Supporting Open Science implementation from an institutional CRIS platform

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Speaker’s academic affiliation

University of Strathclyde Glasgow

- Founded 1796 as “the place for useful learning”
- 22,295 FTE Students and 3,200 staff (2017/18)
- Research: research grants and contracts income of £65.6m in 2017*
- Among the 20 top research-intensive universities in the UK

* 14.5% increase from previous year and an overall increase of over 60% over a six year period
Speaker’s academic affiliation

Secretary for the euroCRIS Association

- Dutch non-profit founded 2002
- Association of professionals and bodies worldwide in the areas of research information management and CRIS systems
- Custodian for the Common European Research Information Format (CERIF)
- MoUs with various relevant organisations in the RIM field: OpenAIRE, ORCID, COAR...
The Common Research Information Format (CERIF)

Main features of CERIF

CERIF (the Common European Research Information Format) is:

- A concept about research entities and their relationships - Specification (Conceptual Level)
- A description of research entities and their relationships - Model (Logical Level)
- A formalization of research entities and their relationships - Database Scripts (Physical Level)

Developing specification: mapping content types

<table>
<thead>
<tr>
<th>OpenAire CERF-XML</th>
<th>Pure 5.11 - suggested content types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publications</td>
<td>Research Output</td>
</tr>
<tr>
<td>Products</td>
<td>Dataset</td>
</tr>
<tr>
<td>Patent</td>
<td>Template within Research Output</td>
</tr>
<tr>
<td>Person</td>
<td>Person, External person</td>
</tr>
<tr>
<td>OrgUnit</td>
<td>Organisational unit, External organisation, Publisher</td>
</tr>
<tr>
<td>Project</td>
<td>Project</td>
</tr>
<tr>
<td>Funding</td>
<td>Award</td>
</tr>
<tr>
<td>Service</td>
<td>??</td>
</tr>
<tr>
<td>Equipment</td>
<td>Equipment/facility</td>
</tr>
<tr>
<td>Event</td>
<td>Event</td>
</tr>
</tbody>
</table>

euroCRIS Directory of Research Information Systems (DRIS)

https://dspacecris.eurocris.org/cris/explore/dris
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The Role of Current Research Information Systems (CRIS) in Supporting Open Science Implementation: the Case of Strathclyde

Pablo de Castro

Abstract

CRIS systems are playing an increasingly relevant role in the implementation of Open Access and Research Data Management (RDM) policies at research-performing organisations. This is not just because of the deep insight these systems provide into the workflows that underpin the institutional research activity, but also because they allow an effective teamworking across institutional research support units, which critically include research libraries.

This article describes the way the institutional Pure CRIS is used at the University of Strathclyde in Glasgow to support the implementation of Open Science in collaboration with the researchers themselves and with the institutional Research Office. In terms of training, which is in itself an important and often challenging part of the effort towards Open Science implementation, the key objective is to make researchers aware that all the seemingly independent processes they’re being asked to carry out on top of their research activity are interconnected and are part of the same drive towards openness and digital science.

Finally, the paper describes the international collaboration networks for the realisation of Open Science that the University of Strathclyde is involved in and some of the areas where this cross-institutional collaboration is taking place.

Keywords

Open Science; Research Information Management; Open Access; Research Data Management; Scholarly Communications; Current Research Information Systems (CRIS); Institutional case studies

http://hdl.handle.net/11366/691
OCLC/euroCRIS RIM survey report (2018/9)

Practices and Patterns in Research Information Management: Findings from a Global Survey

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OCLC Research

Anna Clements
University of St Andrews and euroCRIS

Pablo de Castro
University of Strathclyde and euroCRIS

Joanne Cantrell
OCLC

Annette Dortmund
OCLC

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Peggy Gallagher
OCLC

Michele Mennielli
DuraSpace and euroCRIS

Importance of Reasons for Pursuing RIM Activities (n=222)

- Managing annual academic activity reporting
  - Extremely important: 58%
  - Important: 26%
  - Not important: 9%
  - N/A or not sure: 9%

- Supporting institutional compliance
  - Extremely important: 53%
  - Important: 26%
  - Not important: 12%
  - N/A or not sure: 5%

- Supporting institutional research reputation and strategic decision making
  - Extremely important: 40%
  - Important: 42%
  - Not important: 16%

- Improving services for researchers
  - Extremely important: 36%
  - Important: 43%
  - Not important: 16%

- Supporting expertise discovery
  - Extremely important: 23%
  - Important: 46%
  - Not important: 20%
  - N/A or not sure: 7%

- Recording IR facilities and their use
  - Extremely important: 11%
  - Important: 32%
  - Not important: 25%
  - N/A or not sure: 17%
  - Somewhat important: 14%
Open Science elements: scope

- Open Access to publications
- Open source code
- Collaborative bibliographies
- Science blogs
- Pre-prints in Green Open Access Repositories
- Alternative Reputation Systems based on new/alternative metrics
- Research Data Management
- Open Lab Books & Workflows
- Open peer-review
- Citizen Science
- Open Annotation
- Open Data

Defining the role of libraries in the Open Science landscape: a reflection on current European practice

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## UK Open Access policies (U Strathclyde)

<table>
<thead>
<tr>
<th>Research funder</th>
<th>OA flavour</th>
<th>Brief policy description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education Funding Council for England (HEFCE)</td>
<td>Green</td>
<td>In operation since 01/04/2016 (implemented since 2014 at Strathclyde). Mandatory deposit of full-text accepted author manuscript no longer than three months since manuscript acceptance. Linked to the UK Research Excellence Framework (REF2021)</td>
</tr>
<tr>
<td>Research Councils UK (UK Research and Innovation since 01/04/2018)</td>
<td>Green &amp; Gold</td>
<td>Mandatory OA availability of funded outputs via either the Green or the Gold OA routes. Block grants delivered to research-intensive HEIs to fund Open Access fees for eligible publications (those that acknowledge RCUK-funded projects)</td>
</tr>
<tr>
<td>Charity Open Access Fund (COAF): coalition of UK charities led by the Wellcome Trust</td>
<td>Green &amp; Gold</td>
<td>Mandatory OA availability of funded outputs via either the Green or the Gold OA routes. Block grants delivered to research-intensive HEIs to fund Open Access fees for eligible publications (those that acknowledge RCUK-funded projects). Green OA publications need to be deposited in EuropePMC</td>
</tr>
<tr>
<td>European Commission – FP7 programme</td>
<td>Green &amp; Gold</td>
<td>Mandatory deposit of full-text accepted author manuscript for projects under Clause 39. Gold Open Access funding available for finished FP7 projects under the OpenAIRE FP7 Post-Grant OA Pilot</td>
</tr>
<tr>
<td>European Commission – H2020 programme</td>
<td>Green &amp; Gold</td>
<td>Mandatory deposit of full-text accepted author manuscript for all H2020 projects (plus associated datasets). Gold Open Access funding may be claimed from project grant</td>
</tr>
</tbody>
</table>

- Mandatory deposit of the Accepted Author Manuscript (AAM) or post-print
- Green and Gold OA routes suitable for compliance with OA policies
- Funding available from specific research funders to pay for Article Processing Charges
- Increasing number of Read & Publish agreements with publishers

Table 1. Main Open Access policies by research funders at the University of Strathclyde
Metadata for a journal article is kept in the institutional Research Information Management System (CRIS) for reporting purposes – including plenty of contextual information not usually available.

Basic publication records are usually created by researchers upon manuscript acceptance then completed and validated by the research support team at the library.
This may include information on affiliations, funded projects, associated datasets and research facilities.

Reporting by affiliations allows an analysis of collaborations (also with Industry), reporting by research equipment or facility provides valuable evidence for research funders and the institution on the (internal and external) use of usually very expensive equipment.
[External] System Interoperability
Aim: Provide mapping of Pure data model to OpenAire CERIF-XML guidelines and for CRIS Managers

Elsevier have committed to implementing these guidelines in PURE for the October 2018 (v 5.13). To meet this deadline, Elsevier have asked for input from euroCRIS and Pure Customers to help develop the specification mapping the data held in Pure to the new OpenAire CERIF-XML guidelines. A short life working group (SLWG) will be setup to deliver this specification.

SLWG Members
- Anna Clements (St Andrews, Chair)
- Federica Fina (St Andrews)
- Patricia Horrerich (Birmingham)
- Kara Jones (Bath)
- Nykhola Strong (Aberdeen)
- Anne Thorst Melbye (South Denmark)
- Bill Worthington (Hertfordshire)

Jan Dvorak (euroCRIS & Czech Technical University)
Alex Kujath (Elsevier)
Data Sources kindly contributing to OpenAIRE’s CRIS integration

- CRIS UNS (Current Research Inform. Syst. Univ. of Novi Sad) (Serbia, in-house softw.)
- DANS (Data Archiving and Networked Services) (Netherlands, in-house software)
- Metis Radboud University (Netherlands, in-house software (Metis))
- Pure-Elsevier (Netherlands, Pure)
- VIRTA (Finland, in-house software)
- WUT Base of Knowledge (Warsaw University of Technology) (Poland, OMEGA-PSIR)
Solutions for constructing an Open Knowledge Base for the Netherlands (OKB-NL)

This blog post follows on from the earlier blog post on What is an Open Knowledge Base anyway? It is written by Maurice Vandenfeesten (VU, Amsterdam)

DELIVERY FORMAT FOR INDEX PROVIDERS (SCOPUS, WOS, DIMENSIONS, ETC)

- Standard: The FULL record; incl (when applicable) keywords, abstracts, reference lists, etc. in JSON
- Contains: Articles, Grants, Patents, Clinical Guidelines, etc
- Scope: entities with Dutch contributorship

DELIVERY FORMAT FOR ALTMETRICS PROVIDERS (ALTMETRIC, PLUMX, ETC)

- Mentions of all types (News, Policy Docs, Trials, social media, etc) in JSON
- Scope: All mentions mentioning Dutch research output (publications/datasets/etc)

DELIVERY FORMAT FOR UNIVERSITIES (CRIS) AND FUNDERS:

- Standard: CERIF-XML OpenAIRE-GL
- Contains: information about Organisational Units, Researchers, Projects, Publications, Datasets, Awarded Grants, etc.

All information entities need to be delivered as individual files, in a zipped package. That package must be logically aggregated and deposited, eg. by year, month, etc. Provenance metadata of the source providing the data and an open licence needs to be added. Also deposit with descriptive metadata, including pointers of the Open Standard of the datafiles, to adhere the FAIR principles. https://www.go-fair.org/fair-principles/
Thanks!

Questions?

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