Sustaining Repositories

newsletter of the APSR Project
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In this issue:

▌ APSR defines its future

APSR has responded to the rapidly changing repository and data management environment and to new funding coming into play for 2007 by issuing a Roadmap to define its future directions. The emerging research information environment is increasingly sophisticated and rapidly improving. An expanding access infrastructure includes networked data centres, repositories, online collections, portals, registries, data manipulation services, access protocols and more. This environment needs planning and coordination, new services and collaborations.

The APSR Roadmap supports the centralised institutional repository as one point on a spectrum of solutions to the issue of data management. The challenge for the repository is to remain relevant and integrated into the overall academic enterprise. APSR has identified four themes for development in 2007: repository interoperability and integration, infrastructure and services for digital collections, eResearch facilitation and research reporting. A busy schedule of projects and events has been built around these four themes.

The RIFF (Repository Interoperability Framework) projects will focus on how repositories interact with a wide range of information systems typically used in education and research. These will include journal publication systems, conference publishing, image collections, fieldwork and research practices, music collections, complex scholarly documents and map-based discovery services. Documenting the METS profile and ensuring standards harmonisation and consistency will be critical here.

The COSI (Collections Services and Infrastructures) projects will include four elements: development of a collection registry service, a format notification and obsolescence service, a repository statistics service and a support service for those wanting to develop their own DSpace or Fez+Fedora repository.

Development activities related to eResearch will support researchers in their immediate research-driven data management needs, while establishing connections with longer-term archival environments, i.e. institutional repositories and large-scale data storage facilities such as APAC. Descriptions of the new projects will shortly be available on the APSR website.

A preliminary version *APSR Roadmap for 2007* can be viewed at
http://www.apsr.edu.au/publications/apsr_roadmap_2007_files/apsr_2007_roadmap.pdf

Mark your diaries now!

APSR has five major events planned for 2007.

- IT infrastructure planning for the RQF will be discussed at a one day forum to be held in mid-February. The forum will be held twice, once in Sydney and once in Melbourne. This event is being held in conjunction with ARROW and DEST. More details soon.
- *The Adaptable Repository* will be held in Sydney early in May. Susan Gibbons, Associate Dean, Public Services and Collection Development at the University of Rochester, and others will address the issue of repurposing the repository to meet institutional needs.
- In the middle of the year APSR will be conducting an event focusing on eResearch. Details to come in the next newsletter.
- A follow-up to the successful *Long-term Repositories: taking the shock out of the future* will be held in the second half of the year. The issue of data management may well play a significant role here.
- *Clever Collections: a national showcase of technical innovations for digital collections*, to be held in association with the DART Project, will be our final event for the year. This will be held in Brisbane and revisit the repository integration and interoperability theme.

UK delegation

Opportunities for international cooperation were on the agenda when APSR hosted a lunch and meeting with staff of the Joint Information Systems Committee (JISC) from the United Kingdom. Within historic University House at the Australian National University, APSR staff and partner representatives met with Dr Malcolm Read, Executive Secretary of JISC, and Sarah Porter, Head of Development. Following lunch at Boffins Restaurant, Dr Adrian Burton outlined forthcoming APSR projects and developments as set out in the APSR Roadmap. There was discussion on the parallels between the work of APSR and JISC and the potential for future linkages.

Photograph: Standing: Andrew Bennet (University of Queensland), Lindsey Hood (APAC), Malcolm Read (JISC), Keith Webster (University of Queensland), John Shipp (University of Sydney), Sarah Porter (JISC), Vic Elliott (Australian National University), Markus Buchhorn (Australian National University), Margot Bell (DEST), Fiona Nelson Campbell (APSR). Seated: Chris Blackall (APSR), Kerry Blinco, Adrian Burton (APSR).

Digital Futures

APSR contributed to discussions on the future of digital curation and management organised by the National Archives of Australia (NAA) at its recent *Digital Futures Industry Briefing* held in Canberra on November 8.

The briefing followed the Digital Collections Summit convened by the Collections Council of Australia in Adelaide in August and was designed to provide an industry briefing by experts who outlined developments in digital curation and archiving across cultural and academic communities. Margaret Henty from APSR and Andrew Treloar from the ARROW Project represented the higher education sector.

The Digital Futures Industry Briefing was held in the same week as a one week Residential School jointly sponsored by the NAA and the Council of Australian Archives and Records Authorities (CAARA), with the theme 'Digital Collections and the work of the Australasian Digital Recordkeeping Initiative (ADRI)'. APSR featured on the agenda for this as well, contributing to discussions which showed the contrasts between the work of the academic sector and national and state archives while pointing to the underlying similarities in tools, techniques and management perspectives.

APSR helps out across the ditch

APSR is providing technical support for a new NZ initiative. The Institutional Repositories Aotearoa (iRA) is a partnership between the Universities of Auckland, Canterbury and Victoria which aims to make publicly funded materials created by staff and students of the three partner institutions accessible. The group is implementing Open Archives Initiative (OAI)-compliant open access institutional repositories. As the group is implementing DSpace, APSR's Scott Yeadon is providing technical assistance for the set-up period.
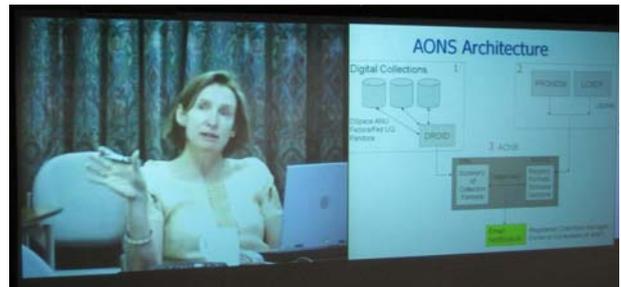
The project will work with the National Library of New Zealand to develop an additional national discovery service so repository content can be found and used in teaching, learning and research within New Zealand. More information about this project is at: http://www.unirepositories.auckland.ac.nz/

Planning for 2007

Members of all the APSR partners gathered at the Australian National University on 9 November for an 'information and planning day'. The morning was dedicated to information sharing with each of the partners presenting the results of the projects they had been working on throughout 2006. APSR was able to practice what it preaches by running a live hook-up to Queensland to allow Jane Hunter to talk about the AONS project using the grid. Jane and APSR's David Berriman have recently been 'meeting' on a weekly basis using this technology.

After a delicious lunch at the brand new outdoor area by the river at Teatro Vivaldi, the group split in two to make plans for 2007. The Technical group discussed the environments needed for APSR Development projects in 2007 (discussed in detail in the first story, above), particularly establishing cross-platform interoperability for DSpace and Fez+Fedora. The National Services group agreed to create Online Research Collections Australia (ORCA) to provide support and share information throughout the year, and discussed APSR events, international linkages and communications issues.

This was the third planning day when the partners have got together to plan, talk and catch up. Like the other two days, this one was a great success with every attendee leaving not only with a feeling of enthusiasm about the coming year, but also with a special edition APSR mug.

Fez+Fedora adopted in New Zealand

Fez+Fedora has been selected as the software for the implementation of the Open Access Repositories in New Zealand (OARiNZ) project. The project aims to design and build the infrastructure necessary to connect all the New Zealand digital research repositories that meet certain standards for interoperability and access. The project will thus provide open access to a network of repositories of publicly funded research and teaching repositories in New Zealand and increase the visibility and accessibility of New Zealand scholarship.

Partner institutions include

- Nelson Marlborough Institute of Technology
- Tairawhiti Polytechnic
- Lincoln University
- Bay of Plenty Polytechnic
- Northland Polytechnic
- Waikato Institute of Technology
- Waiariki Polytechnic
- Wellington Institute of Technology

Staff from Catalyst IT, a New Zealand company (http://www.catalyst.net.nz/) assisting the OARiNZ project, have recently contacted Fez developers about the installation and customisation of Fez+Fedora for this project. Catalyst developers aim to develop and extend Fez to meet specific local requirements, and will in turn contribute code back to the project.

A summary and progress reports for the OARiNZ project can be downloaded from http://www.oarinz.ac.nz/.

Advice line

Another delegation from NZ recently visited the University of Queensland to discuss institutional repositories. The group, from the Library Council of New Zealand (LCoNZ), are looking to adopt a joint approach, with four libraries cooperating to implement the repository software solution they decide on. The University of Queensland was one of several institutions the delegation visited.

The four partners in LCoNZ are Auckland University of Technology (AUT), University of Waikato, Victoria University of Wellington, and the University of Otago. AUT is already running Digital Commons, which is one of the systems under consideration, but they will migrate to whatever system the group finally decides on.

The delegation consisted of Robyn van Ee (AUT), Rae Gendall (U Waikato) and Michael Macht from Datacom Systems Ltd who may be helping with set up and hosting.

More information about LCoNZ is at: http://www.lconz.ac.nz/.

Deakin Fez+Fedora testing underway

In late October, Christiaan Kortekaas spent two days at Deakin University to help the community test Fez+Fedora as a possible solution to manage a repository of research papers. Fez+Fedora was developed at the University of Queensland and is a user interface software to accompany the Fedora platform.

After a morning of explaining the server set up, the remainder of the two days was spent in training, and according to Christiaan, "by the end of the second day they had a pretty good understanding of the entire system."

There was some follow up in the following two weeks to resolve some server issues and the Deakin University staff are now able to assess Fez+Fedora in detail. (Pic: Geoff Cleave, Christiaan Kortekaas and Craig Hickss)

Turning problems into opportunities

The RQF was the focus of a talk given at the Menzies Library at the Australian National University on the 8 November. ALIA (University and Research Libraries Section) sponsored the talk, taking advantage of Belinda Weaver's (University of Queensland) trip to Canberra for the APSR Planning Day. Unfortunately, some lights had been damaged on the Canberra runway and Belinda was diverted to Sydney mid-flight. Margaret Henty stepped up to the podium and presented Belinda's slides to the audience, including some other APSR delegates.

This situation did provide a surprising opportunity. Simon Porter, a technical analyst from the University of Melbourne had come to Canberra to hear Belinda speak. Given the circumstances, he offered to give the group an off-the-cuff presentation of how the University of Melbourne is using centrally collected information on its researchers to compile CV style web pages for each researcher in the University, and the possibility of using these CV style pages to provide links to OA publications.

Simon and his colleagues are working on the premise that CV style information for each researcher can be reworked from already existing data. The administrative system at the University, called Themis (The Melbourne Integrated System) - after Themis, the Titan of justice and mythology - is being implemented, with finance and HR already in operation, and Research module completed by the end of this year.

The Themis Researcher Profile uses this pre-existing information to create a profile for every researcher in the university, including qualifications and awards, contact details, grants and contracts, research programs and grants, expertise and international linkages, and publications. The source of the publications data is the yearly publications report produced for DEST, however once the new publications system is launched, researchers will have the ability to add additional publications to complete their CV, and also provide urls to open access copies of their publications. The eventual intent is that researchers will also be able to upload their Eprints, and these feed through to the University's ePrint system.

Simon gave a presentation about this program at the Innovative Ideas Forum at the National Library earlier this year. The slides from the talk can be downloaded from: http://www.nla.gov.au/initiatives/meetings/iiprog.html

■ eResearch solutions – Bidwern and FieldHelper

As part of the recent APSR planning day, two projects were demonstrated that provide glimpses into the exciting developments planned for 2007 - the Bidwern Project presented by Leo Monus (Australian National University) and FIDAS - Fieldwork Data Sustainability presented by Linda Barwick and Steven Hayes (University of Sydney).

Both projects are designed to improve the information workflows and environments for field-based researchers, specifically ethnographers, musicologists and environmental scientists working in remote locations where Internet connectivity is unavailable. These fieldworkers typically collect data in ad-hoc ways, leading to problems with the long-term management of data and inadequate recording of descriptive metadata, which eventually results in problems at the time of submission of data to digital repositories.

It can be very difficult to reconstruct important information at a later date once it resides in a repository. In particular, remotely located Indigenous communities who generously contribute their time and knowledge to such research projects can neither access nor retrieve information in repositories in ways that correspond to their needs.

The Bidwern Project approaches this problem in two ways: creating an end-to-end research workflow that enables field-based researchers to describe their digital files (images, videos, text etc.), using Filemaker, an off-the-shelf commercial database application. Users can accurately tag and describe their data and automatically package it up for submission to a nominated repository in an essentially 'one-click' process. The second is to provide a new Web-based presentation 'layer' for the Bidwern 'collections' currently stored in the DSpace repository at ANU.

This presentation layer provided multilingual navigation interfaces for the primary custodians of the collection - Indigenous communities, but also gives users an innovative map-based interface that they can intuitively use to associate topographic locations with items in the repository (using Google Maps and Google Earth). This feature has recently gained 'wow-factor' status in international repository development circles and superbly demonstrates how repositories can be augmented to address the needs of specific communities while enhancing the dissemination of research at the same time. Leo Monus and Scott Yeadon undertook the software development for the Bidwern Project at the ANU through the leadership of Dr Peter Raftos.

The FIDAS project also takes a complimentary approach to addressing the information needs of field-based researchers and has developed a new, user-friendly, research tool. FieldHelper aims to assist the collection, management and maintenance of metadata of files created and used in fieldwork using a 'drag-and-tag' user-interface design model. This provides users with a simple, yet flexible, method of associating categories, keywords and other descriptive information with digital items created by researchers. The ease of use of FieldHelper will significantly lower the barriers researchers face in both organising and describing their digital resources and in moving them to repositories for long-term preservation and access. The FIDAS project draws on the expertise of Linda Barwick, an internationally respected musicologist, and the team of developers based at the Archaeological Computing Laboratory (ACL) at the University of Sydney, including Steven Hayes and Tom Honeyman.

Taken together, the Bidwern and FIDAS projects demonstrate that APSR is at the forefront of developing new information environments for researchers that can harness the full benefits of institutional repositories.

■ Hidden Heroes – Leo Monus

Anyone who has registered for an APSR event has benefited from the skills of this issue's 'Hidden Hero': Leo Monus. Leo, who is a talented programmer in the Division of Information at the Australian National University, has proved himself to be invaluable to the APSR project, assisting with many and varied aspects of the work.

The ANU credit card payment system requires a web interface where people can provide their registration details – a complex interface which has to be user-friendly at one end while providing all the right information for payment and registration at the other. Enter Leo who has now provided this for all APSR events in 2006.

Leo can also be relied upon to supply solutions to many little IT upsets at work and sometimes even at home. He is also the programming talent behind the Bidwern project. Having migrated to Australia from his native Hungary in 1990, Leo brings with him a strong sense of work commitment and a desire to contribute o the bigger picture. He is a very popular staff member in the office, not least for his frequent purchases of Spekulaas biscuits which he shares liberally.

▌APSR is out there

In October, Bronwyn Lee from the National Library of Australia travelled to beautiful Cornell University in upstate New York to present the report of APSR's PRESTA (PREMIS Requirements Statement) Project at iPRES 2006 (International Conference on Preservation of Digital Objects). This conference attracted over 223 participants from 13 countries in 5 continents. The presentations are now available on the iPRES 2006 website at http://ipres.library.cornell.edu/program.html.

The paper was presented as part of a concurrent session on Metadata and was well-received. Priscilla Caplan, co-chair of the PREMIS Working Group which produced the PREMIS Data Dictionary for Preservation Metadata (May 2005), attended the session and afterwards sent a message to the PREMIS Implementors' Group list, commenting "I just came back from the iPRES meeting at Cornell where I heard Bronwyn Lee talk about the PREMIS Requirements Project of the Australian Partnership for Sustainable Repositories (APSR). The report is at http://www.apsr.edu.au/publications/presta.pdf and it is very interesting."

Bronwyn writes: "Many interesting projects and activities were presented and there was a good mix of archivists, librarians and IT people attending. The conference was a great learning experience as well as an opportunity to showcase APSR's work to an international audience. This learning will benefit both the National Library of Australia's and APSR's on-going projects. Thank you to APSR for sponsoring the trip."

In upcoming months, APSR will be represented by Chris Blackall and Margaret Henty at the CNI Fall Task Force Meeting in Washington, and Margaret has been invited to give a talk at the Library of Congress in December. Paul McNamara and Markus Buchhorn are presenting a paper at Information Online at the end of January. Chris Blackall's paper has been accepted for EduCause where Margaret Henty, Danny Kingsley, Anna Shadbolt and Adrian Burton will present a trio of papers on eResearch. Conference details below.

▌Around the Traps…. Send your suggestions to contact@apsr.edu.au

Conferences and events

2006 4-5 December, CNI Fall Task Force Meeting *Washington, USA .* http://www.cni.org/tfms/tf.meetings.html

2007 30 January-1 February, Information Online 2007: *Australian Library and Information Association 13th Annual Conference* *Sydney, Australia.* http://www.information-online.com.au/

2007 February, Open Repositories 2007: *The 2nd International Conference on Open Repositories* *San Antonio, Texas.* http://openrepositories.org

2007 April 29-May 2, Educause Australiasia 2007: *Advancing Knowledge: Pushing Boundaries* *Melbourne, Australia.* http://www.caudit.edu.au/educauseaustralasia07/

Publications

▌ Anna Shadbolt, Dirk van der Knijff, Eve Young, Lyle Winton, **Sustainable Paths for Data-Intensive Research Communities***,* APSR, Canberra, August 2006
The report is downloadable as a pdf file (599kb) from: http://www.apsr.edu.au/aeres/

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Contributors to this newsletter were Danny Kingsley, Margaret Henty, Belinda Weaver, Chris Blackall and Bronwyn Lee.

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