Evolving Practices in Research Information Management

Rebecca Bryant, OCLC Research
orcid.org/0000-0002-2753-3881 * @rebeccabryant18 * bryantr@oclc.org
Mijke Jetten, Radboud University
www.ris.ru.nl * ris@ubn.ru.nl * m.jetten@ubn.ru.nl
Presenters

Rebecca Bryant, PhD
Senior Program Officer, OCLC Research

orcid.org/0000-0002-2753-3881
@rebeccabryant18
bryantr@oclc.org

Mijke Jetten
RDM project manager, Radboud University (NL)

www.ris.ru.nl
ris@ubn.ru.nl
m.jetten@ubn.ru.nl
Overview

• Part 1
  Introducing RIMs/CRIS’s and OCLC research efforts

• Part 2
  Using CRIS’s for registering and archiving research data. Case study: Radboud University, the Netherlands
Part 1

Introducing RIMs/CRIS’s and OCLC research efforts
What is Research Information Management (RIM)

The aggregation, curation, & utilization of metadata about research activities

Also sometimes known as:
- CRIS (Current Research Information System)
- RIS (Research Information System)
- RNS (Research Networking System)
- RPS (Research Profiling System)

- RIMs are not independent researcher profile systems like Research Gate or Academia.edu
- RIM ≠ Research Data Management (RDM)
Why discuss RIM?

• Widespread RIM adoption internationally
  • US adoption lags behind Europe
• Response to funder requirements to track & measure research impact
• Growing library engagement
What data is aggregated in RIM/CRIS?

- Researcher name & affiliations
- Education & training
- Publications/dataset metadata
- Grants & projects
- Patents
- Awards & honors
- Media reports
- Subject headings
- Citation counts/analytics

May also include:
- Courses taught
- Committee service
- Students advised
Data sources

**External data sources**

- Publications: Scopus, WOS, PubMed, Google Books, WorldCat, ArXiv, SSRN
- Impact metrics: Scopus, WOS, Altmetrics

**Internal data sources**

- Data Warehouse: HR appointments, courses taught, education & training
- Campus awards management system: grants & contracts
- Other campus systems: Patents, honors, media reports, service & committees, grad student mentoring
- Manual entry: uncaptured publications & artistic works
Primary RIM/CRIS drivers

- Public researcher expertise profiles
- Faculty activity reporting (FAR) workflows
- Support open access
- Reporting, assessing impact
- Reuse & interoperability
RIM institutional enterprise landscape

Research Information Management (RIM) System

External data sources

Internal data sources

Public researcher expertise profiles

Faculty activity reporting workflows

Support open access

Benchmarking & reporting

Reuse & interoperability
US example: Virginia Tech University

4 of the uses:
1. OA/IR integration
2. Public profiles
3. Faculty Activity Reporting (FAR) workflows
4. Reporting & analytics

*Actively exploring reuse options, particularly for web page updates & CV downloads
## Comparing European/US RIM Adoption

<table>
<thead>
<tr>
<th></th>
<th>Europe</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nomenclature</strong></td>
<td>CRIS</td>
<td>RIM/RIS/RNS/RPS</td>
</tr>
<tr>
<td><strong>Adoption</strong></td>
<td>Widespread</td>
<td>Emerging</td>
</tr>
<tr>
<td><strong>Primary driver</strong></td>
<td>National and funder reporting requirements</td>
<td>Public profiles, expert discovery</td>
</tr>
<tr>
<td>National scale CRIS systems</td>
<td>National infrastructures to aggregate local</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>CRIS metadata</td>
<td></td>
</tr>
<tr>
<td><strong>Open access</strong></td>
<td>Seen as supporting open science efforts</td>
<td>Less integration</td>
</tr>
<tr>
<td><strong>Standards</strong></td>
<td>CERIF</td>
<td>-</td>
</tr>
<tr>
<td><strong>ORCID adoption</strong></td>
<td>Growing, particularly through national</td>
<td>Slower</td>
</tr>
<tr>
<td></td>
<td>agreements</td>
<td></td>
</tr>
</tbody>
</table>
OCLC Research Library Partnership (ORLP)

- ~160 research libraries worldwide
- Develop a shared understanding about current trends & future directions
- Point of engagement with OCLC Research
- Facilitates collaboration, research, & sharing across member institutions
  - Working groups
  - Research reports & other outputs
  - Webinars by partner members
  - Presentations
  - Partner email lists on multiple topics
  - Consultation & events
  - Hanging Together blog
- [www.oclc.org/research/partnership.html](http://www.oclc.org/research/partnership.html)
OCLC Research Library Partner members

25 of top 30 universities in Times Higher Education Ranking
ORLP RIM efforts

- Webinars
  - Quarterly webinars by ORLP member institutions
  - Archived presentations online at www.oclc.org/research/events/webinars.html
- RIM listserv
- Working groups
- Future research reports
ORLP Working group 1: Survey of Global RIM practices

• What is RIM? How is it being implemented worldwide?
• Collaborating with EuroCRIS

Working group members:
• Pablo de Castro, EuroCRIS
• Anna Clements, University of St. Andrews
• Constance Malpas, OCLC Research
• Michele Mennielli, EuroCRIS
• Rachael Samberg, University of California-Berkeley
• Julie Speer, Virginia Tech University
# Comparing European/US RIM Adoption

<table>
<thead>
<tr>
<th></th>
<th>Europe</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nomenclature</strong></td>
<td>CRIS</td>
<td>RIM/RIS/RNS/RPS</td>
</tr>
<tr>
<td><strong>Adoption</strong></td>
<td>Widespread</td>
<td>Emerging</td>
</tr>
<tr>
<td><strong>Primary driver</strong></td>
<td>National and funder reporting requirements</td>
<td>Public profiles, expert discovery</td>
</tr>
<tr>
<td><strong>National scale CRIS systems</strong></td>
<td>National infrastructures to aggregate local CRIS metadata</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Open access</strong></td>
<td>Seen as supporting open science efforts</td>
<td>Less integration</td>
</tr>
<tr>
<td><strong>Standards</strong></td>
<td>CERIF</td>
<td>-</td>
</tr>
<tr>
<td><strong>ORCID adoption</strong></td>
<td>Growing, particularly through national agreements</td>
<td>Slower</td>
</tr>
</tbody>
</table>
ORLP Working group 2: Value proposition of libraries in RIM

- Why & how are libraries engaged?
- Understanding the enterprise nature of research information management

Working group members:
- Anna Clements, University of St. Andrews (UK)
- Carol Feltes, Rockefeller University (US)
- David Groenewegen, Monash University (Australia)
- Simon Haggard, La Trobe University (Australia)
- Holly Mercer, University of Tennessee-Knoxville (US)
- Roxanne Missingham, Australian National University (Australia)
- Maliaca O'Niam, University of Arizona (US)
- Annie Rauh, Syracuse University (US)
- John Wright, University of Calgary (Canada)
The role of libraries

- Libraries are partners but rarely the leader or sole owner of RIM
  - Collaboration with other experts and data owners on campus is key

- Library expertise supports institutional goals
  - Bibliographic metadata & standards
  - Intersection with other scholarly communications efforts, including OA, RDM, ORCID

- Libraries support researchers
  - RIM systems *can* and *should* save researchers time
  - Integration of RIM to support open resources: publications & data
  - Education, training, and user support
  - Support researchers’ use of analytics
OCLC-LIBER Research Collaboration

“Incentives to Interoperability: adoption and integration of persistent identifiers in European research infrastructures”

- Examination of RIM practices, infrastructure, & interoperability
  - How are institutions using RIM systems?
  - How are nations also using RIM infrastructure?
  - How are person & organizational identifiers being used in the RIM systems?
- Case studies in three national contexts:
  - Finland
  - Germany
  - Netherlands
- Report expected late 2017
- Research team:
  - Rebecca Bryant, Constance Malpas, Karen Smith-Yoshimura from OCLC
  - Monthly consultation with Kristiina Hormia-Poutanen (National Library of Finland/LIBER president) & Esa-Pekka Keskitalo (NLF)
Interoperability

Publisher & CRIS vendor workflows
- Elsevier
- Data180
- Converis

Local
- APIs facilitate local updates:
  - Web pages
  - Biosketch/CV

Research Information Management (RIM) System

External
- National CRIS system
- National reporting system

Institutional/Data Repositories

Institutional/Data Reporting System (iD)
Part 2

Using CRIS’s for registering and archiving research data

Case study: Radboud University (NL) in cooperation with the DANS EASY archive
Open science: archiving and registering data

Findable
Accessible
Interoperable
(alternatively: interpretable)
Reusable
Scope and points of departure

• **Focus:** metadata about data, instead of data **storage infrastructures** alone

• Non-optimal: silo-ed registration of metadata on datasets

• FAIR data infrastructures should include the local (institutional/CRIS), national, international and discipline level (repository or registry)

• FAIR data infrastructures have two complementary parts: a technological/infrastructural part and a service/support part

• FAIR data **information** infrastructures can be developed and managed by different organisations / entities than the ones that deal with **storage** infrastructures
The role of CRIS’s

- Silo-ed registration of metadata on datasets should be avoided:
  - Combining dataset metadata and additional metadata provides a much richer information source for ‘FAIR-ness’
  - Focus on linked metadata: related publications and datasets, research project, involved organizations, funders etc., but also: publication and data use statistics (citations)

- CRIS’s – and registering metadata on datasets in the CRIS – can (should) take a central position in FAIR data infrastructures

- Development: CRIS’s have evolved from systems for administrators / managers to (also) useful tools for researchers to profile themselves
CRIS’s in the research information landscape

**INPUT FROM**
- External Publication / Data Resources (WoS, Scopus, Google Scholar...)
- Researchers
- Administrative Resources (HRM, Finance, Project Man.)
- Inst. Secretariat

**OUTPUT TO**
- Publication Repositories
- Dataset Repositories / Archives
- Profiling & Management Applications
- ((inter)national) Research Portals
- Other RIS-systems / formats

**CERIF**
CRIS’s in the data life cycle

Publication of results:
- articles
- final (shared) datasets

CRIS: linking publications to dataset + archiving of data

CRIS: registration of (metadata) for dataset
FAIR: layers (1)

Enter once, reuse often

Archiving, registering and searching in one
FAIR: layers (2)

Find, request, approve and receive data

Data has to be stored safely and kept accessible

Metadata should be correct, standardized, detailed and complete
**RIS interface (1)**

**Action plan**
- In the CRIS (Metis)
- Iterative and with pilot groups

**Features**
- Online form for researcher
- Institutional login
- Datacite/Dublin Core metadata
- Uploading data files
- Linking data and publications

**Partner**
- National data archive DANS
RIS interface (2)

An integrated, user-friendly interface

- Including support services (RIS servicedesk; [www.ris.ru.nl](http://www.ris.ru.nl))
- Registering and uploading publications and data sets at once
- Quality check (preferred formats, anonymity and documentation) and straightforward ownership policies
- Overview of archived data (CRIS)
- (DMP-tool; projects & grants)

In addition to existing RDM workshops about/support on

- Writing data management paragraphs/plans
- Solving ethical and legal issues
- Collecting and storing data during research
- Complying to funder, journal and institutional requirements
FAIR: adding user support

Frontoffice-backoffice model at Radboud University (NL)

Local, institutional level: 1st line support

National or disciplinary level: 2nd line support

Formats, anonymity and documentation
Making data visible

Title: Cognitive, socio-emotional, and attitudinal effects of an enrichment program for gifted children in the region of The Hague, The Netherlands
Creators: Gubbels, J.C.G.; Segers, P.C.J.; Verhoeven, L.T.W.
Date of Archiving: 2016
Archive: DANS EASY
DOI: http://dx.doi.org/10.17026/dans-zmc-hq22
Related publications: Sociaal-emotionele effecten van verrijkingsprogramma’s voor excellente kinderen
Wel of geen aparte klassen?
Cognitive, socioemotional, and attitudinal effects of a triarchic enrichment program

Publication type: Dataset
Access level: restricted access
Spatial Coverage: The Hague, The Netherlands
Library as linking pin

Researcher benefits
• Familiar with various types of data (research background) and language of the researcher
• Aware of RDM and infrastructural possibilities
• We offer visible information, services and training
• Most importantly: we give researchers the feeling they don’t have to do it all alone
• We give flesh and bones to policy (basically: we’ll do anything you ask us to)

Library benefits
• Traditional library task (support and information services)
• RIS is part of the library of the future
• Library as a steady factor in the RDM-world of temporarily projects
• Benefit-for-researcher approach, instead of compliance approach
• The library as accessible and approachable
Questions?

Rebecca Bryant, OCLC Research
orcid.org/0000-0002-2753-3881 * @rebeccabryant18 * bryantr@oclc.org

Mijke Jetten, Radboud University
www.ris.ru.nl * ris@ubn.ru.nl * m.jetten@ubn.ru.nl
Discussion

General
• What is the role of the CRIS in your institution?
• What do you consider main drivers in the deployment/development of CRIS’s?
• How is the library involved with the CRIS?

RDM
• Can/should CRIS’s and RDM services be integrated/connected?
• How important is the use/function of CRIS’s in the data life cycle?

Benefits
• What’s the use of CRIS’s for researchers?
• How can these systems offer the greatest benefit to researchers?