Building Knowledge Commons

Network of Repositories

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Confederation of Open Access Repositories

Photo credit: Swiss National Science Foundation
Agenda

• Who is COAR?
• The place of repositories in the broader ecosystem
• The balance between local and global
• COAR as global, strategic voice for repository community
• Interoperability and international integration
• New functionalities and value added services
• Next generation repositories
About COAR

• An association launched in 2009
• >120 members from around the world from 35 countries Australia, Africa, Asia, Europe, North and South America
• COAR Vision: A sustainable, global knowledge commons based on a network of open access digital repositories
• Institutional membership fees: EUR 500
COAR’s vision

A global knowledge commons based on an international network of open access repositories
**Who is COAR?**

- Over 100 members and partners from 35 countries in 5 continents
- Universities, libraries, government agencies, open access organizations, not-for-profit organizations, and platform developers
- Diverse perspectives that share a common vision

**Contacts Us**

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**How to participate?**

- Organizations can join COAR for €500 Euros per year (about $600 US)
- Join as a single, consortial, or special member or partner
- Download the membership application (https://www.coar-repositories.org/about/join/become-a-member)

**Major Activities**

- **International voice**
  Raising the visibility of repository networks as key infrastructure for open science

- **Alignment and interoperability**
  Building a global knowledge commons through harmonization of standards and practices

- **Cultivating relationships**
  Supporting an international community of practice for repositories and open access

- **Building capacity**
  Advancing skills and competencies for repository and research data management

- **Adopting value-added services**
  Promoting the use of web-friendly technologies and new functionalities for repositories
COAR activity areas

- Advocacy and awareness
- Interoperability and alignment
- Controlled vocabularies
- Usage statistics
- Research data management
- Training and education
- Communities of practice
- Next generation repositories
The international publishing system is broken!

- unsustainable prices
- big deal lock-in
- publication biases
- flawed quality and impact measures
- publisher consolidation across the lifecycle

Kathleen Shearer – Open Science Fair – September 6, 2017
Science is global
“Openness is not simply about gaining access to knowledge, but about the right to participate in the knowledge production process, driven by issues that are of local relevance, rather than research agendas set elsewhere or from the top down”
Beyond open access: Sustainable knowledge commons

Five prerequisites for a sustainable knowledge commons

1. Strengthen local institution-based services that preserve and provide access to diverse and valuable research products.

2. Connect local services to national, regional and global networks through the adoption of interoperable standards and practices.

3. Begin to redistribute funds towards services that add value to the networks, such as peer review.

4. Improve the processes used to evaluate research contributions to include a wider range of qualitative and quantitative metrics and indicators.

5. Adopt the principles and governance that will ensure the commons reflects the needs of the global research community.
Our solution

To reposition the institution (and the library) as the centre of a scholarly communications and a global knowledge commons
Current state of repositories internationally

Proportion of Repositories by Continent - Worldwide

- Europe: 45.2%
- Asia: 20.3%
- North America: 17.8%
- South America: 8.9%
- Africa
- Australasia
- Caribbean
- Central America
- Other

Total = 3448 repositories

OpenDOAR - 15-Nov-2017
Major drivers for repositories

Open Access Policies

The vast majority of open access policies are green!

<table>
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<th>Criterion (Green OA)</th>
<th>Number of policies</th>
<th>Criterion (Gold OA)</th>
<th>Number of policies</th>
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</tr>
<tr>
<td>Total</td>
<td>663</td>
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</tr>
</tbody>
</table>

*Table 3: Open Access policies: Green and Gold OA criteria*
Role of repositories

- The mission of a repository is to manage and provide access to the valuable and diverse intellectual output of the community it serves. In this way, it offers a vital local service.
- Equally important, however, is that repositories are nodes in a larger network, contributing their collective contents to a global knowledge commons, on top of which value added services can be built.
Connected repository network

- Repositories are a technology, and technologies change
- What we are really promoting is a vision in which institutions, universities, and their libraries are the foundational nodes in a global scholarly communication system
- We can do this by leveraging, expand and enhancing the already globally connected international repository network – and working through our partners
International Accord for greater alignment between repositories

Australasia, Canada, China, Europe, Japan, Latin America, South Africa, United States
From national to global through cross regional harvesting
Role of regional and national repository networks

- Collective collections (knowledge commons)
- Support the development of value added services
  - Text and data mining
- Tracking research outputs
- Text and data mining
- Community of practice
  - Common standards and practices
International alignment

- Repositories as nodes in national, regional and international networks
- The basis of current repository interoperability
  - Vocabularies
  - Metadata
  - Schemas
  - APIs
- Aligning repository networks
Next generation repositories

COAR Working Group launched in April 2016

The problem: Repositories have not fully realized their potential and function mainly as passive, siloed recipients of the final versions of their users’ conventionally published research outputs

Aim: to identify functionalities and architectures for the next generation repositories within the context of scholarly communication
COAR Working Group, Next Generation Repositories

Eloy Rodrigues, chair (COAR, Portugal)
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Paul Walk (EDINA, UK)
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Kazu Yamaji (National Institute of Informatics, Japan)
Next generation repositories

To position repositories as the foundation for a distributed, globally networked infrastructure for scholarly communication

_on top of which layers of value added services will be deployed,

_thereby transforming the system, making it more research-centric, open to and supportive of innovation,

_while also collectively managed by the scholarly community.
Next generation repositories

- Methodology
- Use cases
- New functionalities/behaviours for repositories
- Technological recommendations
- Adoption and implementation
To support these services, we need to improve the functionality of repositories
- To be of, not just on the web
- Global interoperability (exposing content in a standardized way)
- Pro-active repositories
- To support development of value added networked services
The case for a distributed, community-managed infrastructure

- Better supports the needs of diverse regions, disciplines and languages
- Redundancy will safeguard against failure
- Less risk of commercial buy-out
- Places the library, and their values, at the centre

But... a distributed approach is more challenging in terms of a common vision, coordination and branding
MIT Future of Libraries Report

“… The MIT Libraries must operate as an open, trusted, durable, interdisciplinary, interoperable content platform that provides a foundation for the entire life cycle of information for collaborative global research and education. ”

“In this report, we describe a bold new vision for the library as an open global platform rooted in our shared values and mission.”
Lorcan Dempsey’s “Inside-out” library

• The traditional library was built on an "outside-in" model: information materials were brought to the institution and made available for use.

• But, our environment has now changed. We live in an age of information abundance and transaction costs are reduced on the web. This makes the locally assembled collection less central. At the same time, institutions are generating new forms of data—research data, learning materials, preprints, videos, expertise profiles, etc.—which they wish to share with others.

• These need to be managed and disclosed, as an "inside-out" perspective becomes more interesting.
Thank you!

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