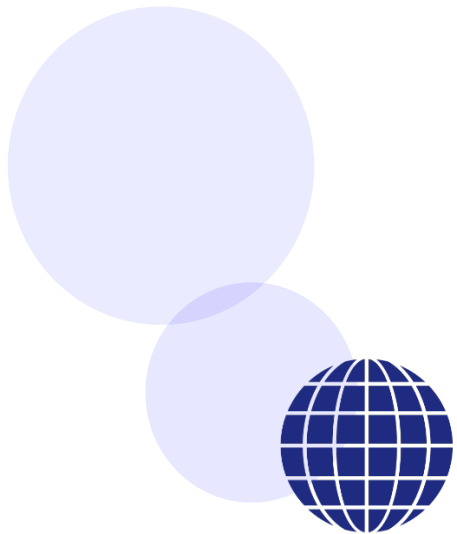


Next Generation Repositories Session



Agenda

1. Introduction

2. Examples of user stories

Data syncing and notifications (Paolo Manghi)

Text and data mining and recommender systems (Petr Knoth)

Peer review, annotation and commenting (Pandelis Perakakis)

Coffee Break

3. Implications for repository platforms

What does the next generation repository look like? (Paul Walk)

How to get to there from here (Andrea Bollini)

4. Next steps, implementation and adoption



Next generation repositories

- 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



Next generation repositories

Vision

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

Objectives

- To achieve a level of **cross-repository interoperability by exposing uniform behaviours across repositories that leverage web-friendly technologies and architectures**, and by **integrating with existing global scholarly infrastructures** specifically those aimed at identification of e.g. contributions, research data, contributors, institutions, funders, projects.
- To encourage the emergence of **added-value services that use these uniform behaviours** to support discovery, access, annotating, real-time curating, sharing, quality assessment, content transfer, analytics, provenance tracing, etc.



Working Group



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Leslie Chan (University of Toronto at Scarborough, Canada)
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Petr Knoth (Open University, UK)
Paolo Manghi (CNR, Italy)
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Pandelis Perakakis (Open Scholar, Spain)
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Tim Smith (CERN, Switzerland)
Herbert Van de Sompel (Los Alamos National Laboratory, US)
Paul Walk (EDINA, UK)
David Wilcox (Duraspace/Fedora, Canada)
Kazu Yamaji (National Institute of Informatics, Japan)



Next generation repositories

Priorities



1. **Discovery** – Develop global interoperability of repositories through web-friendly repository technologies and architectures
2. **Assessment** – Develop repository functionality related to the quality assessment of content including peer review
3. **Workflows** – Expand the workflows and functionalities of repositories to better support the full lifecycle of research.
4. **Impact** - Define and adopt reliable and interoperable impact metrics



Principles

- **Distribution of control**
- **Inclusiveness**
- **Public good**
- **Intelligent openness**



Design Assumptions

- **Focus on the resources themselves, not just associated metadata**
- **Pragmatism**
- **Evolution, not revolution**
- **Convention over configuration**
- **Engage with users where they are**



Next generation repositories

Methodology

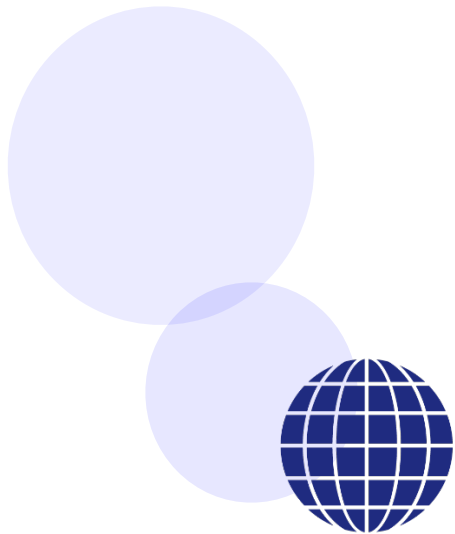
1. Identify major use cases
2. Determine functionalities/behaviours
3. Develop conceptual models
4. Define technologies and architectures
5. Publish recommendations
6. Support adoption and implementation



Initial Outcomes



**Document with initial outcomes of the COAR
Next Generation Repositories Working Group
made available for public comment from
February 7 – March 3, 2017**



Initial outcomes

12 “user stories”

Discovering metadata that describes a scholarly resource

Discovering the identifier of a scholarly resource

Discovering usage rights

Recognizing the user

Commenting, annotating, and peer-review

Automated recommender systems for repositories

Providing a social notification feed

Resource syncing and notification

Data mining

Supporting researchers' workflows

Comparing usage

Preservation



Initial Outcomes



**Document with initial outcomes of the COAR Next Generation
Repositories Working Group made available for public comment
from February 7 – March 3, 2017**

More than 60 comments received

Revised version produced



Next Steps

Develop Conceptual Models

Identify/Recommend needed technologies

**Aiming to present at Open Repositories 2017
(late June)**

