There and back again: past, present, and future of OpenCitations

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A universal bibliographic and citation database

R. D. Cameron (1997). A Universal Citation Database as a Catalyst for Reform in Scholarly Communication. https://doi.org/10.5210/fm.v2i4.522

"Imagine a universal bibliographic and citation database linking every scholarly work ever written [...] freely available over the Internet [...] would serve as an important catalyst for reform in scholarly communication"

This is exactly what we are trying to do at OpenCitations

I will show you what we have done in the past years and how we can improve our data and services for the benefit of the scholarly community, with your help!

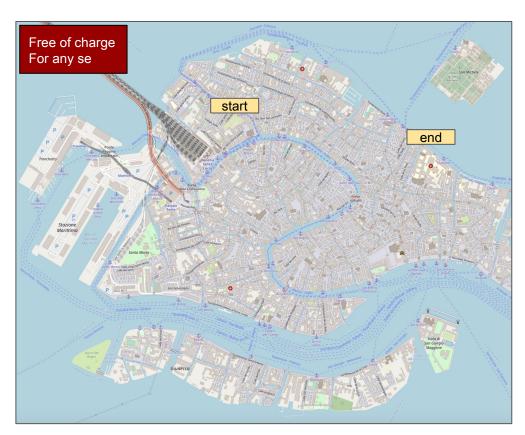
Free access to the full map of science

Get to the Hospital with no maps

Pay for data (depending on how much you need)

Problem: data to build the map of science have been paywalled and governed by a few companies

Solution: the scholarly community must claim back these data through open infrastructures it can directly control and be engaged in



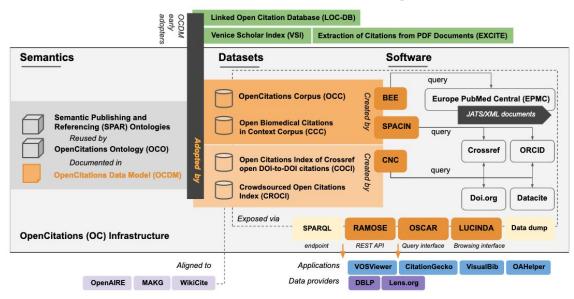
OpenCitations

OpenCitations is an independent infrastructure organization for open scholarship dedicated to the publication of open (i.e. CC0) bibliographic and citation data and engaged in advocacy for open citations (see also I4OC, https://i4oc.org)

We offer

- models (OCDM)
- data (>733M citation links)
- services (REST APIs)

that can be used to track evolution of science and to discover research heritage



Reusing open citation data

The availability of the citation data via REST APIs has fostered new applications, from the description of references and citations of a given article in metadata libraries to the visualisation

of networks of publications in section and the section of the sect

A VOSviewer

SPARQL queries (excluding RAMOSE)
Web REST API calls
Web REST API calls Moving average

Fresh statistics: more than 2.6 million REST API calls in August 2020



M. Daquino et al. (2020). Creating Restful APIs over SPARQL endpoints with RAMOSE. https://arxiv.org/abs/2007.16079

https://twitter.com/TheLensOrg/status/1225004057086967808

The SWAN biomedical discourse ontology. J. Biomed. Informatics 41(5): 739-751 (2008)

https://dblp.uni-trier.de/rec/conf/semweb/PeroniS18.html



N. van Eck and L. Waltman (2019). VOSviewer supports large number of new data sources. https://www.cwts.nl/blog?article=n-r2v284

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How we have done it so far

We could have not released the data and developed the services we provide without the crucial contributions of our universities, funders, and existing open bibliographic services

At the present, this is the maximum we can provide, consider our limited time to dedicate to the cause

But we can and must do more as a community



















Filling the gap

Experts consider OpenCitations in policy reports and for bibliometrics analysis

• EU reports: <u>"Open metadata of scholarly publications"</u> and <u>"Open data, open science & open innovation for smart specialisation monitoring"</u>

Analysis: in <u>Quantitative Science Studies</u> and <u>arXiv</u>

The <u>Global Sustainability Coalition for Open Science</u>
<u>Services (SCOSS)</u> selected us as worthy of community crowdfunding support in its second funding cycle

DIRECTORY OF OPEN ACCESS BOOKS
OPEN ACCESS PUBLISHING FOR EUROPEAN NETWORKS
PUBLIC KNOWLEDGE PROJECT
OPENCITATIONS

SCOSS LAUNCHES SECOND
FUNDING CYCLE

Read about these essential services, their
funding goals and how your institution can
help support them at www.scoss.org.

SCOSS

DEPCRITATIONS

DEPCRITATIONS

Done a lot in the past years, but still a clear gap between us and commercial services – we need you help to fill that gap, in two ways (not mutually exclusive):

- Become <u>a member of OpenCitations</u>
- Submit to us your bibliographic and citation data (e.g. see <u>CROCI</u>)

Two ways to help

Ask you institution to apply for membership and thus support us financially

- Supporting membership (€500 €8,000 per year)
 Rights include: voting on the OpenCitations Council and to elect candidates to serve on the International Advisory Board for OpenCitations
- Development membership (€8,000 €30,000 per year)
 Rights include: Supporting membership rights + one free registration for next edition of WOOC (hopefully held in Bologna next year) and writing blog post about your use of OpenCitations services and data on our blog
- Strategic membership (more than €30,000 per year)
 Rights include: Development membership rights + a seat on the International Advisory Board for OpenCitations

Ask your institution to **provide** us your citation data and bibliographic metadata to make them available on our OpenCitations Indexes and in our new bibliographic metadata collection: OpenCitations Meta – introduced in Peroni & Shotton (2020). OpenCitations, an infrastructure organization for open scholarship. https://doi.org/10.1162/qss.a.o0023

Conclusions

We truly believe that a community-oriented, community-guided, and open infrastructure can provide citation data and bibliographic metadata of high quality and with a coverage which is comparable with well-known commercial and proprietary services

Help us to make it a realty

Support OpenCitations

Support Open Science

Thank you for your attention

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