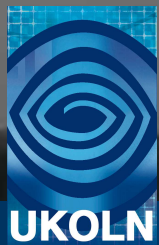


Models for integrating institutional repositories and research information management systems

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Workshop on CRIS, CERIF and Institutional Repositories,
CNR, Rome, 10-11 May 2010



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Agenda:

- Introducing JISC
- The UK context - three stakeholders
 - Funding agencies
 - Higher education institutions
 - Researchers
- JISC research information management activities
- Some final thoughts



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Introducing JISC

- The Joint Information Systems Committee
 - Funded by the higher education funding bodies
 - Provides services (e.g. networks, access to third party resources, etc.), funds research and development, provides independent advice and innovation
- JISC has long supported research and development in the repositories domain, e.g.
 - FAIR programme, Digital Repositories Programme, etc.
 - Support activities like the Repositories Support Project (RSP)
 - Series of supporting studies
- JISC has recognised the importance of repositories in wider contexts:
 - Research data management
 - Digital preservation infrastructures
 - Virtual Research Environments (VRE)
 - Open Educational Resources (OER)
 - Research information management (RIM)



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The UK context – stakeholders (1)

- Funding agencies:
 - HE funding bodies (e.g. HEFCE)
 - Need to collect data from institutions for periodic research evaluation processes:
 - A way of targeting funding to HEIs
 - Research Assessment Exercise (RAE) 2008 – largely based on peer-review, encouraged the use of metrics where appropriate
 - Research Excellence Framework (REF) – details still being worked out, but increasingly metrics based
 - Research Management an Administration System
 - Research Councils (and possibly other research funders):
 - Seeking to justify their investment in research
 - Streamlining reporting requirements from grants
 - RCUK Research Outcomes Project



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The UK context – stakeholders (2)

- Higher education institutions:
 - Convergence of several activities, including:
 - Responding to research evaluation processes
 - RAE 2008 saw considerable use of information systems (including IR and CRIS) to generate submissions
 - Much about REF is still unknown, but it is clear that research-led universities will continue to need to manage their information requirements
 - Research grant management and business planning
 - Largely driven by university administration
 - Data flows largely internal to a single HEI
 - Institutional repositories
 - Driven by information services and libraries, to some extent by researchers
 - Interoperability through OAI-PMH



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The UK context – stakeholders (3)

- Researchers:
 - Some will have their own needs that could be supported by IR or CRIS, e.g.:
 - Staff Web pages
 - Support for grant preparation and reporting
 - But their main focus will be on getting on with their own research ...
 - Most (amazingly) are not particularly interested in metadata!
 - But will happily generate masses of contextual information about their research, e.g.:
 - Grant applications, Web pages, Media coverage, Web 2.0 content (blogs, RSS feeds), collaborative spaces
 - Typically not captured in either IR or CRIS (or even in institutional records management systems)



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JISC RIM activities (1)

- Research information management (RIM)
 - Concerned with the process rather than the systems (CRIS)
- JISC has funded a number of R&D projects (both large and small) looking at particular aspects of RIM, e.g.:
 - Building the Research Information Infrastructure (BRII)
 - Enrich
 - Readiness for REF (R4R)
 - ResearchRevealed
 - NAMES projects
- JISC is now working with HEFCE, the Research Councils and others on: “helping to establish an infrastructure to connect university- and nation-wide data, improve the management of UK research information and provide guidance, support and opportunities to work together.” (JISC Briefing Paper, 2010)



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JISC RIM activities (2)

- Emerging consensus (in the UK) of the desirability of a common standard to share research information
- JISC commissioned a study on Exchanging Research Information in the UK (EXRI-UK) - published December 2009
 - Developed various scenarios for the exchange of research information
 - Appraised various technical options and recommended exploring the potential of CERIF 2008 as a data exchange format
- EXRI UK report (December 2009):
 - <http://ie-repository.jisc.ac.uk/448/>



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JISC RIM activities (3)

- Standard data exchange model
 - Exchange format would facilitate data exchange between institutions, funding bodies (and potentially support a future national (distributed) RIM infrastructure)
 - Several UK projects (DoTAC, Readiness4REF, St Andrews and Aberdeen CRIS projects) have attempted to map their own data models to CERIF
 - Detailed questions about harmonisation of data structures, vocabularies and syntax remain
- Potential alternative approaches:
 - Linked Data (RDF)
 - OAI-ORE (Object Reuse and Exchange)



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JISC RIM activities (4)

- Research Data Management programme
 - Call for proposals JISC 11/09
 - Has funded 5 projects:
 - CRISPool: Using CERIF-XML to integrate heterogeneous research information from several institutions into a single portal (Lead partner: University of St Andrews)
 - Enquire: Enrich and Research Outputs and Impact (Lead partner: University of Glasgow)
 - Developing tools to inform the management of research and translating existing good practice (Lead partner: Imperial College)
 - Using Business Process Management Tools and Methods for Building Research Information Management (Lead partner: University of Huddersfield)
 - Defining a new role: the embedded Research Information Manager (Lead partner: University College London)



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Some final thoughts ... (1)

- Many challenges remain:
 - Diversity of practice (not just true of the UK)
 - RIM systems in the UK are extremely diverse (and often have complex links with other internal systems)
 - An exchange format will not solve this (and may even complicate matters)
 - HEIs in the UK widely differ in nature and motivation
 - Disciplinary differences
 - Potential for generating conflict with researchers
 - Researchers suspicion of institutional motives:
 - General distrust of central administration
 - Perceived risk that data could also be used for things like performance appraisal



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Some final thoughts ... (2)

- The cost of interoperability
 - High-quality metadata is expensive, business models uncertain
 - What scope for extended metadata?
- Lessons from e-research for recording the contexts of research
 - UCLA demonstration project in seismology and environmental science
 - Using OAI-ORE to aggregate e-research products “in ways that reflect scholarly and scientific practices” (Pepe, A. *et al.*, *JASIST* 61(3): 567-582 (2010), p. 573)
 - Includes experiment planning or equipment calibration, data collection or capture/analysis, publication
 - Integrating the generation of contextual information with the scientific workflow (only way to scale for e-science)
 - Potentially brings in the researcher perspective – it is vitally important that their interests are not ignored as the IR/CRIS agenda is taken forward



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Additional information:

JISC Briefing Paper on Research Information Management
(March 2010):

<http://www.jisc.ac.uk/publications/briefingpapers/2010/bpexriv1.aspx>

EXRI UK report (December 2009):

<http://ie-repository.jisc.ac.uk/448/>

Websites:

[http://www.jisc.ac.uk/whatwedo/themes/informationenvironment/
researchinfomgt](http://www.jisc.ac.uk/whatwedo/themes/informationenvironment/researchinfomgt)

<http://www.ukoln.ac.uk/rim/>

<http://www.jiscinfonet.ac.uk/research>



Thank You!

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