Final Report
DLI Maturity

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Executive Summary

The goal of DLI Maturity is to deploy the Data-Interlinking Service (DLI Service, aka *Scholexplorer*) as a production ready service on the OpenAIRE infrastructure premises and to make OpenAIRE a consumer of the service. Scholexplorer resulted first from the RDA/WDS Publishing Data Services Working Group[1] and then on the follow up RDA WDS Scholarly Link Exchange (Scholix) WG. The WG aims to enable a consensus-based comprehensive understanding of the links between scholarly literature and data. The working group will leverage existing work and international initiatives to work towards a global information commons by establishing:

- Pathfinder services and enabling infrastructure
- An interoperability framework with guidelines and standards (see also www.scholix.org)
- A significant consensus
- Support for communities of practice and implementation

DLI maturity has complemented the in-kind activities of the group in making Scholexplorer a production service. Today the service is a concrete example of the possible impact of RDA Europe on the community at large. The underlying activities led to the definition of guidelines (www.scholix.org) for scholarly link exchange, today adopted by DataCite, CrossRef, and OpenAIRE, and to the realization of a Scholix-Hub service (http://scholexplorer.openaire.eu) aggregating links based on such guidelines.

Objectives

The objective of the project was twofold: 1) upgrading the DLI Service to a production level as an OpenAIRE service called Scholexplorer, to evolve its experimental nature at a higher level of availability/reliability, 2) enrich the OpenAIRE information space by including Scholexplorer as an OpenAIRE data source and aggregating its content. The goal is to deliver links between datasets and publications to a larger audience, through a system of reference, to improve their ability to discover datasets (in context), therefore reuse them, and enhance the OpenAIRE services.

Initial State

The Data-Literature Interlinking Service (DLI Service) was running as a BETA system within the hardware infrastructure premises of CNR-ISTI. The Service populated a graph of interrelated publications and datasets whose metadata and relationships are collected from data centers and publishers (http://dliservice.research-infrastructures.eu) and worked as a hub of Scholix links.

[1] https://rd-alliance.org/groups/rdawds-publishing-data-services-wg.html

Project Outcomes

The DLI service is today running as a production system under the name Scholexplorer and is available from http://scholexplorer.openaire.eu. The Service is used by the portals of Elsevier, Scopus and Zenodo (under development) as a mean to access all links from publications and datasets available from data centers and publishers. OpenAIRE is collecting the links it provides and enriching its publications with links to datasets.

Dissemination Activities / Publications

The Service, as well as related activities of Scholix WG of RDA/WDS have been thoroughly disseminated in several academic and practitioners forums and published:

- On Bridging Data Centers and Publishers: The Data-Literature Interlinking Service Burton, Adrian; Koers, Hylke; Manghi, Paolo; La Bruzzo, Sandro; Aryani, Amir; Diepenbroek, Michael; SCHINDLER Uwe (2015) https://www.openaire.eu/search/publication?articleId=dedup_wf_001::309cd9083a888d86db07849b9011ad51
- Persistent Identifiers: a Prerequisite to Establish the Framework for Scholarly Link Exchange—ScholixMustapha Mokrane; Adrian Burton; Hylke Koers; Markus Stocker (2016) https://www.openaire.eu/search/publication?articleId=od_____2659::a84cec8e6970d6608256103f1146da3f
- The data-literature interlinking service: towards a common infrastructure for sharing data-article linksBurton, Adrian; Koers, Hylke; Manghi, Paolo; La Bruzzo, Sandro; Aryani, Amir; Diepenbroek, Michael; SCHINDLER Uwe (2017) https://www.openaire.eu/search/publication?articleId=od_____2367::72a2ecc3e2d7d17b3c49f47f7d0b3294
- The Scholix Framework for Interoperability in Data-Literature Information Exchange Adrian Burton, Hylke Koers, Paolo Manghi, Martin Fenner, Sandro La Bruzzo, Amir Aryani, Michael Diepenbroek, Uwe Schindler, Markus Stocker (2017) http://mirror.dlib.org/dlib/january17/burton/01burton.html

Summary & Conclusions

The Scholexplorer effort provides clear evidence of the role RDA can play in catalyzing skills from different areas of research data to generate consensus, best practices, and services in support of (open) science. In this specific case scholarly publishers, data centers and institutional repositories have joined in a co-chaired effort to (i) find consensus among the community at large on how scholarly communication links can be exchanged across different providers and (ii) deliver a production-ready service that takes advantage of that to offer an aggregated view of the links available at all scholarly communication providers. Scholexplorer is today available as a production service running on OpenAIRE infrastructure premises. Its APIs are serving several services among which Elsevier, Scopus, OpenAIRE and Zenodo.org.