



Alessia Bardi¹, Sandro La Bruzzo¹, Paolo Manghi^{1,2}, **Silvio Peroni**^{3,4}

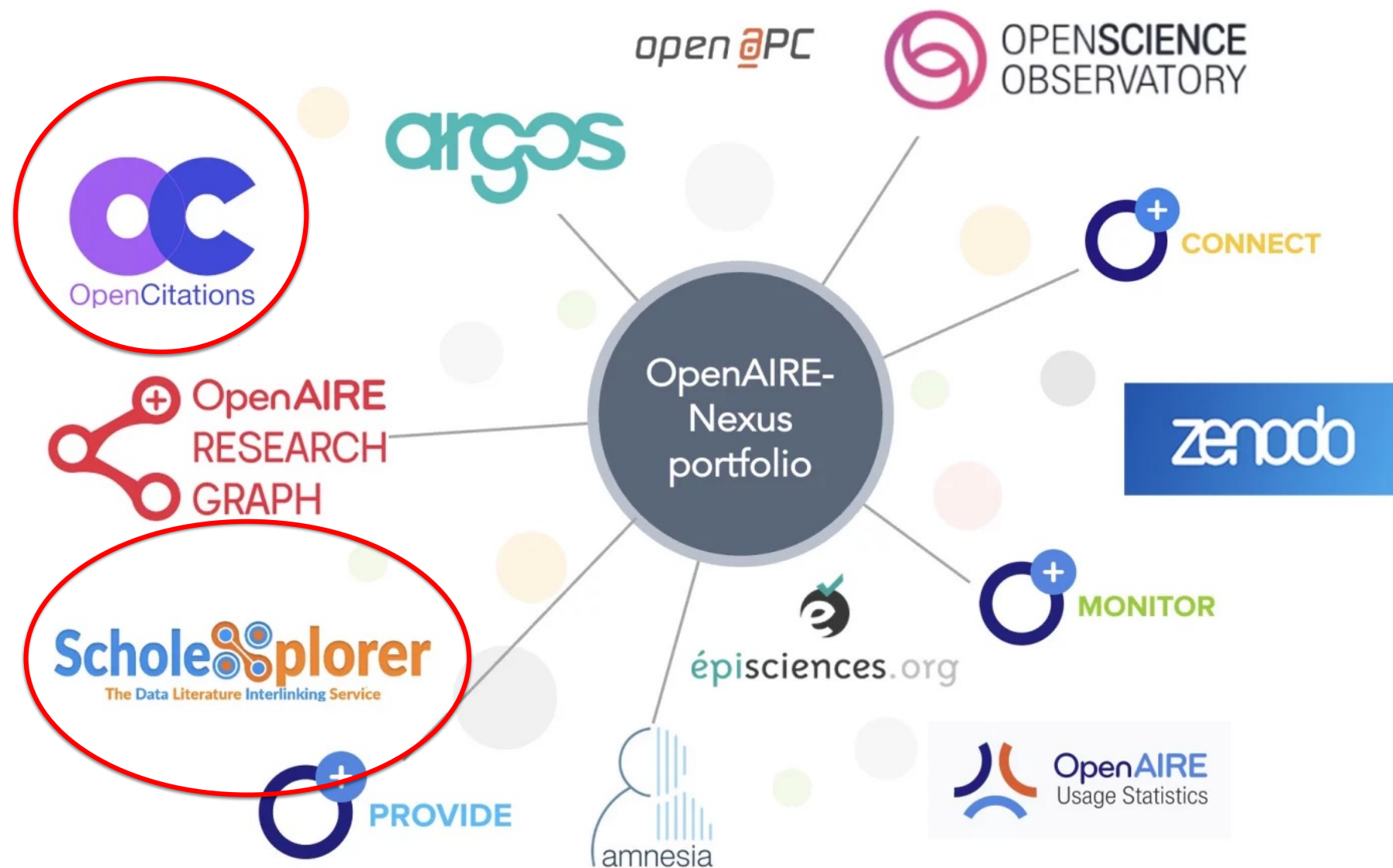
¹ CNR-ISTI, ² OpenAIRE, ³ University of Bologna, ⁴ OpenCitations

Scholarexplorer and OpenCitations

The Data Literature Interlinking Service

as the new frontier of open citation indexing

OpenAIRE Nexus



OpenAIRE-Nexus brings in EOSC 14 services providing open data about scientific production

3 portfolios: PUBLISH, MONITOR and DISCOVER

MONITOR:

- services for monitoring Open Science, research impact, article-processing charges
- **open citation indexes for article-article and article-dataset links**
- **publication usage statistics**

What is ScholeXplorer

ScholeXplorer (<http://scholexplorer.openaire.eu>) is a service that provides access to a graph of **links** between **datasets and literature** objects, licensed with a CC-BY license

Link metadata are harvested from scholarly communication data sources, to be **resolved**, **harmonised**, and **de-duplicated** considering the heterogeneity of practices:

- Different PID systems (DOI, accession numbers)
- Different ways of referencing data (bibliographic references, in-text citations, etc.)
- Different moments of citing data (at publication, post publication, etc.)



What is OpenCitations

OpenCitations (<http://opencitations.net>) is an independent infrastructure organization

- dedicated to open scholarship and the **publication of open bibliographic and citation data** by the use of Semantic Web technologies
- engaged in advocacy for open citations (see <https://i4oc.org>) and open bibliographic metadata (see <https://i4oa.org>)

It provides:

- a data model: the [OpenCitations Data Model](#) (based on the [SPAR Ontologies](#))
- bibliographic and citation data: [OpenCitations Indexes](#) ([COCI](#), [CROCI](#))
- software and online services (described as follows)

What they offer: data



22 data sources

30M datasets

30M citable items

700M links (citedBy, isSupplementTo, refersTo) involving **datasets**

Data dumps on Zenodo (format: Scholix)



4 data sources

4 datasets

69M citable items

1.18B citation links (DOI to DOI) between **publications**

Data dumps on Figshare and Internet Archive (format: Scholix, RDF, CSV)

What they offer: services and software



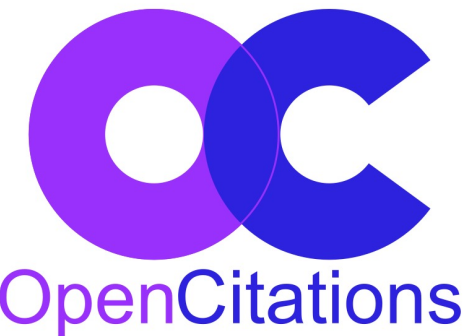
Querying the data

(<http://scholexplorer.openaire.eu/#/api>):

- REST API
- Web interfaces

Software:

<https://code-repo.d4science.org/D-Net/dnet-hadoop>



Querying the data

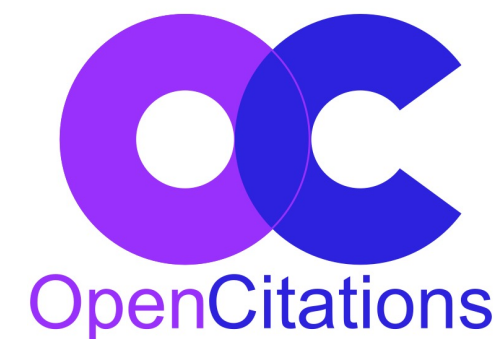
(<https://opencitations.net/querying>):

- REST APIs
- SPARQL endpoints
- Web interfaces

Software:

<https://github.com/opencitations>

Some users



SciVal



Scopus[®]



INTERNET
POLICY
REVIEW



dblp
computer science bibliography

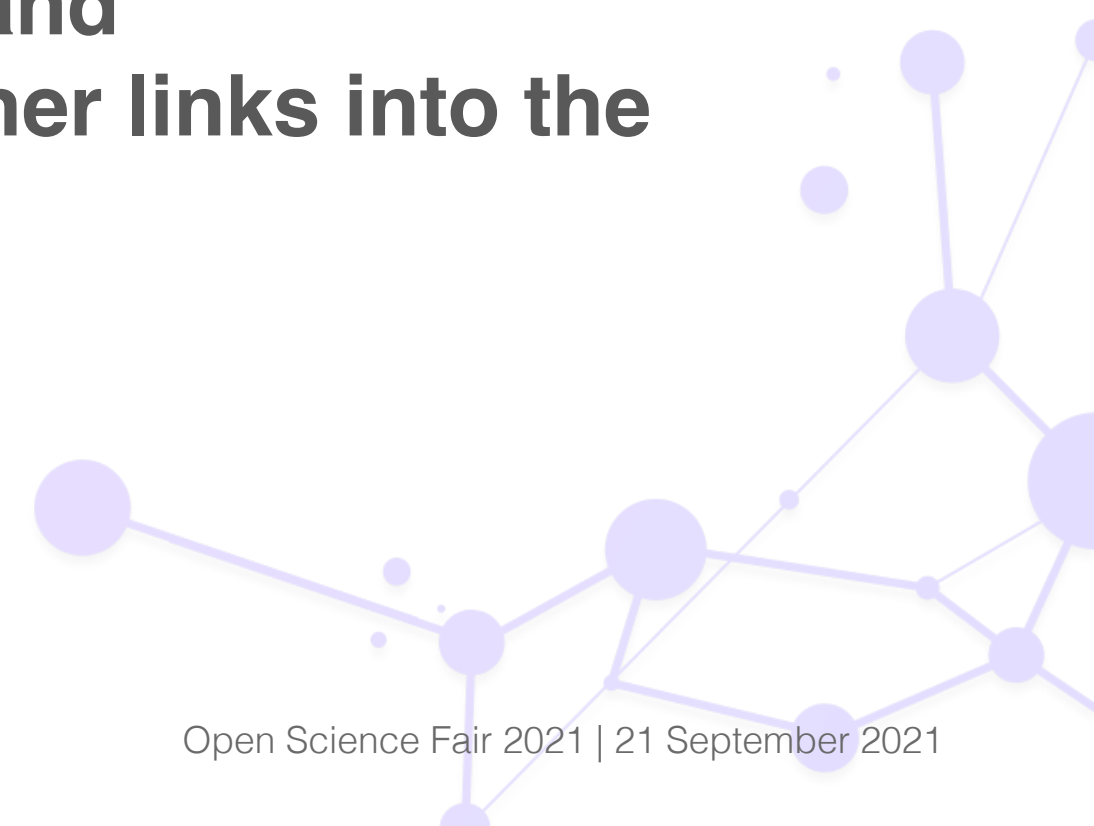


Exchanging scholarly links with Scholix

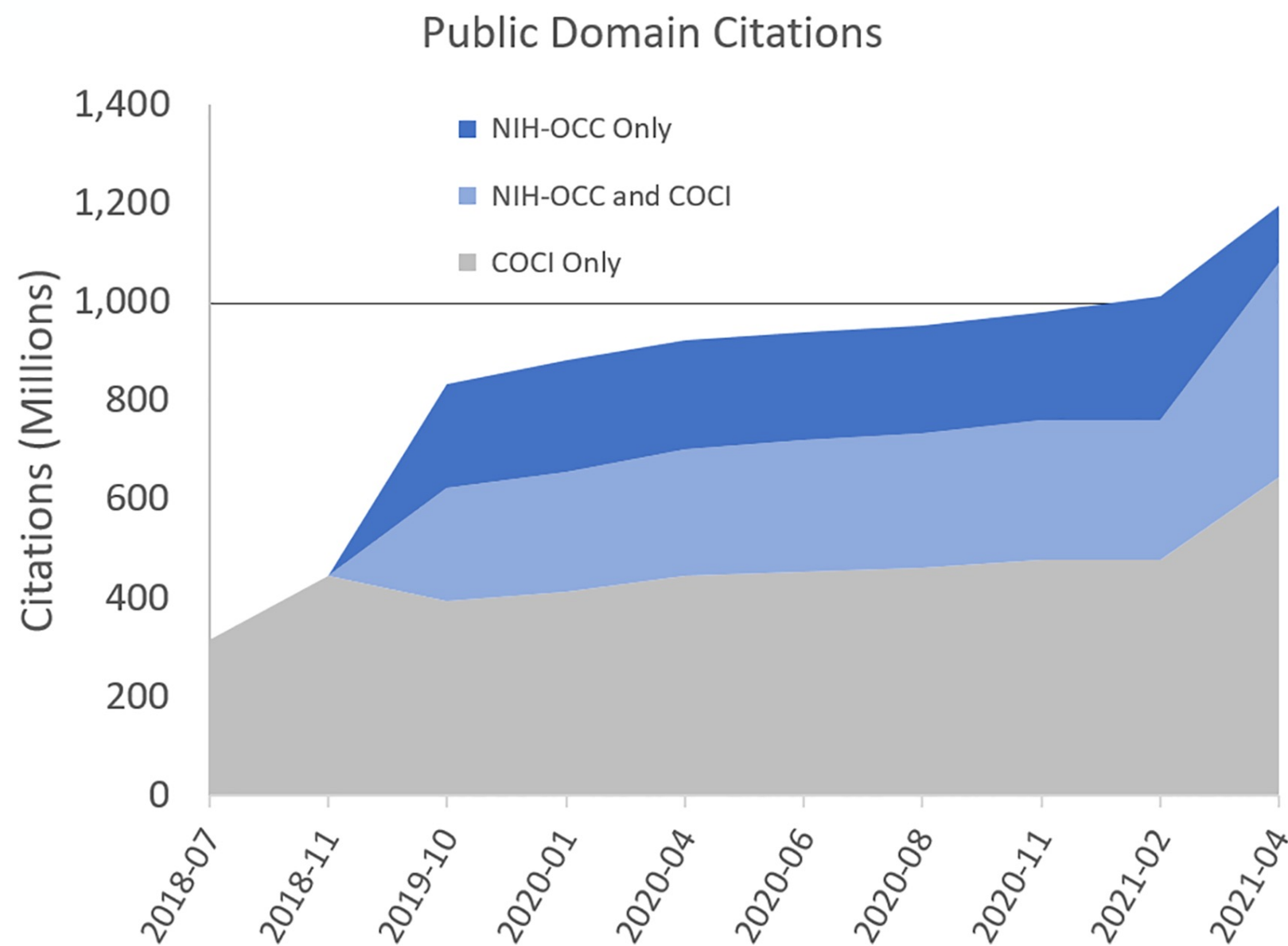
Scholix (<http://www.scholix.org>) is an **interoperability framework** for exchanging information about the links between scholarly literature and data

It maintained by the RDA/WDS Scholarly Link Exchange working group (<https://www.rd-alliance.org/groups/rdawds-scholarly-link-exchange-scholix-wg>)

Standard interchange format used by ScholeXplorer and OpenCitations to enable ingestion of citations and other links into the **OpenAIRE Research Graph**

The logo for SCHOLIX, featuring the word "SCHOLIX" in a bold, orange, sans-serif font. To the right of the text is a stylized icon consisting of two overlapping circles with a central dot, resembling a network or data link.The logo for OpenAIRE ResearchGraph. It features a red icon of three interconnected circles with a plus sign inside the top one, followed by the text "OpenAIRE" in blue and "ResearchGraph" in grey below it.

Common goals



From https://doi.org/10.1162/qss_c_00138

What **ScholarXplorer + OpenCitations** aim at providing:

- **Fairness**: they avoid paying thousands of euros for access to scholarly data
- **Reuse**: users can reuse citation data and other links for any purpose
- **Research assessment**: they make assessment transparent and reproducible
- **Monitoring**: they enable the development of tools to support scholarly actors in monitoring and improving discoverability of research products



@openaire_eu
@opencitations
#OpenAIRE-Nexus

THANK YOU

Alessia Bardi, Sandro La Bruzzo, Paolo Manghi, Silvio Peroni
alessia.bardi@isti.cnr.it, sandro.labruzzo@isti.cnr.it,
paolo.manghi@openaire.eu, silvio.peroni@unibo.it

