

## Managing our Research Data



### Managing data wisely and well

By Margaret Henty, ANDS

Data created as part of the research process is increasingly recognised as a valuable national asset. Well-managed and described data is of greater value. Why? Because it allows the data to be sustained for later use and to be made available for others to use, perhaps in related research studies or in ways the creator did not originally envisage.

There are diverse views about what data management actually means. In this context, we are talking about all those activities which a researcher can undertake to organise and manage their data to facilitate their own research and to provide a foundation for the longer-term sustainability of the data. Data management, however, does not start and end with the researcher, as others

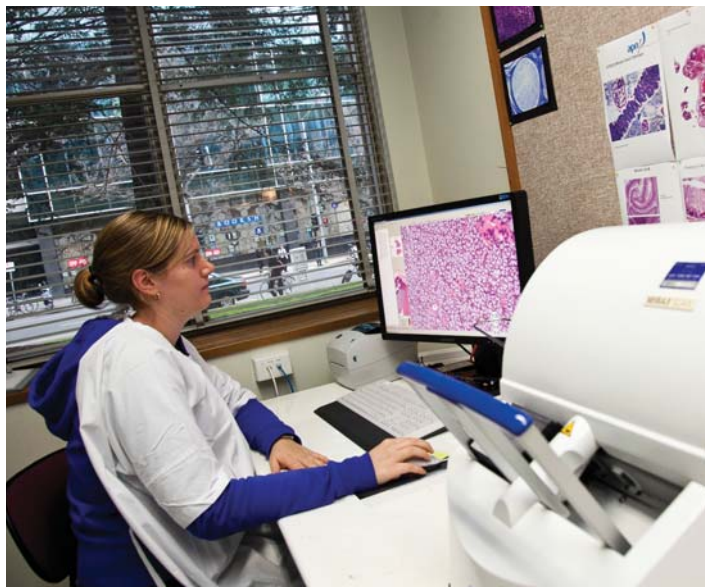
have a role here in ensuring that the right data infrastructure is available for the researcher to draw upon. Others have a role in curating and preserving the data for the longer term.

*The Australian Code for the Responsible Conduct of Research* (<http://www.nhmrc.gov.au/publications/synopses/r39syn.htm>) provides guidance on the importance of good data management and outlines the responsibilities of both researchers and their institutions. ANDS is committed to developing the Australian Research Data Commons (ARDC) where researchers will be able to share, find and access research data from all disciplines. In recognition of this, many of ANDS' partner are improving data management within their institutions as part of their ANDS contracts. Articles in this issue contain examples of projects that ANDS is funding.

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## Melbourne Histopathology and Organ Pathology Service Data Capture project



Research histologist, Louise Pontell utilising the web based Case Management System. Image courtesy of Owen O'Neill, The University of Melbourne.

Providing Australian researchers with high level imaging and descriptive reporting data, the Melbourne Histopathology and Organ Pathology Service (HOPS) validates and investigates mouse models of disease.

As part of an Australia-wide initiative to enhance biomedical research, the recently completed ANDS-funded project at HOPS has resulted in the development of an innovative web based Case Management System. This system links metadata seamlessly with images and other investigational information obtained during histopathological investigations of the mice.

The case management system is already yielding considerable efficiencies and has been very well received by HOPS staff and clients. The International Mouse Phenotyping Consortium has also recently expressed interest in the system. Further work is currently underway to export metadata from the system to the national Phenomics Ontology Driven Data repository project as well as Research Data Australia.

<http://www.ohrm.info/amhs/tiki-index.php>

*"We can now store massive amounts of genomic data, share it with our colleagues and analyse it in a seamless manner."*

### Project Data Capture - Managing and Discovering Microscope Images

Researchers at Westmead Institute for Cancer Research needed easier ways of working with very large images of breast cancer tissue and researchers across the world needed better ways of discovering these images. This ANDS-funded project, developed by Intersect, met both of these needs.

"...data processing which previously would have required days or weeks of laborious image file capture and cataloguing can now be completed in minutes. Images of breast cancer samples which are held by the Breast Cancer Tissue Bank can now be viewed and shared with the research community over the web." Prof Christine Clarke, Breast Cancer Research Group, Westmead Millennium Institute.

<http://www.intersect.org.au/breast-cancer-microscopy>

### Genomic Data Analysis Project - Storing the Code of Life

Next generation gene sequencers are able to generate huge amounts of data every day. As a result, gene sequencing is becoming both a research and a data challenge. The Genomic Data Analysis project at UNSW was part-funded by ANDS and developed by Intersect to meet this challenge.

"We can now store massive amounts of genomic data, share it with our colleagues and analyse it in a seamless manner. This is fundamental infrastructure that underpins genomic research. Without it, we just can't do the work" Professor Marc Wilkins, Ramaciotti Centre for Gene Function Analysis.

<http://www.intersect.org.au/genomic-data-analysis-project>

## Motion Picture Producers and Distributors of America (MPPDA), Inc. Database

The MPPDA database comprises 35,000 digital images of MPPDA correspondence and documentation covering the period from 1922 to 1939, digitised from a microfilm copy. Professor Richard Maltby from Flinders University, South Australia, will make it visible on Research Data Australia (RDA) and available to researchers in an open-access, machine-readable, standards-compliant format. The database will be hosted on a Flinders University research data repository, which is also being developed as part of this ANDS-funded project.

Using this and other ANDS-funded projects, Flinders University will develop policies, procedures, and web tools and services to enhance research data management within the university.

<http://www.flinders.edu.au/people/richard.maltby>



Sample suggested logo archive illustration. Image courtesy Professor Richard Maltby, Flinders University South Australia.

## Dynamic research requires future planning

By Pollyanna Sutton (Pollyanna is a freelance journalist)

Since 2008, QUT has been developing policy, and codes of practice and capacity around effective research data management.

According to Martin Borchert, Associate Director, Library Services at Queensland University of Technology and Dr Joe Young, Manager High Performance Computing and Research at QUT, they are in the middle of the beginning of the research data management story.

"One of the interesting things about research data management is that it cuts across many areas of the University and external agencies:- researchers, granting bodies, the Office of Research, governance, Ethics, high performance computing and the Library; it pulls interest and contributions from a large number of groups," Borchert said.

In 2008, QUT ran three internally funded research data management pilots with the creative industries and engineering faculties, to build expertise in management of research data and related technologies such as digital repositories. Following that, QUT received several grants from ANDS and two years on, Borchert said that considerable project work is behind them.

Data Management development through ANDS funding began with two grants. The first was a project involving two library staff - Ellen Thompson and Craig Milne who interviewed more than 200 researchers to talk about their research activities and their research data. They developed metadata records that were then placed in the University repository, and some were approved as appropriate to be fed to the Research Data Australia service. The second ANDS project was a collaborative effort with Griffith University. It ran during 2010 and developed a metadata aggregator tool based upon VIVO/ VITRO. Lance De Vine from QUT's HPC group was the technical advisor for the project.

A data management policy was developed and is available on a public QUT website. A paper on managing research data was endorsed by the University Research and Innovation Committee.

Now that policy, guidelines and checklists have been developed for researchers, the challenge is implementing these across the University. The focus has shifted to education and building expertise so staff can work with researchers to advise them not just about good practice, but also technology in research.

Workshops were held to train support staff in 2009 and 2010. These were held every two months last year and will be held more frequently this year. The workshops have been very well attended with numbers as high as 70 people per session.

Young said that alongside the training, his area has developed a Research Data Management Service that will focus on helping researchers decide what technology they will be able to use.

"Our services provide advice on the use of various technologies including Wikis, SharePoint Sites and Research Data Management Repositories such as MediaFlux. We are also advising researchers about the ARCS Data Fabric service." he said.

Borchert made the comment that data management is a forward planning activity rather than a retrospective exercise. The project found a number of reasons why data is not currently being shared: many researchers are still using it, they don't want to share yet, their results are in a difficult format to share, and there are ethical, privacy and contractual issues.

*...continued on page 4*

"One of the main considerations now when building a research plan is building in a level of how they should share data, right from the beginning. Ethics is also part of the planning when designing contracts and must also be built into the plan," he said.

Borchert said they have been working with the Office of Research to gain access to researchers early in their planning stage so that library staff can contact them. QUT has implemented a data storage service for all QUT students and staff known as eStore. Data stored on eStore is secure and safe and resides within QUT's central data centres. It is backed-up daily, and retained in accordance with University records management procedures. Hence, eStore provides a safety net for researchers where important data that might have resided on less reliable mediums such as USB sticks or PC drives, can be placed in a safe environment.

Borchert said no one can underestimate the diversity in the research community because each project is unique.

"It is important to work with every researcher's specific needs rather than drawing broad brushstrokes. Everything needs to be contextualised to get quality and this is part of the research story," he said.

Management of research data policy:

[http://www.mopp.qut.edu.au/D/D\\_02\\_08.jsp](http://www.mopp.qut.edu.au/D/D_02_08.jsp)

Guidelines and Checklist:

<http://www.tils.qut.edu.au/initiatives/researchsupport/datamanager/planning.jsp>

## Griffith Metadata Hub

By Pollyanna Sutton (Pollyanna is a freelance journalist)

The changing nature of research data raised many complex issues for a Griffith University team facing the challenge of developing a Research Activity (Metadata Exchange) Hub that would create a master collection of research data within the University, with an automated feed to Research Data Australia.

The resolution of issues such as security of confidential data and access management; data backups and archiving data for long-term preservation, as well as data sharing or publishing, and data synchronisation were all major drivers for the project.

The challenge of addressing these was counter-balanced by the perceived longer term benefits such as reduced duplication of effort and loss of, or difficulty in, recovering data for use in future research projects.

In a culture that has rapidly transitioned from traditional research to a more data-intensive research, characterised by data analysis and mining; patterns discovery; and the evolution of large databases and data archives - the project was undertaken as the first step in helping to make University research data more discoverable and accessible, and followed open access and linked data best practice models.

The Metadata Exchange Hub collects appropriate metadata within the University through customised feeds from internal content management systems and authoritative source metadata from corporate systems. It then acts as the repository to feed information in a standard format to Research Data Australia, the National Library Australia Trove service, as well as university discovery tools. Everything that is harvested is also searchable on Google.

A condition in developing the Hub was that it had to use readily available open source software. Griffith and project partner QUT (Queensland University of Technology) chose an open source integrated ontology editor and semantic web application called VIVO that had been developed at Cornell University in the US.

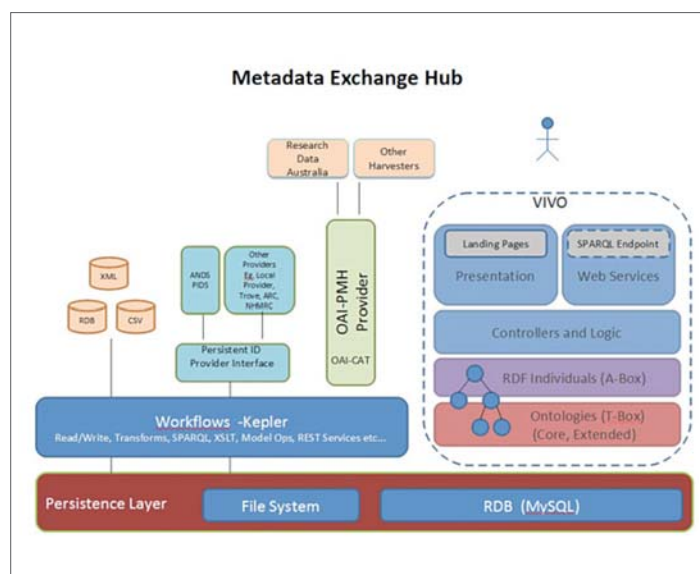


Figure 1. Diagram of Metadata Exchange Hub Architecture. Image courtesy of Griffith University.

The implementation of VIVO fostered vigorous discussion and development around a research-focused ontology and a metadata schema which could show the relationships between researchers and organisations, research collections, activities and services. This national research-focused ontology became an important part of the project, because of its implications in standardising the way things were referred to and subsequently categorised, harvested and seeded to other national systems.

Some ANDS partner institutions have adopted the ontology and applied it in other semantic applications. Griffith, QUT, University of Melbourne, University of Southern Queensland and University of Western Australia are working collectively at maintaining the ontology. Malcolm Wolski, Associate Director, Information Services (Scholarly Information and Research) at Griffith said, "Australia's collaborative research infrastructure is enhanced when universities generate and collate a consistent metadata feed to populate discovery portals such as Research Data Australia (RDA)...continued on page 5

This ontology employs components of a number of established ontology standards and describes the relationships between them. Collectively they provide a coherent framework for mapping the bulk of institutional research activity in Australia."

Griffith University's Metadata Exchange Hub exposes the relationships among researchers, their projects and their research outputs - an enormous challenge as many researchers and academic staff can be attached to more than one project, department, and school. Furthermore this information was spread across a number of University systems. The Hub takes the relationships that were implicit in this data and makes it explicit. Initially there was some debate about the location of the authoritative sources of data. For example the University's internal online telephone book held the most up to date details of people's contact details, not the HR system. In the case of contact details, this issue led to a change being made to the University's identity meta-directory database so that it is now the authoritative source for contact details for harvesting.

Now the system is in place and researchers are beginning to see the potential of sharing information as they provide feedback on corrections to metadata and request to have more of their publications included in the University's institutional repositories.

Wolski said it is heartening to see engagement from researchers.

"The research community is excited by the prospect of building a rich personal profile based on the relationships (researchers, their projects and their research outputs) exposed by the Hub, and Research Centre directors are seeing opportunities to take this one step further by using these relationships to develop dynamically fed research centre profiles."

Griffith University in turn is building an institutional research profile. An increase in the collection of research data should increase opportunities for identifying collaborators for new research and identifying existing data for reuse.

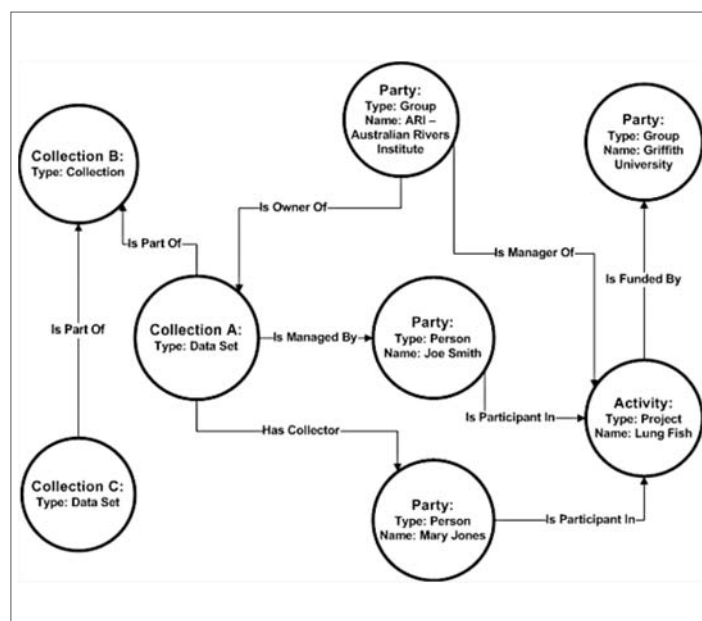


Figure 2. Diagram of RIF-CS Relationships. Image courtesy of Griffith University.

"This initiative should also help to prepare researchers for new scholarly publishing paradigms, especially integration of data with publications. All of this work ideally will lead to improvements in research quality and meet researchers' needs as research becomes more data intensive," he said.

"There is a lot happening to keep people enthused as we embed things into our system," he said. Since completion of the ANDS-funded project, the University has recognised further potential to utilise the hub's capabilities and has invested in expanding the research profile component of the hub to become the university's researcher profile system replacing the current profile system.

*"It is important to work with every researcher's specific needs rather than drawing broad brushstrokes. Everything needs to be contextualised to get quality and this is part of the research story"*

## Expanding Data Collections – transitioning cultures

By Pollyanna Sutton (Pollyanna is a freelance journalist)

Transitioning cultures takes consultation, particularly in environments which have large complex stakeholder groups such as Universities.

When Monash University librarians went out into the field and spoke with researchers across the campuses, it opened up conversation about data management issues, raised awareness of local services and expertise, and encouraged library staff to apply their existing skills in new ways.

Monash University Library's Research Data Collections Project (RDCP) started in April 2010 with funding from ANDS. Two data librarians and a metadata specialist have been employed to identify and interview researchers from all faculties about datasets generated from publicly funded research.

The project aims to contribute information about datasets to Research Data Australia, as well as to learn more about researchers' data management practices, for example, where data is stored, how it is organised and described, and what access restrictions are in place.

The project was well received with a 90% positive response rate from researchers. Project Manager of the Research Data Collection Project, Sam Searle said those who declined did so because their projects had not produced the kind of datasets that were in scope. Researchers had indicated that they found the interviews valuable, with one humanities scholar saying that he "couldn't think of a better project that you are doing."

The RDCP builds on earlier activities within the Library that extended the role of liaison librarians to include data management advice. Librarians understand the information environments of their disciplines and have existing relationships with researchers.

"Our project goal was for 50 collection records by the middle of this year, and so far we have completed 50 interviews across all 10 faculties at Monash on five out of the six of our Victorian campuses," she said. "One of the great successes of the project has been the involvement of a broader group of more than fifteen subject librarians in the interviews."

Jackie Waylen was seconded to the project from her role as a liaison librarian for music and performing arts. In reflecting on her time on the project, Waylen said "Learning about the data issues researchers need to think about has made me more aware of how we, as librarians, can increase awareness of research data management. For example, we meet new researchers and outline for them the services available to support their teaching and research. Discussions about data management could be included as part of this process."

Searle said the RDCP and previous work at Monash University Library had shown the value of speaking with researchers early in projects. For example, sharing data might be difficult for a completed project that did not seek open consent from participants for re-use before the data was captured.



L to R: Jackie Waylen, Research Data Librarian talks to Dr Maryrose Casey, Director of the Performance Research Unit, Centre for Theatre and Performance Studies at Monash University. Image courtesy Sam Searle, Monash University Library.

*"Our experiences on this ANDS project will help us to plan future work at Monash University Library."*

Searle explained that seeking permission retrospectively can be time-consuming and difficult, so researchers need to be encouraged to plan for re-use at the start of projects and ensure appropriate agreements are made with participants.

Searle said data management advisory services are part of a broader shift in academic libraries from being solely gateways to purchased resources such as books and journals, to more active managers of scholarly content being produced by the institution's researchers.

Searle said "Our experiences on this ANDS project will help us to plan future work at Monash University Library. We are keen to build on our existing partnerships with researchers to ensure that more data collections are well-managed and can be discovered."

# Chair's report – Ron Sandland

The ANDS Initiative had its origins in the 2008 Strategic Roadmap for Australian Research Infrastructure which was conducted by the Department of Innovation. The process put in place was to convene a set of expert working groups to provide sections of the report which was then subject to wide consultation. The result was a seminal document which has shaped the course of Australian research infrastructure since that time. It was also a very readable document and the vision it outlined still rings true.

But as the NCRIS and EIF funded infrastructure projects gather momentum and achievements, their lifetime is finite and DIISR has decided that it is time to conduct the road mapping exercise once more to examine the future infrastructure needs of the Australian research community. That process is proceeding apace with a new set of Chairs and members of the Expert Working Groups. The achievements and directions of the current capabilities (of which ANDS is one) are recognised as the starting points from which the discussions should proceed. Ross Wilkinson and his capability peers have had the opportunity to address the eResearch Expert Working Group chaired by Professor Attila Brungs, Deputy Vice Chancellor Research at UTS. It is a truism to say that the findings of these Expert Working Groups will be a critical plank in helping the Government to frame its future investments in research infrastructure. It is also often not recognised that many of the Government's investments in research infrastructure have given Australia an internationally leading position in a number of domains. ANDS can fairly claim to be one of those.

ANDS has articulated its role as enabling Australia's research data to be transformed in ways that are critical to maximising the value obtained from investment in its collection.

These are:

From Data that are:		To Structured Collections that are:
Unmanaged	→	Managed
Disconnected	→	Connected
Invisible	→	Findable
Single use	→	Reusable

But continuing investment in research data infrastructure will, we believe, enable Australia to achieve an internationally leading position in data-based research that will enable us to solve problems that are critical to Australia.

How we have articulated this to the Expert Working Group in eResearch is that continued infrastructure investment will enable:

1. The most effective use of existing investments in positioning Australia as a focus of data intensive research by deploying current solutions beyond the leading wave of best of breed data intensive research.
2. Research that simply could not be conducted otherwise as the data resources would not be available.
3. Ensure that Australia has a mature capability in research data that is globally leading, making Australia a key locus for data intensive research.

These are all critical outcomes and we in ANDS continue to focus our attention on ensuring that the traction being gained in our current programs will help us towards this "light on the hill".

*"ANDS has articulated its role as enabling Australia's research data to be transformed in ways that are critical to maximising the value obtained from investment in its collection."*

## Executive Director's report – Ross Wilkinson

In building national data services and partnering to create coherent institutional research data infrastructure, we aim to transform Australia's research data environment to be the best in the world. This issue of Share concentrates on one of those transformations – professionally managed research data. The articles in this issue highlight just how much of a partnership this requires – between researchers, technical infrastructure providers and professional data managers. The reasons for this partnership is clear – the overwhelming complexity and scale of research data. There is a need to automate much of metadata capture, so it becomes very important to decide on the purposes of capture beforehand. The need to capture rich context that enables the data to be used beyond the initial requirements and in combination with other data requires careful thought and relevant infrastructure.

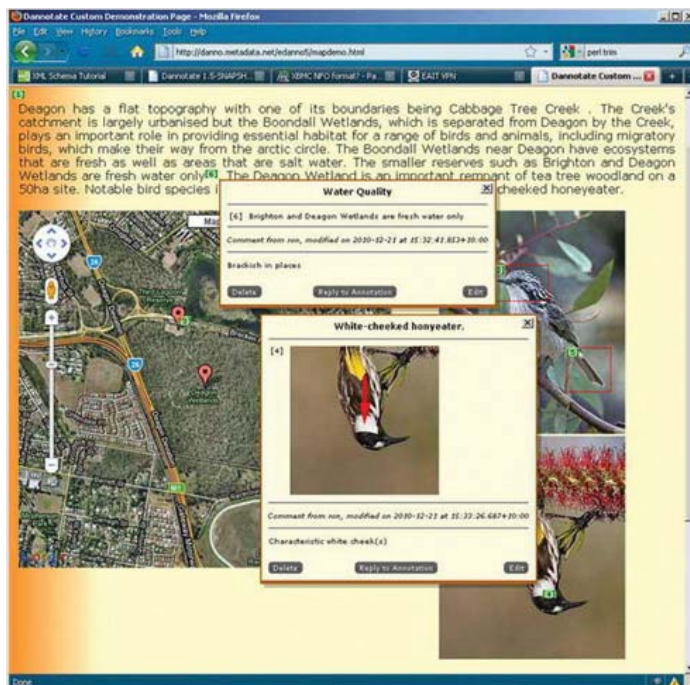
So, what do Queensland school children and Chinese Ph. D students have in common? Both groups will be accessing pulsar data captured by the Parkes telescope for research being conducted by Federation Fellow, Dr. Dick Manchester and his team at the Australian Telescope National Facility staff. Neither group would be able to interpret this data without contextual information captured as rich metadata. This metadata is now being captured routinely and automatically to make data available through the CSIRO data access portal and collections can be discovered using the ANDS collection portal, Research Data Australia. The software to enable all of this was funded by ANDS and built by CSIRO technical staff in consultation with their data management team and ATNF researchers, a partnership that delivered outcomes for both furthering research and promoting science education.

## Annotation Services for the Atlas of Living Australia

When the Atlas of Living Australia (ALA) project began in 2008, the eResearch Lab at the University of Queensland was given the responsibility for developing a rich, shared, annotation service that would provide the Web 2.0 component of the ALA Web presence. This work is nearing completion and when fully integrated, will allow users to create annotations relating to ALA Web pages, specific species, species images and species occurrences on maps. The major advantage of the Danno annotation service is that it is browser independent and requires nothing to be installed or configured.

Users can attach a variety of annotation types (comments, questions, keywords), reply to existing annotations or reply to existing replies. Annotations are stored on a separate Web server and dynamically inserted into pages at time of viewing, hence maximizing knowledge sharing, re-use and interaction amongst the ALA community. It is envisaged that the annotation service will enable users to identify erroneous or misleading data or to share their knowledge about specific species with the wider community - thus enhancing the quality of the ALA data.

For more information about the service and short video demonstrations, visit the Danno home page at (<http://itee.uq.edu.au/~eresearch/danno.html>), or contact the team leader, Ron Chernich, at [chernich@itee.uq.edu.au](mailto:chernich@itee.uq.edu.au).



Screenshot of the Atlas of Living Australia annotation service. Image courtesy of Ronald A Chernich, The University of Queensland.



## In brief

### New 'How-To' Guides released by DCC and ANDS

The Digital Curation Centre has published a new guide on "Selecting and Appraising Research Data for Curation". This (first prepared October 2010) 'how-to' guide is a collaboration between the DCC's Dr Angus Whyte and Dr Andrew Wilson of ANDS.

This series is aimed at people in research or support posts who are new to curation, but are taking on responsibilities for managing data, whether at local research group level or in an institutional data centre/ repository. The guide is available from: <http://www.dcc.ac.uk/node/9098>

### SURFshare checklist for selecting data for preservation

Commissioned by SURFfoundation - SURFshare checklist is a comparatively general set of guidelines that was compiled to help researchers identify and select relevant information to preserve. SURFshare's checklist was developed from three studies from different discipline perspectives and is aimed to be used at all levels within the data research community.

<http://www.surf.nl/en/SURFActueel/Pages/Checklisthelpselectresearchdatatobepreserved.aspx>

### Keeping Research Data Safe project - KRDS

The Keeping Research Data Safe (<http://www.beagrie.com/krds.php>) (KRDS) project has produced a widely used KRDS Activity Model for costing digital preservation of research data. KRDS has developed from relatively small-scale incremental projects and recognised that there were still significant areas for future work such as the recently published (Dec 2010) KRDS User Guide ([http://www.beagrie.com/KeepingResearchDataSafe\\_UserGuide\\_v1\\_Dec2010.pdf](http://www.beagrie.com/KeepingResearchDataSafe_UserGuide_v1_Dec2010.pdf)) which addresses an earlier recommendation to: "Examine further development of the pre-archive phase of the KRDS2 activity model and produce versions of the model from a researcher's perspective."

This suggested work has now been addressed by one of the outputs from the Infrastructure for Integration in Structural Sciences (I2S2) Project (<http://www.ukoln.ac.uk/projects/I2S2/>) funded under the Research Data Management Infrastructure strand of the JISC's Managing Research Data Programme.

## Project update on ANDS engagement with GeoScience Australia

ANDS is embarking on a series of engagements with public sector agencies to provide assistance in exposing their data to the Australian Research Data Commons to support Australia's research endeavours. Geoscience Australia (GA) is the first engagement.

Geoscience Australia is a world leader in providing first class geoscientific information and knowledge which enables government and community to make informed decisions about:

- » the exploitation of resources
- » the management of the environment
- » the safety of critical infrastructure and
- » the resultant wellbeing of all Australians

Geoscience Australia and the Office of Spatial Data Management have three catalogues which hold metadata of significant value to researchers. The ANDS team worked on site with staff from GA's Programme Darwin to analyse the catalogues, map them to the

ISO19115 metadata schema and then crosswalk them to RIF-CS metadata schema for harvesting into Research Data Australia. The original intention was to install an OAI-PMH harvest point. However ANDS-funded work that is also being conducted in GA by AuScope deploying a Spatial Information Services Stack will provide this capability and can be leveraged to expose this data at the same time.

Tracie Hibbard from GA explained: "the aim of Programme Darwin is to improve the accessibility of Geoscience Australia's products, to 'make our science useful.' In order to harvest the metadata from our current catalogues, they first have to be Standards compliant. ANDS have been instrumental in mapping our catalogues to ISO Standards and providing a gap analysis to inform future auditing. The ANDS staff have liaised with GA's technical experts to initiate harvesting and have provided clear and objective advice. We have certainly been extremely grateful for their input."

## Event reports

### Queensland Outreach Community Event report

By Andrew White, ANDS

On 17th February, the first ANDS Queensland Community Event was held at QUT in Brisbane. This was an excellent opportunity for ANDS staff and ANDS partners in Queensland to come together from all over the state to meet with others working on ANDS-funded projects. It afforded the chance to share information and experiences and for everyone to learn about the projects of other ANDS partners in Queensland. The day included productive discussion on many of the current topics affecting the Community including engagement strategies with the academic community and long term sustainability of research data management solutions. The day was the first of many similar events currently being held across Australia.



Participants at the ANDS QLD community outreach event.



L to R: ANDS QLD community outreach participants Joanne Morris (eResearch Services Manager Griffith University) and Graham Chen (eResearch Managers QCIF)

### South Australia Outreach Community Event report

By Andrew Williams, ANDS

On Thursday 24th February ANDS hosted a community outreach event in South Australia. The event was planned as an informal opportunity for information sharing and skills development for staff involved in ANDS funded projects at South Australian universities. The day began with presentations from each of the projects, including brief overviews, the projects' primary issues and information needs, and the learning achieved in the course of each project so far.

Later in the day the issues and information needs were discussed in groups. Several ANDS staff attended the event and offered help and information directly to project staff.

The event allowed an excellent oversight of the breadth of the work ANDS is funding in South Australia. The projects range broadly across the humanities and sciences, and will deliver outcomes that relate directly to both individual research projects and university-wide management of research data.



Dr Ross Wilkinson (ANDS) addressing attendees with his talk; Infrastructure for Research Data.

### Second International Colloquium on Data Management for eScience - 18th March 2011

By Andrew Treloar, ANDS

Dr Ross Wilkinson addressed the Second International Colloquium on Data Provenance and Data Management for eScience (DPDM'11), held in Melbourne on 18th March 2011. His talk, Infrastructure for Research Data - Increasing the Value, started by talking about how ANDS is working to transform data from unmanaged to managed, disconnected to connected, invisible to findable, and single use to reusable. To enable this, ANDS is building lots of infrastructure to support sharing and re-use of data. So what provenance information is needed to enable this? One way of thinking about capturing and augmenting provenance information is the idea of Data Curation Continua (<http://ands.org.au/guides/curation.continuum.html>). This argues that what is required is automated extraction and possible manual augmentation of context for the data at the laboratory, collaboration space, and institution level. The Data Capture and Metadata Stores activities funded by ANDS are trying to target the most efficient ways to do this. His talk concluded with a plea for a pragmatic, not purist, approach to richer context for data.

## Meet the ANDS Staff



### Andrew Williams

Andrew Williams works with ANDS as a research data analyst, based at eResearch South Australia. Andrew's qualifications include undergraduate work and a PhD in Ethnomusicology, and a Graduate Diploma in Library and Information Management. Before joining ANDS, Andrew worked as a librarian and in software and web development in the education sector.

For ANDS, Andrew works with universities in South Australia and the ACT, first to develop and then to assist with their Seeding the Commons and Data Capture projects. The South Australian universities are undertaking ANDS-funded projects of varied flavours, involving research data from architectural artifacts to plant phenomic images and a database of Australian theatre.



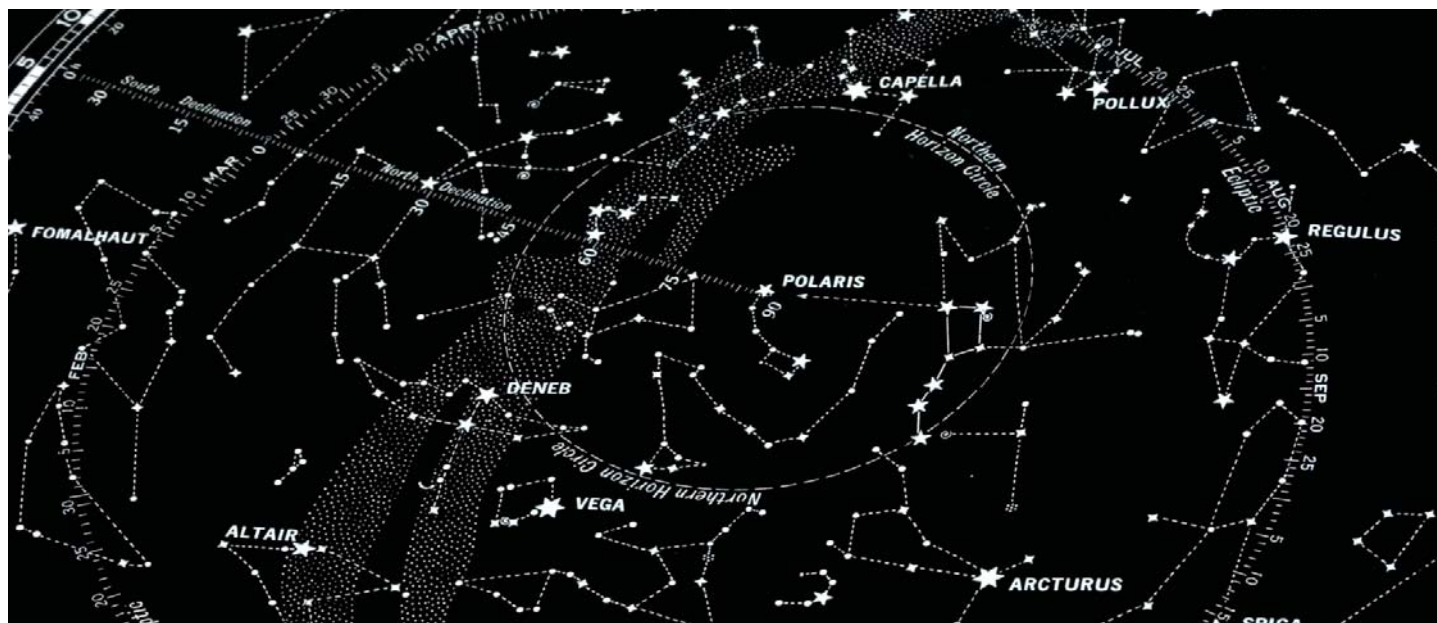
### Mathew Wyatt

After completing a degree in Bioinformatics with honours in grid computing, Mathew went on to work as a Software Engineer for the Australian Institute of Marine Science, James Cook University and the CSIRO. During this time he worked on software solutions for the fields of marine biochemistry, x-ray crystallography, and the geosciences.

Now working as a member of ANDS outreach staff in Western Australia, based at iVEC, Mathew's primary responsibilities are facilitating ANDS investment at the University of Western Australia, Curtin University, Edith Cowan University and Murdoch University. In addition to this Mathew works closely with the Terrestrial Ecosystem Research Network's Auscover component and the Western Australian node of the Australian Ocean Data Network on their data and metadata delivery systems.

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*"ANDS is working to transform data from unmanaged to managed, disconnected to connected, invisible to findable, and single use to reusable."*  
*Dr Ross Wilkinson*



## Forthcoming events

More details found here: <http://ands.org.au/events/index.html>

### NSW & ACT ANDS Outreach Community Event

17th and 18th May 2011

Australian Technology Park, NSW

Details at <http://ands.org.au/events/community/nsw170511.html>

Contact Angela Lang ([angela.lang@ands.org.au](mailto:angela.lang@ands.org.au))

### Digital Preservation Workshop

20th and 21st July 2011

Monash Conference Centre in Melbourne.

7/30 Collins Street, Melbourne.

The Workshop will be lead by Dr Nancy McGovern from the University of Michigan.

Details at <http://ands.org.au/events/data-preservation/index.html>

Contact Margaret Henty ([margaret.henty@ands.org.au](mailto:margaret.henty@ands.org.au))

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