

# The Digital Repository of Ireland

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## The DRI Repository

The Digital Repository of Ireland is an interactive, trusted digital repository for social and cultural content held by Irish institutions. The Repository was officially launched on 25th June 2015 along with a report entitled "Building the Digital Repository of Ireland Infrastructure" (doi:10.3318/DRI.2015.5).

With a dual remit to serve the Humanities and Social Science domains, the Repository must support a range of metadata and data formats.

Digital objects can be described in any of the supported metadata standards: Dublin Core (Simple & Qualified), EAD, MARC or MODS. The repository also supports both XML and RDF objects, depending on the object type.

Various data types are also supported, these include digitised images of artworks and manuscripts, audio and video materials from archives and broadcasters, as well as Social Sciences research data.



## About the DRI

The Digital Repository of Ireland is a research organisation with staff members from a wide variety of backgrounds, including software engineers, designers, digital archivists and librarians, data curators, digital imaging experts, policy and requirements specialists, educators, programme and project managers, social scientists and humanities scholars. DRI was built by a research consortium of six academic partners working together to deliver the repository, policies, guidelines and training. Core academic institutions continue to manage the repository and implement its policies, guidelines and training. These are the Royal Irish Academy (RIA), Trinity College Dublin (TCD) and Maynooth University (MU).

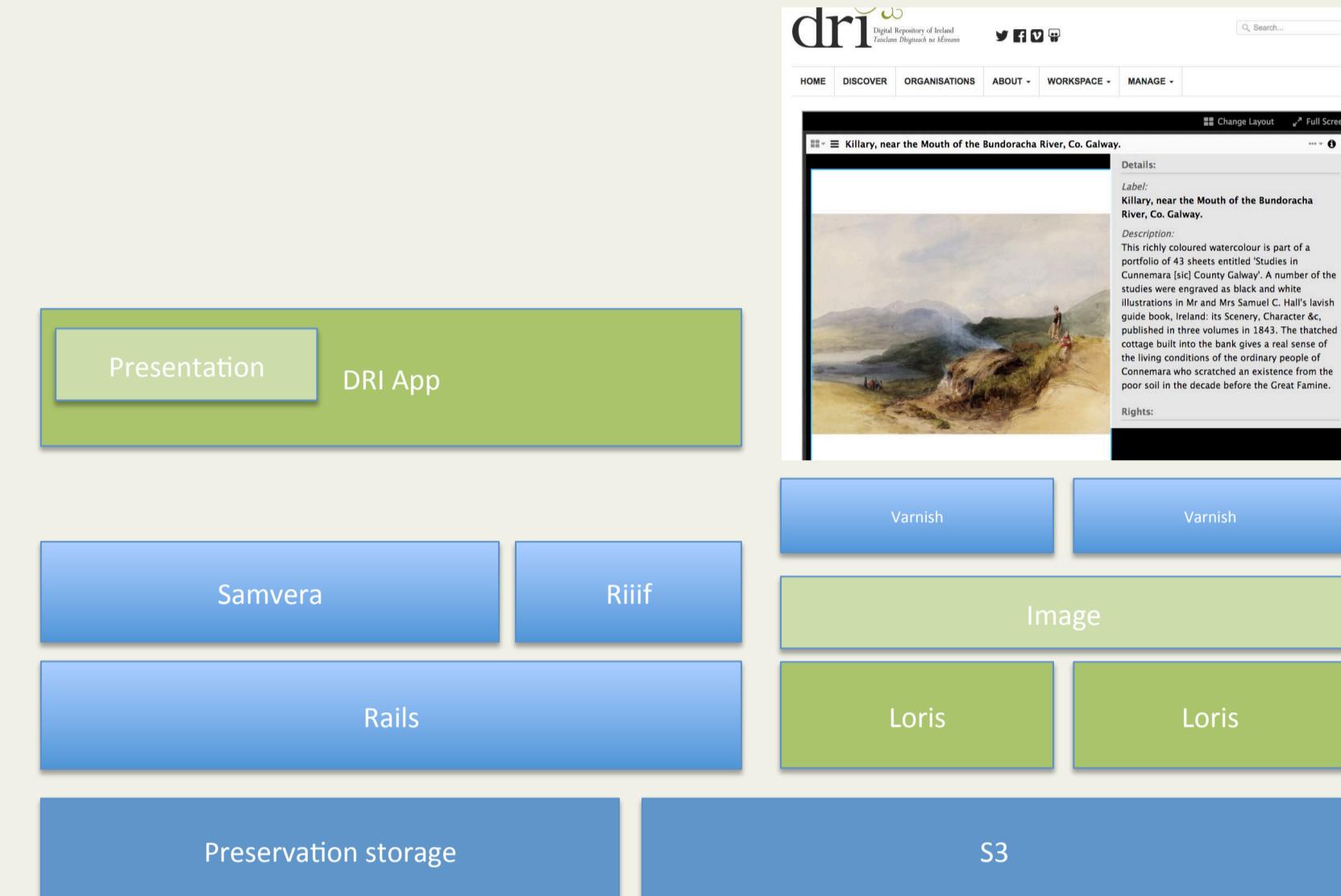
<http://www.dri.ie/>

<https://github.com/Digital-Repository-of-Ireland>

## Interoperability

### IIIF

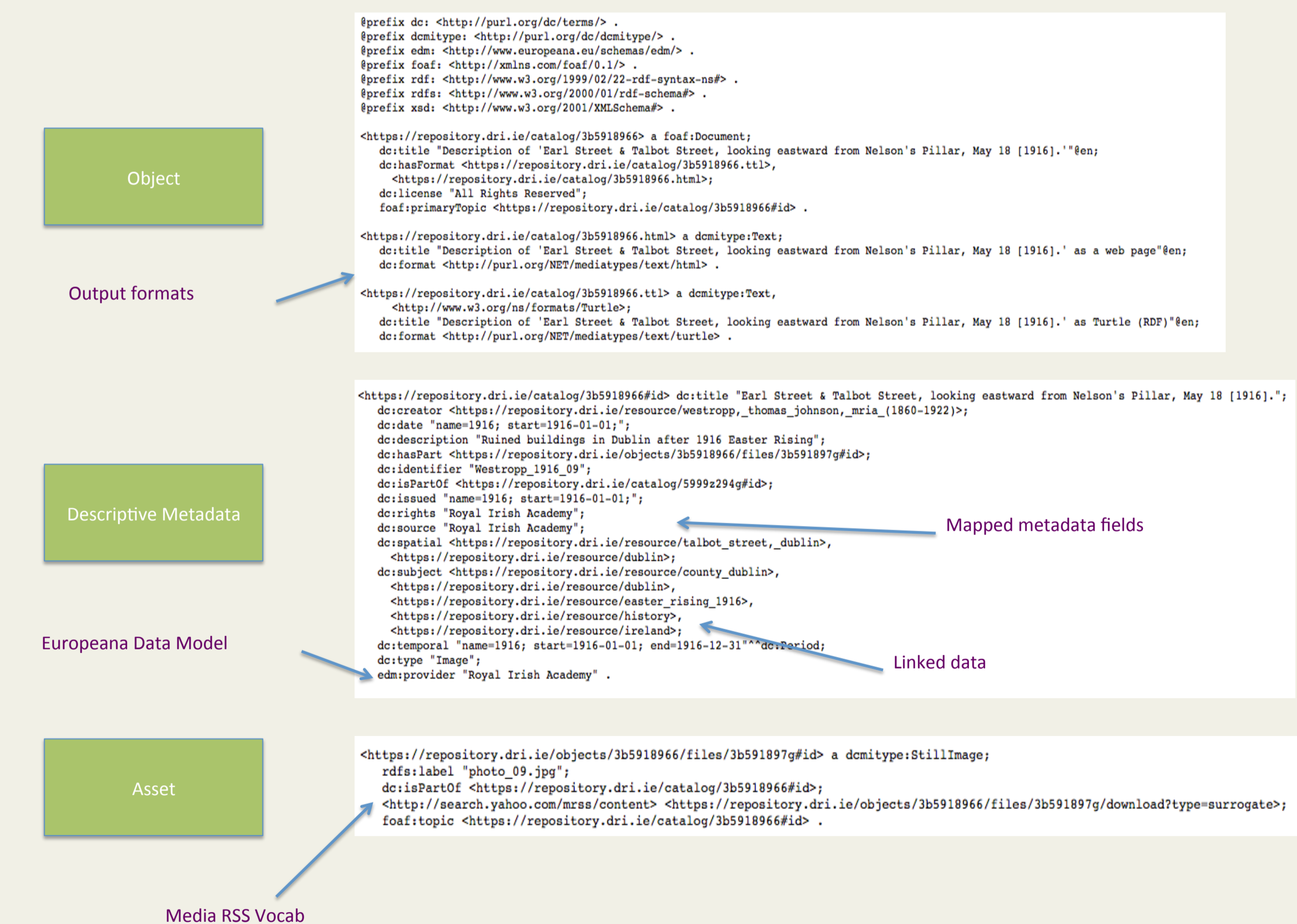
The Repository supports IIIF Presentation and Image APIs. OpenSeadragon viewer has been integrated with the Repository interface and links to a Mirador instance are also displayed.



Images are served by load-balanced Loris servers, behind Varnish caches for performance.

### RDF

By only taking the common metadata fields that the DRI data model maps across the supported metadata standards, converting to RDF is a straightforward process. Using content negotiation RDF (TTL, RDF/XML) has been added as another output format for an object.

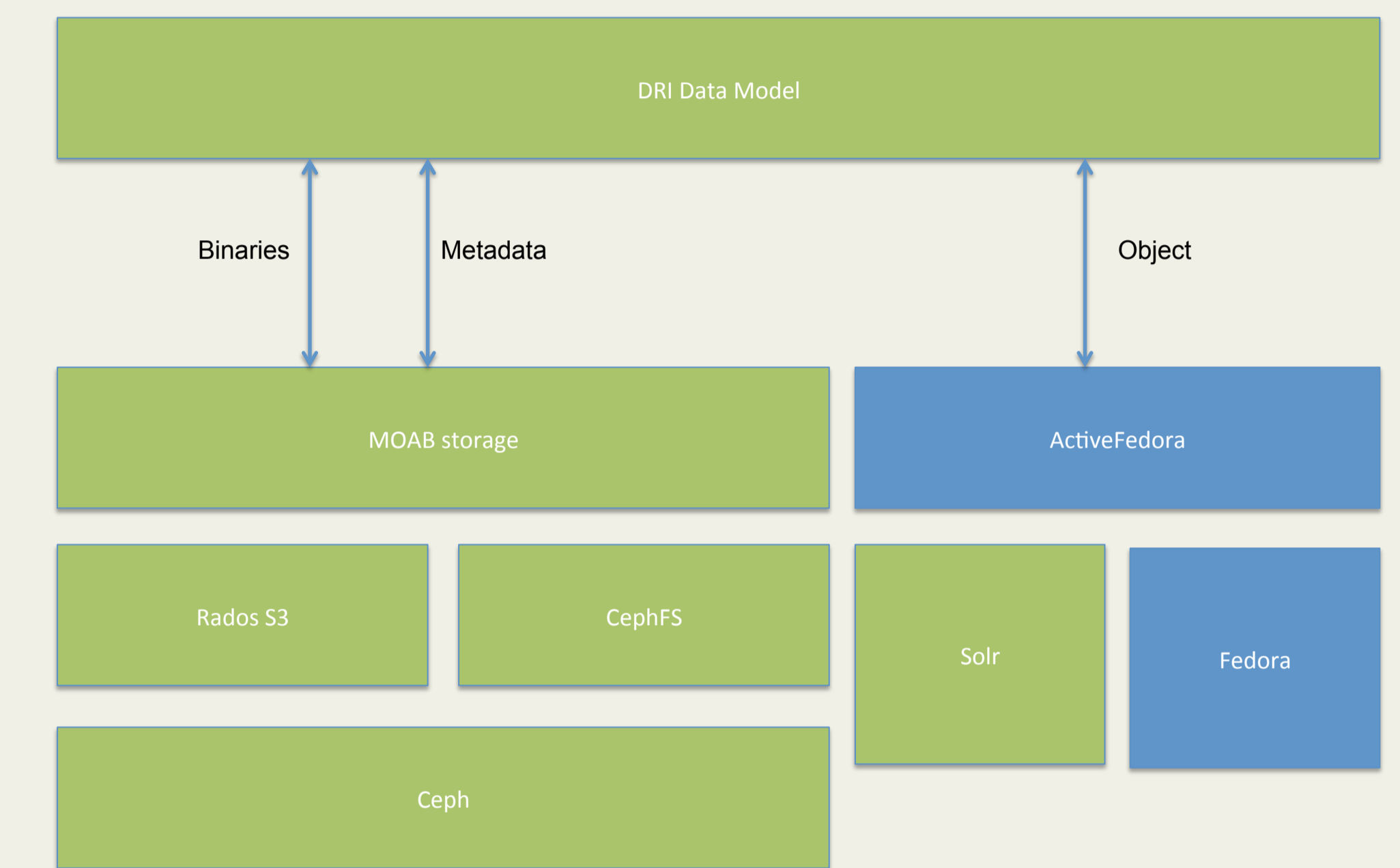


Some fields will be enriched through reconciliation with available Linked Open Data. For example, subject mapped to LCSH and/or DBpedia, and places to Linked Logainm (<https://www.logainm.ie>).

## The Next Migration

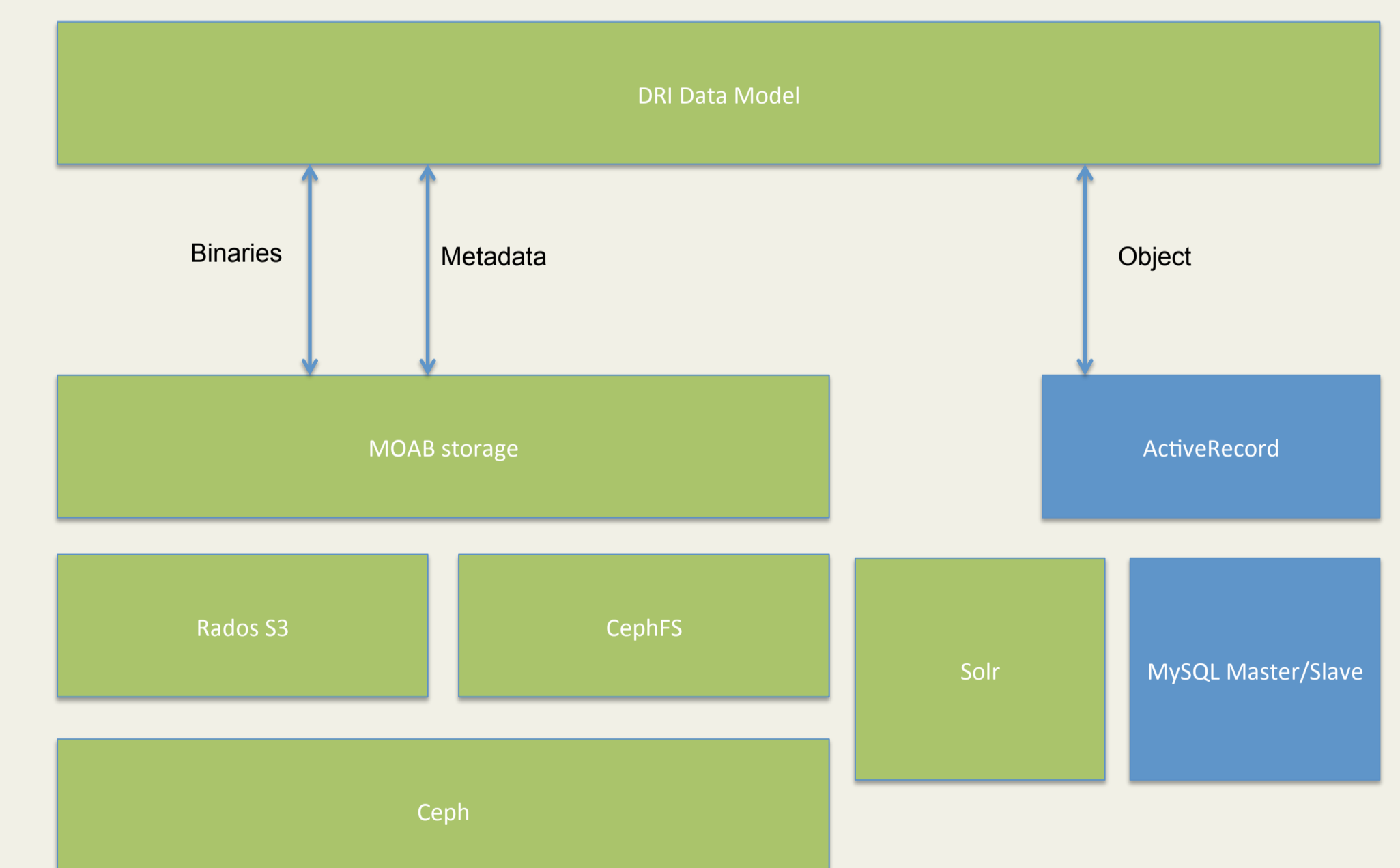
Currently we are considering migrating from ActiveFedora to ActiveRecord for object storage. Some of the reasons for this include:

- No straightforward migration path from Fedora 4.6 to 4.7
- Repository code primarily uses Solr for all search tasks
- Binaries currently stored direct to disk (Ceph/S3), not in Fedora
- Preservation functions handled by MOAB and underlying Ceph storage
- Simplified replication and backup strategies
- Potential for improved performance



Current Architecture

As ActiveFedora is 'loosely based on ActiveRecord', modifications to the application code is straightforward. Major changes are encapsulated within the data models. Object relationships can be modeled with polymorphic associations, with objects stored in our existing replicated MySQL RDBMS.



Planned Architecture

Investigating how to perform the data migration from the existing Fedora repository to the ActiveRecord based models is work in progress.