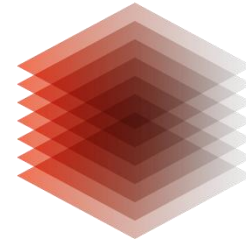

LEIBNIZ INFORMATION CENTRE
FOR SCIENCE AND TECHNOLOGY
UNIVERSITY LIBRARY



TIB

The ROSI Project

Svantje Lilienthal & Grischa Fraumann

*metrics in Transition Workshop

Göttingen, 28th March 2019

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)

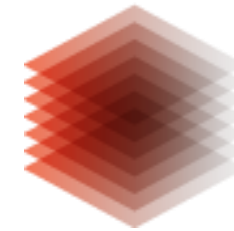
Duration

1 October 2018 – 30 September 2020

SPONSORED BY THE



Federal Ministry
of Education
and Research



TIB LEIBNIZ INFORMATION CENTRE
FOR SCIENCE AND TECHNOLOGY
UNIVERSITY LIBRARY

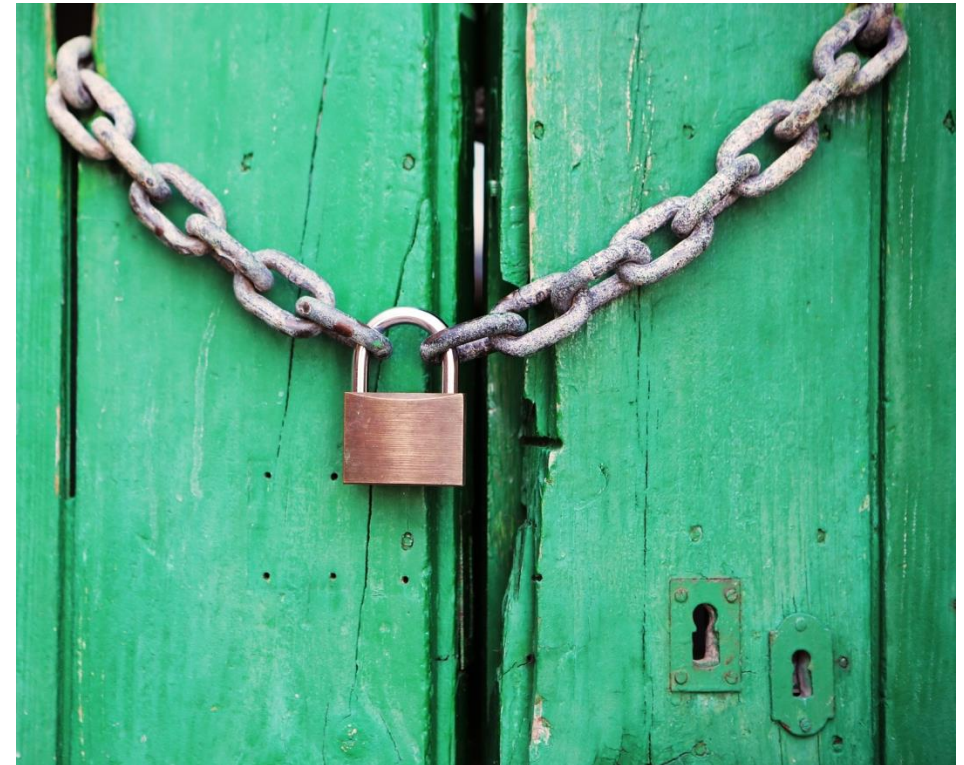


Quantitative research
on the science sector

tib.eu/rosi-project

Motivation

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



Motivation



- we want **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 **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." https://www.openaire.eu/mission-and-vision
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." https://www.openaire.eu/mission-and-vision
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



Name	Directory of Open Access Journals (DOAJ)
Link	https://doaj.org/
Link to Logo	https://doaj.org/static/doaj/images/logo_cropped.jpg
Description	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.
Category	Data aggregator
Academic discipline	
Entity	Work <small> ⓘ An entity can be described by a data source</small>
Licence	CC BY-SA
Interface	https://doaj.org/api/v1/
Type of Interface	API
Documentation	https://doaj.org/api/v1/docs
Data format	JSON
Comment	

Registry of Open Scientometric Data Sources

Name

Licence

Link

Interface

Link to Logo

Type of Interface

Description

Documentation

Category

Data format

- None
- JSON
- Other
- XML

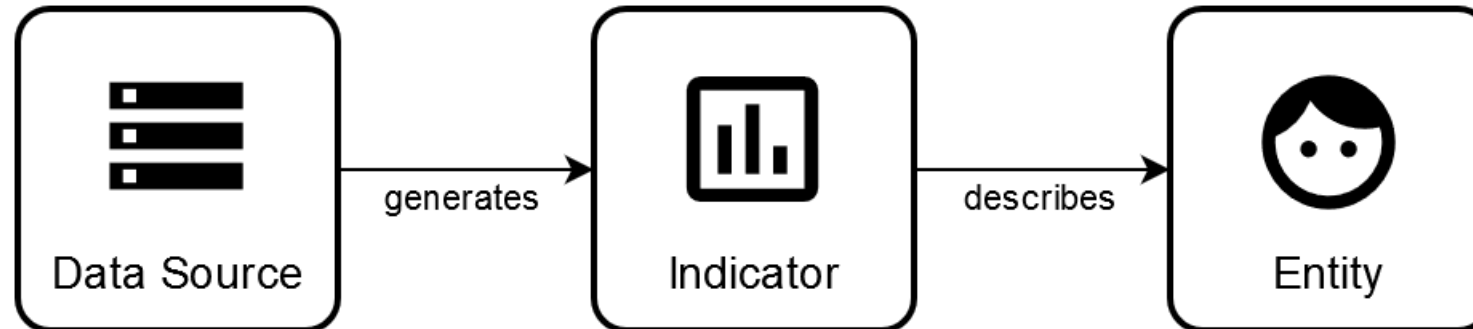
Entity

Comment

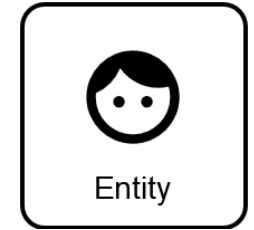
i An entity can be described by a data source

input form

Data conception

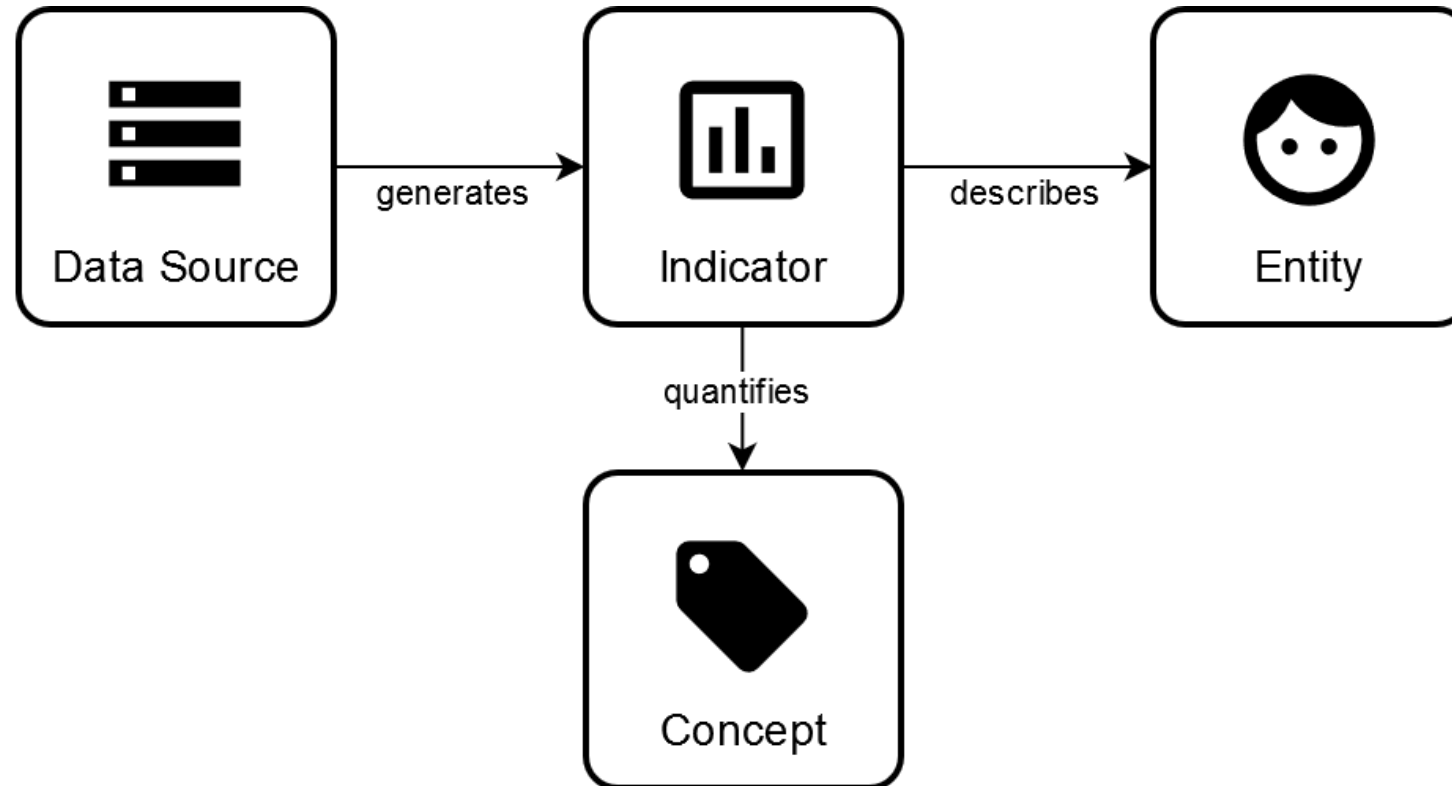


Entity types

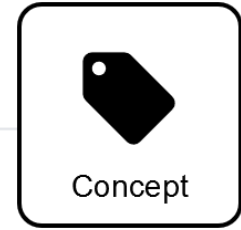


Entity	Description
Event	An event can be a conference, a workshop, a meeting, etc.
Work	Work refers to research output of all kinds, e.g. articles, books, preprints, protocols, software, research data, etc.
Organisation	An organisation refers to universities, research centres, departments, research groups, 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

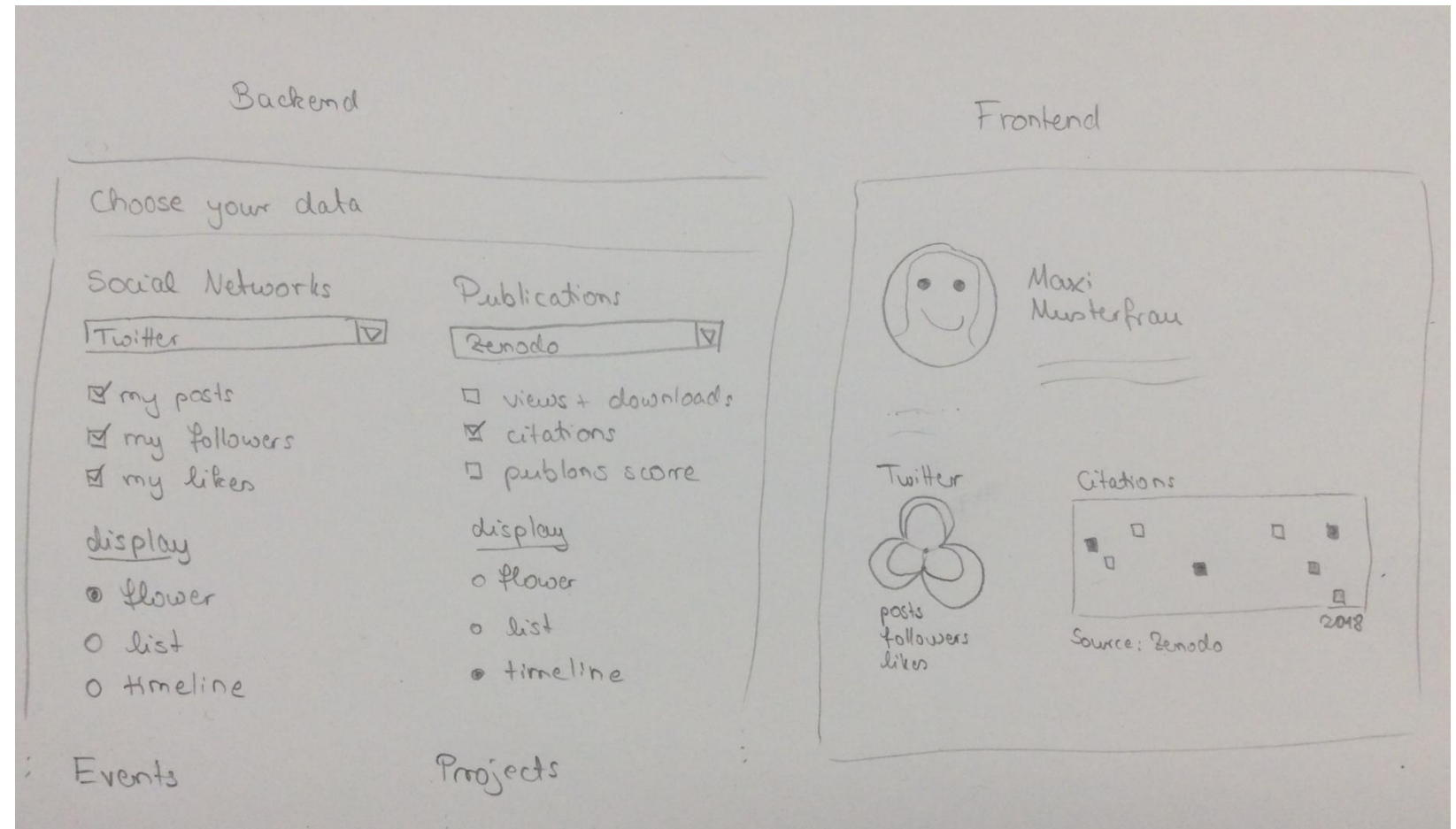
Reference implementation

Users will be able to select

- data sources,
- indicators and
- visualisations.

Implementation in VIVO

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



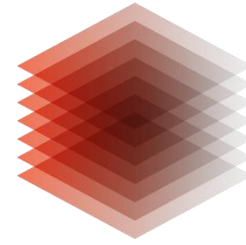
Summary

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



Participate and help to fill the registry!

LEIBNIZ INFORMATION CENTRE
FOR SCIENCE AND TECHNOLOGY
UNIVERSITY LIBRARY



TIB

Contact

tib.eu/rosi-project

rosi.project@tib.eu

Christian.Hauschke@tib.eu [ORCID: 0000-0003-2499-7741](https://orcid.org/0000-0003-2499-7741)

Grischa.Fraumann@tib.eu [ORCID: 0000-0003-0099-6509](https://orcid.org/0000-0003-0099-6509)

Svantje.Lilienthal@tib.eu [ORCID: 0000-0003-1537-2862](https://orcid.org/0000-0003-1537-2862)



Creative Commons Attribution 4.0 International (CC BY 4.0)
<https://creativecommons.org/licenses/by/4.0/>

Literature

Gusenbauer, M. (2018). Google Scholar to overshadow them all? Comparing the sizes of 12 academic search engines and bibliographic databases. *Scientometrics*, 16(11/12), 3. <https://doi.org/10.1007/s11192-018-2958-5>

Hauschke, C., Cartellieri, S., & Heller, L. (2018). Reference implementation for open scientometric indicators (ROSI). *Research Ideas and Outcomes*, 4, 59. <https://doi.org/10.3897/rio.4.e31656>

IFLA. (2017). *IFLA Library Reference Model (LRM)*. Retrieved from <https://www.ifla.org/publications/node/11412>

Neylon, C. (2017). *Knowledge Exchange Approach Towards Open Scholarship*. <https://doi.org/10.5281/zenodo.826643>

Sugimoto, C. R., & Larivière, V. (2018). *Measuring research: What everyone needs to know®*. New York: Oxford University Press.

Wouters, P., Zahedi, Z., & Costas, R. (2018). *Social media metrics for new research evaluation*. Retrieved from <http://arxiv.org/pdf/1806.10541v1>