

# How Open Infrastructures Benefit Libraries

Silvio Peroni: OpenCitations

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# Values of Open Infrastructures

**Fairness:** avoid that institutions and independent scholars having to pay tens of thousands of euros annually (that most of them cannot afford!) for relevant services and software, e.g. commercial access to their own scholarly data and publications

**Reuse:** licenses to foster maximum discoverability and reuse, so users can re-publish and use, for any purpose, data, software, and publications that Open Infrastructures provide

**Transparency:** providing open and freely available knowledge of relevance for the scholarly ecosystem (e.g. for dissemination activities and within research evaluation exercises) to foster transparent and reproducible processes

**Governance:** crucial to involve the stakeholder community in the governance of the Open Infrastructures, to build more confidence that the organisation will take decisions driven by community consensus and consideration of different interests

# OpenCitations: basic information

OpenCitations (<http://opencitations.net>) is an [independent not-for-profit infrastructure organization](#)

- dedicated to open scholarship and the **publication of open bibliographic and citation data** by the use of Semantic Web (Linked Open Data) technologies
- engaged in advocacy for **open citations** and **open bibliographic metadata**, as a founding member of both the [Initiative for Open Citations \(I4OC\)](#) and the [Initiative for Open Abstracts \(I4OA\)](#)

It provides:

- a data model: the [OpenCitations Data Model](#) (based on the [SPAR Ontologies](#))
- bibliographic and citation databases (CC0): [OpenCitations Corpus](#), [COCI](#), [CROCI](#), [CCC](#)
- software: in our [GitHub repository](#), released with open source licenses
- online services: [REST APIs](#), [SPARQL endpoints](#), [dumps](#), and search and query [interfaces](#)

# Using OpenCitations data

We provide data containing more than 7 hundred million citations that the community can use for **any purpose**

Such data can be crucial as a vehicle for use in national and international research evaluation exercises to make such activities more **transparent and reproducible** as compared to other proprietary services

As a librarian, you can use our citation data (e.g. via our REST API) to **enhance or develop tools** to support your authors, researchers, students, institutional administrators, for instance by providing **metrics to monitor research** at your institution and by **improving the discoverability of research products** such as publications and data

# Examples of use

The availability of the citation data via dumps and 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 2020-2021, we had more than 33,800,000 accesses to the REST API

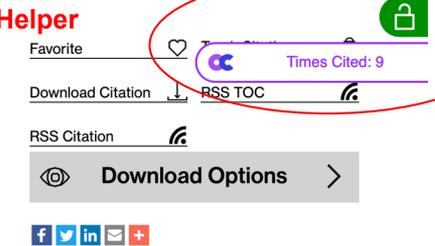
Full dumps have been downloaded more than 169,000 so far

## OpenCitations, an infrastructure organization for open scholarship

Silvio Peroni  and David Shotton 

Posted Online January 23, 2020  
[https://doi.org/10.1162/qss\\_a\\_00023](https://doi.org/10.1162/qss_a_00023)

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Open Access Helper interface showing citation options and download options. The interface includes a search bar, a 'Favorites' section with a heart icon, a 'Download Citation' button, an 'RSS TOC' button, an 'RSS Citation' button, and a 'Download Options' dropdown menu. Social media icons for Facebook, Twitter, LinkedIn, and Email are also visible.

Article [https://doi.org/10.1162/qss\\_a\\_00023](https://doi.org/10.1162/qss_a_00023) visualised with the Open Access Helper plugin (<https://www.oahelper.org/>)

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

DBLP



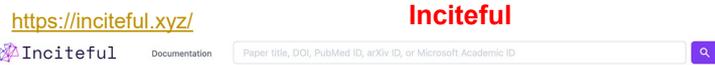
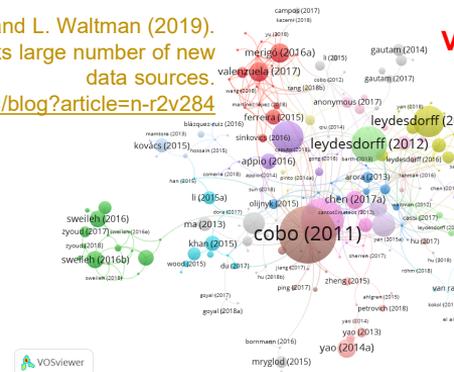
Web browser screenshot showing a search result for "The SPAR Ontologies." by Silvio Peroni, David M. Shotton (2018). The page includes a search bar, navigation links, and a list of references.



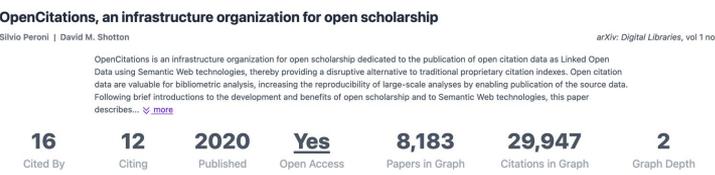
References list from a web browser showing several entries related to SPAR Ontologies and Semantic Web frameworks.

N. van Eck and L. Waltman (2019). VOSviewer supports large number of new data sources. <https://www.cwts.nl/blog?article=n-r2V284>

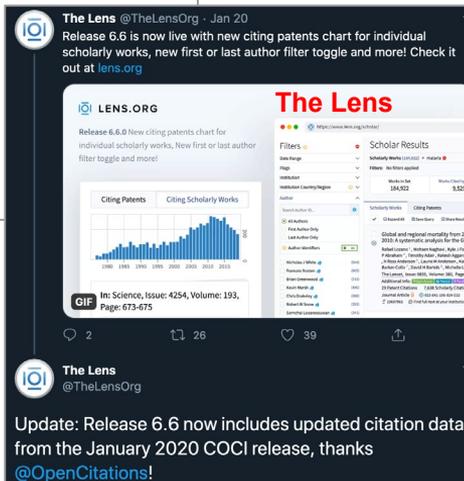
<https://twitter.com/TheLensOrg/status/1225004057086967808>



Inciteful search bar with the URL <https://inciteful.xyz/>. The search bar includes a search icon and a 'Documentation' link.



OpenCitations website showing statistics: 16 Cited By, 12 Citing, 2020 Published, Yes Open Access, 8,183 Papers in Graph, 29,947 Citations in Graph, 2 Graph Depth.



The Lens website showing a citation chart and filters. The chart displays 'Citing Patents' and 'Citing Scholarly Works' over time. The filters section includes options for 'Scholarly Works' and 'Citing Patents'.

Update: Release 6.6 now includes updated citation data from the January 2020 COCI release, thanks @OpenCitations!

## Mission of the OAPEN Foundation

- to increase the discoverability of open access books
- to build trust around open access books

OAPEN Foundation is a non-profit foundation based on community funding



## Three open source platforms enabling open access to books

Directory of Open Access Books – basic indexing service

OAPEN Library – premium services for libraries, publishers, and funders

OAPEN OA Books Toolkit – public information resource for authors

# Directory of Open Access Books (DOAB)

Launched in 2012

International hub for peer reviewed open access books

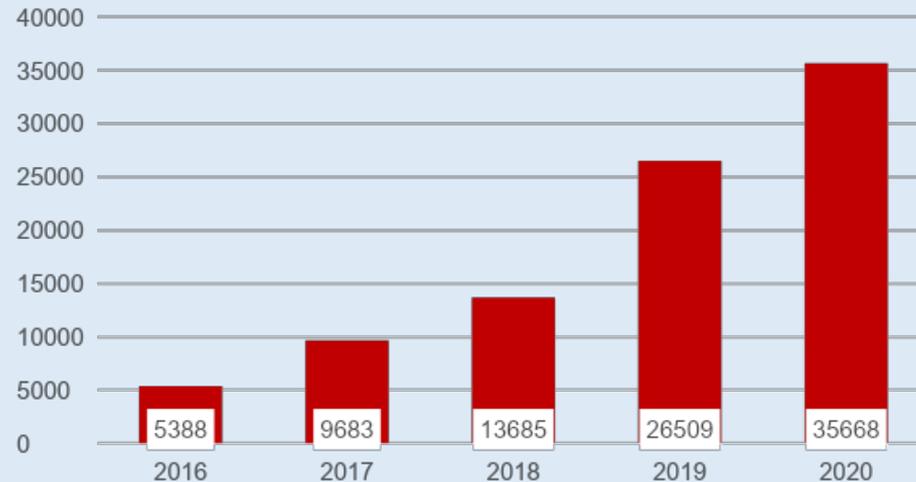
43,000+ OA books indexed

500+ OA book publishers

All metadata is freely available (CC0)

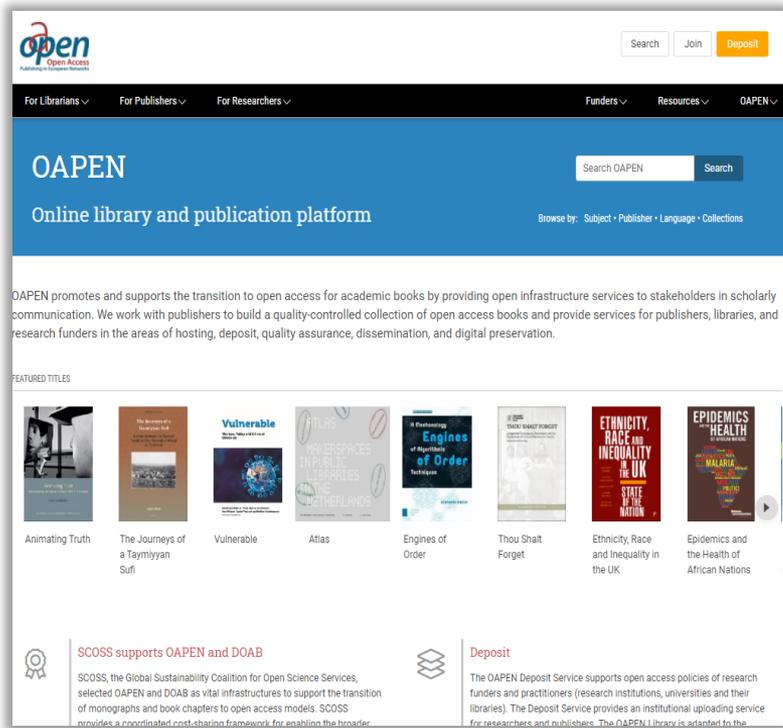
DSpace 6.0

Titles in DOAB



Easy integration with library catalogues

- ✓ Metadata feeds in MARCXML, CSV, RIS, ONIX XML
- ✓ OAI-PMH Harvesting
- ✓ REST API
- ✓ RSS and Atom feeds



## Easy integration with library catalogues

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## OAPEN Library

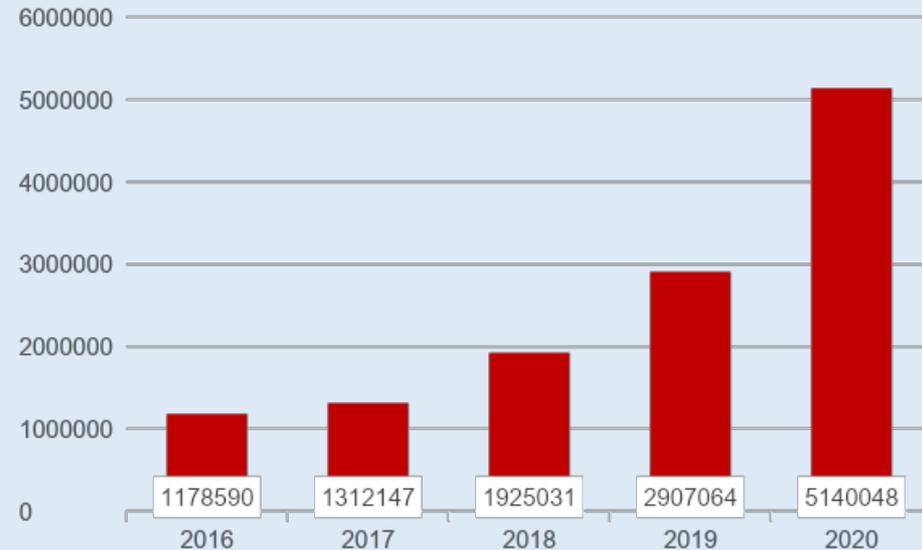
Launched in 2010

Repository of 17,000+ open access books

Hosting, distribution, and preservation

DSpace 6.0

## OAPEN Library: Number of downloads



# OAPEN OA Books Toolkit, launched autumn 2020

<https://oabooks-toolkit.org>



Life cycle

FAQ

Keywords

Glossary



About OA ▾

The OA Books landscape ▾

About the Toolkit ▾

Support ▾

Resources ▾

OAPEN

## OA Books Toolkit



For authors

This toolkit aims to help book authors to better understand open access book publishing and to increase trust in open access books. You will be able to find relevant articles on open access book publishing following the research lifecycle, by browsing frequently asked questions or by searching with keywords.

Life cycle ▶

FAQ ▶

Keywords ▶

# Engagement & Communication

## Engagement

- Participation in the stakeholder committees
- Regular community events for libraries
- Advisory Board
- Scientific Committee

## Communication

- Annual stakeholder report
- Newsletters
- Library member mailing list
- Presentations at webinars and conferences



DOAB @DOABooks · 28 okt. 2020

Join us next week for a workshop as part of #OPERAS2020 on: An Open Infrastructure for Open Access Books - Nov 4, 10.00 CET including perspectives from @SofieWennstrom, @joanna\_ball, @viroviacum, @njneilj, Jeff Edmunds, @eferwerda and @piotr70

Register: [operas2020.com](https://operas2020.com)



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# How libraries can engage with infrastructure

## PKP at a glance:

- 23 years old
- 3 applications (OJS, OPS, OMP), all OSS
- 28 staff

## PKP community at a glance:

- 6 development partners (SFU Library, UBC Libraries, University of Alberta Library, University of Pittsburgh ULS, TIB, Stanford, OCUL)
- Dozens of sustainers
- Hundreds if not thousands of contributors
- 27,000 journals using OJS in the world (conservatively)

# How libraries can engage with infrastructure

“Typical” contributions to PKP:

- Money! Development partners and sustainers (incl. SCOSS) do this.
- Code: Plugins, core code pull requests, bugs/issues filed, etc.

But also:

- Translations (55 OJS translations maintained currently)
- Documentation (6 new guides this year, and new translations)

# How libraries can engage with infrastructure

More fundamental engagement:

- Usability and accessibility testing
- Contributing to PKP School / education resources
- Engagement with advisory committees and working groups (Advisory, Members and Technical Committees; Documentation Interest Group, Accessibility Interest Group, etc.)
- Regional workshops, sprints, webinars

# Supporting Open Infrastructure

A Library perspective

Joanna Ball

June 2021



**DET KGL.  
BIBLIOTEK**

Royal Danish Library

# Why are we supporting open infrastructure?

- Open Science is a strategic priority for the Royal Danish Library, as well as the universities for which it provides library services
- Strategy 2020-23: *We will make knowledge freely available for the benefit of users, society and democracy. The Royal Danish Library will actively support and contribute to Open Science*
- In line with role as national licence consortium
- We provide support for two areas:
  - Open Infrastructure & Services
  - Innovative initiatives that support an Open Access transition



Created by Krisada  
from Noun Project



# How do we decide what to support?

Established a fund (2020) and a set of principles (2021):

- Community-driven initiatives preferred
- Relevant for Danish research institutions & balance between STM and HSS
- Transparent business models
- Rights should be retained by the author, and/or CC-BY minimum licence
- Initiatives should be straightforward for us to administer

Sustainability – we expect to invest in an initiative for 2-4 years at a time

What we won't support:

- APC payments
- Initiatives that support research data (covered by DEIC – the Danish E-infrastructure Co-operation)



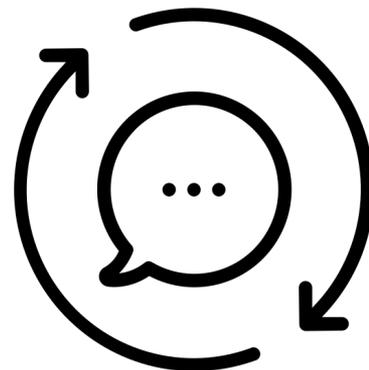
Created by Justin Blake  
from Noun Project





# Reflections on libraries and open infrastructure

- It's not just about the money...
- Balance between sustainability and disruptive innovation
- Shift in focus away from local to global
- What role do libraries play in a long-term solution?



Created by Gülce Akdogan  
from Noun Project



Questions?