

BARCELONA DECLARATION ON OPEN RESEARCH INFORMATION

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UNESCO Chair on Diversity and Inclusion in Global Science
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unesco

Chair



BARCELONA
DECLARATION ON
OPEN RESEARCH
INFORMATION

The need for open research information

Contextualized Research



Social inequalities are mirrored in scholarly knowledge systems





















Marginalized regions and topics lack visibility in global research

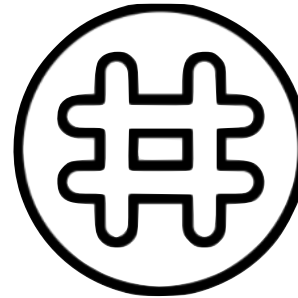


Contextualization means understanding local values influencing research

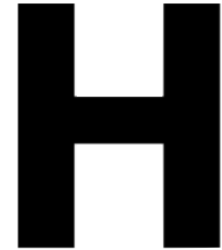
Classical perspectives on scientometrics

Academic Ranking of World Universities 1000 Institutions

World Rank	Institution	Country/Region	National/Regional Rank	Total Score	Alumni
31	 University of Wisconsin - Madison		21	37.6	28.7
32	 Duke University		22	37.5	20.0
33	 The University of Melbourne		1	37.1	15.1
34	 Northwestern University		23	36.5	13.1
35	 Sorbonne University		2	35.7	37.1
35	 The University of Manchester		5	35.7	15.1
37	 Kyoto University		2	35.6	34.6
38	 PSL University		3	35.2	51.8
38	 The University of Edinburgh		6	35.2	26.1



Journal Impact Factor



h-index



H-Index

Calculated by counting the number of publications for which an author has been cited by other authors at least that same number of times. For instance, an h-index of 5 means that the scientist has published at least 5 papers that have each been cited at least 5 times.

- 1 Penalizes selective researchers (ex: Albert Einstein)
- 2 It is not an appropriate index to value early career researchers
- 3 Ignores disciplinary variations (authorship, citation practices)



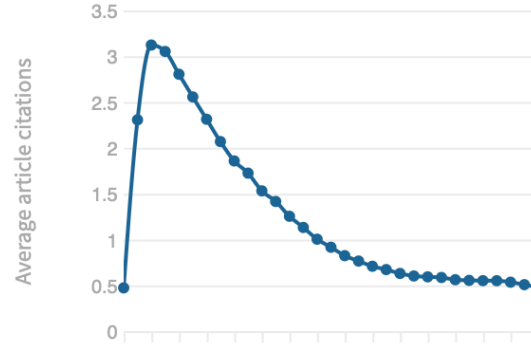


The journal impact factor

It is the ratio of the number of citations received in that year for publications in that journal that were published in the previous two years to the total number of "citable items" published in that journal during the previous two years.



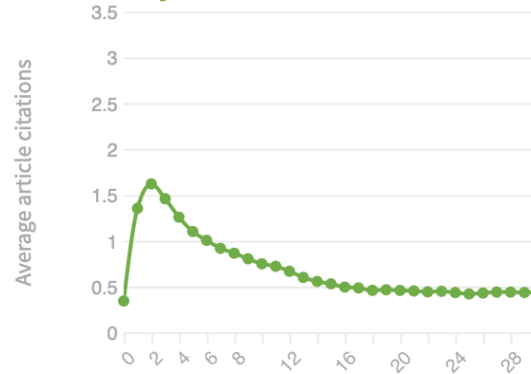
Biomedical research



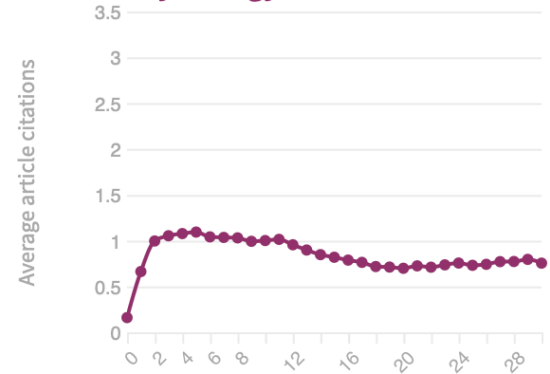
Social sciences



Physics



Psychology



Years after publication

Years after publication

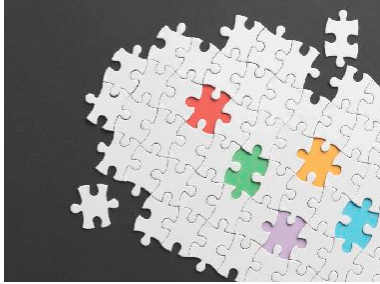


“

When a measure becomes a target,
it ceases to be a good measure

- Goodhart's law

Social injustice in the current system



Missing pieces

Limited coverage, particularly in the global south.



Missing voices

Marginalization of non-English research



Missing regions

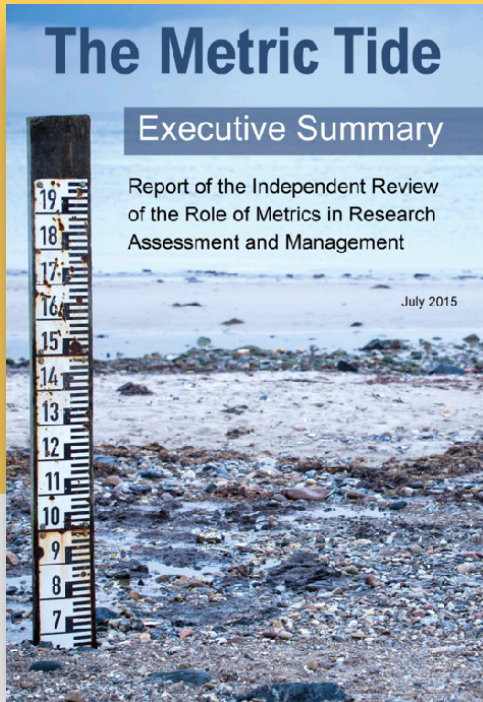
Bias toward mainstream research topics and local knowledge



Missing equity

Social justice goals unmet by high costs of conventional systems.

...but things are changing!



- San Francisco Declaration on Research Assessment (DORA), was developed in 2012.
- Leiden Manifesto: Published in 2015 in response to the growing reliance on metrics in research assessment.
- The Metric Tide: a parallel effort translating similar concepts to the British setting.

Helsinki Initiative on Multilingualism

Other focused alternatives for researchers to be recognized and rewarded according to the results and the impact of their research.

CoARA (2022)

- Co-creating a shared direction for changes in assessment practices for research;
- Goal to maximise the quality and impact of research;
- includes principles, commitments, and timeframes for reforms and implementing the changes.



768 organisations from
over 50 countries



CoARA

Coalition for Advancing Research Assessment

Our vision is that the assessment of research, researchers and research organisations recognises the diverse outputs, practices and activities that maximise the quality and impact of research. This requires basing assessment primarily on qualitative judgement, for which peer review is central, supported by responsible use of quantitative indicators.

The Agreement

Based on 10 commitments, establishes a common direction for research assessment reform, while respecting organisations' autonomy. The Agreement on Reforming Research Assessment sets a shared direction for changes in assessment practices for research, researchers and research performing organisations, with the overarching goal to maximise the quality and impact of research.

Coalition for Advancing Research Assessment



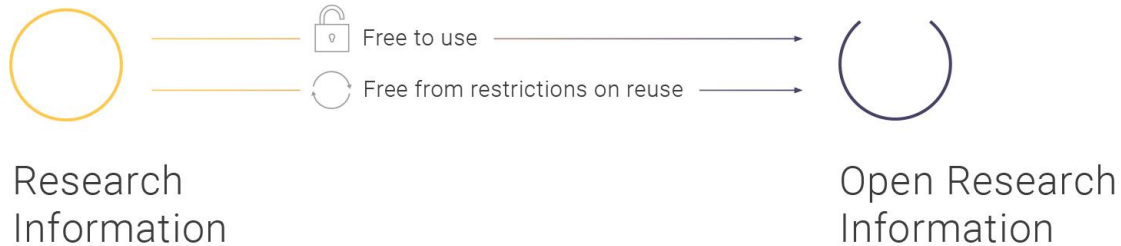
Ensure independence and transparency of the data, infrastructure and criteria necessary for research assessment and for determining research impacts; in particular by clear and transparent data collection, algorithms and indicators, by ensuring control and ownership by the research community over critical infrastructures and tools, and by allowing those assessed to have access to the data, analyses and criteria used.







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The need for open research information

Open research information



=

-  Bibliographic metadata
-  Metadata on research software, research data, samples, and instruments
-  Information on funding and grants
-  Information on organizations and research contributors

Open research information must be the norm

Fair research assessment requires full transparency

Equitable decision making requires inclusive data

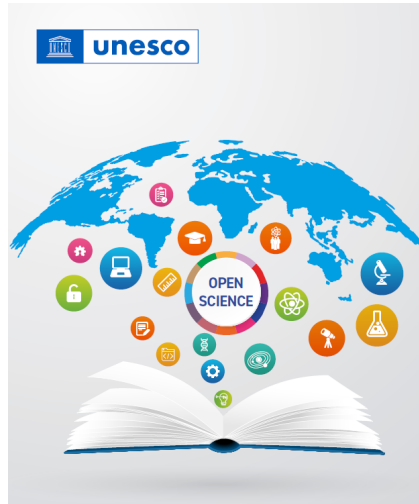
Open science requires open research information

Open research information must be the norm

The research community should be in control of the information needed to manage the research system

To democratize the way the research system is managed, members of the research community should have full access to all relevant information

UNESCO Recommendation on Open Science



UNESCO Recommendation
on Open Science

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“The monitoring of open science should be explicitly kept under public oversight, including the scientific community, and whenever possible supported by open non-proprietary and transparent infrastructures”



Barcelona Declaration

BARCELONA
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OPEN RESEARCH
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Barcelona Declaration

The Barcelona Declaration on Open Research Information was prepared by a group of **over 25 research information experts**, representing organizations that carry out, fund, and evaluate research, as well as open infrastructure organizations

To draft the Declaration, the group met in Barcelona in November 2023 and the document was published on April 2024, revolving around four commitments

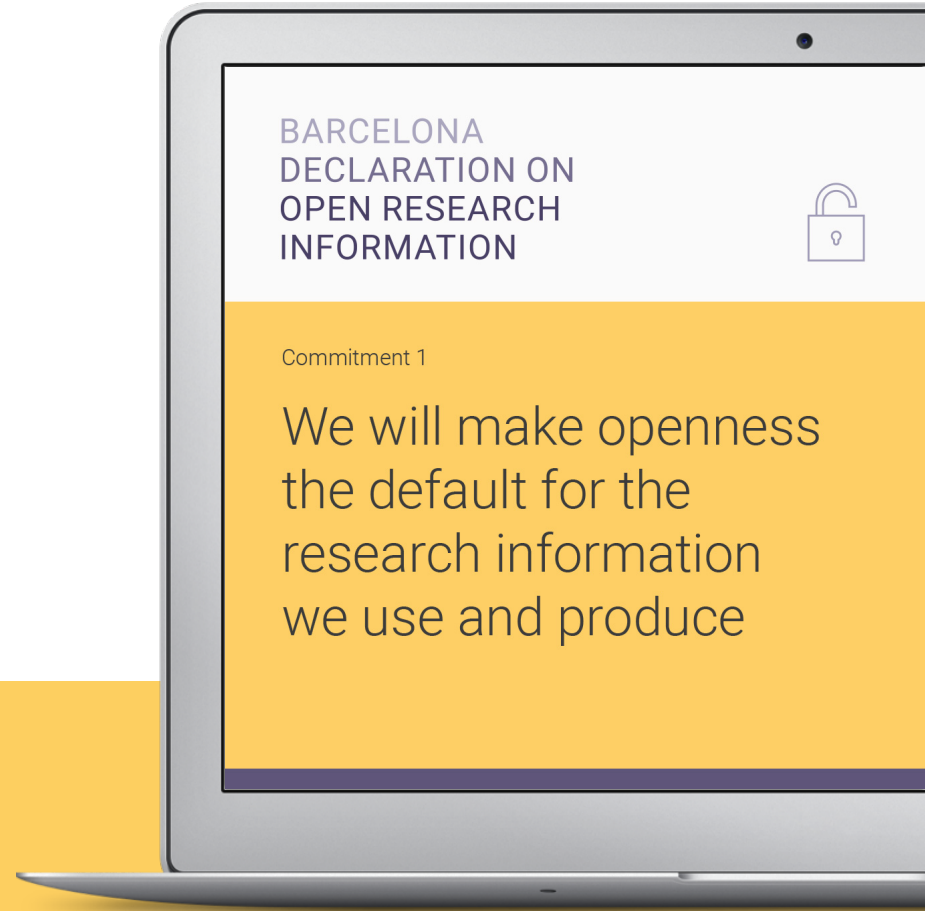


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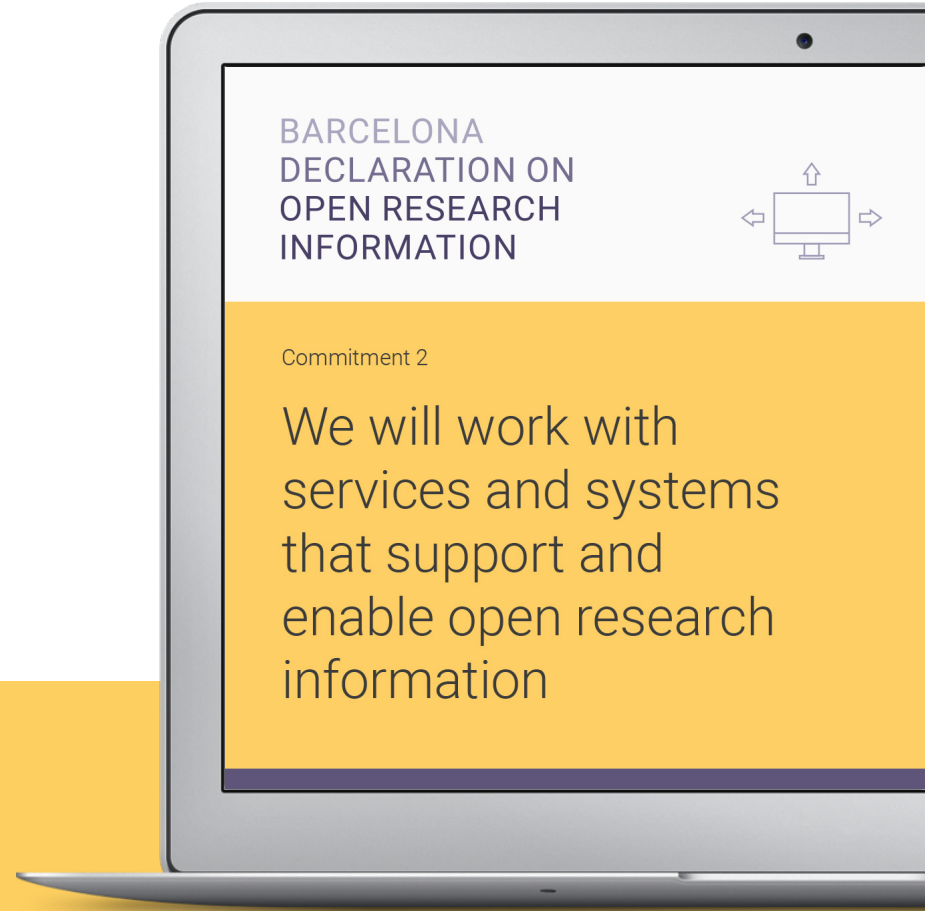
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SIGNATORIES

Organizations performing, funding or evaluating research

Universities and other research performing organizations

- Aix-Marseille Université (France)
- Athena Research Center (Greece)
- Charles University (Czech Republic)
- Coimbra Group (international)
- CREAF - Centre de Recerca Ecològica i Aplicacions Forestals (Spain)
- Delft University of Technology (Netherlands)
- European Organization for Nuclear Research - CERN (Switzerland)
- Galicia Supercomputing Center (Spain)
- Hamburg University of Technology (Germany)
- Hugo Grotius GmbH (Germany)
- Ibn Tofail University (Morocco)
- I-CERCA - Centres de Recerca de Catalunya (Spain)
- Institut Català d'Arqueologia Clàssica - ICAC-CERCA (Spain)
- Institute of Higher Education of the National Academy of Educational Sciences of Ukraine (Ukraine)
- Izmir Institute of Technology (Turkey)
- Knowmad Institut - European Institute for Multidisciplinary Studies on Human Rights & Sciences (Germany)
- Leibniz Association (Germany)
- Leiden University (Netherlands)

Research funding organizations and governments

- Austrian Science Fund - FWF (Austria)
- Bill & Melinda Gates Foundation (United States of America)
- Catalan Foundation for Research and Innovation - FCRI (Spain)
- Dutch Research Council - NWO (Netherlands)
- French National Research Agency - ANR (France)
- French Open Science Committee (France)
- Fundació Internacional Josep Carreras (Spain)
- Fundación MenteClara Internacional (Argentina)
- Région Normandie (France)
- Regione Emilia-Romagna (Italy)
- Regione Toscana (Italy)
- Taskforce for Applied Research SIA (Netherlands)
- ZonMw (Netherlands)

Other organizations

- Consorci de Serveis Universitaris de Catalunya - CSUC (Spain)
- Dutch Reproducibility Network - NLRN (Netherlands)
- EOSC Association (international)
- Federation of Finnish Learned Societies - TSV (Finland)
- FIZ Karlsruhe - Leibniz Institute for Information Infratstructure (Germany)
- GO FAIR Brazil Health (Brazil)
- Good Clinical Practice Alliance - GCPA (international)

- Taskforce for Applied Research SIA (Netherlands)
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 - Instituto Brasileiro de Informação em Ciência e Tecnologia - Ibict (Brazil)
 - Latin American Council of Social Sciences - CLACSO (international)
 - Leibniz Institute for Psychology - ZPID (Germany)
 - LIBER (international)
 - National Open Research Analytics, Technical University of Denmark (Denmark)
 - Sage Bionetworks (United States of America)
 - State Scientific and Technical Library of Ukraine (Ukraine)
 - SURF (Netherlands)
 - TIB - Leibniz Information Centre for Science and Technology and University Library (Germany)
 - UK Reproducibility Network - UKRN (United Kingdom)
 - West and Central African Research and Education Network - WACREN (international)
-

SUPPORTERS

Organizations providing data, services and infrastructure

-
- Academy of Science of South Africa - ASSAf
 - Africa PID Alliance
 - AmeliCA Ciencia Abierta
 - Capitolo italiano di Creative Commons
 - Confederation of Open Access Repositories - COAR
 - Crossref
 - Curtin Open Knowledge Initiative - COKI
 - DataCite
 - DeSci Labs
 - Directory of Open Access Books - DOAB
 - Directory of Open Access Journals - DOAJ
 - Dryad
 - Europe PMC
 - eLife
 - Érudit
 - euroCRIS
 - 4Science
 - International Interactive Computing Collaboration - 2i2c
 - Invest in Open Infrastructure - IOI



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INFORMATION

Moving toward open research information

Open scientometric data sources



OpenAlex



Moving toward open research information

The CNRS has unsubscribed from the Scopus publications database

January 11, 2024

RESEARCH

The CNRS committed to open science several years ago and of course this includes publication databases for which sustainable open solutions need to be found. The organisation has taken an important step forward as regards this commitment with our decision to unsubscribe from Elsevier's Scopus bibliographic database on December 31st 2023. In fact the CNRS will stop using commercial bibliographic databases altogether as soon as open solutions are sufficiently mature. In the meantime the institution is continuing to subscribe to Clarivate Analytics' Web of Science.

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MINISTÈRE
DE L'ENSEIGNEMENT
SUPÉRIEUR
ET DE LA RECHERCHE

*Liberté
Égalité
Fraternité*

**French Ministry of Higher
Education and Research
partners with OpenAlex to
develop a fully open
bibliographic tool**

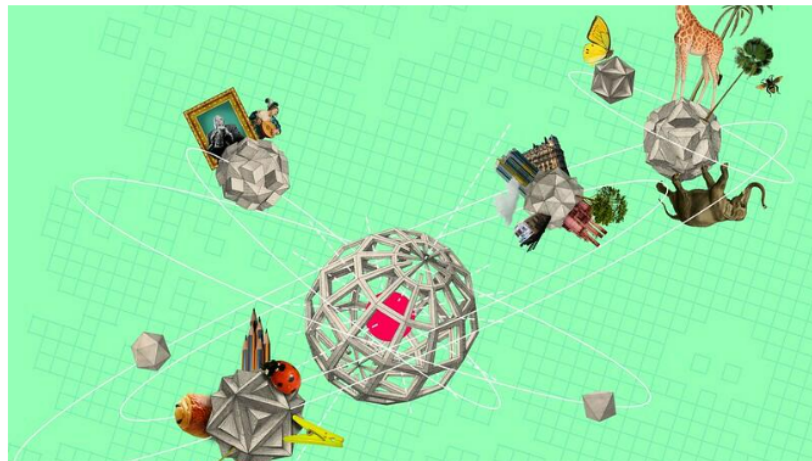
Moving toward open research information

Open Science

Sorbonne University unsubscribes from the Web of Science

Sorbonne University has been deeply committed to the promotion and the development of open science for many years. According to its commitment to open research information, it has decided to discontinue its subscription to the Web of Science publication database and Clarivate bibliometric tools in 2024. By resolutely abandoning the use of proprietary bibliometric products, it is opening the way for open, free and participative tools.

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CNRS and Open Alex

The screenshot displays the OpenAlex website interface. At the top, there is a navigation bar with the OpenAlex logo, a 'Works' dropdown menu, a search bar containing 'Search OpenAlex', and links for 'Log in' and 'Sign up'. Below the navigation bar, there is a header area with 'Unsaved search' and utility icons for notifications, settings, and sharing.

The main content area is divided into two columns. The left column, titled 'Works', lists several research papers with their titles, authors, and citation counts. The right column, titled 'Stats', provides a summary of the search results, including the total number of results (261,400,000), an 'open access' filter showing 23.5% (61,410,000) results, and two filter tables for 'topic' and 'institution'.

Works

- Protein Measurement With The Folin Phenol Reagent**
1951 · OliverH. Lowry, NiraJ. Rosebrough, et al. · *Journal of Biological Chemistry*
Cited by 318,700
- R: A language and environment for statistical computing.**
2014 · R Core Team · *MSOR Connections*
Cited by 291,400
- Cleavage of Structural Proteins during the Assembly of the Head of Bacteriophage T4**
1970 · Ulrich K. Laemmli · *Nature*
Cited by 253,200
- A Rapid and Sensitive Method for the Quantitation of Microgram Quantities of Protein Utilizing the Principle of Protein-Dye Binding**
1976 · Mark A. Bradford · *Analytical Biochemistry*
Cited by 225,400
- A rapid and sensitive method for the quantitation of microgram quantities of protein utilizing the principle of protein-dye binding**
1976 · Marion M. Bradford · *Analytical Biochemistry*

Stats

261,400,000 results

open access: 23.5% (61,410,000)

year:

topic:

<input type="checkbox"/> Crystallization Processes and Control	974,300
<input type="checkbox"/> Territorial Governance and Environmental Participation	636,200
<input type="checkbox"/> American Political Thought and History	458,000
<input type="checkbox"/> Society and Economy in Ancient Mediterranean	406,300

institution:

<input checked="" type="checkbox"/> Centre National de la Recherche Scientifique	2,621,000
<input type="checkbox"/> Chinese Academy of Sciences	1,314,000
<input type="checkbox"/> United States Department of Energy	1,244,000
<input type="checkbox"/> University of London	1,130,000
<input type="checkbox"/> Russian Academy of Sciences	1,000,000

Moving toward open research information

Coimbra Group joins the conversation on Open Science

14 February 2024

2. Today, we take another step and announce our **strong support for the movement towards open research information** – defined as information relating to the conduct and communication of research, currently unfolding in the higher education sector. That includes **more open and transparent University rankings**.

Moving toward open research information

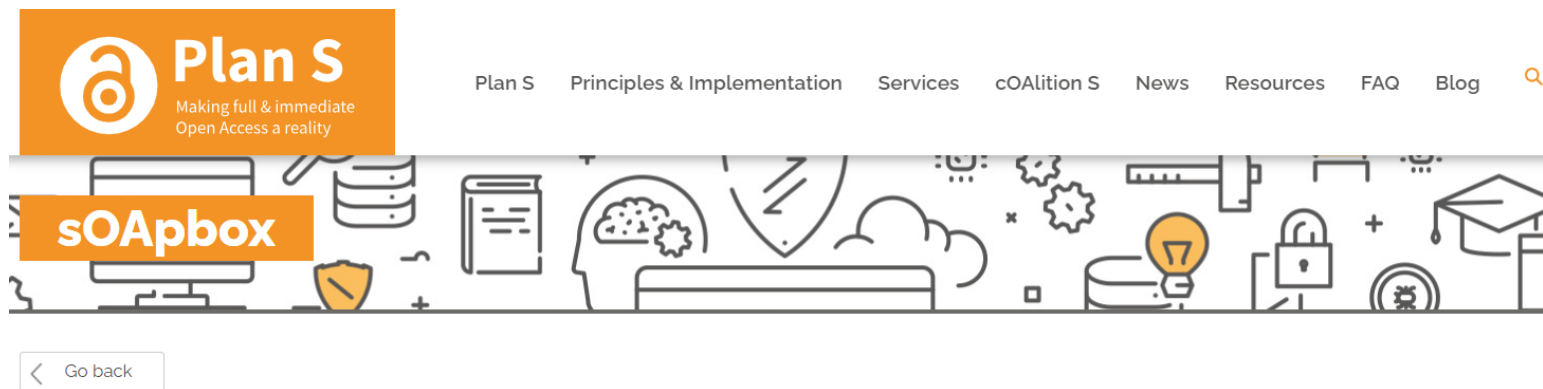
NWO and ZonMw to use open data for monitoring open access

24 October 2023

For the first time, NWO and ZonMw have based their open access monitor on open metadata. This shows that in 2022, 93 per cent of research financed by both funders has been published open access. 'As advocates for open access, we have to set a good example ourselves,' says Arfan Ikram, chairman of ZonMw and responsible for open science on NWO's Executive Board.



Moving toward open research information



Are open bibliometric data sources better than proprietary ones?

Last year we tasked [scidecode science consulting](#) to carry out a study on [the impact of Plan S on scholarly communication](#). We required that the results of work have to be disseminated with an open licence, including the data. Therefore our partners at scidecode had to make sure that the bibliometric data they used in their impact study was open and also good enough to carry out the needed analyses.

Moving toward open research information

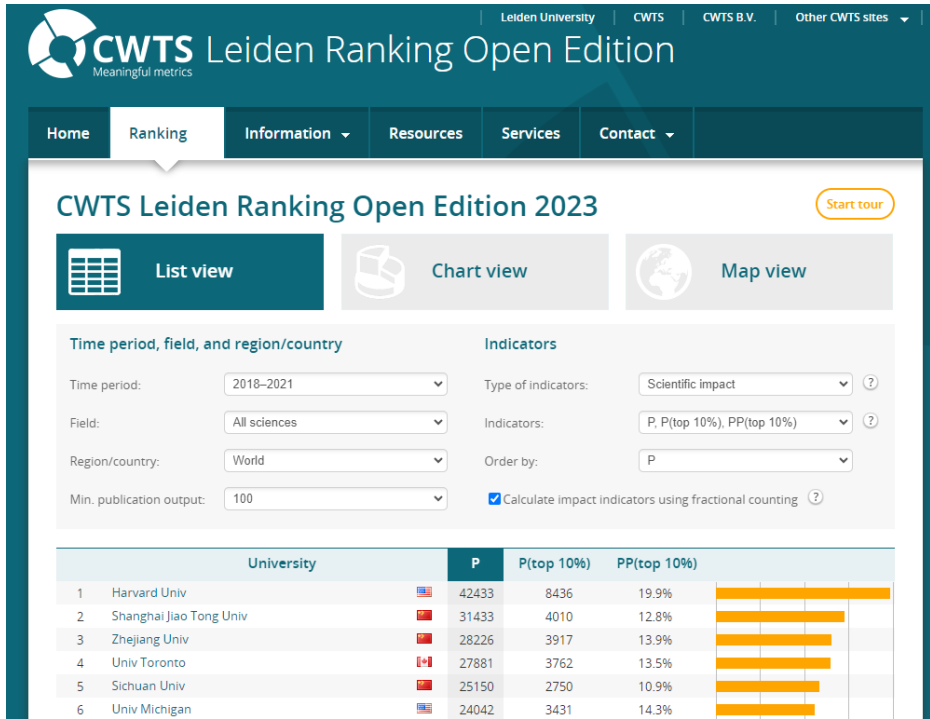
EDITORIAL | 13 September 2022

Citation data are now open, but that's far from enough

The reference lists of more than 60 million papers on the linking site Crossref are now openly available. That is welcome – but further steps must follow.



CWTS Leiden Ranking Open Edition



Based on data from



OpenAlex



Going beyond openess

A much larger landscape of open data sources!

Clarivate
Web of Science™

Scopus®

Overton

ORCID

OpenAlex

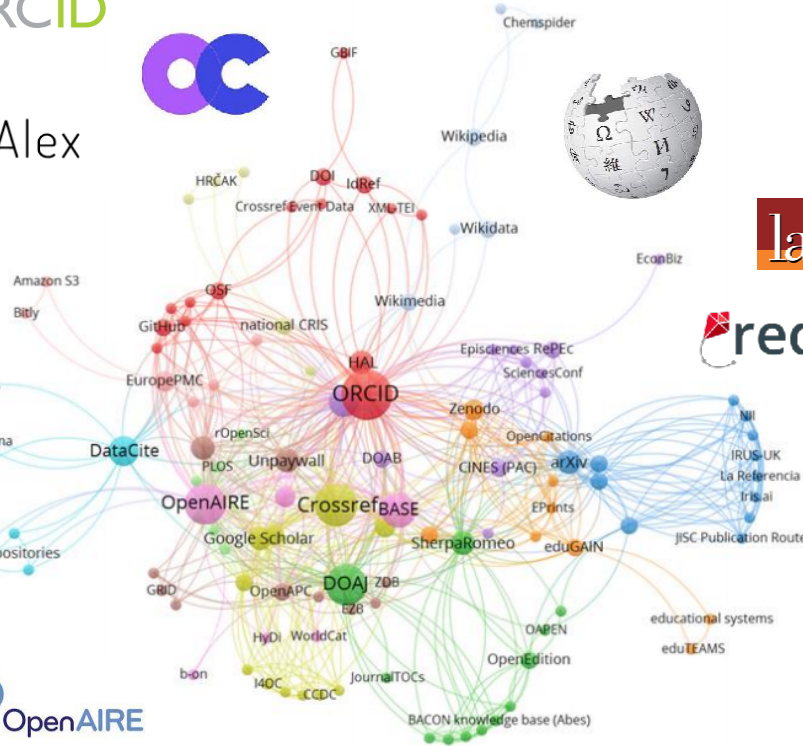


Crossref
Event Data

DataCite
FIND, ACCESS, AND REUSE DATA

DABAR repositories
institutional repositories
national projects/grants datab
Croatian Agency for Science an

OpenAIRE



latindex

redalyc
UAEMEX

SciELO

LA Referencia
Red Latinoamericana para la Ciencia Abierta

VOSviewer

Ficarra, Victoria, Fosci, Mattia, Chiarelli, Andrea, Kramer, Bianca, & Proudman, Vanessa. (2020). Scoping the Open Science Infrastructure Landscape in Europe. Zenodo. <https://doi.org/10.5281/zenodo.4153809>

Research Portal Denmark



Research Portal Denmark – Discover and explore Danish research

En Da



We have celebrated the official launch of Research Portal Denmark with a conference on March 21, 2024. See the presentations and the posters at the [Conference page](#).



Publications

Search Global Data

Search Local Data

Search Open Data - Coming



Patents & Innovation

Search Patent Families - Prototype



Grants & Funders

Danish Funders' Data - Coming



Analytical Overviews

Open Access

Green Research - Prototype




More Information

About the Research Portal

About Data & Documentation

FORAN - Research Analytics Network

Research Portal Denmark

**Research Portal Denmark**Publications - Local Data

Search mode: **Simple** Basic Expert ? ✉

GENERAL

- Matching Records in 1
- Select one or more and click Apply
- Global Data
 - Clarivate Data 312,125
 - Digital Science Data 314,144
 - Elsevier Data 331,670
 - No Matches Found 371,857
- + Added on
- + Years

PERSONS

- + Contributors
- + No. of Contributors

ORGANISATIONS

- + Danish Affiliations 1
- + Global Collaboration

SUBJECTS

- + DK Main Research Areas
- + UN SDG Classification
- + Keywords

PUBLICATION DETAILS

- + Publication Types
- + Publication Audiences
- + Publication Status
- + Review Status
- + Journals

✕

Search

Entire database: 728,769 publications Save Query Clear Query Export Results Sort by Year ↓

"We're not proud of the cases we've been involved in" : Crisis resolution on Facebook using conversational human voice
Holmgreen, Lise-Lotte
2024, **Journal Article**, International Journal of Business Communication

Deconstructing/Reconstructing Liberal World Order for the 21st Century
Schmidt, Johannes Dragsbæk
2024, **Book Chapter**, Contemporary Critiques of Political Economy : Mapping Alternative Planetary Futures

Active control Based Three-phase Reclosing Scheme for Single Transmission Line with PMSGs
Yang, Zhe; Liao, Wenlong; Bak, Claus Leth [et al.]
2024, **Journal Article**, IEEE Transactions on Industrial Electronics

Speculative Fiction
Jensen, Mikkel; Kongerslev, Marianne; Nielsen, Sørine Amanda
2024, **Book**, Aalborg Universitetsforlag

Image-informed Deep Neural Network-Assisted Code Generator for Automatic Antenna Modeling
Wei, Zhaohui; Zhou, Zhao; Wang, Peng [et al.]
2024, **Journal Article**, IEEE Transactions on Antennas and Propagation

The Importance of Sound to the Formation of Presence
Grimshaw-Aagaard, Mark Nicholas
2024, **Book Chapter**, The Oxford Handbook of Video Game Music and Sound


Research Portal Denmark

The image shows a screenshot of the Research Portal Denmark website. The page is titled "Research Portal Denmark" and "Publications - Local Data". The search mode is set to "Simple". The left sidebar contains navigation menus for GENERAL, PERSONS, ORGANISATIONS, SUBJECTS, and PUBLICATION DETAILS. The main content area shows a magnified view of the "GENERAL" section, which includes a search bar, an "Export Results" button, and a "Sort by" dropdown menu. The "GENERAL" section lists the following data:

Category	Count
- Matching Records in ⁱ	
- Global Data	
<input type="checkbox"/> Clarivate Data	312,125
<input type="checkbox"/> Digital Science Data	314,144
<input type="checkbox"/> Elsevier Data	331,670
<input type="checkbox"/> No Matches Found	371,857
+ Added on	
+ Years	

The magnified view also shows a "Select one or more and click" button with an "Apply" button next to it. The background of the magnified view shows a search bar with a search button and a dropdown menu for "Sort by" with a "Year" option selected.

Research Portal Denmark

**Research Portal Denmark**Publications - Local Data

Search mode: **Simple** Basic Expert ? ✉

GENERAL

- Matching Records in 1
- Select one or more and click Apply
- Global Data
 - Clarivate Data 312,125
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Example: "udsatte børn" ✕

Search

Entire database: 728,769 publications Save Query Clear Query Export Results Sort by Year ↓

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Research Portal Denmark

The screenshot displays the Research Portal Denmark interface. A central overlay titled '- Language' is active, showing a list of languages with their respective counts. The overlay includes a search bar, a 'Select one or more and click Apply' instruction, and an 'Apply' button. The background interface shows the 'Research Portal Denmark' logo, search mode options (Simple, Basic, Expert), and various filter categories like GENERAL, PERSONS, ORGANISATIONS, SUBJECTS, and PUBLICATION DETAILS. On the right, there's a 'Publications - Local Data' section with a search bar and 'Export Results' and 'Sort by' options.

Research Portal Denmark

Search mode: **Simple** Basic Expert

GENERAL

- Matching Records in ⓘ
- Select one or more and click **Apply**
- Global Data
 - Clarivate Data 312,125
 - Digital Science Data 314,144
 - Elsevier Data 331,670
 - No Matches Found 371,857
- + Added on
- + Years

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- + DK Main Research Areas
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- + Keywords

PUBLICATION DETAILS

- + Publication Types
- + Publication Audiences
- + Publication Status
- + Review Status
- + Journals

- Language

Select one or more and click **Apply**

<input type="checkbox"/> English	196,541
<input type="checkbox"/> Danish	162,541
<input type="checkbox"/> German	4,267
<input type="checkbox"/> Spanish	1,227
<input type="checkbox"/> Undetermined	1,188
<input type="checkbox"/> French	1,187
<input type="checkbox"/> Swedish	960
<input type="checkbox"/> Norwegian	879
<input type="checkbox"/> Italian	559
<input type="checkbox"/> Chinese	450
<input type="checkbox"/> Portuguese	378
<input type="checkbox"/> Multiple	343
<input type="checkbox"/> Japanese	163
<input type="checkbox"/> Finnish	150
<input type="checkbox"/> Dutch	149

Publications - Local Data

Search

Export Results Sort by Year ↓

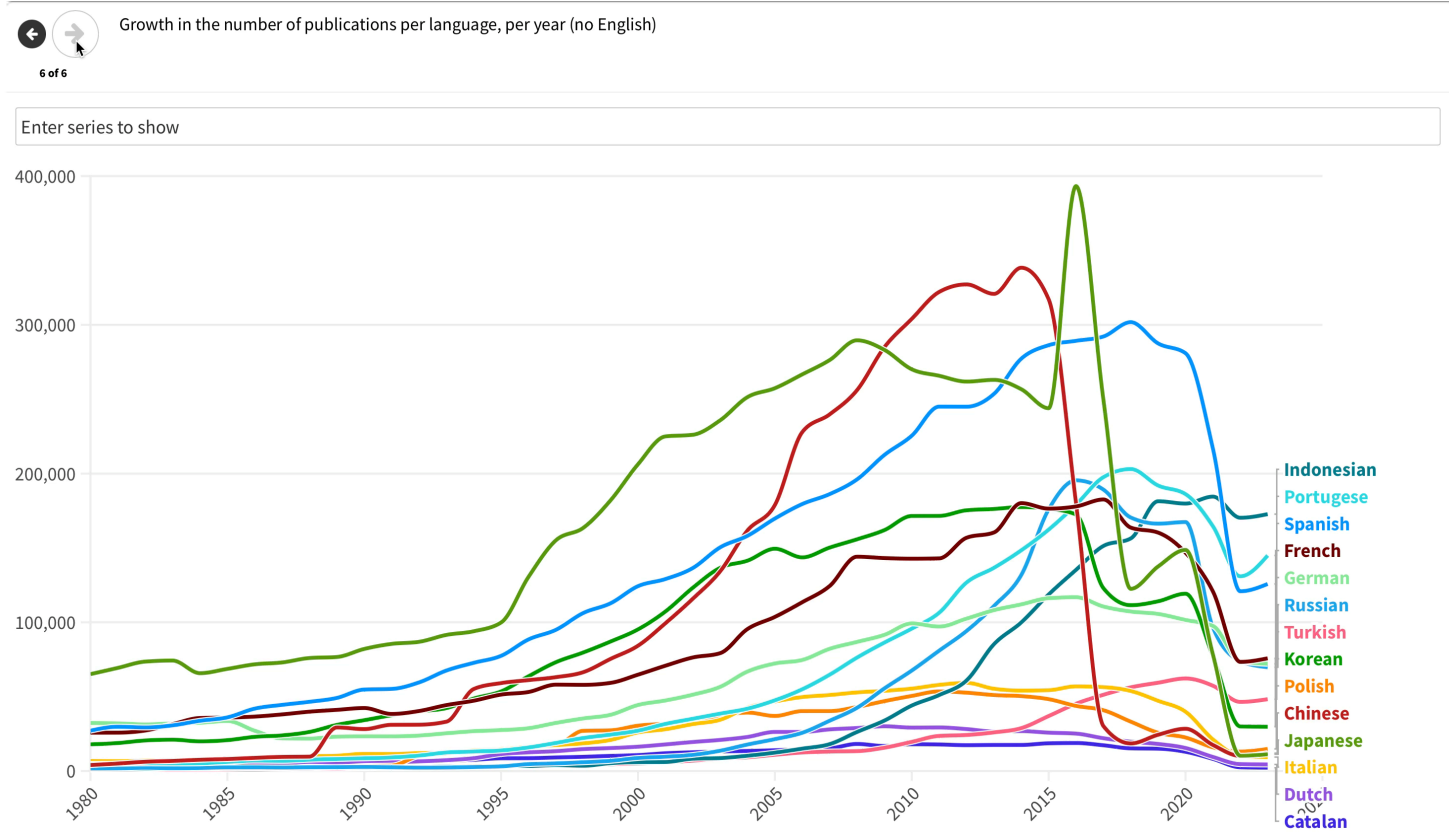
using conversational human voice

ry Futures

with PMSGs

na Modeling

Top 15 languages and publications (English excluded)





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Conclusions

Conclusions

Openness of research information is crucial

- to make sure the research community is in control of the information needed to manage the research system
- and to democratize the way the research system is managed

This requires a clear understanding of the role of public and private actors in managing research information

Openness of research information should be a prerequisite to further innovations in research information infrastructures

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www.barcelona-declaration.org

Thank you for your attention!

To sign the Barcelona Declaration, send an email
to contact@barcelona-declaration.org