eResearch Australasia 2011 – BoF

Setting up in eResearch?
How to hit the ground running

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The UWS eResearch Team

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  - Pro Vice-Chancellor Research
- Peter Sefton
  - eResearch Manager
- Peter Bugeia
  - eResearch Analyst – seconded from Intersect
- Andrew Leahy
  - eResearch Advisor

- UWS Information Technology Services
- UWS Library
Purpose of the Session

- to explain our experience in setting up eResearch in a non-research intensive University;
- to share experiences and ideas in embedding eResearch in an institution, and
- to continue to build a network of eResearch enthusiasts

Why eResearch?

- The Data Revolution
  - Growth in data production
  - Data Analysis and Visualisation
  - Democratisation of Data
  - Data Reuse
- Publications
  - Publications with data
  - Data is the platform of the future.
  - Open Access Publication linked to data.
- Efficiency
  - Reducing Time-to-Discovery by Reducing Time-to- Experiment
- Collaboration
Drivers for Change

- Support for research that is globally relevant and competitive
- Facilitation of national and international collaboration
- Science and social questions are more global in focus
- Predictive power needed to meet major challenges
- Tool sets to address highly complex problems in all areas
- Urgency in delivering a stronger evidence base for policy making
- Fast access to data, knowledge and expertise is required
- Support in managing exponential growth of research data
- Publishing of and access to research and research data
- Generational Change
- Government recognition of these issues is driving funding...
Summary

- eResearch is a set of tools to enhance our research capability
- The government is allocating significant funding for eResearch Infrastructure
- eResearch tools
  - enable fast and deep analysis, modelling and visualisation
  - facilitate faster and broader collaboration
  - enable reuse and repurposing of research data
  - requires a culture change in how researchers work

What are we up against?

- Embedded methodologies
- Lack of knowledge of capabilities
- Inertia if there is no quickly realisable benefit
- University executive does not fully understand the implications
- Lack of long term vision
- Lack of long term funding
- Involvement of IT shops in an unfamiliar area
- Required learning and retraining
- Scholarly publishing Industry
- Privacy and IP issues
- Lack of a reward structure
- Culture Change
So What happened at UWS

- What initiated eResearch at UWS?
- Who drove the eResearch direction?
- How was demand assessed?
- Awareness raising?
- How was funding obtained?

What is Currently in Place?

- eResearch Team of 3
  - Manager
  - eResearch Analyst – Intersect
  - eResearch Advisor
- Linked into the ITS Service Desk and to the UWS Library team
- Implementation of Virtual Environments
  - About 20 installed since 2009 reaching about 175 users
- eResearch Research Data Repository (SAN) – operating for 8 months
  - Useable capacity so far – 68TB
    - 6TB – Population Health
    - 2x2TB – Genomics Virtual Workstations
    - 2TB Nano Group (23TB allocated)
    - 2TB MARCS Lab Collaboration Share
    - 20% allocation in 8 Months
Benefits to Date

- UWS is linked into the Intersect network.
- UWS Researchers now have a high level of awareness.
- Intersect survey – UWS so far has the highest response rate.
- Two ANDS Project underway.
- Two NeCTAR VL Projects submitted.
- Requests for Data Storage and now coming to us.
- Infrastructure savings by using virtual machines for higher compute requirements.
- Research Data Management plans are being produced.
- Office of Research Services is checking on compliance.
- Research grant requests for HPC are being referred to eResearch.

Future Plans

- Establishment of an eResearch Committee
- eResearch Strategic Plan for the University
- Continue communication and awareness raising
- Increase usage of collaboration tool across UWS (confluence)
- eResearch Strategy for the UWS Research Institutes
- Infrastructure Planning and acquisition
- Project planning to leverage Government funding
- Expansion of the team on an as needs basis
- Forging strong links into the UWS ITS Unit and into the Library
- Embedding data management planning and IT computing needs analysis into the Research Project Lifecycle
- Learning and Development, targeting both researchers and HDRs.
Some Focus Questions

1. Quick wins: Is it better to target specific research groups who are seen to be successful rather than to run broad-brush initiatives? What are the risks?

2. What are the researcher Hot Buttons in regard to eResearch, i.e.: the problems they are most interested in solving? How to resolve the difference between these Hot Buttons and institutional objectives?

3. Which should come first: eResearch policy or practical procedures and guidelines?

4. How do you get the eResearch message out to Researchers and Higher Degree Research students?

5. Which is better: A separate eResearch support team or an IT support team who have been trained in eResearch? And why?

More Focus Questions

6. Why not just put everything in the Cloud?

7. Research data and tools are not vital to the institution and there is no need to include it in Disaster Recovery plans?

8. Why have a central research data store? Is it necessary? What are the alternatives?

9. What should be the makeup of the eResearch team and how should it be governed?
   a. Who is on the steering committee?
   b. Will it/should it be gone in 5 years because the term is no longer needed?

10. What are the best eResearch statistics to gather by way of performance indicators?