Build it and they will come?
Strategies for populating a self serve data repository
Build it and they will come?*

Who are “they”? Introduction to CSIRO Researchers

What are we building? About the CSIRO Data Access Portal (DAP)

What might get them to come?
Strategies employed so far to populate the DAP
- technical
- support, training & promotion
- targeted approaches

What worked? Outcomes of the strategies

What are we going to do next?
**About CSIRO**

**People** 6500

**Divisions** 12

**Locations** 58

**Flagships** 11

**Budget** $1B+

Top 1% of global research institutions in 14 of 22 research fields

Top 0.1% in 4 research fields

62% of our people hold university degrees

2000 doctorates

500 masters

With our university partners, we develop 650 postgraduate research students
What we built:
Data Access Portal (DAP)

• developed by CSIRO Information Management & Technology (IM&T) and research partners

• **secure** repository

• enables **external publication** but options for other access levels

• **self serve**

• options for **searching, retrieving** and **downloading**
How we built it: DAP development and implementation

First steps: Project partnering
Dec 09 - Jan 11
Phase 1 - MDBSY

Testing the waters: Early adopters/pilots
May 10 - Feb 11
Phase 2 - ATNF
Feb 11 - Nov 11
Phase 3

Taking it to the masses
Jan 12 - Jul 12
Phase 4

Apr 12
General release announced
Strategies: develop a user friendly system

• Respond to feedback from early adopters & reference group (Agile methodology)
• UI consultant – Four easy steps to deposit

Deposit Data Collection

Four steps to deposit data:

• Context sensitive help
• Support for domain specific metadata schema
• Scheduled data deposits
• XML metadata import
Strategies: incentives in the infrastructure

- Persistent identifiers for every collection
- DOIs for public collections
- Enable linking to “related materials”, including records in our publications repository
- Flexible access and permissions framework
- Approval system to mitigate risk
- Image gallery view and image metadata
- Discovery- public records findable in RDA and Google
Strategies: add personal support

- **RDS Support team** practical, hands-on support for data deposits
- **Advanced Scientific Computing (ASC)** technical advice and assistance with preparing data for publication
- **DAP Development team** trouble-shooting system issues
Strategies: train and promote

Online

- Help pages and trouble shooting guide
- Sandbox environment
- Intranet pages
  - Quick Reference Cards
  - short video tutorials
- Newsletter articles
- Internal social media
Strategies: train and promote

Personal

We talk and demo to anyone anytime!
Face to face or video-conference – individuals, project and business groups, internal conferences, tea room chats ...

Training sessions through Library Services- reached 181+ (as of end Sept 2012)
  Approver training – reached 80
  Face to face demo sessions on sites- group (reached 57+)

All delivering consistent key messages
Strategies: marketing 101

Would you like to publish your data?

Did you know that having citable data in a publication will increase your citation rates? Find out how to cite your data collections.
Strategies: targeting our approaches

Targeting researchers:

- already sharing
  - just get data redirected to DAP
  - audit of what was already on our web sites
- at appropriate point in time in research process
- with journal or funder mandates
  - getting together lists of journals and funders
  - getting reports from project system on who funders are
Targeting researchers at appropriate point in research process

• started 15 September 2012

• phone calls to authors who had submitted articles to peer reviewed journals in previous 2 weeks- report from publications approval system

• little awareness of DAP and RDS but most were interested in DAP and wanted extra information. Good awareness raising exercise
The numbers: Collections

At general release date end April 2012

• 356 (all stages and levels)
  • Published 310
  • Public 304

At end September 2012

• 564 (all stages and levels) increase of 208
  • Published 419 increase of 109
  • Public 364 increase of 60
The numbers: Depositors

At general release date end April 2012

21 across 6 Divisions

At end September 2012

45 across 12 Divisions
## Collections by Status (end Sept 2012)

<table>
<thead>
<tr>
<th>Division</th>
<th>Draft</th>
<th>Submitted</th>
<th>Published</th>
<th>Total</th>
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<td>Land and Water</td>
<td>11</td>
<td>7</td>
<td></td>
<td>18</td>
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<td>5</td>
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<td>4</td>
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<td>Food and Nutritional Sciences</td>
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<td><strong>6</strong></td>
<td><strong>419</strong></td>
<td><strong>564</strong></td>
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## Published Collections by Access (end Sept 2012)

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<th>SPECIFIC_USERS</th>
<th>PUBLIC</th>
<th>Total</th>
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<td>CSIRO Materials Science and Engineering</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>6</strong></td>
<td><strong>49</strong></td>
<td><strong>364</strong></td>
<td><strong>419</strong></td>
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Collections added by Date

Development phase

General release date
Cumulative Collections added by Date

General release date
What worked?: Assessing the strategies

DOIs opened ears and eyes. They resonate!

Our system was built for self service but we needed to add help with metadata creation and data preparation to our support services.

For promotion catching people at the right point in the data/research lifecycle matters.

Talking to top levels doesn’t necessarily reach those with the datasets.

Responding to feedback and implementing wanted features. Having a (flexible) roadmap for future development.

Automated deposit and batch uploads work best if numbers are the success criteria.
Best uptake is where:

• there was recognition of a data management issue that the DAP could solve.
• there are motivating factors eg. funder requirements, journal policies.
• there is a pre-existing data sharing culture.
What’s next?: Further development work

Ongoing system development taking on board user feedback

• Google analytics – carrot for seeing reuse
• Sensor network auto uploads
• Interoperability. Eg. TERN
• Combine/integrate e-Publish and DAP
• Search by location – collections within a geographic area
• Linking to other data repositories within CSIRO, using the Cloud infrastructure currently being developed by IM&T
• Machine to machine functionality: web services, APIs
What’s next?: Strategies

Incentives:
• Tracking citation of data.

Promotion:
• Increase visibility on Intranet
• Increase awareness through CSIRO Learning and development courses

Barriers:
• Address “do not have time and resources” issues
• Development of organisational guidelines/procedures incorporating the Data management plan template
• Try to address the required cultural change
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Australian Government
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Thank you
What we are building: DAP technical

• Java web application running under Java 6 on Tomcat 6.
• makes use of an Oracle database but uses the Hibernate library to avoid any specific dependency on the database being Oracle.
• uses a Fedora Commons repository for XML storage.
• SOLR is used to power the searches.
• successfully adapted for use as our publications repository
• should be adaptable to any SOLR indexed collection source.
• currently preparing DAP software for release to open source.
• public records auto harvested to RDA by OAI-PMH