

IMPLEMENTING RDA OUTPUTS FOR SCHOLARLY COMMUNICATION



OpenAIRE implements RDA/WDS Publishing Data Services WG Outputs to link datasets from institutional repositories



OpenAIRE services populate a graph of interlinked scholarly objects: publications, datasets, authors, organizations, data sources, funders, and projects. OpenAIRE acts as a data source for the Scholexplorer Service (<https://dliservice.research-infrastructure.eu>), developed by the RDA/WDS Publishing Data Services Working Group, exposing its literature –

dataset links collected and inferred from institutional repositories.

When the Scholexplorer Service will be deployed as a production service on the OpenAIRE infrastructure (also supported by RDA), OpenAIRE will start collecting links from the Scholexplorer Service in order to enrich its information graph.

The Challenge

Information sharing is good, the more the better. Sharing links today is not easy and common hubs are missing. Contributing to the Scholexplorer Service means opening up links to the wider community, collecting links from the Scholexplorer Service can enhance and contribute to the OpenAIRE infrastructure mission.

Says Paolo Manghi, Researcher at Istituto di Scienza e Tecnologie dell'Informazione, Consiglio Nazionale delle Ricerche, Pisa, Italy.

Although today research data publishing is widely regarded as crucial for reproducibility and proper assessment of scientific results, several challenges still need to be solved to fully realize its potential. Developing links between the published literature and datasets is one of them. Current solutions are mostly based on bilateral, ad-hoc agreements between publishers and data centres, operating in silos whose content cannot be readily combined to deliver a network connecting research data and literature.

The idea of the Scholexplorer Service and its related Scholix activities is to facilitate the exchange of scholarly communication links by the definition of a common information model and exchange schema.

The challenge in this implementation was that of exporting OpenAIRE links according to the guidelines and format defined by the Scholexplorer Service, that is defining a mapping from the OpenAIRE metadata format onto the DLI format.

RDA Output implemented

RDA/WDS Publishing Data Services WG Outputs:

A framework for sharing information about the links between literature and research data.

Scholix Interoperability Framework:

The Scholix initiative is a high level interoperability framework for exchanging information about the links between scholarly literature and data. It aims to build an open information ecosystem to understand systematically what data underpins literature and what literature references data.

Answering community needs

Working on a common exchange format for scholarly communication links is of paramount importance for the scholarly communication infrastructure as whole. The framework represents an opportunity for this process to take place, gathering under the same umbrella major stakeholders of such infrastructures, publishers, data centres, and publication repositories. It is thus possible for researchers, funders, research and academic organizations representatives, administrators of scholarly communication data sources (e.g. publication and data repositories, CRIS systems, publishers, e-infrastructure services, etc.) to search and collect links between scholarly objects, i.e. datasets and literature, collectively provided by publishers and data centres from different disciplines. The implementation of the RDA/WDS Recommendations and Scholix Framework across the community will allow provision and sharing of links and continuous refinements of exchange formats to address the needs of data users worldwide.

Why RDA

The joint RDA/WDS Publishing Data Services Working Group has produced a set of recommendations as an initial step in a journey towards a broader open information ecosystem which facilitates the generation, sharing, aggregation and exploitation of the links between research data and literature. The Scholix framework is the implementation of this vision and guidelines and an output of the working group led by RDA and ICSU-WDS and supported by a number of key global players in research information including, among others, Crossref, DataCite, OpenAIRE, PANGAEA, International STM Association, Australian National Data Service, and Elsevier.

RDA played a key role of means and mediation between people and organizations otherwise disconnected, by offering context, tools, credibility and visibility to make this collaboration effective.

Find out more

Visit RDA @ rd-alliance.org

Email: enquiries@rd-alliance.org

The Implementation

The Implementation process consisted in the following:

1. Realization of a mapping between the OpenAIRE format and the Scholexplorer format;
2. Configuration of OpenAIRE export services to include the new Scholexplorer format;
3. Registration of OpenAIRE as a data source in the Scholexplorer Service by providing APIs and relative parameters.

Scholexplorer for OpenAIRE. The Scholexplorer Service populates a graph of interrelated publications and datasets whose metadata and relationships are collected from data centres and publishers. The Scholexplorer Service does not focus on a particular discipline, but allows data to be collected from data centres and publishers covering all disciplines, ranging from Social Science to Crystallography.

If you have a paper and want to find related metadata (or vice versa), this service is what you need. Links coming from different sources can also be combined. This service is the place for knowledge pooling” says Paolo Manghi.



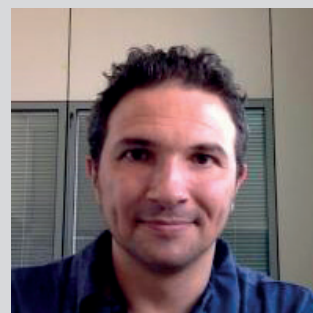
The Scholexplorer Service is being promoted to a production level as an OpenAIRE service and the OpenAIRE information space will be enriched by including the Scholexplorer Service as an OpenAIRE data source and aggregating its content.

The implementation process requires the configuration of the OpenAIRE collection and transformation services to handle the link exchange format exposed by the Scholexplorer Service and Scholix

Lesson Learnt

Scholarly data sources (publication and dataset repositories, publishers, data centres, etc.) should all become Scholix compliant in order to export links in an interoperable way, participate to the Scholix ongoing discussions and, most importantly, to consider the inclusion of links collected from other parties, such as the Scholexplorer Service.

Seamless exchange of information about literature and related data will facilitate re-use, reproducibility and transparent evaluation of science; all steps made in this direction are immensely valuable. In delivering the Recommendations the RDA/ WDS Publishing Data Services WG built on pre-existing components and the consensus of international initiatives and stakeholder organisations. A follow-up RDA Working Group on Scholarly Link Exchange has been created to implement and expand the recommendations and outputs further.



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OpenAIRE is an EC-funded initiative which aims to support the Open Access policy of the European Commission via a Networking and a Technical infrastructure. 50 partners make up this collaborative effort working towards a common goal to bring a change in realising open science for the benefit of society, innovation and industry.

The OpenAIRE infrastructure is a production system funded by the EC to maintain a graph of interrelated publications, datasets, funders, projects, organizations, and people and to support a number of functionalities over such graphs. The project will deliver links between datasets and publications to a larger audience, through a system of reference, in order to improve the ability to discover datasets (in context), therefore reuse them, and enhance the OpenAIRE services.