Implementing data management at a smaller university: Challenges so far

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A chronology of events – 2007 present

- Highlighting challenges
- Applicable to smaller and regional universities
University of Canberra (UC)

• Smaller teaching and research university
• Students: 16,429 (People) 11,285 (EFTSL)
• Staff: 390 (FTE) including 30 Research-only *
• Expanding nationally and internationally
• Universities of similar size: CQU (11,458), UNE (11,487), USQ (13,761), Flinders (15,574), James Cook (16,251), Murdoch (16,599)
• Became world ranked in 2013

2007: 2008-2012 Strategic Plan released

- UC becoming a research university
- Focus on research outputs and performance
- Goal of performing in top half of Australian Universities on Research Income ( Reached in 2012)
- With research comes the generation of primary research data
2009: Commencement of ANDS

- Engagement with UC begins
- By mid-2009 UC invited to “seed the commons”
- By September 2009 funding is agreed
- Capable individuals take on the project – not a University-wide approach
December 2009: University of Canberra Research Repository goes live

- Joint project: Library, Research Office, and ITM
- Publications showcase
- Meeting HERDC and ERA collection requirements
- Included implementation of Equella Dark Repository
- Measuring outputs and securing grant funding a higher priority that data management
March 2010: Staff begin to participate in training and development activities

• Beginning with the ANDS Roadshow of 2010 staff have attended a range of activities covering:

  – High performance computing
  – Digital repository management
  – Data librarianship
  – Data citation
  – Research data intensive
  – Rif-CS metadata
August 2010: Preparation for 2012 ERA submission begins

• Collaboration between DVCR, Research Office, Library, Academic disciplines, ITM, HR

• A substantial and demanding process of strategic planning, system integration, training, collection, measurement, and analysis.

• Repeated from February 2013 for 2015 submission
August 2011: ANDS Seeding the Commons Grant

- Establish a research data repository and metadata store for UC research
- Publish metadata in the Australian Data Commons
- Develop a Research Data Management Policy
- Technically completed in August 2012 - BUT not a University-wide implementation.
November 2011: UC Management of Research Data and Primary Materials Policy

• Covered storage retention and appropriate access
• Allowed compliance with Australian Code for Responsible Conduct of Research
• Subsequently not comprehensive enough
2012: $26m Structural Adjustment Fund (SAF) Grant

- For UC changing it’s “business as usual”
- Expand nationally and internationally
- Driven by:
  - softening demand for UC in the ACT,
  - competition from other providers, and
  - UC lacking flexible and distance offerings

- Demanding on staff and introduced competition for ITM projects such as Digital Asset Management System
2012: “Breakthrough” Strategic Plan 2013-2017

- Expand flexible learning
- Build Australian Polytechnic Network
- Expand UC College
- Build international partnerships
- Achieve world ranking as a young University
- Increase research grant income, strengthen research impact, increase internationally co-authored publications
- Research goals are a driver of good data management, but again a lot of focus on measuring outcomes
January 2013: Member of Intersect

• Provides UC with merit-based access to Intersect’s NoDE of National Research Data Storage Infrastructure.

• Institute for Applied Ecology and Human-Centred Computing Research Laboratory are two users of Intersect for data storage

• Intersect Research Analyst based at UC for advice on eResearch Strategy, High Performance Computing, Training

• A success for significant data sets and for eResearch strategy but what about data tail – particularly sensitive data?
April 2013: Formation of eResearch Committee

• Cross unit membership inc DVCR, Intersect, RO, ITM, Library, Academics

• Terms of Reference:
  – Develop and Implement eResearch Strategy
  – Develop & facilitate communication about eResearch services and strategy
  – Foster eResearch best practice in UC research community
  – Advise Research Committee on eResearch practice and researcher needs
  – Ensure collaborative & consolidated approach to infrastructure, policy and procedures
May 2013: eResearch Strategy
Sept 2013: eResearch Implementation Plan

• Number of strategic quick wins achieved via strategy and implementation plan and leveraging Intersect membership

• Further implementation delayed due to: competing priorities, key staff turnover, cost of storage (sustainability)
Next:

Roadmap for data management
June 2014: ANDS Open Data Collection Collections (ODC) Grant

• Grant for establishment of Open Data Collection at UC

• Scheme funding provided through university libraries to encourage more prominent role for libraries in research data management
November 2014: Revised Management of Research Data & Primary Materials Policy

• Draft currently under review
• Broad scope policy and procedures to cover issues not in the original policy such as:
  – Ownership
  – Storage
  – Retention and disposal
• Significant challenges:
  – Cost of storage
  – Disposal
  – Ownership / duty of care
November 2014: Road Mapping

- Engaging a range of stakeholders in developing VISION and ROADMAP to implement and sustain Research Data Management for UC
  - State analysis
  - Define desirable end state
  - Gap analysis
  - Prioritise and sequence actions
Conclusions

Challenges and opportunities
Conclusions: Challenges

• Ever-increasing research output = great demand for primary research data storage and management

• Current storage & management at discipline level network ie, **NO INSTITUTION WIDE SOLUTION!**
  - Catering for large amounts of non-sensitive data but too cumbersome for small data sets
  - Not catering for researchers with sensitive data
  - Likely no data management plans
  - No metadata

• Have struggled to execute eResearch strategy and implementation plans due to:
Conclusions: Challenges

- Policy dilemmas
- Business cost of data storage is a sustainability issue
- Structural adjustment of the University means a range of competing ITM projects
- Focus on system integration, collecting, measuring, and analysing research performance a time-consuming exercise for the DVCR & Research Office
- Turnover of key staff
- Cross-unit collaboration has not been strong
Conclusions: Wins and Opportunities

• “Significant” data well catered for via Intersect NODE of National Research Infrastructure
• Well trained staff
• Library an underutilised yet capable stakeholder. This will likely change due to:
  – Open Data Collections Grant
  – Road mapping process
  – Changing role for libraries generally
• Have so far underutilised ANDS support