Poster proposal for OPEN REPOSITORIES 2008 from St Andrews University LIS
Project to integrate research publications deposit through a centralised deposit workflow: optimising the relationship and functionality of the St Andrews Research Expertise Database and the St Andrews Digital Research Repository.

Aims and objectives
- To develop the Research Expertise Database (ResExp) and the Digital Research Repository (DRR) in parallel.
- To establish good communication and practice in centralised and coordinated development of both databases.
- To embed the deposit, storage and dissemination of research profile data and publications into centralised workflows and engender academic support for this by demonstrating benefits
- To embed the deposit of research profile data and publications into the day to day routines of academic staff and to promote this as part of routine scholarly communication
- To reuse data and to avoid duplication of data input at every stage of the process, while still maintaining high metadata standards
- To explore the repurposing of data at every stage of the process
- To provide efficiency in University processes while still adhering to the principles of Open Access

Timeline
Project began in early 2006 with involvement of St Andrews LIS and BI (Business Improvements). Early emphasis was on potential use for RAE purposes but the focus was always on the long term integration of institutional research profile data and the functionality provided by features of a well populated Institutional Repository. Key technical support was provided by St Andrews membership of the Scottish Digital Library Consortium http://www.nls.uk/sdlc/ who provide technical support and development for the St Andrews Digital Research Repository (DSpace installation)

Key dates
December 2007 DRR launched for electronic theses. Thesis deposit for doctoral theses is mandated by the institution. Current content is c.130 theses.
11th April 2007 ResExp to DRR integration demonstrated at the Sherpa Road show in St Andrews
May 2007 ResExp to DRR integration demonstrated at the the euroCRIS members meeting in Stockholm/Helsinki
February 2008 Pilot live service launched. Initial testing with feedback from selected group of academic staff.
Spring/Summer 2008 Full launch planned

2008- Further project development issues will be:
- To address local institutional issues and national issues to embed the service and to make it a potentially essential tool for the successor to the RAE.
- To widen the user base into research students
- To offer reports and statistics which support and enhance research information, both for institutional purposes and for reporting out from the institution.
To offer enhanced support for customised publication lists
To address advocacy for content which is based on the essential and embedded role of the
ResExp and DRR in everyday academic activities.

**Process**
The process is that an academic updates their own publications list in the ResExp
database [http://portal.st-andrews.ac.uk/research-expertise/] either one by one or via batch
import of metadata from third party sources i.e. ISI Web of Science or any database that
supports export to BibTex format. Once the details of a publication are entered/imported
the academic is offered the opportunity to supply the full text of the research article,
conference paper, book chapter. The full text plus the metadata is then automatically
transferred into the DRR. [https://research-repository.st-andrews.ac.uk/] The material is
then checked by Repository staff for publisher copyright restrictions and if the material
can be copyright cleared then it is made available in the Repository and is available for
open access.

The **value** of this process is that it provides a one stop shop for St Andrews academics,
giving them the opportunity to keep their publications list up to date while at the same
time populating an Open Access repository for the institution. The IR does not exist in
isolation and does not develop a separate workflow for publications but works seamlessly
with an embedded research publication process that shows every sign of building into a
mandated process.

The process is speedy and intuitive and is designed to reduce data entry.

Added value is provided because the process seamlessly handles metadata reuse and
therefore allows a more prominent focus on the framework and advocacy programme to
promote full text deposit.

Metadata reuse releases academic time to deposit more publications and to focus on the
scholarly communication process.

Metadata reuse releases Repository staff time to process the deposits in terms of
copyright clearance and version control.

Metadata reuse releases Repository staff time to encourage deposit by promotion of
national policies eg the development of the Research Councils’ Open Access policies,

**Institutional framework and environment**
Focus is on a strong, centralised institutional framework for data gathering and
dissemination. ResExp Database offers centralised data gathering for research profiles
e.g. features such as Research awards, Research Students supervised, contact details,
Research overview, Recent publications and full publication list, Esteem, current and
former positions.

The structure of both databases parallels institutional structure eg structure of the DRR
offers collections for research outputs and for theses and offers these by replicating the
University structure of Schools and Departments.

The project has relied on currency with University structure for research with up to date
listings of research institutes and centres

University Senior Management Team buy in to the project and acknowledgement of the
better institutional control of and access to academic outputs. Engenders better funding
prospects for project to develop.
Relationship with the Research Office develops as inter relationship with ResExp Database and DRR becomes embedded into University good practice. Training for postgrads in theses deposit embeds the habit of deposit into an IR within the home institution and beyond as St Andrews postgraduates progress their research careers. Academic departments can make direct links from their own web pages to the relevant collections of research outputs and theses on the DRR and can reuse ResExp data.

**Data inputs into Research Expertise Database**

Strong emphasis on metadata creation by importing metadata into ResExp Database from ISI, Bibtex, with reuse of metadata including abstracts. Ongoing commitment to investigate other real time or batch import of metadata from other institutional databases. Single step creation of metadata by individual academics and researchers. Embedded features such as look up tables for journal titles and authority control of journal titles and publishers. Links to other institutional databases to re-use data from the appropriate ‘gold-copy’ single source e.g. staff contact details from Human Resources database, research student data from Student Records database, research awards from Research Grants Finance database. Look up table via Journal title for ROMEO publisher policies.

**Data inputs into St Andrews Digital Research Repository**

Metadata mapped from ResExp database into St Andrews DRR by custom XML to DC mapping. Information re. version and prior academic contact with publisher in relation to permissions to deposit in an IR transferred into DRR workflow. Full text and licence texts transferred into St Andrews DRR. Transactions handled in real time by web services. Commitment to batch input of metadata if deposits need to be scaled up over time. Parallel input of current and retrospective theses which complements the institutional research process and adds another context to the research environment.

**Data outputs for institutional and academic reuse**

Reuse of ResExp and DRR data in School web pages to provide publication lists and research profiles. Eg [http://www.st-andrews.ac.uk/modlangs/french/french_staff.php](http://www.st-andrews.ac.uk/modlangs/french/french_staff.php) Handles for full text reported back to ResExp Database and stored permanently in research profiles. Open Access deposit and OAI harvesting. Scholarly communication, aid to research collaboration and research strategy. Real benefits to academics to repurpose data to allow real time, managed details of their own publications and access to key papers in a much more efficient way than traditional inefficient use of personal web pages.
Data flow through DRR

Data inputs flow into St Andrews Digital Research Repository
custom XML to DC mapping.
Transactions are handled in real time by web services.
Context of other research outputs eg theses

Data inputs flow into Research Expertise Database
See separate diagram

Data outputs for institutional and academic reuse
Handles for full text reported back to ResExp
Open Access deposit and OAI harvesting
Scholarly communication, aid to research collaboration and research strategy
Research Expertise Database - Overview

From warehouse: Research Expertise

Used by...
- Press and other media
  - PhD at Expert

- Researchers - internal and external
  - Individual publications

- UoB - Publications
  - External communications

- UoB - Research Strategy
  - Staff and students

Direct Link

LIRL Digital Research Repository (DRR)
- Metadata and Linksets

Human Resources
- Name, contact, position details

Registry
- Research Student details

Finance
- Research Student Funding

RFQ
- Projects (Research Grants, Research Assistance)

FNE
- Fellowships

R&D
- Projects (Research Grants, Research Assistance)