Findings from the euroCRIS/OCLC Research Survey of Research Information Management Practices

Rebecca Bryant, PhD, Senior Program Officer, OCLC Research
bryantr@oclc.org  @RebeccaBryant18
https://orcid.org/0000-0002-2753-3881

Anna Clements, Assistant Library Director, University of St Andrews
akc@st-andrews.ac.uk  @AnnaKClements
https://orcid.org/0000-0003-2895-1310

Jan Fransen, Service Lead for RIM Systems, University of Minnesota
fransen@umn.edu
https://orcid.org/0000-0002-0302-2761
Today’s talk

• Introducing OCLC Research, euroCRIS and their collaboration

• Discuss joint Survey of Research Information Management Practice: goals, scope, aims

• Share and discuss survey results and findings
• Devoted to challenges facing libraries and archives since 1978
• Community resource for shared Research and Development (R&D)
• Engagement with OCLC members and the community around shared concerns
• Learn more
  ▪ oc.lc/research
  ▪ Hangingtogether.org blog
OCLC Research publications on Research Information Management

Research Information Management: Defining RIM and the Library's Role

Rebecca Bryant
OCLC Research (US)

Anna Gismonda
University of St. Andrews (UK)

Carol Holton
University of Kentucky (US)

David Gromenweggen
Monash University (Australia)

Elmas Haggard
La Trobe University (Australia)

Holly Marcour
University of Tennessee, Knoxville (US)

Roxanne Milesingham
Australian National University (Australia)

Melissa Orzech
University of Arizona (US)

Anna Reish
Syracuse University (US)

John Wright
University of Delaware (US)

OCLC Research Position Paper

Survey of Research Information Management Practices

Convenience and Compliance: Case Studies on Persistent Identifiers in European Research Information Management
Rebecca Bryant, Annette Bormann, and Constance Halpern

OCLC Research Report (report coming November 2018)

oc.lc/rim
An international not-for-profit association founded in 2002 to bring together experts on research information in general and research information systems (CRIS) in particular.
Survey of Research Information Management Practices

- Joint project between
  - Rebecca Bryant, PI, OCLC Research
  - Pablo de Castro, Strathclyde University and euroCRIS
  - Anna Clements, University of St. Andrews and euroCRIS
  - Annette Dortmund, OCLC EMEA
  - Jan Fransen, University of Minnesota, Twin Cities
  - Muhammed Javed, Cornell University
  - Constance Malpas, OCLC Research
  - Michele Mennielli, DuraSpace and euroCRIS
  - Maliaca Oxnam, University of Arizona
  - Rachael Samberg, University of California-Berkeley
  - Julie Speer, Virginia Tech

- Report to be published in November 2018

Plus a number of valuable collaborators at OCLC
Results we’ll be talking about

• Incentives for RIM Adoption
• Functions/Uses of RIM
• Interoperability
• RIM Stakeholders
• Use of Persistent Identifiers
Methodology & promotion

• Online survey data collection: Oct 2017 – Jan 2018
  • English and Spanish versions

• Survey promotion through:
  o OCLC and euroCRIS communications channels and events worldwide
  o Communications by CRIS vendors and user communities
  o Listservs, social media, and announcements to research & library organizations
RIM Survey responses: geographic overview

381 survey respondents from 44 countries

<table>
<thead>
<tr>
<th>Country</th>
<th># Resp.</th>
<th>Country</th>
<th># Resp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>39 (10%)</td>
<td>Canada</td>
<td>4 (1%)</td>
</tr>
<tr>
<td>United States</td>
<td>39 (10%)</td>
<td>South Africa</td>
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<tr>
<td>Peru</td>
<td>39 (10%)</td>
<td>Andorra</td>
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<tr>
<td>Italy</td>
<td>28 (7%)</td>
<td>Colombia</td>
<td>3 (1%)</td>
</tr>
<tr>
<td>Australia</td>
<td>24 (6%)</td>
<td>Finland</td>
<td>3 (1%)</td>
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<tr>
<td>Germany</td>
<td>14 (4%)</td>
<td>India</td>
<td>3 (1%)</td>
</tr>
<tr>
<td>Netherlands</td>
<td>10 (3%)</td>
<td>Japan</td>
<td>3 (1%)</td>
</tr>
<tr>
<td>Portugal</td>
<td>7 (2%)</td>
<td>Austria</td>
<td>2 (0.5%)</td>
</tr>
<tr>
<td>Poland</td>
<td>6 (2%)</td>
<td>Bahrain</td>
<td>2 (0.5%)</td>
</tr>
<tr>
<td>Spain</td>
<td>6 (2%)</td>
<td>China</td>
<td>2 (0.5%)</td>
</tr>
<tr>
<td>Belgium</td>
<td>5 (2%)</td>
<td>Denmark</td>
<td>2 (0.5%)</td>
</tr>
<tr>
<td>Ireland</td>
<td>5 (2%)</td>
<td>New Zealand</td>
<td>2 (0.5%)</td>
</tr>
</tbody>
</table>

1 respondent from each of the following countries: Afghanistan, Albania, Azerbaijan, Barbados, Belize, Brazil, Hungary, Lebanon, Mexico, Namibia, Russia, Saudi Arabia, Slovakia, Sri Lanka, Sweden, Trinidad and Tobago, Turkey, Uganda, United Arab Emirates and Uruguay
Well over half (58%) have a live RIM System

Live RIM Systems (n=193)*

- Pure (Elsevier): 30%
- Developed in-house: 28%
- Elements (Symplectic): 12%
- DSpace-CRIS (Open source): 10%
- Converis (Clarivate Analytics): 10%
- VIVO (Open source): 4%
- Profiles (Open source): 1%
- Other: 36%

*Note: 29 respondents did not provide their RIM system
Live RIM Systems in Use by Geography

- Europe (exc UK) (n=68)
- UK (n=27)
- US & Canada (n=22)
- Australia (n=21)
- Other (n=19)
- Unknown (n=35)

Systems:
- Pure (Elsevier)
- Developed in-house
- Elements (Symplectic)
- DSpace-CRIS (Open source)
- VIVO (Open source)
- Profiles (Open source)
- Converis (Clarivate Analytics)
- Other

### Live implementations of Pure, by country (n=47)

<table>
<thead>
<tr>
<th>Country</th>
<th>Count</th>
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<tbody>
<tr>
<td>Japan</td>
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<tr>
<td>Italy</td>
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<tr>
<td>Denmark</td>
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<tr>
<td>China</td>
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<td>Portugal</td>
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<tr>
<td>Netherlands</td>
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<tr>
<td>United States</td>
<td>7</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>11</td>
</tr>
</tbody>
</table>
INCENTIVES FOR RIM ADOPTION

1. Please indicate the importance of the following reasons for pursuing research information management (RIM) activities.*

   [Using a scale of Extremely Important – Important – Somewhat Important – Not Important – N/A or Not Sure]

   • Managing annual academic activity reporting
   • Supporting expertise discovery
   • Supporting institutional compliance (e.g., funder mandates, national assessment exercise like REF or ERA, etc.)
   • Supporting institutional reputation and strategic decision making
   • Improving services for researchers
   • Recording institutional research facilities and their use
Reporting and compliance drive RIM adoption

Importance of Reasons for Pursing RIM Activities (n=222)
Base: Institutions with a live RIM

- Managing annual academic activity reporting: 58% extremely important, 28% important, 9% somewhat important, 5% not important, 4% N/A or not sure
- Supporting institutional compliance: 53% extremely important, 26% important, 12% somewhat important, 4% not important, 1% N/A or not sure
- Supporting institutional research reputation and strategic decision making: 40% extremely important, 42% important, 16% somewhat important, 2% not important, 4% N/A or not sure
- Improving services for researchers: 36% extremely important, 43% important, 16% somewhat important, 4% not important, 7% N/A or not sure
- Supporting expertise discovery: 23% extremely important, 46% important, 20% somewhat important, 7% not important, 4% N/A or not sure
- Recording IR facilities and their use: 11% extremely important, 32% important, 25% somewhat important, 17% not important, 14% N/A or not sure

Importance of External Research Assessment Workflows

Base: institutions with a live RIM system

United Kingdom (n=27)
- Extremely important: 23
- Important: 2
- Somewhat important: 2
- Not important: 0
- N/A or Not Sure: 0

Australia (n=21)
- Extremely important: 18
- Important: 1
- Somewhat important: 2
- Not important: 0
- N/A or Not Sure: 0

Italy (n=27)
- Extremely important: 14
- Important: 10
- Somewhat important: 1
- Not important: 2
- N/A or Not Sure: 0

Netherlands (n=8)
- Extremely important: 4
- Important: 3
- Somewhat important: 0
- Not important: 2
- N/A or Not Sure: 0

Peru (n=6)
- Extremely important: 3
- Important: 2
- Somewhat important: 0
- Not important: 1
- N/A or Not Sure: 0

US & Canada (n=21)
- Extremely important: 2
- Important: 3
- Somewhat important: 5
- Not important: 6
- N/A or Not Sure: 5

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Importance of Supporting Expertise Discovery

Base: Institutions with a Live RIM System

- **Peru (n=6)**
  - Extremely Important: 3
  - Important: 2
  - Somewhat Important: 1

- **United States (n=21)**
  - Extremely Important: 9
  - Important: 6
  - Somewhat Important: 3
  - Not Important: 2
  - N/A or Not Sure: 1

- **United Kingdom (n=27)**
  - Extremely Important: 5
  - Important: 15
  - Somewhat Important: 3
  - Not Important: 4

- **Italy (n=27)**
  - Extremely Important: 3
  - Important: 16
  - Somewhat Important: 5
  - Not Important: 3

- **Australia (n=21)**
  - Extremely Important: 2
  - Important: 10
  - Somewhat Important: 6
  - Not Important: 3

- **Netherlands (n=8)**
  - Extremely Important: 3
  - Important: 3
  - Somewhat Important: 2


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Summary: Incentives for Adoption

• US is an outlier
  – No national compliance requirements
  – Early emphasis on Research Networking Systems (e.g., Harvard Profiles)

• Action for the next survey
  – Different platforms emphasize different capabilities, so…
  – Increase promotion to Profiles RNS and VIVO communities

• Research Question for the next survey
  – Will incentives for new adopters of RIM shift away from compliance and toward expertise discovery?
  – Most institutions with reporting mandates will have already implemented RIM
RIM functions

3. How important are the following functions of RIM at your institution?*

[Using a scale of Extremely Important – Important – Somewhat Important – Not Important – N/A or Not Sure]

- Registry of institutional research outputs
- Publicly available researcher profiles
- Reporting scholarly impact
- Reporting societal impact
- External (e.g., National) research assessment
- Internal reporting
- Annual academic activity reporting workflows
- Awards/grants management workflows
- Compliance and open access to publications
- Reuse (in CVs, biosketches, other web pages)
- Identifying collaborators or expertise
Important Functions of RIM (n=203)

Base: Institutions with a live RIM

Registry of institutional research outputs: 77% Extremely important, 19% Important, 16% Somewhat important
External (e.g., National) research assessment: 56% Extremely important, 19% Important, 11% Somewhat important, 7% Not important
Internal reporting: 52% Extremely important, 37% Important, 8% Somewhat important, 3% Not important
Publicly available researcher profiles: 44% Extremely important, 34% Important, 11% Somewhat important, 8% Not important
Compliance and open access to publications: 45% Extremely important, 29% Important, 14% Somewhat important, 7% Not important
Annual academic activity reporting workflows: 35% Extremely important, 31% Important, 15% Somewhat important, 7% Not important
Reporting scholarly impact: 32% Extremely important, 42% Important, 20% Somewhat important
Awards/grants management workflows: 29% Extremely important, 26% Important, 15% Somewhat important, 14% Not important, 16% N/A or Not sure
Reuse (in CVs, biosketches, other web pages): 27% Extremely important, 39% Important, 19% Somewhat important, 5% Not important, 10% N/A or Not sure
Compliance and open access to research datasets: 28% Extremely important, 26% Important, 21% Somewhat important, 13% Not important, 13% N/A or Not sure
Identifying collaborators or expertise: 22% Extremely important, 36% Important, 26% Somewhat important, 5% Not important, 10% N/A or Not sure
Reporting societal impact: 20% Extremely important, 33% Important, 29% Somewhat important, 6% Not important, 12% N/A or Not sure

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Importance of Compliance and Open Access to Publications

Base: Institutions with a live RIM system

<table>
<thead>
<tr>
<th>Country</th>
<th>Extremely important</th>
<th>Important</th>
<th>Somewhat important</th>
<th>Not important</th>
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<td>Australia (n=21)</td>
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<td></td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

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Importance of Compliance and Open Access to Datasets

Base: Institutions with a live RIM system

US & Canada (n=21)
- Extremely important: 3
- Important: 5
- Somewhat important: 9
- Not important: 4

United Kingdom (n=27)
- Extremely important: 14
- Important: 8
- Somewhat important: 3
- Not important: 2

Peru (n=6)
- Extremely important: 4
- Important: 1
- Somewhat important: 1
- Not important: 1

Netherlands (n=8)
- Extremely important: 2
- Important: 3
- Somewhat important: 3
- Not important: 1

Italy (n=27)
- Extremely important: 6
- Important: 7
- Somewhat important: 7
- Not important: 1
- N/A or Not Sure: 6

Australia (n=21)
- Extremely important: 6
- Important: 6
- Somewhat important: 4
- Not important: 2
- N/A or Not Sure: 3


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Summary: RIM uses

• For most, RIM is valuable as a registry of the institution’s research outputs

• RIM has *multiple* uses at most institutions
  - External & internal assessment are among the most important (and unsurprising)
  - Managing OA compliance is also important
  - Supporting the discovery of potential research collaborators is less important

• As expected, some of these differences appear to vary by region
Interoperability
RIM systems interoperate with multiple internal and external systems

**Internal Systems that Interoperate with your RIM (n=184)**
Base: Institutions with a live RIM
Note: Respondents could select more than one answer

- Human resources system: 78%
- Institutional authentication system: 76%
- Institutional repository: 43%
- Student information system: 42%
- University finance and accounting system: 36%
- Grants management system: 32%
- Analytics system: 26%
- Project management system: 24%
- Library management system: 22%
- Electronic Thesis/Dissertation (ETD): 20%
- Research data repository: 16%
- Tech/knowledge transfer: 5%
- Active data management system: 3%
- Other: 16%
- None of the above: 3%

**External Systems that Interoperate with your RIM (n=178)**
Base: Institutions with a live RIM
Note: Respondents could select more than one answer

- Publication metadata sources: 76%
- Researcher/author ID registry/database: 65%
- Research metrics sources: 47%
- National or regional reporting system: 29%
- Aggregated research portals: 24%
- Government/private grants award system: 20%
- Organization ID registry/database: 10%
- Aggregated research data portals: 7%
- Faculty activity system: 4%
- Other: 16%
- None of the above: 11%

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Publication Metadata Sources that Populate your RIM system
(n=185)

Base: Institutions with a live RIM system
Note: Respondents could select more than one answer

Scopus 72%
Web of Science 63%
PubMed 61%
CrossRef 44%
ArXiv 37%
Europe PubMed Central 26%
Google Books 12%
CiNii 11%
SSRN 10%
RePEc 9%
WorldCat 7%
MLA International Bibliography 7%
dbpl 6%
Scielo 4%
SAO/NASA Astrophysics Data System 4%
Other (Please specify): 11%
None of the above 14%

EBSCOhost (n=4)
Mendeley (n=4)
Espacenet (n=3)
Use of RIM Systems to support repository functions

Does your RIM system serve as your default...
Base: Institutions with a live RIM system

- **Institutional Repository**: 54% Yes, 41% No, 3% Don't know, 2% N/A
- **ETD Repository**: 37% Yes, 52% No, 9% Don't know, 2% N/A
- **Research Data Repository**: 24% Yes, 64% No, 3% Don't know, 9% N/A

Does Pure serve as your default...
Base institutions with live Pure n=47

- **Institutional Repository**: 58% Yes, 38% No, 2% Don't know, 2% N/A
- **ETD Repository**: 29% Yes, 51% No, 4% Don't know, 16% N/A
- **Research Data Repository**: 29% Yes, 60% No, 2% Don't know, 9% N/A

Does your RIM system serve as your default...

Base: Institutions with a Live RIM system

- Institutional repository: 69% in Europe (n=95), 33% US & Canada (n=22), 14% Australia (n=21), 14% Other (n=19)
- Research data repository: 47% in Europe (n=95), 23% US & Canada (n=22), 9% Australia (n=21), 14% Other (n=19)
- ETD repository: 53% in Europe (n=95), 48% US & Canada (n=22), 24% Australia (n=21), 42% Other (n=19)

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Interoperability between RIM and repository systems (n=184)

Base: Institutions with a live RIM system

- Institutional repository: 43%
- Research data repository: 16%
- ETD repository: 20%
Which of the following internal systems interoperate with your RIM system(s)?

Base: Institutions with a Live RIM system

- Institutional repository (e.g., via a connector between DSpace and Pure):
  - Europe (n=93): 42%
  - US & Canada (n=22): 27%
  - Australia (n=21): 48%
  - Other (n=19): 68%

- Research data repository:
  - Europe (n=93): 15%
  - US & Canada (n=22): 14%
  - Australia (n=21): 47%

- ETD repository:
  - Europe (n=93): 17%
  - US & Canada (n=22): 19%
  - Australia (n=21): 42%

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Protocols/Standards/Vocabularies RIM Relies On

Note: Respondents could select more than one answer

- **OAI-PMH**: 45% (Live RIM n=169), 29% (Implementing RIM n=42)
- **CERIF/CERIF XML**: 40% (Live RIM n=169), 21% (Implementing RIM n=42)
- **Shibboleth**: 36% (Live RIM n=169), 12% (Implementing RIM n=42)
- **Other**: 14% (Live RIM n=169), 14% (Implementing RIM n=42)
- **CASRAI**: 14% (Live RIM n=169), 7% (Implementing RIM n=42)
- **Field of Science (FOS) Classification**: 29% (Live RIM n=169), 7% (Implementing RIM n=42)
- **None of the above**: 20% (Live RIM n=169), 14% (Implementing RIM n=42)
Some summary findings

• Fairly high degree of RIM system interoperability with other institutional systems – including IRs
• Significant workflows for funding information exchange both internally and externally
• Institutions leverage publications metadata harvesting
• OAI-PMH & CERIF-XML important standards
Stakeholders
Stakeholders with "Primary Responsibility" for 14 Specific RIM Activities
by # of mentions

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Primary Role</th>
<th>Secondary Role</th>
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<tr>
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<tr>
<td>Library</td>
<td>744</td>
<td>130</td>
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<tr>
<td>IT/Systems</td>
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<tr>
<td>Provost/Chancellor</td>
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<td>Academic Units</td>
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<tr>
<td>Other</td>
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<td>External Agency/Vendor</td>
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<td>Human Resources</td>
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<td>17</td>
</tr>
</tbody>
</table>

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Stakeholders with Primary Responsibility for RIM Activities by Country

Based on # of Mentions (Decreasing Importance of Library)
Base: Institution with a Live RIM system

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Persistent identifiers
Researcher Identifiers Used in Your RIM system (n=182)

Base: Institutions with a live RIM system
Note: Respondents could select more than one answer

- ORCID: 73%
- Scopus ID: 60%
- ResearcherID: 35%
- PubMed ID: 29%
- ArXiv ID: 9%
- National authority files: 7%
- ISNI: 3%
- VIAF: 0%
- Other (Please specify): 21%
- None of the above: 15%

Google Scholar ID (n=4)
SSRN (n=3)
Codice fiscale (Italy) (n=19)
Organization Identifiers Used in Your RIM system (n=162)

Base: Institutions with a live RIM system
Note: Respondents could select more than one answer

- None of the above: 77%
- National authority files: 6%
- GRID: 6%
- Ringgold: 5%
- CrossRef Funder Registry: 2%
- ISNI: 1%
- Other (Please specify): 5%

Some summary findings

• Congruent with our qualitative *Convenience and Compliance* findings

• Strong adoption of person identifiers
  o **ORCID becoming a *de facto* standard** in scholarly literature, but other identifiers also needed and used
  o **Organizational identifiers** largely unused
Discussion

• Survey results and data to be published as an OCLC Research Report in November 2018

• More information at oc.lc/rim
References


euroCRIS & OCLC Research. International Survey on Research Information Management Practices. Publication of results as an OCLC Research report expected in 2018