



# Towards a global network of open access repositories for research and scholarship

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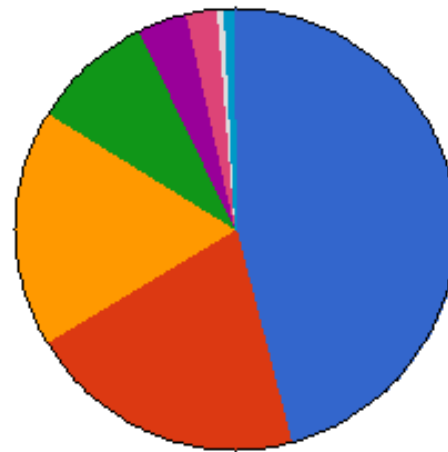
Tempus training in Debrecen



# Research is becoming increasingly global, collaborative, networked, distributed

**OpenDOAR has  
over 2500  
repositories listed**

Proportion of Repositories by Continent  
Worldwide



- Europe (1187 = 46%)
  - North America (527 = 20%)
  - Asia (451 = 18%)
  - South America (229 = 9%)
  - Africa (91 = 4%)
  - Australasia (59 = 2%)
  - Caribbean (16 = 1%)
  - Central America (12 = 0%)
  - [1 Others (3 = 0%)]
- Total = 2575 repositories

OpenDOAR 28-Jan-2014



# Our vision

A global knowledge infrastructure, built upon a network of open access digital repositories



...will enhance the provision, visibility and use of research outputs



# New modes of research and scholarly communication



Standards, policies, infrastructure, strategy, interoperability, support, awareness, integration...



Inspired by Tim Berners Lee

**COAR** aims to facilitate the vision by bringing together research repositories as part of a **global infrastructure**; to link across continents and around the world, enabling new forms of research and supporting new models of scholarly communication.

**Research libraries have a central role to play.**



# Factsheet

- COAR e.V., a registered not-for-profit association of repository initiatives according to German law, Office seat: Göttingen, DE, Host: Göttingen State and University Library
- Founded in Ghent, Belgium, October 21, 2009 (28 members), evolved out of the European DRIVER Project (EC, FP7)
- One Annual Meeting of all members with General Assembly  
Members & Partners (January 2014): more than 100 member institutions (out of over 30 countries in Asia, Europe, Northern and Latin-America); 6 partner organizations
- Elected Executive Board:
  - Chairperson: Norbert Lossau, Göttingen State and University Library, DE
  - Vice Chairperson: Carmen-Gloria Labbé, Cooperación Latinoamericana de Redes Avanzadas (CLARA), Uruguay
  - Treasurer: Márta Virágos, University and National Library of Debrecen, Hungary



# Members and partners

- Single Repository/University/Library organisations
  - i.e. University of Toronto Libraries, Canada
- Federation (national, regional)
  - i.e. Digital Repository Federation (DRF), Japan
- Research organisations (“Repository Provider”)
  - i.e. Chinese Academy of Sciences, National Science Library, China
- Governmental organisations, funders
  - i.e. Fundación Española para la Ciencia y la Tecnología, Spain
- Technology/Infrastructure Development
  - Uniwersytet Warszawski, Interdisciplinary Centre for Mathematical and Computational Modelling, Poland
- Service Provider
  - i.e. OCLC (Online Computer Library Center), U.S.



# COAR principles

- **Global:** COAR focuses on the needs and issue of interest of repositories across the world
- **Sensitive to local differences:** COAR is conscious of the tremendous diversity globally, and aware that needs will differ depending on the distinct regional environment.
- **Strategic:** Bringing together policy makers and regional networks to work for a future vision of repositories
- **Grass roots:** COARs success depends on active engagement of its membership. Activities are initiated and driven by members, with support of the overall organisation. This approach allows COAR to address multiple objectives in parallel and to run at low cost (compared to other infrastructures organisations).
- **Synergistic:** in order to achieve a common vision, repositories around the globe must adopt common approaches to policies, metadata schemas, vocabularies, etc.



# Activities

## ***Working Group 1: Repository Content***

- Promote emerging and best practices in content recruitment
- Identify and support the development of overlay and value-added services
- Publication: “Incentives, Integration, and Mediation: Sustainable Practices for Populating Repositories” (Disponibile en espanol)

## **Related Task Forces and Interest Groups**

**Open Access Agreements and Licenses Task Force** - Monitoring, evaluating and promoting the implementation of effective open access agreements and licenses

- New Report: “Open Access Clauses in Publishers’ Licenses – Current State and Lessons Learned”

**Repository Impact and Visibility Interest Group** - Explore and document existing approaches for maximizing repository visibility and develop new strategies that can be adopted around the globe





# Activities

## ***Working Group 2: Repository Interoperability***

- Define and promote interoperability, standards and infrastructure policies
- Interoperability Roadmap: identify emerging issues and trends for repository interoperability and determine priorities for focusing future interoperability efforts.

### **Related Task Forces and Interest Groups**

**Interest Group “Usage Data and beyond”** - Collecting experiences from several projects in order to standardise the transfer protocol and data format

**Interest Group “Controlled Vocabulary for Repository Assets”**  
(info:eu-repo) - Establishing workflow for vocabulary maintenance & adopting mainstream web practices for vocabulary encoding



## ***Working Group 3: Repository and Repository Networks Support and Training***

- Facilitates a community of professionals through a global forum for the exchange of information and experiences
- Collects and shares training materials developed elsewhere
- Produces training events: webinars, workshops, etc.

### **Related Task Forces and Interest Groups**

- **Joint Task Force on Librarians' Competencies in support of e-Research and Scholarly Communication** - outline the competencies needed by librarians in this evolving environment (by ARL, CARL, COAR & LIBER).



# Other Activities

## ***Aligning Repository Networks***

- Host an international meeting to discuss the alignment of open access repository networks across regions.

## ***Repository Observatory***

- To help open access repositories to anticipate and respond the constant state of rapid evolution.
- Identify trends and future scenarios in the context of the use of repositories in research and education



## ***RDA Long Tail of Research Data Interest Group***

- Develop a set of good practices for managing research data archived in the university context.



# Why join COAR?

## *Pursue a common vision*

### COAR:

- Advocates at the international level to ensure that repositories are a recognized part of the global research infrastructure.
- Demonstrates to policy makers that institutions are already working together to create this infrastructure.
- Develops relationships with other stakeholder organizations with common objectives.



# Current State of Open Access Repository Interoperability

- Metadata harvesting
- Usage statistics
- Improved ingest processes to support automated deposits
- Creating unique identifiers for authors and repository content
- Support services for repository networks
- Integrating repositories into research administration workflows
- Supports for compound objects-digital objects that include multiple components or files



# Background information

- OA repositories and their associated services have become an important component of the global e-Research infrastructure,
- The real value of repositories lies in their potential to become an interconnected repository network,
- Interoperability is the ability of systems to communicate with each other to transfer information back and forth in a usable format,
- Interoperability is the technical „glue” that makes it possible to virtually connect repositories to each other and to other systems and transfer information, metadata, and digital objects between each other.



Areas	Associated Initiatives
Metadata Harvesting	OAI-PMH
Repository Networks	DRIVER <u>OpenAIRE</u> National repository networks UK <u>RepositoryNet+</u>
Usage Statistics	COUNTER KE Usage Statistics <u>OA-Statistik</u> PIRUS/IRUS-UK SURE
Cross-System Content Transfer	SWORD Open Access Repository Junction CRIS-OAR Metadata Interoperability
Author Identification	<u>AuthorClaim</u> ORCID
Persistent Identifiers	<u>PersID</u> DOI Handle System <u>DataCite</u>
Managing Compound Objects	OAI-ORE

- **Metadata harvesting** has been under development since the late 1990s (Santa Fe Convention to establish an interface for pre-print servers)
- With **OAI-PMH**, repositories describe their content through metadata standards such as **Dublin Core**.
- The European repository community has been a leader in the network area. Projects like **DRIVER** and **OpenAire** are the biggest success. The OpenAIRE repository network serves as a default infrastructure to host deposits of European Commission FP7-funded research outputs which are required to be made publicly-accessible via an OA repository.





- Interoperable repository statistics is another major research area (**OA-Statistik**, **PIRUS/IRUS-UK** and **SURE**)
- Cross-system content transfer: authors need to deposit their research outputs into multiple repositories: IR, subject-based R and funders R (PubMedCentral). The **SWORD** protocol and **OA-RJ** (Open Access-Repository Junction) were both designed to support this cross-system content transfer. Another use of cross-system transfer is to move content between **Current Research Information Systems (CRIS)** and OA repositories via metadata exchange.
- **CRIS-OAR** Metadata interoperability initiative



- Projects dealing with unique author identification such as **ORCID** and **AuthorClaim** attempt to link individual authors to their publications.
- Persistent identification for digital objects has always been a concern for repository community
- The **Digital Object Identifier (DOI)**, the **Handle system**, and **PersID** are designed to set persistent identifiers for any type of digital object.
- **DataCite** is designed to assign persistent identifiers for datasets.
- For **compound digital objects**, the Object Reuse and Exchange (**OAI-ORE**) specification focuses on creating systemized ways to move bundles of objects from one system to another.



**AuthorClaim**  
**authorclaim.org**

# AuthorClaim

*AuthorClaim aims to link scholars with records of the works they have produced.*

Area: Author identification  
Geographic Focus: Global

Current status: currently maintained;  
building-up phase

Sponsoring Organization: The development of AuthorClaim was funded by an Open Society Institute grant to the ACIS project.

Other Projects in this Area:  
- ORCID





Helping you to find,  
access, and reuse data

*DataCite assigns persistent identifiers to published datasets.*

Area: Persistent identifiers

Geographic Focus: Global

Current status: currently maintained

Sponsoring Organization: DataCite is a member-based international organisation. Founding members include: the British Library; the Technical Information Center of Denmark; TU Delft Library; the National Research Council's Canada Institute for Scientific and Technical Information (NRC-CISTI); California Digital Library; Purdue University; and the German National Library of Science and Technology. Many other institutions are now members.

Other Projects in this Area;

- PersID
- Handle System



DINI was established to coordinate the development of modern information and communication technologies.

It maintains the DINI Certificate, issuing a new version every three years.

The certificate describes technical as well as organizational and legal aspects that should be considered when setting up an Open Access repository

**DINI Certificate for Document and Publication Services**  
[www.dini.de/dini-zertifikat/english](http://www.dini.de/dini-zertifikat/english)



*This DINI Certificate describes technical, organizational, and legal aspects that should be considered when setting up and running a sustained document and publication service such as an OA repository.*

Area:

Geographic Focus: Global

Current status: currently maintained



The Handle System provides efficient and secure resolution services for unique and persistent identifiers of digital objects.

A digital object has a machine and platform independent structure that allows it to be identified, accessed and protected.

A digital object may incorporate not only information elements, but also the unique identifier of the digital object and another metadata about the digital object. The metadata may include restrictions on access to digital objects, notice of ownership, and identifiers for licensing agreements, if appropriate.



## The Handle System

handle.net

# Handle System®

*Handles are designed to provide unique and persistent identifiers of digital objects*

Area: Persistent identification

Geographic Focus: Global

Current status: currently maintained

Sponsoring Organization: Corporation for National Research Initiatives (CNRI)

Other Projects in This Area:

- DataCite
- PersID



# Why join COAR?

## ***Monitor trends and network with international colleagues***

### COAR:

- Acts a forum for international cooperation and knowledge exchange regarding repository management and repository infrastructure
- Serves as your reference point for repository standardization efforts
- Facilitates your participation in international projects



# Why join COAR?

## *Develop skills and knowledge*

### COAR

- Engages members in new developments and trends in repository roles and developments.
- Helps to organize training programs for repository managers
- Supports a community of practice of repository managers, through workshops and other training events





If you share the vision of an open, global research repository infrastructure, we would be delighted to welcome you as a member of COAR!



# How to join COAR?

An organization may become a member at any time

- as a **single institution** (for only 500 EUR per year)
- organizations with lots of members may consider to establish a **Group Consortium** – with discount on membership fee.
- as a **Special Member** (“fee waiver option” for institutions from the least developed countries)

...or become a **Partner**



# Where can you get more information about COAR?

- Visit the COAR Website:

[www.coar-repositories.org](http://www.coar-repositories.org)

- Contact COAR Executive Director, Kathleen Shearer, for more information:

[kathleen.shearer@coar-repositories.org](mailto:kathleen.shearer@coar-repositories.org)

- Contact the COAR office to register your interest in becoming a member of COAR

[office@coar-repositories.org](mailto:office@coar-repositories.org)

- Follow us on Twitter: **#COAR\_eV**
- Find us on Facebook: <https://www.facebook.com/COAReV>

