Notify: The Repository and Services Interoperability Project

Kathleen Shearer, Martin Klein, Paul Walk
The vision is 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.

**Previous work**

**COAR Next Generation Repositories Initiative (2016-17)**

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**Pubfair** A distributed framework for open publishing services (2019)

A conceptual model for a modular, distributed open source publishing framework which builds upon the content contained in the network of repositories to enable the dissemination and quality-control of a range of research outputs including publications, data, and more.
Notify: The Repository and Services Interoperability Project (2021)

Aims to develop a **standard and interoperable approach** that will link reviews and endorsements from different services with the **research outputs housed in the distributed network** of preprint servers, archives, and repositories.

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**Implementing Partners**
CSIC – Spanish National Research Council  
Episcience  
HAL  
Harvard Library  
Peer Community In  
PREreview  
Pub In and RCAAP  
Sciety
Leveraging the interest in preprints due to COVID-19

Pivotal Year for Preprints

The pandemic has brought new public attention to non-peer-reviewed research, especially in medical fields.

By Lilah Burke  // January 20, 2021
Notify: Example use case
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Preprint URI-P

Sent

Review Request (URI-P)

Inbox

PREreview

Sent
Notify: Example use case

Preprint URI-P

Inbox

Sent

Review Ack

Inbox

Sent

PREreview
Notify: Example use case
Notify: Example use case

Preprint URI-P

Review URI-R
Notify: Example use case
Notify: Example use case
Notify: Example use case

1. Inbox
   - Preprint URI-P
     - Reviewed
     - Link to URI-R

2. Sent
   - Link to URI-R

3. Inbox
   - Review URI-R

4. Sent
   - Link to URI-P
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Our model:

- Utilizes widely-adopted, standard web protocols
  - Linked Data Notifications, ActivityStreams2.0
- Is platform and service agnostic
- Builds on a distributed network of:
  - content providers (preprint servers, repositories, etc.)
  - peer review service providers (PreReview, Publons, etc.).

See: Modelling Overlay Peer Review Processes with Linked Data Notifications
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With the use of standards and distributed infrastructure, our model:

- Operates **at scale**!
- **Lowers** the barriers to adoption and participation
- Increases **sustainability** by decreasing interdependence between services
- Supports **other** contexts and use cases
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The project involves working with implementing partners to:

1. Aid the **development of reference implementations** of the identified use-cases involving repositories and networked services
2. Support high-level collaboration to **align development across implementation partners**
3. **Support and encourage broad interoperability** by establishing common practices, community norms and conventions
4. **Engage with relevant development communities** (e.g. for important repository and service platforms) to gain support with implementation.
Three Use Cases

Use Case Collaboration Groups

- Use Case 1: Peer review of repository-based resources
- Use Case 2: Endorsement of repository-based resources (e.g. overlay journals, endorsement services)
- Use Case 3: Integration of reviews/endorsements with downstream services
Outcomes

- Validation of implementations for functionality and standards-compliance
- Community conventions for payload structures and vocabularies to support a variety of use-cases
- Shared knowledge-base and guidance material relating to technical implementation
- A range of interoperable working platforms: including repositories, preprint servers, peer review services, overlay journals, and downstream services (e.g. aggregators)
- A catalog of repository and service platforms implementing the "Notify" technology
Documentation

Scenarios: workflow-steps and notifications

Reusable notification patterns
Thanks!

For more information, visit:


Or contact:

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