



The OPERA project

Exploring Open Research Analytics

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OPERA Partners

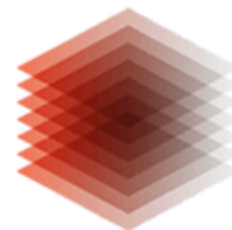
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Denmarks Electronic
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BIBLIOTEK**
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FOR SCIENCE AND TECHNOLOGY
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Cornell University

Work Packages



Open Science Support



- Identify and evaluate approaches to document the **impact of open science**
- practical experience and knowledge building in handling FAIR principles with respect to research analytics practises

Also Humanities



- Explores how the **Humanities and Social Sciences** can help expand current methodologies and indicators for **impact assessment**, and shape the future availability of data and metrics.

Analytics data and systems



- Evaluate **established, emerging, open and supplementary** data sets
- implement these data in the **open source** semantic web application VIVO

Network Analysis & visualizations



- find the most relevant **network analytics and visualizations** that may support and complement both classical & **open** research analytics

OPERA → Dec. 2020

Exploring Open Research analytics in different contexts

Experimenting with showcasing and **monitoring Open Science efforts** at national and university level, including as many Open Science elements as possible

Selected project deliverables

4 reviews and reports to be published on <https://deffopera.dk/>

- Quantitative indicators for societal impact
- identifying tools for visualizing and representing publication- and impact data in SSH
- OS & Open Data in research analytics – the most prominent and important manifests and policy papers.
- Ontology report

Research analytics systems

Before we monitor Open Science

we need:

- Valid, robust and reliable data sources
- Open data sources (no black boxes) → Registry of Scientometrics Data Sources <https://labs.tib.eu/roasi/index.php>
- Comprehensive data coverage
- 100% transparency
- To **understand** the scope, coverage and limitations of the sources
- **Therefore we need to analyze the data** → in the OPERA project we are spending a substantial amount of time conducting data analyses – comparing sources on an overall level and on article level as well
- Collaboration and joint initiatives
- **And open systems/platform**

Introducing VIVO

The VIVO logo is displayed in large, white, sans-serif capital letters on a dark blue background. To the right of the word 'VIVO' is a vertical white line, followed by the words 'connect', 'share', and 'discover' stacked vertically in a smaller, white, sans-serif font.

VIVO | connect
share
discover

VIVO creates an integrated record of the scholarly work of your organization

<https://duraspace.org/vivo/>

What is VIVO?

- Member-supported, **open source** software
- An **ontology** for representing scholarship
 - Ongoing development of the ontology – new is the **Contributor Role Ontology**, a structured representation of contribution roles, built on the CRediT taxonomy
 - The VIVO ontology is extendable in order to accommodate local needs
- Open shared platform
- Integrates multiple data sources
- Linked Open Data (LOD)
- Visualizations

Why did we choose VIVO?

- An alternative to the commercial products
- Freedom to customize without being dependent on the agenda of big companies
- No vendor lock-in effect
- Powerfull and flexible ontology
- An Open, dedicated and helpful community

VIVO for different purposes

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Dr Madonna Stinson
School of Education and Professional Studies

World Class Researchers
I want to collaborate with World Class Researchers.

Griffith Projects
I want to find out information about Griffith Projects.

Higher Degrees by Research
I want to study a PhD or research degree at Griffith.

Study at Griffith
I want to study at Griffith.

FIND A RESEARCHER > FIND A PROJECT > FIND A SUPERVISOR > FIND A DEGREE >

Expert finder system



Hauschke, Christian

Positions

Mitarbeiter, Open Science Lab, Programmbereich C - Forschung und Entwicklung 2016 -

Research Areas

Communication in learning and scholarship (ILCSH) Library science (ILCSH) Linked data (ILCSH)

Web librarianship (ILCSH)

selected publications

academic article

- Problematische Aspekte bibliometrie-basierter Forschungsvaluierung. Informationspraxis. 5. 2019
- The Research Core Dataset (KDSF) in the Linked Data context. Procedia Computer Science. 146-29-38. 2019
- Anforderungen an Forschungsinformationssysteme in Deutschland durch Forschende und Forschungsadministration - Zusammenfassung zweier Studien. Informationspraxis. 4. 2018
- Vitro - ein universell einsetzbarer Editor für Ontologien und Instanzen. Informationspraxis. 4. 2018
- Reference implementation for open scientometric indicators (ROSI). Research Ideas and Outcomes. 4. 2018

... more

article

Bericht vom 3. VIVO-Workshop 2018 2019

VIVO software 1.10.0 release

chapter

- Daten sammeln und verarbeiten. Handbuch CoScience / Version 1.0: gemeinsam forschen und publizieren mit dem Netz. 2014
- Literatur recherchieren und verwalten. Handbuch CoScience / Version 1.0: gemeinsam forschen und

CRIS

Res. Analytics platform

DTU RAP – Research Analytics Platform

DTU collaboration with Stanford University, United States of America – From 2014 – 2019

351 co-publications in 84 subject categories

[Show list](#) of all publications since 2007

Compare key output and impact indicators

Contact Info christia	Partner	DTU
Number of publications	77 363	21 369
Number of citations	951 013	216 437
Simple citation impact (citations / publication)	12.3	10.1
Normalised citation impact (global average 1.0)	2.26	1.56
% of publications in top 10% most cited	19.8%	16.0%
% of publications in top 1% most cited	4.1%	2.2%
% of publications with industry collaboration	4.9%	8.9%

OPERA Systems Overview – 2 VIVOs

1



Up & Running

A single university (in casu DTU)
Research Analytics Platform – RAP
For in-depth (internal) analyses



2



A test platform for several universities
(in casu from Denmark) – For inter-
university analytics and visualisations



National Dimensions VIVO test platform –

combining global and national data with supplementary sources for OS elements



**The Bibliometric
Research Indicator**

**Danish
Open Access Indicator**

**National VIVO test
platform - with data
from the Danish
Universities**

VIVO



Potential analyses and visualizations to be added

National VIVO
test platform -
with data from
the Danish
Universities

VIVO

VERY FIRST IDEAS:

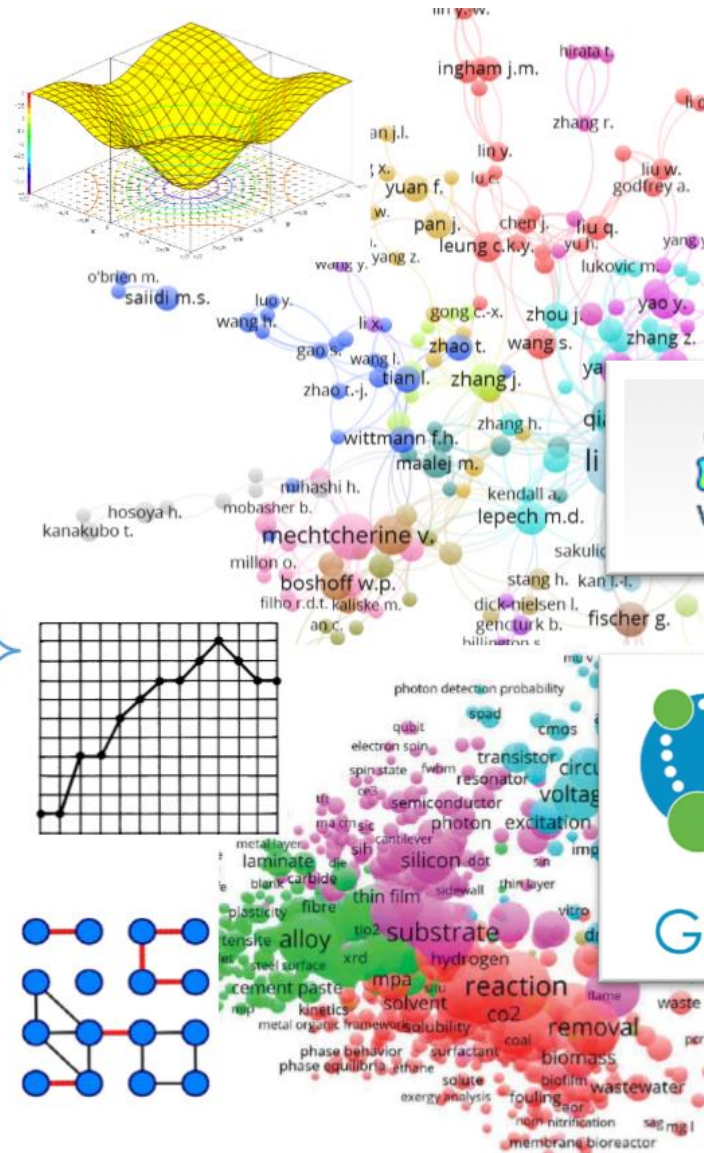
University
Open Science
Metrics

University
Publication
Subjects

University
Output and
Impact

University
Collaboration
In/outside
Denmark

University
Funding from
In/outside
Denmark



 **VOSviewer**
Visualizing scientific landscapes

 **neo4j**
Graph Database

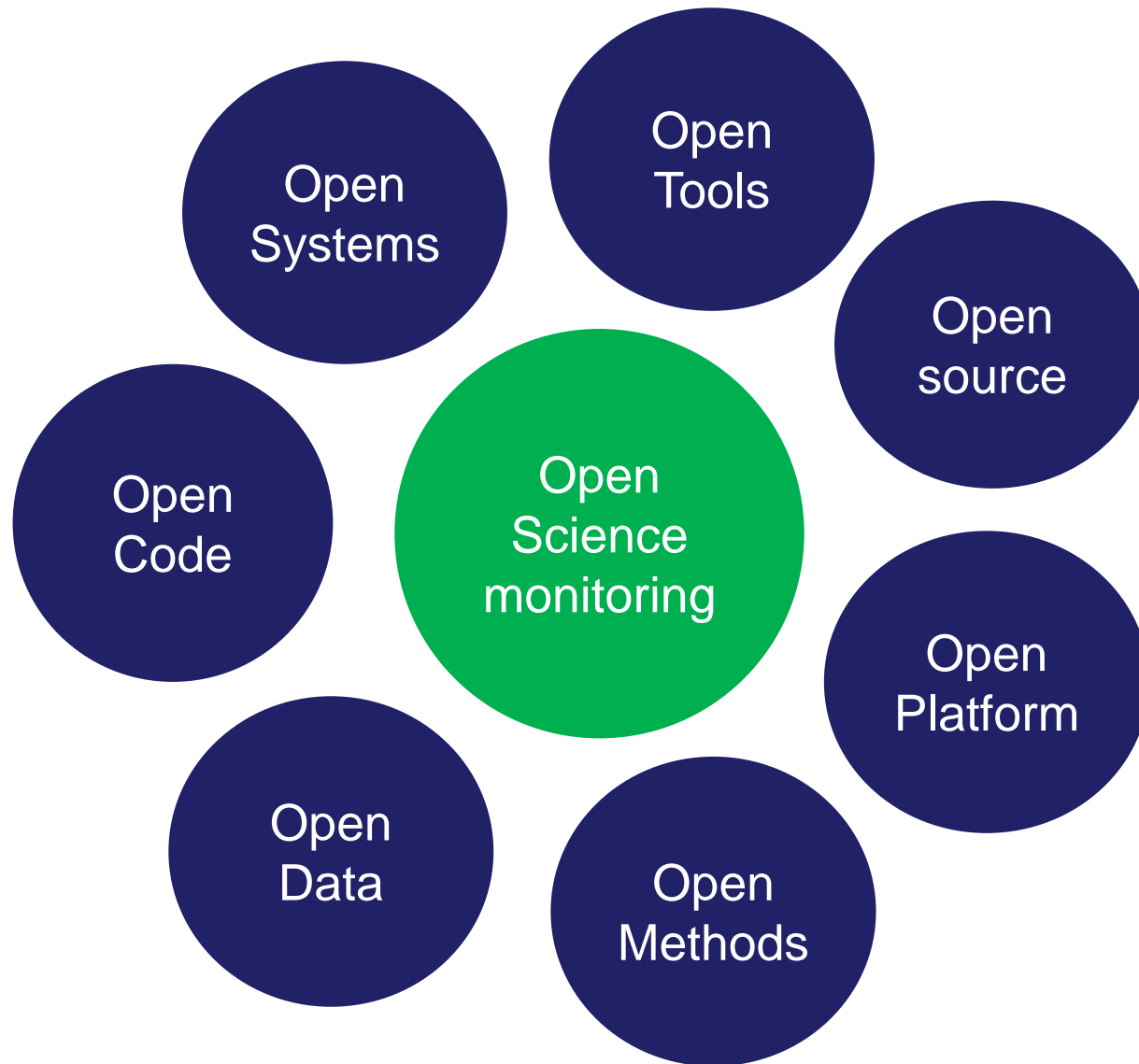


→ Dec 2020

Monitoring:

- OA publications
 - Open dataset
 - Open peer review contributions
 - Open citations
- &
- Open Science impact?

Open Science monitoring



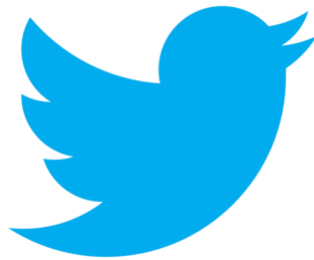
In the OPERA project we work to make the results **open** & **open** for discussion

Thank you for your attention

More info on the OPERA project

<https://deffopera.dk>

&



@deffopera / #deffopera

