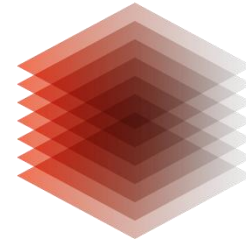


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# **ROSI – Reference Implementation for Open Scientometric Indicators**

Christian Hauschke, Technische Informationsbibliothek (TIB)

OPERA Workshop

Danmarks Tekniske Universitet, Lyngby, 28th March 2019

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## **Overview**

- 1. Facts**
- 2. Motivation**
- 3. Project roadmap**
- 4. Registry of Open Scientometric Data Sources**
- 5. Summary**
- 6. Discussion**

# Facts

## Reference Implementation for Open Scientometric Indicators

### Management

Lambert Heller, Christian Hauschke

### Team

Svantje Lilienthal, Grischa Fraumann

### Funding

Federal Ministry of Education and Research (BMBF)

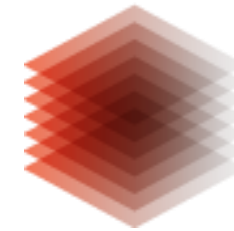
### Duration

1 October 2018 – 30 September 2020

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Federal Ministry  
of Education  
and Research



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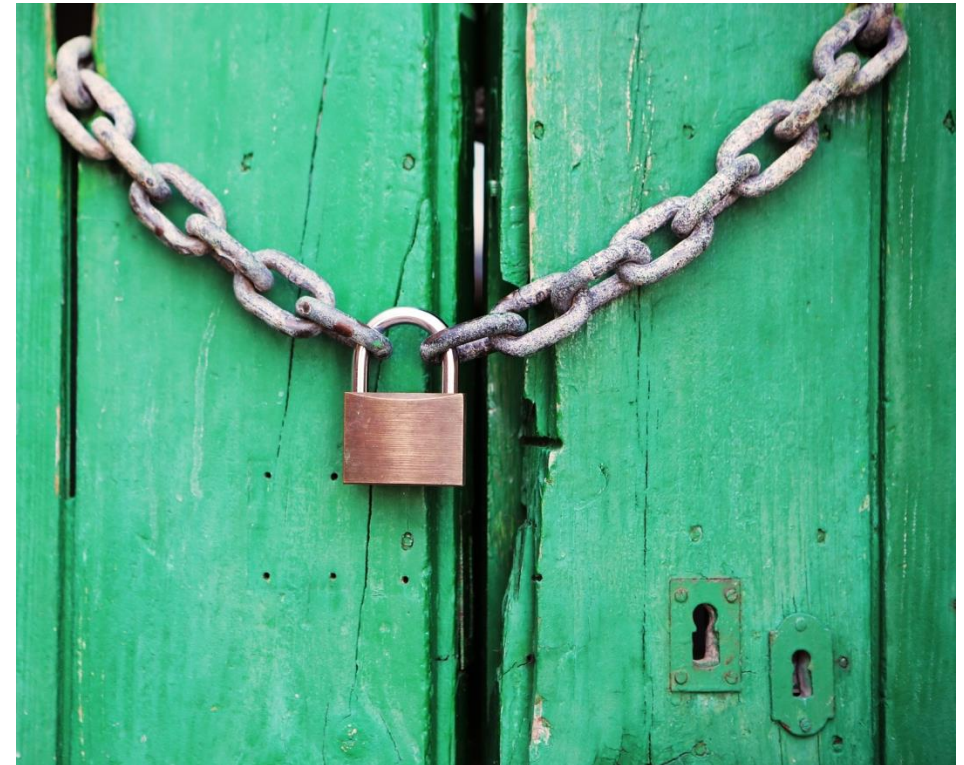


Quantitative research  
on the science sector

[tib.eu/rosi-project](https://tib.eu/rosi-project)

# Motivation

- research assessment relies on criticized indicators and is based on **obscure data**
- research evaluation driven by research **administration**, policy and funding
- needs and perceptions of **researchers** often neglected



# Motivation



- we need **open** scientometric data, indicators and infrastructures
- we want the scientific **community** in control
- researchers should be able to **customize** scientometric representation



# Motivation

- scientometric data based on **open data sources**
- involving the scientific community selecting
  - **data sources,**
  - **indicators** and
  - **visualizations**



## Project roadmap



Collecting, evaluating and publishing the collection of **open data sources** for scientometric indicators



Inviting feedback by the **scientific community**



Developing a reusable **prototype** for customizable scientometric indicators in VIVO



Evaluating prototype through **interviews and surveys** with stakeholders

# Registry of Open Scientometric Data Sources

Collecting metadata about open scientometric data sources  
openly and collaboratively



- ✓ Metadata schema
- ✓ Data model with entity types and concepts
- Online available

Registry of Open Scientometric Data Sources

This site is under construction.

The diversity of scientometric data sources is large – and new ones are constantly being published, existing ones are changing, and others are being switched off. It is almost impossible to maintain a complete overview. In this Registry of Open Scientometric Data Sources we collect and describe several data sources for open, i.e. freely licensed scientometric information. [Read more](#)

Add new data source

Show 10 entries Search:

#	Name	Description
1	Directory of Open Access Journals (DOAJ)	The Directory of Open Access Journals (DOAJ) provides a list of open access journals. Journals need to apply for a review process before they can be included into DOAJ.
2	dissemin	Dissemin detects papers behind pay-walls and invites their authors to upload them in one click to an open repository.
3	Crossref Event Data	The Event Data service captures data on discussions about about scholarly content in non-traditional places (online platforms for discussion, publication and social media) and acts as a hub for the storage and distribution of this data. The service provides a record of instances where research has been bookmarked, linked, liked, shared, referenced, commented on etc, beyond publisher platforms. For example, when datasets are linked to articles, articles are mentioned on social media or referenced in Wikipedia.
4	OpenAIRE	"OpenAIRE's mission is closely linked to the mission of the European Commission: to provide unlimited, barrier free, open access to research outputs financed by public funding in Europe." <a href="https://www.openaire.eu/mission-and-vision">https://www.openaire.eu/mission-and-vision</a>
5	NOA Scientific Image Search	"Harvesting, analysis and efficient reuse of scientific images using Wikimedia infrastructures"
6	BASE	"BASE is one of the world's most voluminous search engines especially for academic web resources. BASE provides more than 120 million documents from more than 6,000 sources. You can access the full texts of about 60% of the indexed documents for



# Registry of Open Scientometric Data Sources

# ▲	Name	Description
1	Directory of Open Access Journals (DOAJ)	The Directory of Open Access Journals (DOAJ) provides a list of open access journals. Journals need to apply for a review process before they can be included into DOAJ.
2	dissemin	Dissemin detects papers behind pay-walls and invites their authors to upload them in one click to an open repository.
3	Crossref Event Data	The Event Data service captures data on discussions about about scholarly content in non-traditional places (online platforms for discussion, publication and social media) and acts as a hub for the storage and distribution of this data. The service provides a record of instances where research has been bookmarked, linked, liked, shared, referenced, commented on etc, beyond publisher platforms. For example, when datasets are linked to articles, articles are mentioned on social media or referenced in Wikipedia.
4	OpenAIRE	"OpenAIRE's mission is closely linked to the mission of the European Commission: to provide unlimited, barrier free, open access to research outputs financed by public funding in Europe." <a href="https://www.openaire.eu/mission-and-vision">https://www.openaire.eu/mission-and-vision</a>
5	NOA Scientific Image Search	"Harvesting, analysis and efficient reuse of scientific images using Wikimedia infrastructures"
6	BASE	"BASE is one of the world's most voluminous search engines especially for academic web resources. BASE provides more than 120 million documents from more than 6,000 sources. You can access the full texts of about 60% of the indexed documents for free (Open Access). BASE is operated by Bielefeld University Library."

**selection**

# Registry of Open Scientometric Data Sources

## Registry of Open Scientometric Data Sources



<b>Name</b>	Directory of Open Access Journals (DOAJ)
<b>Link</b>	<a href="https://doaj.org/">https://doaj.org/</a>
<b>Link to Logo</b>	<a href="https://doaj.org/static/doaj/images/logo_cropped.jpg">https://doaj.org/static/doaj/images/logo_cropped.jpg</a>
<b>Description</b>	The Directory of Open Access Journals (DOAJ) provides a list of open access journals. Journals need to apply for a review process before they can be included into DOAJ.
<b>Category</b>	Data aggregator
<b>Academic discipline</b>	
<b>Entity</b>	Work <small> ⓘ An entity can be described by a data source</small>
<b>Licence</b>	CC BY-SA
<b>Interface</b>	<a href="https://doaj.org/api/v1/">https://doaj.org/api/v1/</a>
<b>Type of Interface</b>	API
<b>Documentation</b>	<a href="https://doaj.org/api/v1/docs">https://doaj.org/api/v1/docs</a>
<b>Data format</b>	JSON
<b>Comment</b>	

# Registry of Open Scientometric Data Sources

## Name

Enter the full name of the data source

## Licence

Enter the licence of the data

## Link

Enter the link to the data sources homepage

## Interface

Enter the link to the interface

## Link to Logo

Enter the link to the data sources logo

## Type of Interface

None

## Description

Describe the data source

## Documentation

Enter the link to the documentation

## Category

None

## Data format

- None
- JSON
- Other
- XML

## Entity

None

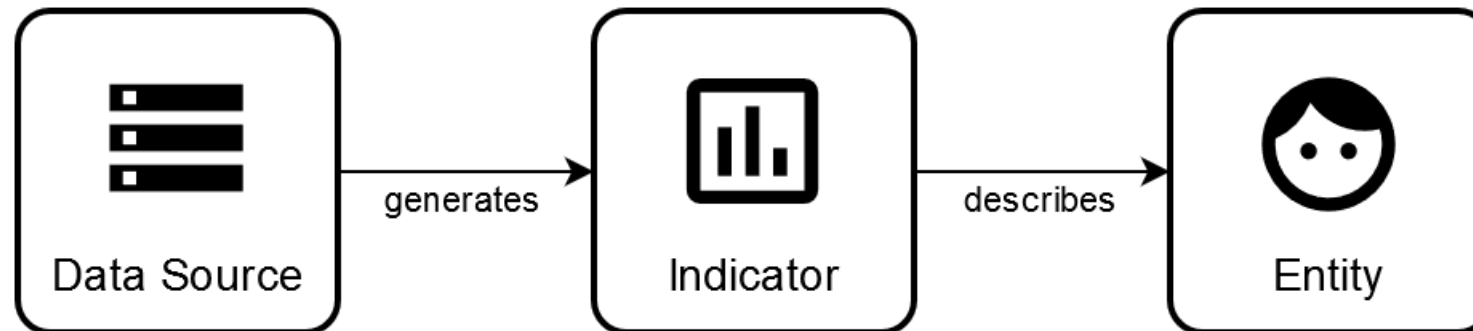
## Comment

Feel free to enter any type of comment

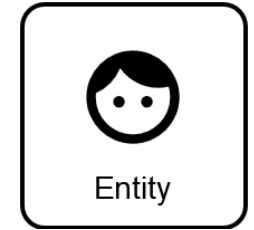
 An entity can be described by a data source

**input form**

# Data conception



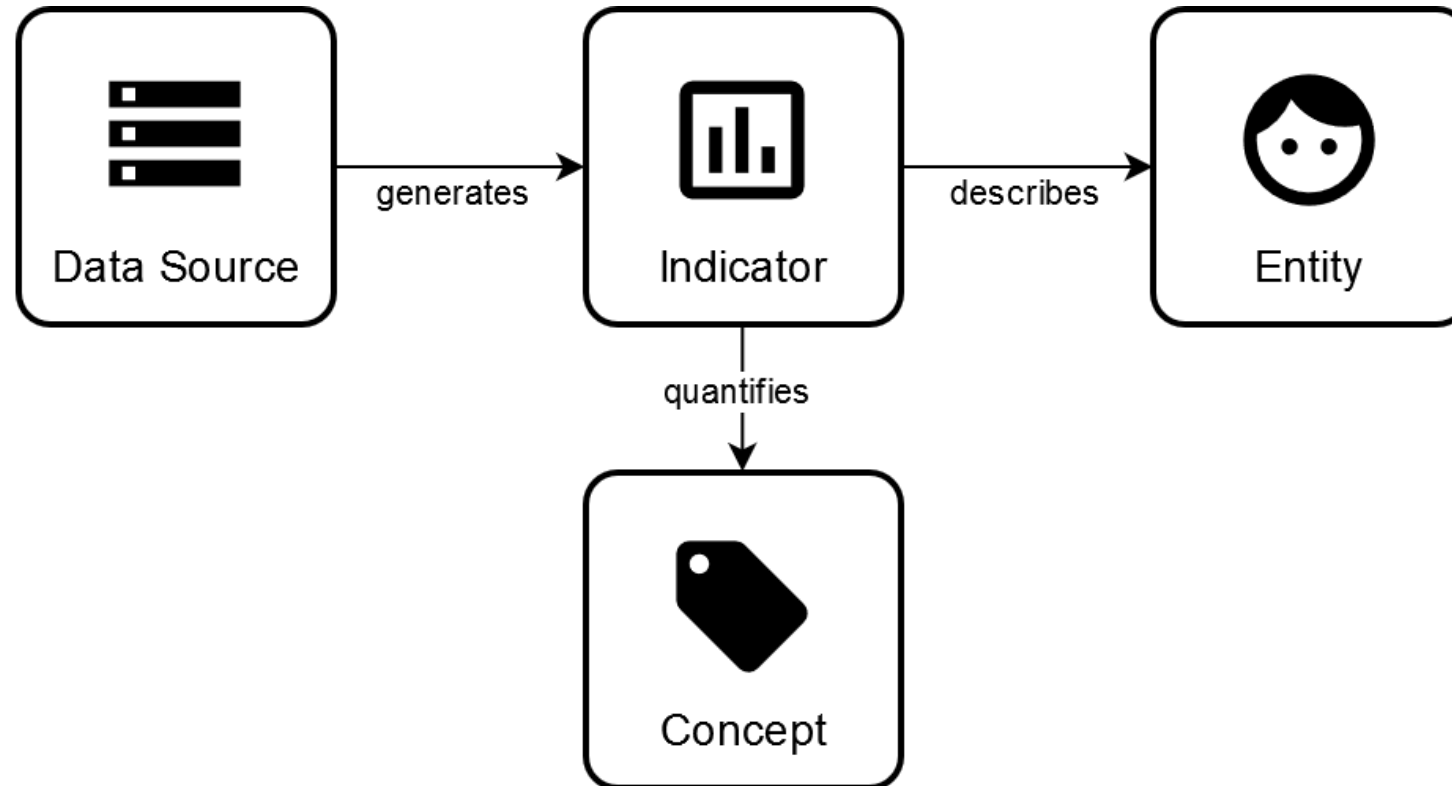
# Entity types



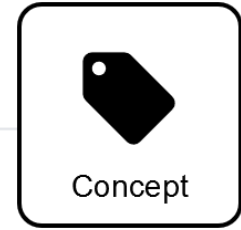
Entity	Description
Event	An event can be a conference, a workshop, a meeting, etc.
Work	Work refers to research output of all kinds, e.g. articles, books, preprints, protocols, software, research data, etc.
Organisation	An organisation refers to universities, research centres, departments, research groups, etc.
Person	Mostly a researcher, but can also be anybody else
Project	A project refers to research projects, third-party funded projects, etc.



# Data conception



# Concepts



Name	Description
Scientific Impact	The impact that a work has within the scientific community; is mostly based on citation-based indicators (e.g. publication impact as measured through citations (Neylon 2017))
Openness	Compliance of a person or work to Open Science Standards (e.g. FAIR research data, social openness (readability etc.))
Community	Involvement in the scientific community, e.g. participation in conferences, peer review and editorial activities, and learned societies, etc.
Societal Impact	Level of awareness, publicity; Recognition from societal groups or for societal activities



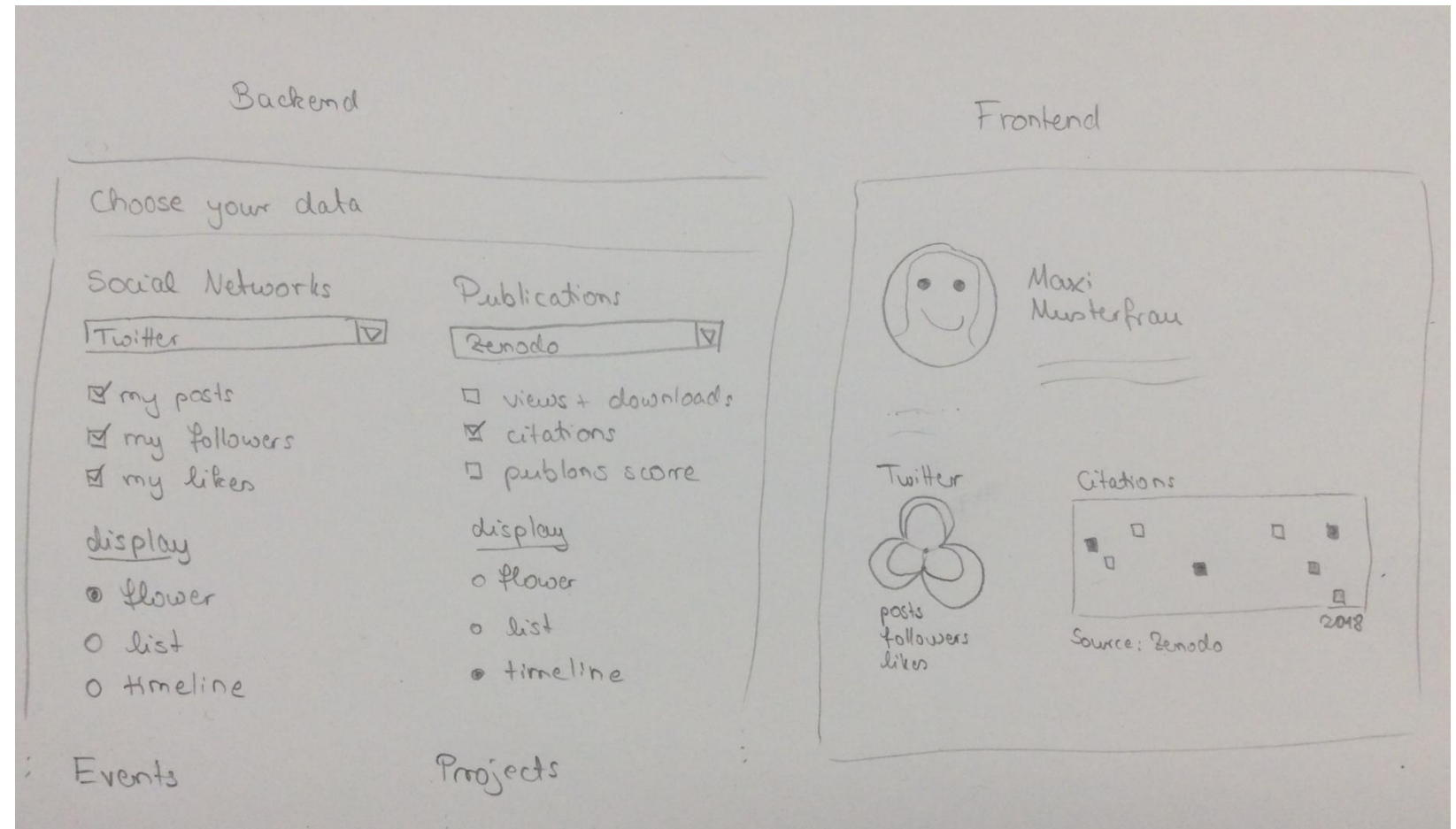
# Reference implementation

Users will be able to select

- data sources,
- indicators and
- visualisations.

## Implementation in VIVO

- possible adaption to other contexts (e.g. OJS)



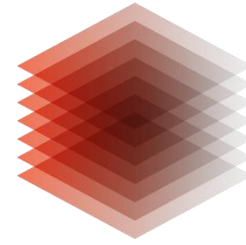
## Summary

ROSI develops a reference implementation with **open** scientometric data together with the scientific **community**.



**Participate and help to fill the registry!**

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**Thank you for your attention!**

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## Literature

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