

# Open Science Challenges and opportunities for open access repositories

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Interoperability Workshop
University of Minho, 7/8 February 2013







#### E-science

- Computationally intensive
- Highly distributed network environments
- Intensive use of data
- Collaborative
- Virtual research communities: no geographical, time or institutional boundaries







### **Opportunity: Open Science**

Open Science means optimal sharing of research results and tools such as publications, research data, software, educational resources and infrastructures across institutional, disciplinary and national boundaries.

Making science and research more efficient, transparent, trustworthy and valued through the tools and collaboration models made possible by ICT







# Broad understanding of and approach to Open Access

- The cost arguments of the "serials crisis" of course do matter...
- ...but the thrust for OA comes even more so from "eResearch" and the requirements for the emerging new ways of scholarly communication
- "full exploitation of the internet" (Berlin Declaration)







# Open access repositories must be rationalized within this broader vision.

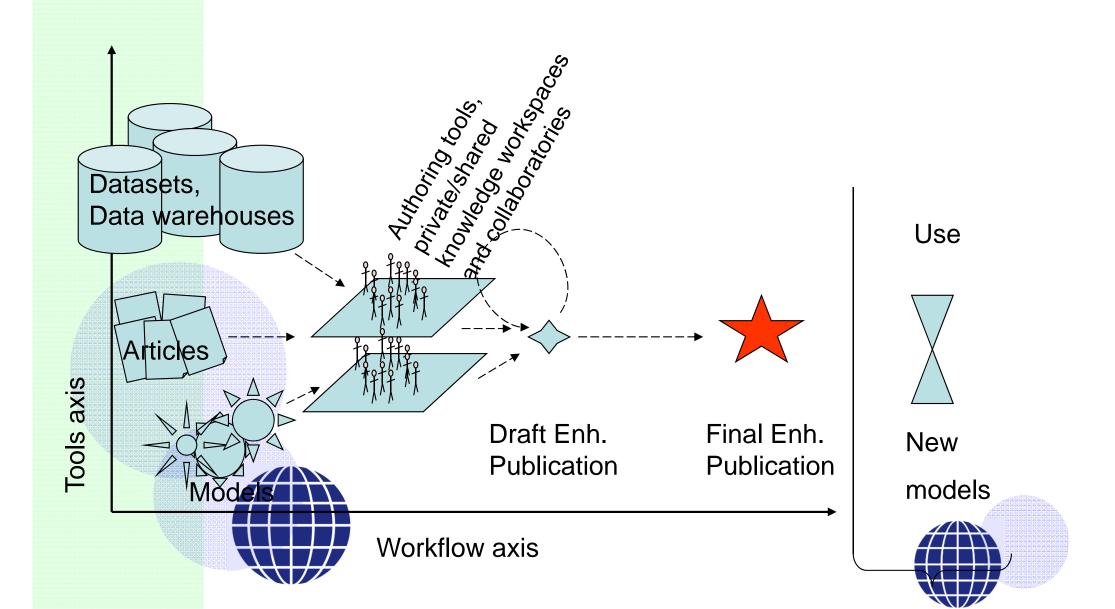
We can change the way research and education is conducted by exposing rich knowledge-oriented information assets





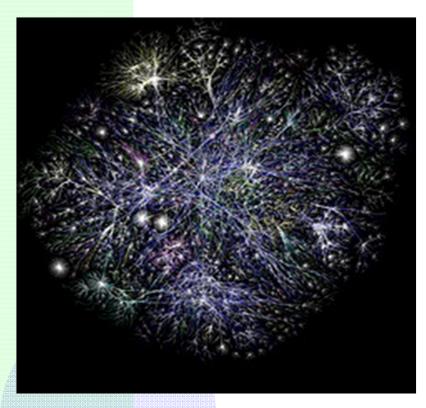


## research cycle





## The revolutionary opportunity



For the first time in history, the Internet offers us the possibility to create a global and interactive representation of human knowledge, including cultural heritage and the guarantee of worldwide access.

To realize this vision of a global and accessible representation of knowledge, the future Web has to be sustainable, interactive and transparent. Content and software tools must be freely accessible and interoperable.



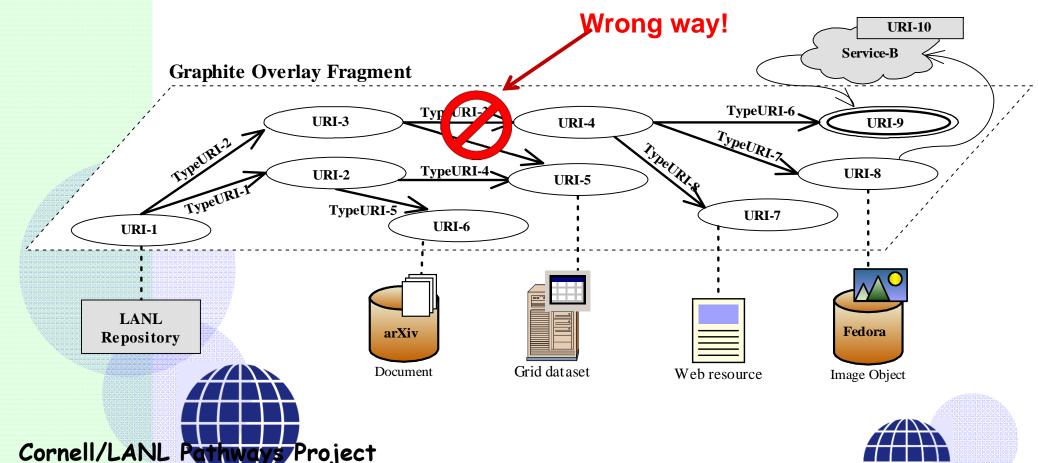
Berlin Declaration, 2003







- Complex digital content to be stored in such a way that is internal structure and external context can be explicitly represented, managed and exposed in the web.
- Offering researchers new ways to visualize, analize and interact with data and publications
- The entire life cycle of academic research –from inception to publication- openly available to all.





### Global Co-laboratories...



relationships in a machine understandable way, allowing machines to create sophisticated services over the global representation of knowledge distributed across repositories and other systems, to make cross-discipline connections, and to combine disparate findings to arrive at new insights.



**Exploring Correspondence and Intellectual Community in the Early Modern Period (1500-1800), University of Stanford** 

https://republicofletters.stanford.edu/



To realize the potential to form the global network providing unified preservation, access, re-use of research and outputs interoperability will be a critical feature as repositories become further integrated into research processes, and it will be necessary for the repository community to collaborate closely together, and engage actively with the other components of the e-research ecosystem







The World Confederation of Open Access Repositories uniting and representing more than 100 institutions worldwide (Europe, Asia, Latin America, the U.S. and Canada)



http://www.coar-repositories.org/

#### Most recent new members:

- Most recent new members:
- May 2012: University of Toronto Libraries, CA
- June 2012: Cornell University Library, U.S.
- August 2012: The Vilnius University of Lithuania, LT;
- The Izmir Institute of Technology Library of Turkey, TR







### **Our vision**

A global knowledge infrastructure, based on worldwide networked open access digital repositories



#### **Our mission**

To facilitate greater visibility and application of research outputs through global networks of open access repositories based on interoperability and international cooperation





# FOCUSING ON OPEN ACCESS CONTENT







## COAR Preliminary Report – Summary of sustainable practices for populating repositories

- I. Researcher advocacy
- 2. Using usage statistics to encourage deposits
- 3. Rights checking and submission services
- 4 Linking repositories with Research Assessment Exercises (RAEs) and Research databases (CRIS)
- 6. Full text harvesting
- 7. Direct deposit by publisher

http://tinyurl.com/coar-repository-content







**Purpose**: to push forward on conditions for Open Access within journal license agreements.

Innovative license models and convenient terms of use



An Open Access condition that ensures that authors of all authorized institutions, at no extra cost, can deposit their articles in a repository of their choice and make them available in Open Access.





A COAR Licensing Case Study – "National Licenses and Open Access in Germany" by Dr. Birgit Schmidt

http://www.coar-

 $repositories.org/files/COAR\_Licensing\_Case\_Study\_Germany\_May 2012.pdf$ 



### A multi-stakeholder Task Force

- Kathleen Shearer, Canadian Association of Research Libraries/COAR
- Lars Björnshauge, SPARC Europe
- Anjana Bhatt, Florida Gulf Coast University
- Saskia Franken, Utrecht University Library
- Kristine Hillenkötter, Göttingen State and University Library/COAR
- Neil Jacobs, Joint Information Systems Committee
- Anna Lundén, BIBSAM Consortium/National Library of Sweden/COAR
- Hildegard Schäffler. Bayerische Staatsbibpothek in Munich
- Ralf Schimmer, Max Planck Digital Library
- Birgit Schmidt, COAR/OpenAIRE
- Yan Zhao, National Science Library/COAR, China
- Mayya Revzina, World Bank Publications







# SUPPORT FOR THE OA REPOSITORY COMMUNITY







#### Helpdesks

#### Information portals and support networks for repository managers

#### COAR Helpdesk

If you need consultation or advice on repository development and management please email to helpdesk@coar-repositories org. Please provide as much information as you can about the type of institution and repository you work for and as much details as possible about the issue or question you would like to discuss. The helpdesk service operates on a good will basis and is free of charge.

#### Argentina

- Ministerio de Ciencia, Tecnología e Innovación Productiva, Biblioteca Electrónica de Ciencia y Tecnología
- Sistema Nacional de Repositorios Digitales (SNRD) establishes an interoperable network of digital repositories in science and technology
- Wiki Acceso Abierto
- Repositorios Dinámicos

#### Austria

- Open Access Group of the University of Vienna based at the Vienna University Library
- Open Access in Austria on OpenAIRE

#### **Training Materials**

COAR WG 3 has compiled several training materials for repository managers. Topics are

- Introduction
- · Setting up open access repositories
- Running open access repositories
- Copyright clearance and digital rights management
- Advocacy; advocating to different stakeholders, introducing open access policies and mandates
- · Research data management and repositories
- Interoperability
- · National overviews



#### Training

#### COAR Online Workshops

COAR is planning a series of online workshops to foster the exchange of ideas and expertise and to share experiences and best practices within the repository community. The workshops will address operational issues required to install, implement and deploy open repositories:

- Technical: software selection and installation, technologies, metadata, interoperability;
- Organisational: staffing, business requirements and incentives;
- Copyright clearance and digital rights management;
- Repository management: policies, workflows, archiving and preservation;
- Advocacy: advocating to different stakeholders, introducing open access policies and mandates).



#### International outreach

- Open Access Thematic Workshop at the World Summit on the Information Society (WSIS), Geneva
- Berlin 10, Working towards the global open access repositories network for a networked scholarship
- > Open Repositories Conference 2012, COAR Repository Interoperability Roadmap
- > 2012, XII Congreso Internacional de Información, Cuba
- International Conference on Trends in Knowledge and Information Dynamics Bangalore, India.
- ➢ II Conferencia Internacional sobre Bibliotecas y Repositorios Digitales -BIREDIAL'12, Colombia
- China Open Access week, Beijing 2012







## **Creating community**







## 3rd COAR Annual Meeting and General Assembly

May 21-22, 2012 at Uppsala University, Sweden

Carolina Rediviva

Hosted by



Uppsala universitetsbibliotek







#### **COAR Newsletter**



No. 4 – Oktober 2012

#### **Contents**

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context of the use of repositories in research and education, to help open access repositories to anticipate and respond the constant state of rapid evolution. The COAR Repository Section will include: interviews with experts from different fields as to how they see the future panorama of repositories; links to innovative projects commenting about what changes and directions these projects bring to the







## Support for regions



#### Further Development of COAR in Latin America

Posted on June 7, 2012 by COAR

Santiago, Chile May, 2012 – Representatives from a small group of government ministries, library organisations, and projects from Latin America met on May 3-4, 2012 to continue to discuss plans for a regional infrastructure for COAR to support the growing Open Access movement, repositories, and initiatives throughout the region.

The outcome of the meeting was a firm plan to establish a provisional regional group for COAR as part of COAR's overall commitment to increasing support for and involvement of Latin American members. The regional group will be hosted by the Ministry of Science, Technology, and Productive Innovation of Argentina (MINCYT), a current member of COAR. Furthermore, representatives from the LA REFERENCIA project will be integrated into the regional group of COAR. LA REFERENCIA is a regional initiative designed to create a federated network of institutional repositories of scientific publications to support scientific production in Latin America. The LA REFERENCIA project includes representatives from Brazil, Colombia, Chile, Venezuela, Peru, Mexico, and Ecuador.





#### Home » Working Groups » Private: Repository Observatory



Preliminary Report – Sustainable Best Practices for Populating Repositories

- 1. Researcher advocacy
- Using usage statistics to encourage deposits
- Rights checking and submission services
- Automated downloading of citation data
- Linking repositories with Research Assessment Exercises (RAEs)
- 6. Full text harvesting
- Direct deposit by publisher

Repository Interoperability

COAR Interoperability Project

> The Current State of Open Access Repository Interoperability (2012)

A Case for Interoperability

Get Involved

Resources

News & Discussion

Repository and Repository Networks Support & Training

#### Private: Repository Observatory

#### Objective

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

#### Task Force Members

- Silvia Nakano, Ministry of Science MiNCYT, Argentina
- Irvna Kuchma, EIFL, COAR WG3 Chair, The Netherlands
- Claire Cocco, Director, OCLC Digital Collection Services, USA
- Gyongyi Karacsony, Deputy Director, University and National Library, University of Debrecen, Hungary
- Olaf Siegert, Head of electronic publishing unit, ZBW, Germany
- Urban Ericsson, e-publishing coordinator, PhD, Senior Librarian, Swedish University of Agricultural Sciences
- Donrong Zhang, National Science Library, CAS, China
- Katharina Mueller, COAR Office, Germany
- Alicia Lopez Medina, UNED, COAR Executive Director, Spain

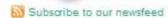
#### PROJECT BRIEFINGS - THINGS YOU SHOULD KNOW ABOUT

COAR TALKS

REPOSITORY PROFILES

STATE OF REPOSITORIES

READINGS



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Visit us on Facebook

#### Statements

We are delighted to announce our membership in COAR. COAR membership offers CARL and Canadian research libraries the opportunity to have a greater influence on the direction and expansion of open access world-wide.

—Tom Hickerson, Chair of the CARL Institutional Repositories Working Group and Vice-President/President Elect of CARL

I have no doubt that this collaborative structure will lead to the successful sharing of research worldwide in the best form possible, harvesting national efforts all over the world, including Japan, and from the bottom of my heart I congratulate COAR on its launch.

 Massaki Hemmi, Director of Digital Repository Federation Vice-President of Hokkaido University









# FOCUS ON INFRASTRUCTURE: INTEROPERABILITY





### **COAR** and Interoperability

- Interoperability was always one of the strategic issues for COAR
- A Working Group on Interoperability was established
- COAR Strategic directions 2012-2015
  - 3. To define and promote interoperability, standards, and infrastructure policies







## Current State of Open Access Repository Interoperability (2012)



## The COAR Roadmap for Open Access Repository Interoperability

Goal: to provide clarity and guidance for the interoperability landscape by:

- Presenting an overview of the current and emerging services that interoperability initiatives make possible
- Presenting interoperability standards/protocols in connection to these services
- Provide guidance and recommendations on future directions and solutions for enhancing repository interoperability in the context of OA and e-infrastructure



http://bit.ly/CSOASRI





## R Areas and Associated Initiatives

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





## **Embedding repositories within research** information infrastructures



euroCRIS and COAR join forces building up a mutual partnership

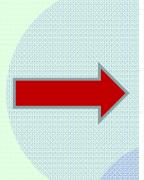




## Establishing synergies between institutional and data repositories

## Research Data Alliance Launch and First Plenary March 18-20, 2013, Gothenburg, Sweden

Title	Chairs	Mail list web	Forum
Harmonization and Use of PID Information Types	Tobias Weigel, Tim DiLauro	rda-cwg- pidinfotypes	PID Information Types
UPC Code for Data	Jim Myers, Margret Hedstrom	no mail list	no forum established yet
Data Type Registries	Larry Lannom, Daan Broeder	rda-cwg- typeregistries	Type Registries
Metadata	Jane Greenberg, Rebecca Koskela	rda-cwg- metadata	Metadata WG
Pub/Data Citation/Linking	Yannis Ioannidis	rda-cwg-linking	no forum
Data Foundation and Terminology	Gerhard Budin, Peter Wittenburg, Gary Berg-Cross	rda-cwg- terminology	Data Foundation and Terminology
Practical Policy	Reagan Moore, Rainer	rda-cwg-policy	Practical Policy









# Establishing synergies between research libraries and repository communities



Europe LIBER new Steering Committee in "Scholarly Communication and Research Infrastructures" linking to COAR as organization with international outreach.



COAR really is opening and offering new roles for research libraries and repository communities in building the future scientific information infrastructure





#### Advocacy, Marketing & Consultations (selected)

## Active participation in the debate on regional and international elnfrastructures and OA implementation.

I.e. Participation in EU-India cooperation in Data – e-concertation meeting Lyon, France, EC,

Open Infrastructures for Open Science, European Commission (EC) Horizon 2020 consultation workshop, Rome, G8+O5 (next march, UK)

#### Result

COAR is invited to further strategic planning & consultation processes

COAR Brand is developing (international outreach, national & regional networks, unique combination of OA & implementation)

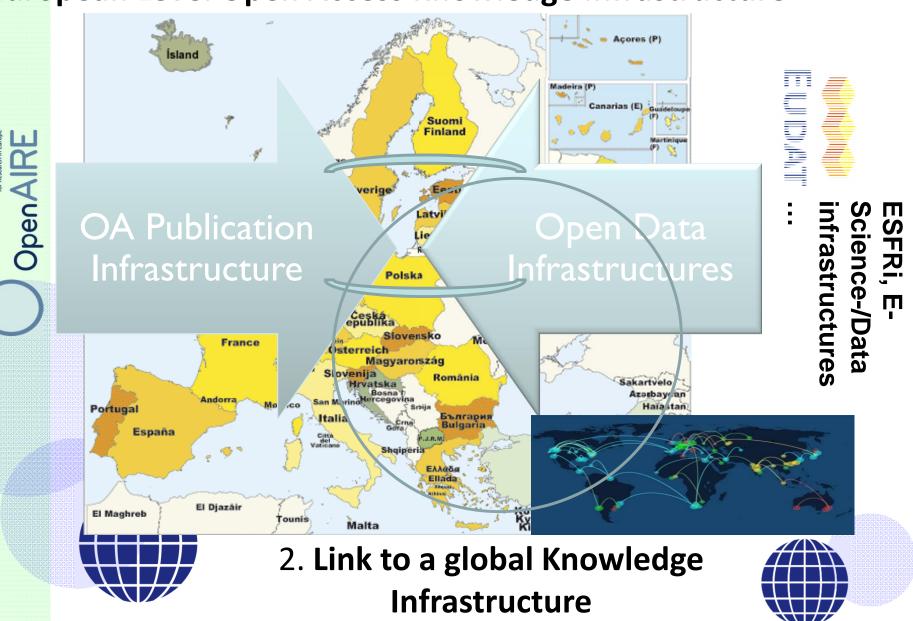






## The global framework

1. European Level Open Access Knowledge Infrastructure





## Become active in the global COAR community!



#### Contact:

office@coar-repositories.org alopezm@pas.uned.es



