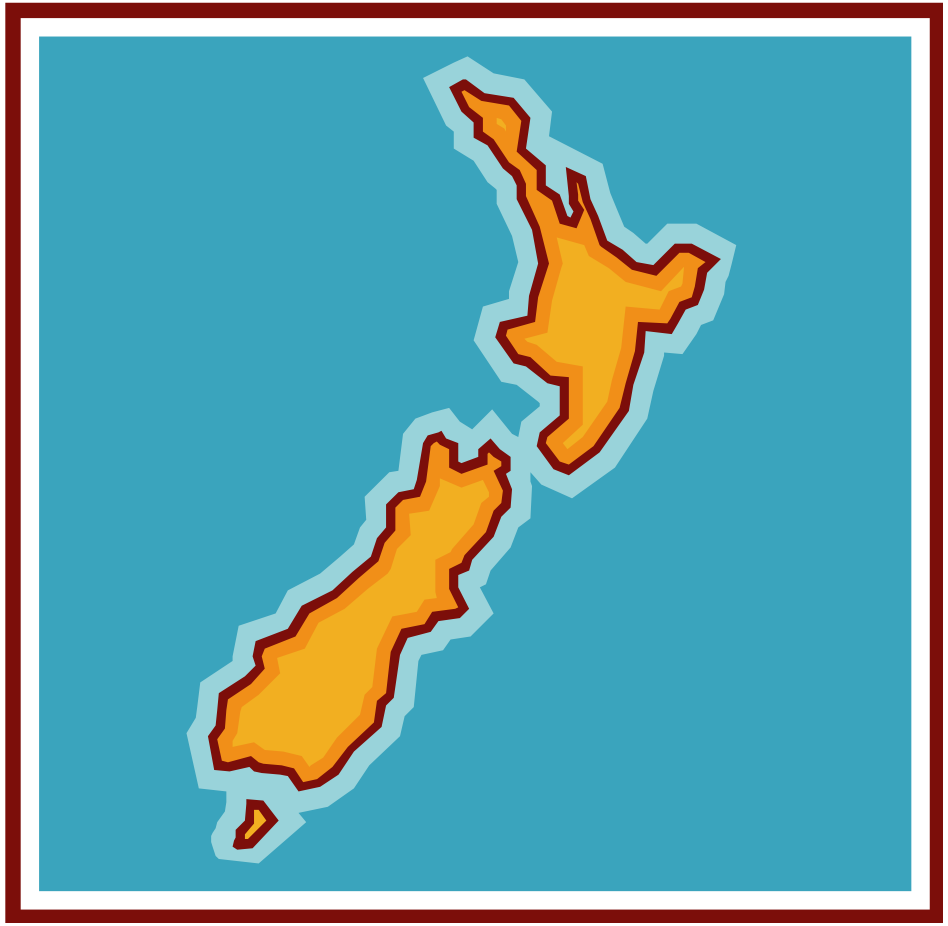
Understanding the New Zealand environment



Research Funding – Core Research

New Zealand, and now Australia, has similar funding model to the UK which bases a percentage of core research funding on research outputs assessment.

- UK = RAE & now REF
- NZ = PBRF
- AUST = RQF & now ERA

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Funding environment creates a driver for research management systems including management of research outputs

- Government and other funding bodies requirement for improved performance
- Government wanting to see higher profile internationally for NZ research
- Higher profile of institutional research on the web also required because of ranking system developments

What are some of the drivers for Research Repositories?

- Improved access to unpublished research such as Doctoral theses
- Open Access Movement – improved access to research
- Responsibility of the Library to their institution to enhance the collective memory by archiving research outputs created by academics

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What do Research Management Systems and Research Repositories have in common?

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Library-based Research Repositories – primarily “Open Access” with some “Dark Archive”

- Sharing and standards for interchange built into systems
- Archive the collective outputs of University staff and make them harvestable where appropriate

Research Management Systems – primarily internally focused with reports for external requirements

- Funding & Grant Tracking
- Proposal Tracking
- Resources and compliance
- Reporting & Research Evaluation

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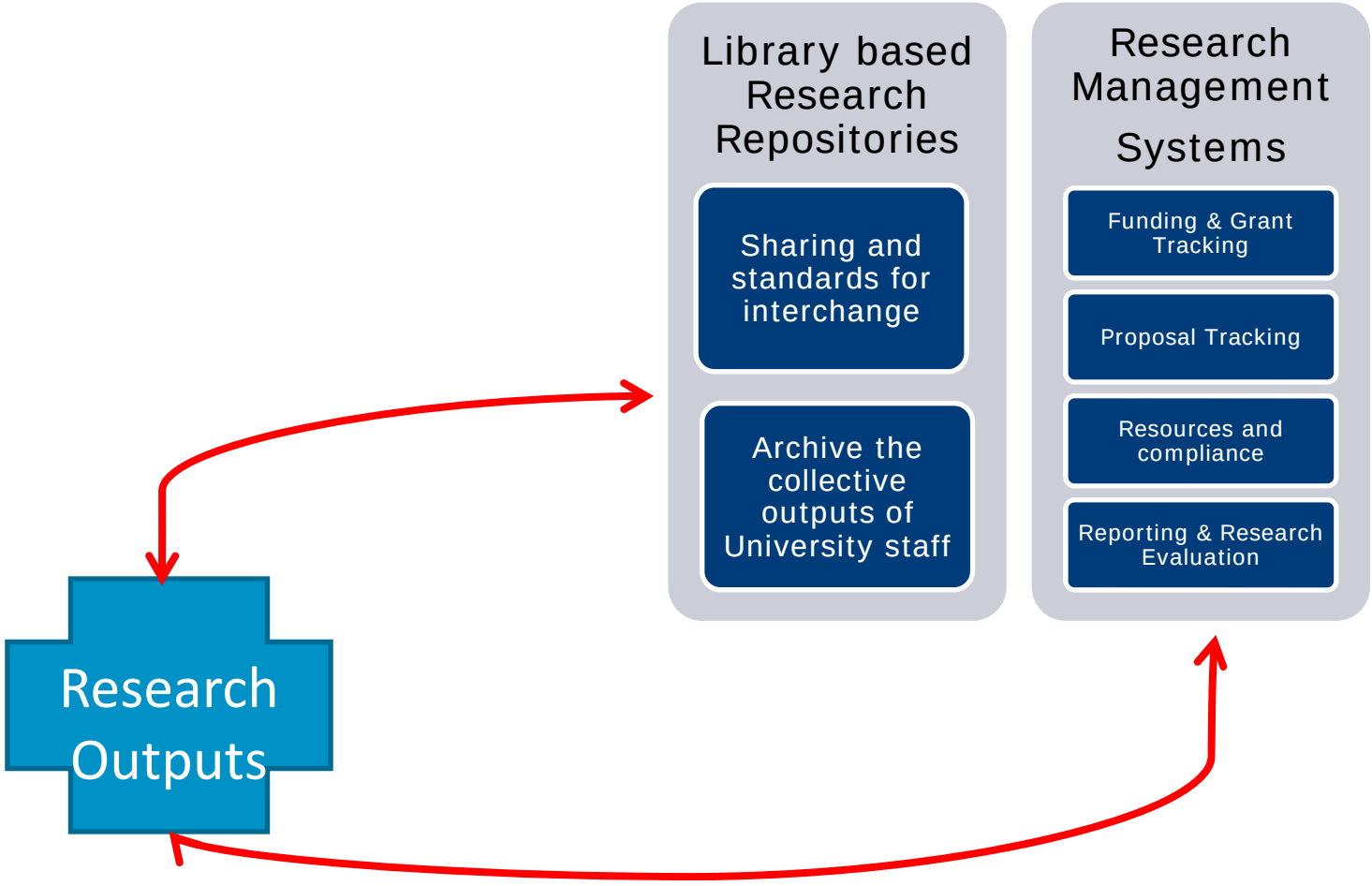
Which piece of the puzzle is common?



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"Modern information systems can only truly thrive when they interoperate with other systems. Institutional repositories are no exception to this rule. Repository software can typically interoperate with other systems in three ways:

- *to get things into the repository;*
- *to get things out of the repository;*
- *to assist the repository with tasks such as preservation, storage, or authentication*."

Lewis, S., Hayes, L., Newton-Wade, V., Corfield, A., Davis, R., Donohue, T., et al. (2009). If SWORD Is the Answer, What Is the Question?: Use of the Simple Web-Service Offering Repository Deposit Protocol. Program: Electronic Library & Information Systems. 43 (4), 407-418. http://hdl.handle.net/2292/5315

What are the barriers to integration?

- Few examples of successful models
- Technology mis-match between older Research Management Systems and newer repositories
- Most Research Management Systems have under-developed research publications management modules
- Standards minimal in this area although emerging

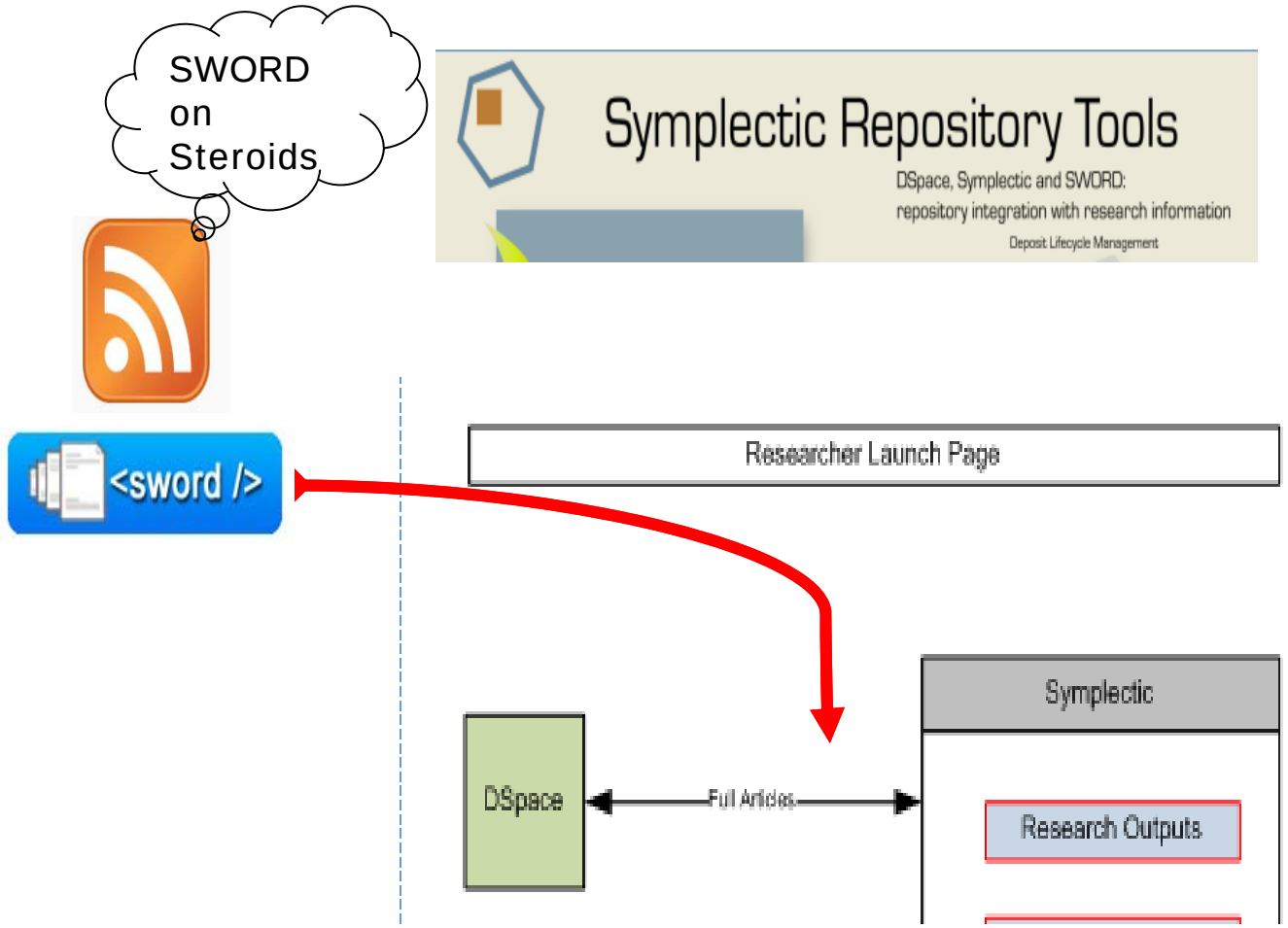
Background on the Research+ Project at UoA

- During 2009 the University of Auckland began a process to implement a new Research Management System using InfoEd (US)
- In 2010 decision made to use Symplectic Elements (UK) for research publications module of the overall system
- Symplectic will become the integration layer as data entered into this system can be offered up for re-use in other systems (eg InfoEd grants module) and it comes with an “out of the box” (SWORD) upload facility so full text can be uploaded to the existing University of Auckland DSpace repository – ResearchSpace

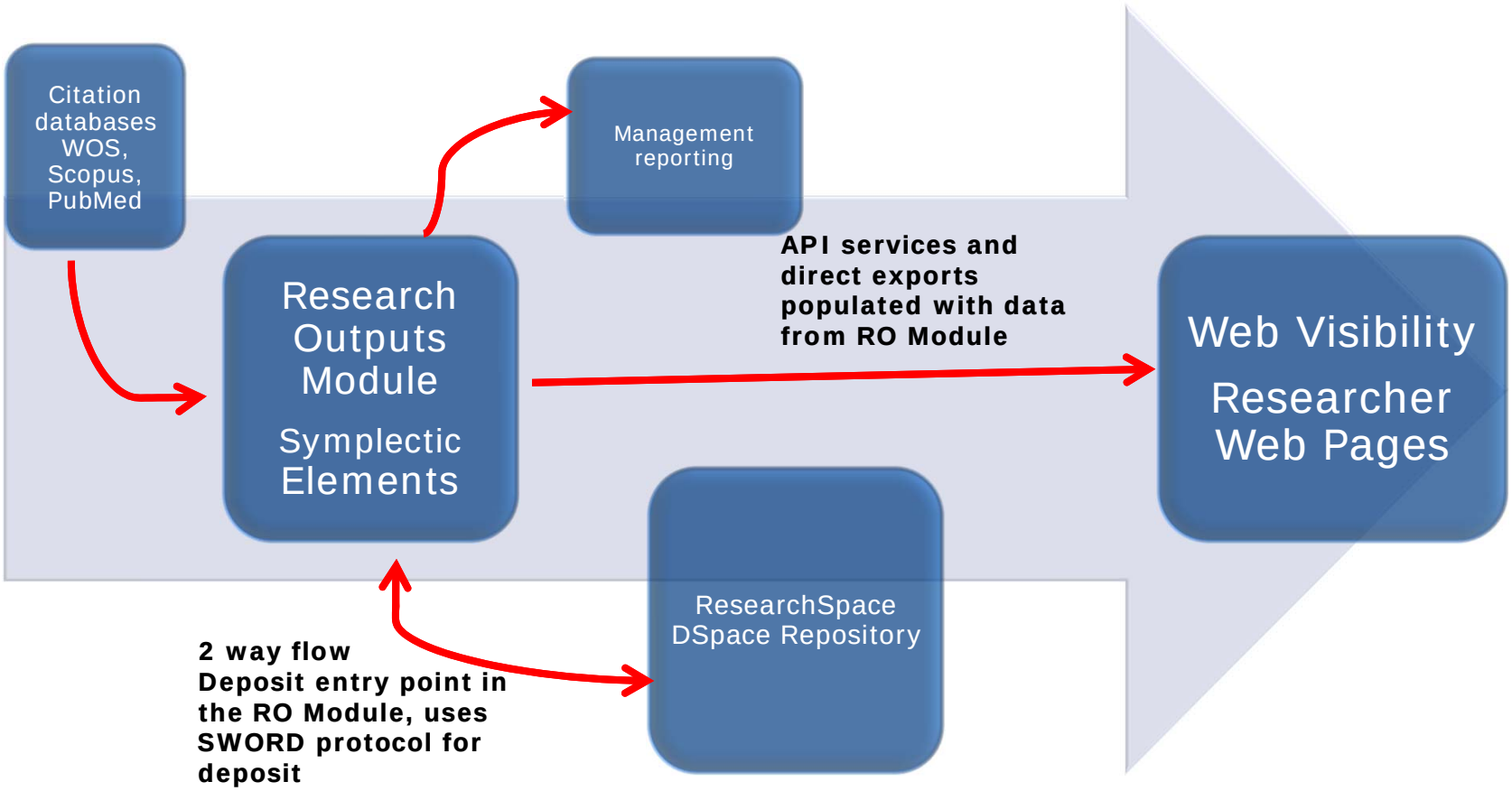
SWORD – an explanation

This part of the system uses an upload facility that is seamless to the user

Buried behind the scenes is a customised SWORD Deposit mechanism: an Atom Publishing Standard that uploads a file and the associated packet of metadata and maintains the 2 way connection



How the model is going to work



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Problems solved using integrated model

- Metadata is entered once only and flows into other systems
- Accurate well formed data is sourced from indexing services/publishers/suppliers wherever possible
- Full text can be uploaded at anytime and the repository acts as a file store for the system
- Two way connection between the Research Publications system (Symplectic) and the Research Repository (Dspace) so Permanent URL can be exchanged, & if records are deleted the change flows back to the other system

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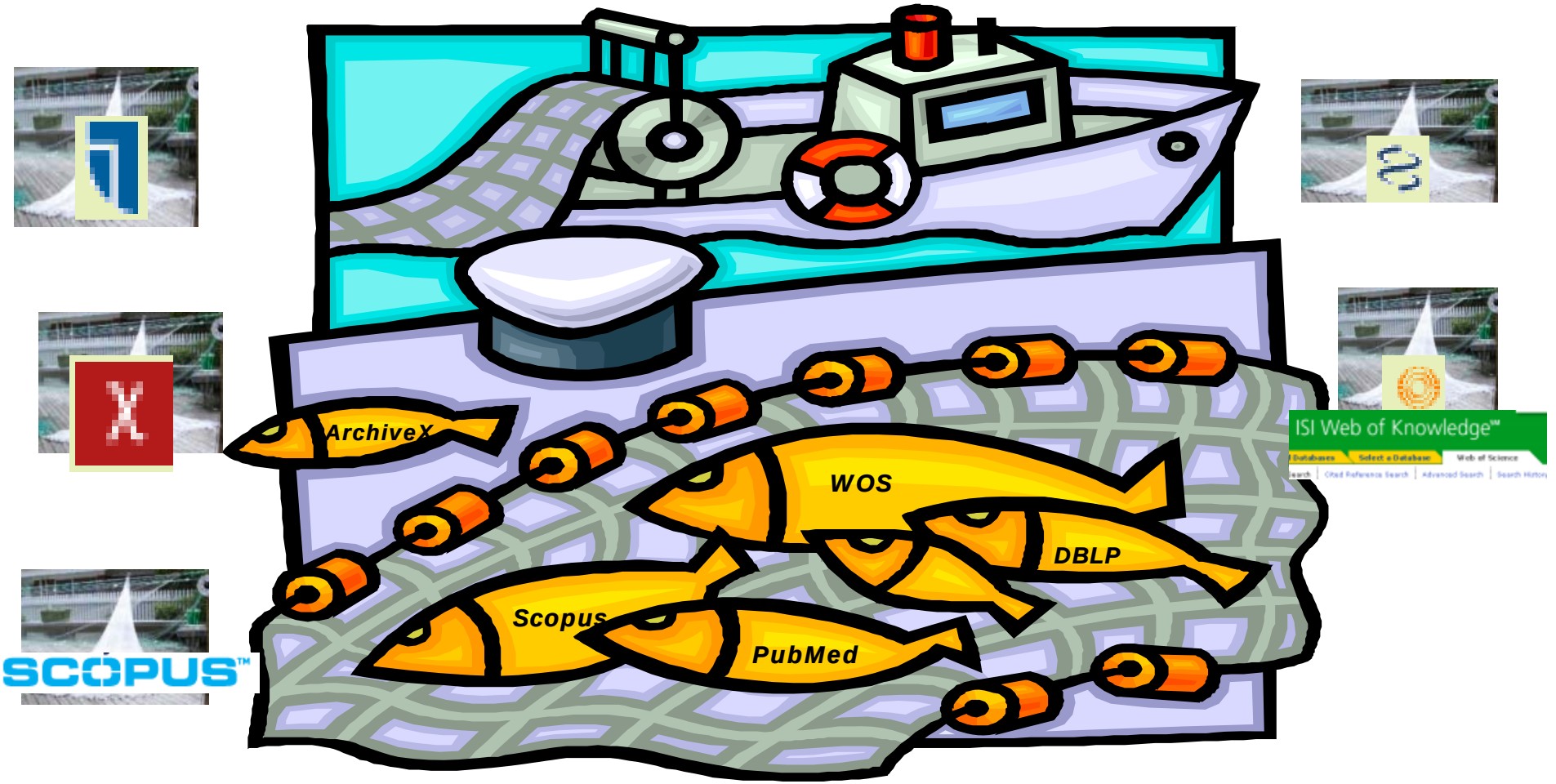
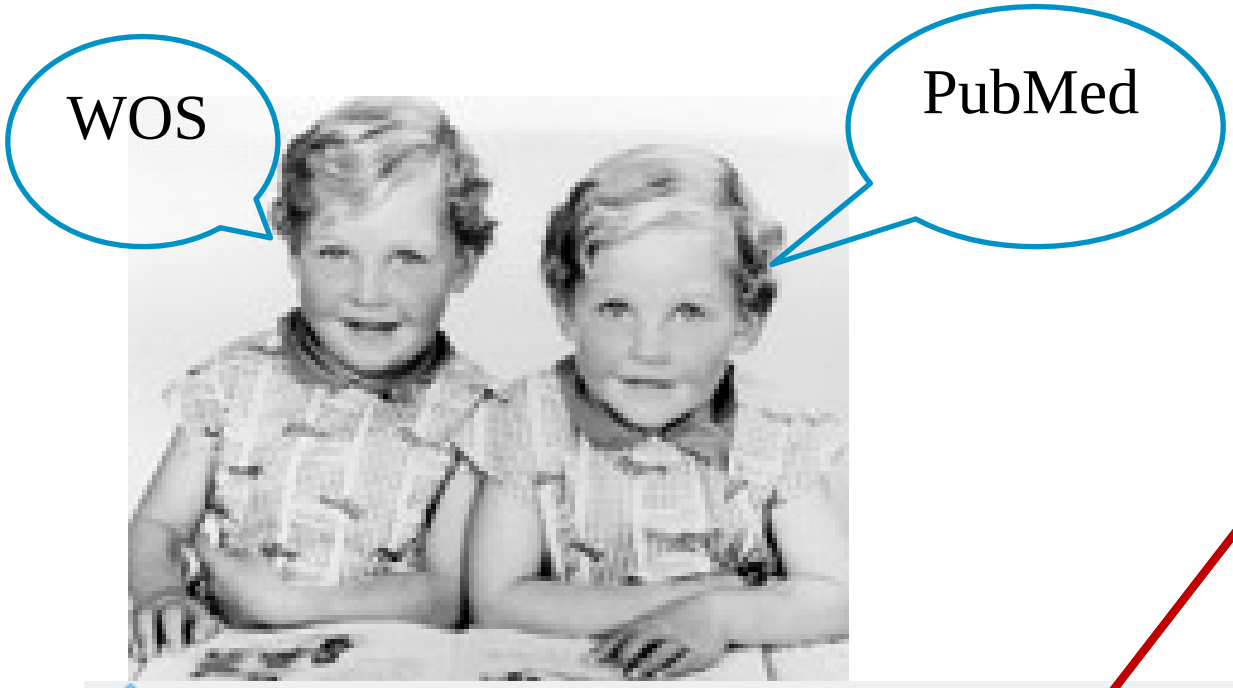
Benefits: Metadata accuracy

Automated trawling of citation databases



Automatic duplication check with options



Data Sources x 2

Journal article

Summary | Organisation users (1) | History (1) | Data sources (2) | Full text | Relationships (1)

Visualization of transverse diffusion paths across fiber cells of the ocular lens by small animal MRI.

Visualization of transverse diffusion paths across fiber cells of the ocular lens by small animal MRI.

Visualization of transverse diffusion paths across fiber cells of the ocular lens by small animal MRI

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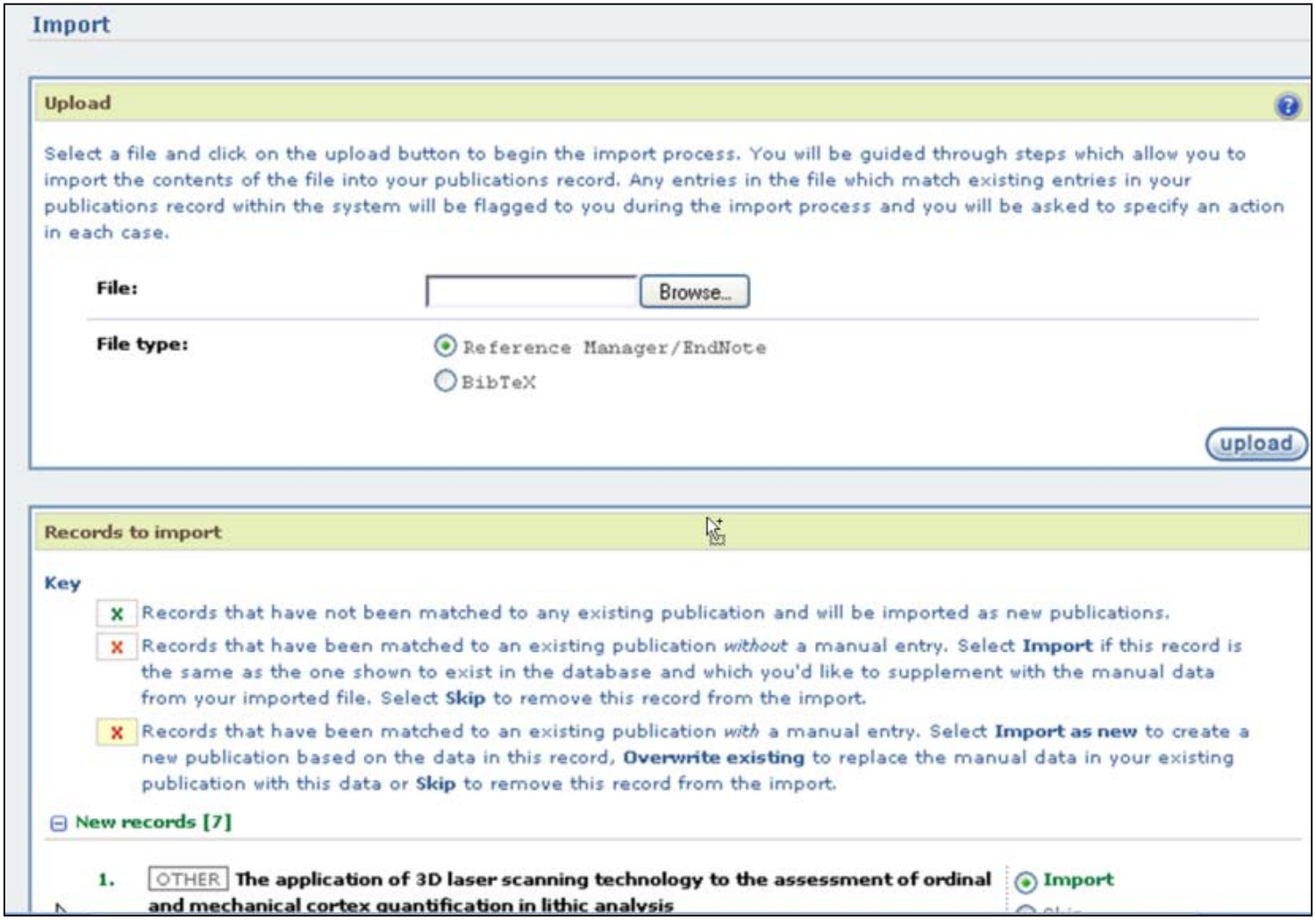
Easy manual import



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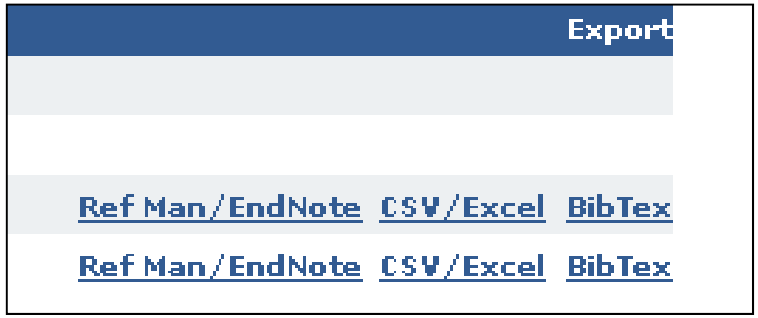
Easy export



Easy upload of Full text

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Unresolved issue: Researcher Identifiers

- Institutions generally have their own identifiers for researchers
- Governments have assigned identifiers if research funding is tied to the research outputs
- International initiatives underway to assist verification and identification include:
- ORCID project – Name Identifier Summit 2009
- ISNI – International Standard Name Identifier
- OCLC – VIAF
- JISC - Names Project

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Conclusions

- Be wary of systems that don't allow data exchange
- Create metadata only once – don't reinvent the wheel
- Rely on machines to do the work not people as to grow the content in these systems the effort has to be low and the benefits immediate
- Opportunity to enter publications and associated metadata once and use many times – eg researcher web pages or academic profiles, research reporting, grant proposals, CVs, bibliographies, etc.

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References / Sources

- Allinson, J., François, S., & Lewis, S. (2008). SWORD: Simple Web-service offering repository deposit. *Ariadne*, *54*.
- Allinson, J., & Stevenson, A. (2009). The Cutting Edge of SWORD.
- Ben Wynne. (n.d.). Online catalogue and repository interoperability study (OCRIS). Retrieved March 21, 2010, from http://www.jisc.ac.uk/whatwedo/projects/scholcommslinks
- *Casting_Net.jpg (JPEG Image, 464x335 pixels) - Scaled (0%)*. (n.d.). . Retrieved from http://sites.yellow.co.nz/site/actionfish/images/Casting_Net.jpg
- FereshtehPresentationDARTS_12_June_2009.pdf. (n.d.). . Retrieved from http://www.cilip.org.uk/get-involved/special-interest-groups/ucr/Documents/FereshtehPresentationDARTS_12_June_2009.pdf
- Flickr: dty2dty2's Photostream. (n.d.). . Retrieved March 22, 2010, from http://www.flickr.com/photos/dty2/
- Lewis, S., Hayes, L., Newton-Wade, V., Corfield, A., Davis, R., Donohue, T., & Wilson, S. (2009). If SWORD is the answer, what is the question? *Program - electronic library and information systems*, *43*(4), 407-418. doi:http://dx.doi.org/10.1108/00330330910998057 Open Access http://hdl.handle.net/2292/5315
- Look, H. (2009). *Embedding repositories in research management systems: final report* (Monograph). Retrieved from http://ie-repository.jisc.ac.uk/408/
- Morgan, T., Lang, A., Wood, M., Harrison, A., Picasso, V., Ruthven, T., Quilliam, J., et al. (2009). *ARROW HERDC Working Group final report*. 2009. Retrieved from http://hdl.handle.net/1959.3/50374
- UKOLN, J. (n.d.). Welcome to SWORD APP — SWORD Site. Retrieved March 21, 2010, from http://www.swordapp.org/