

Data Discovery and Reuse

Agata Bochynska, PhD

Open Research group, University of Oslo Library

Ivana Malovic, PhD

Library of Medicine and Science





Data discovery is finding and accessing data collected for a different purpose or by a different researcher or institution.

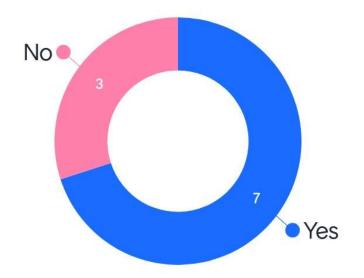
In the process of data discovery and reuse you are working with **secondary data**, as opposed to **primary data** that you would collect yourself.

GO TO: menti.com

TYPE IN: 1416 1185

Mentimeter

Have you ever done a secondary data search and/or analysis?





Why do you think data reuse is important?

Mentimeter

validation

saves resources, time and money

benchmarking

Save from reinventing the wheel

More data to your sample

Save a lot of time



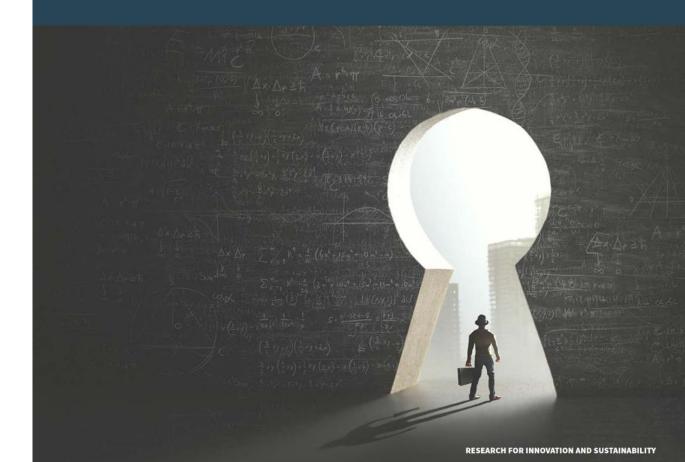
Open science means transparency and knowledgesharing in research processes to make knowledge accessible across academic groups, sectors and national boundaries. The concept of open science encompasses the entire research process [...].

- The Research Council of Norway. Policy for open science 2020

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The Research Council Policy for Open Science

In effect from 2020



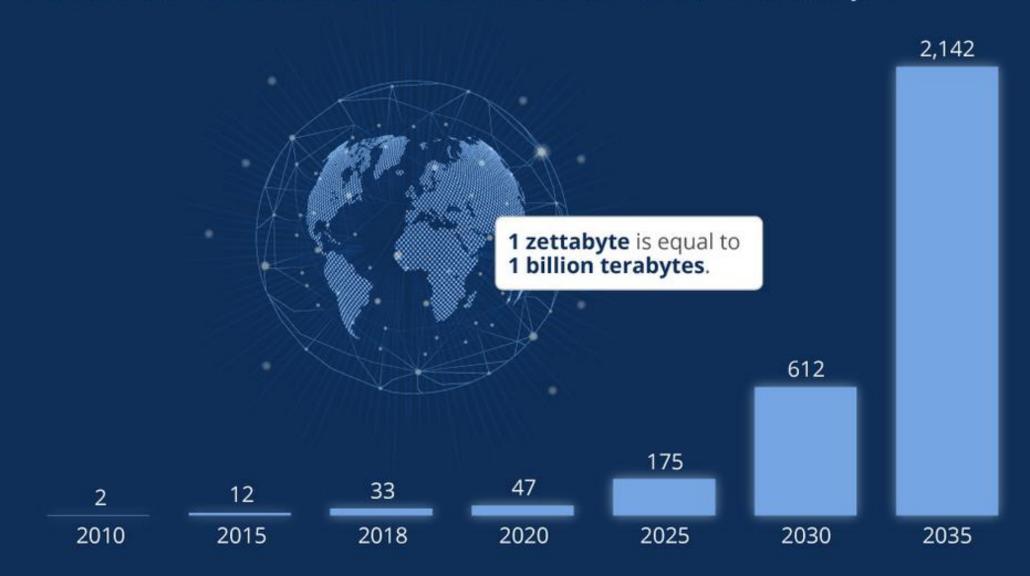


"Open Science is becoming the modus operandi for carrying out research and innovation by sharing knowledge, data and tools as early as possible, in open collaboration with all relevant knowledge actors and society."

More data sharing — more data to discover!

Global Data Creation is About to Explode

Actual and forecast amount of data created worldwide 2010-2035 (in zettabytes)





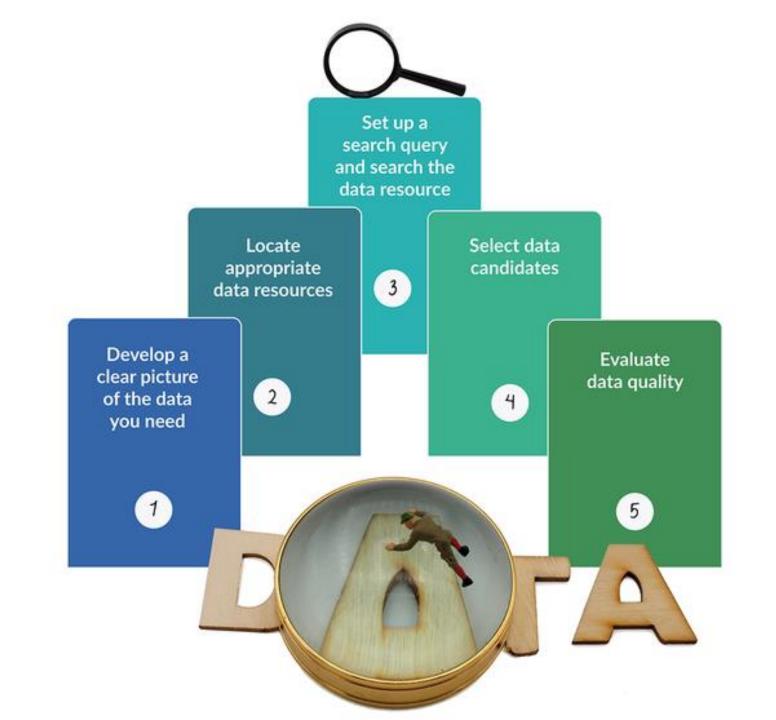


Increasing need for data reuse

- High costs of primary data collection
- Redundancy or similarity in different sets of primary data
- High demands for storage space by increasing amount of data
- Promoting transparency, reproducibility and replication in research



Data discovery: how-to



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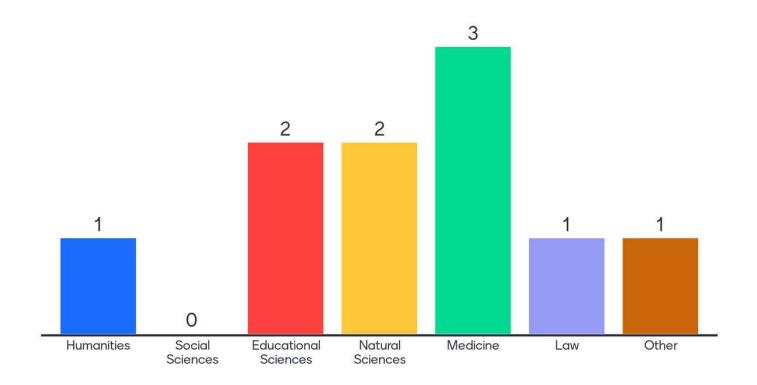
Develop a clear picture of the data you need

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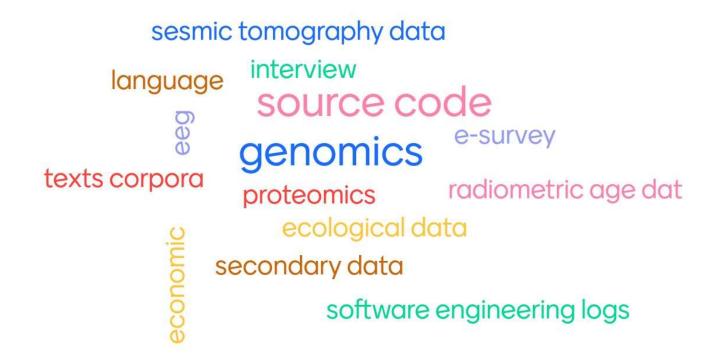
Mentimeter

What research area would you be looking for your data in?





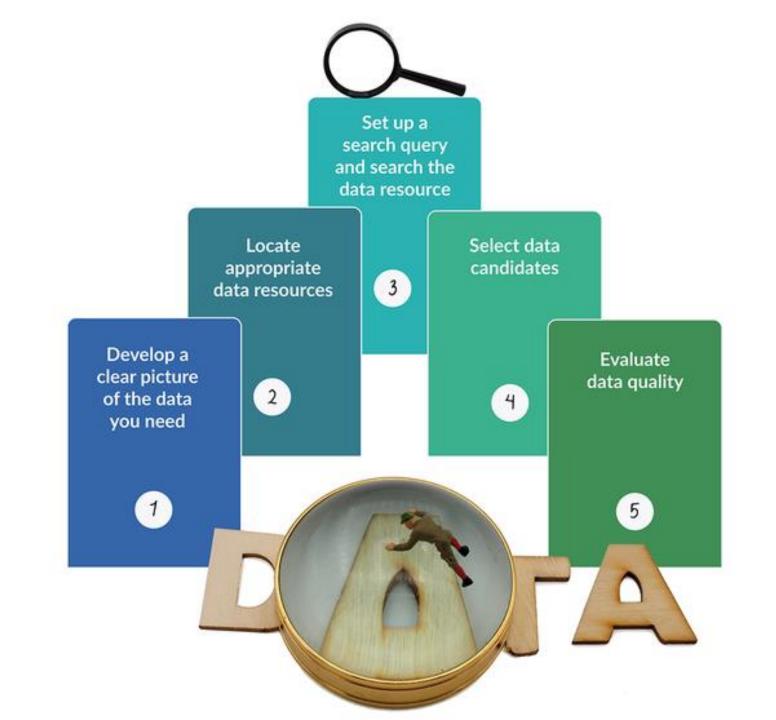
What types of data you think you would look for in your project?





Deciding on what kind of data you need

- What is the theme/domain you study?
- What is your research question?
- What are the constructs you want to work with?
- How will you operationalize the constructs?
- What is your theory?
- What study will you perform?
- What specific characteristics should the data have?
- Do you have other preconditions?



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Locate appropriate data resources

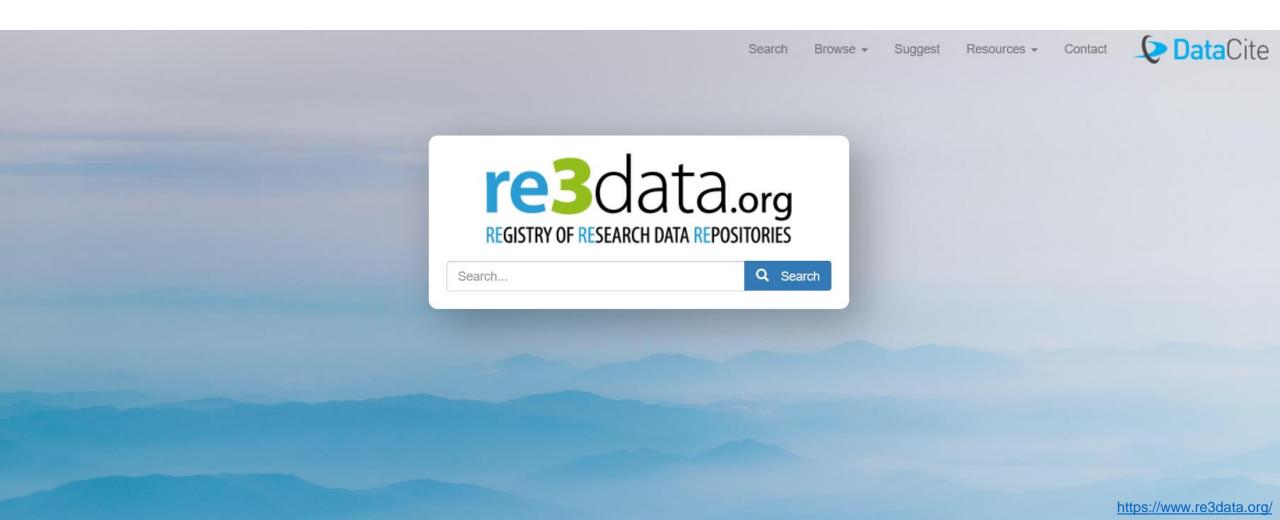
Where do I look for the data?

- A registry of discipline-specific repositories
- General-purpose repositories
- A search engine or (meta)data aggregator
- A data journal

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Discipline-specific repositories







re3data.org



Versioning H

Filter Reset all Subjects ⊟ **Humanities and Social Sciences (4)** Humanities (4) Linguistics (4) General and Applied Linguistics (4) Individual Linguistics (1) Social and Behavioural Sciences (1) Education Sciences (1) Engineering Sciences (1) Computer Science, Electrical and System Engineering (1) Computer Science (1) Artificial Intelligence, Image and Language Processing (1) Content Types ⊞ Countries **H** API ⊞ Data access ⊞ Data access restrictions Database access Database licenses ⊞ Data licenses Data upload ⊞ Data upload restrictions Enhanced publication Institution responsibility type Institution type ⊞ Keywords H Metadata standards ⊞ PID systems ⊞ Provider types Quality management Repository languages Software **±** Repository types 🖽



Search

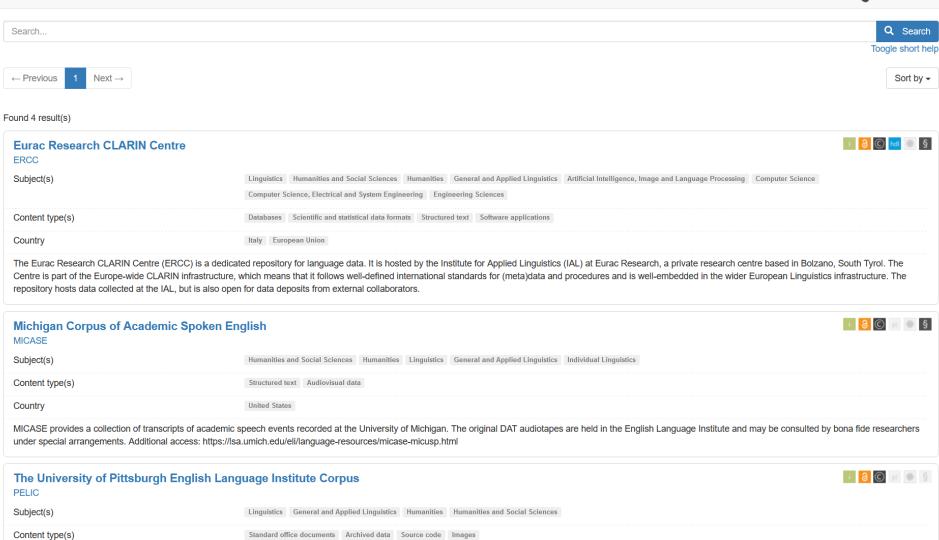


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Country

development in a natural classroom setting.

United States



The University of Pittsburgh English Language Institute Corpus (PELIC) is a 4.2-million-word learner corpus of written texts. These texts were collected in an English for Academic Purposes (EAP) context over seven years in the University of Pittsburgh's Intensive English Program, and were produced by over 1100 students with a wide range of linguistic backgrounds and proficiency levels. PELIC is longitudinal, offering greater opportunities for tracking



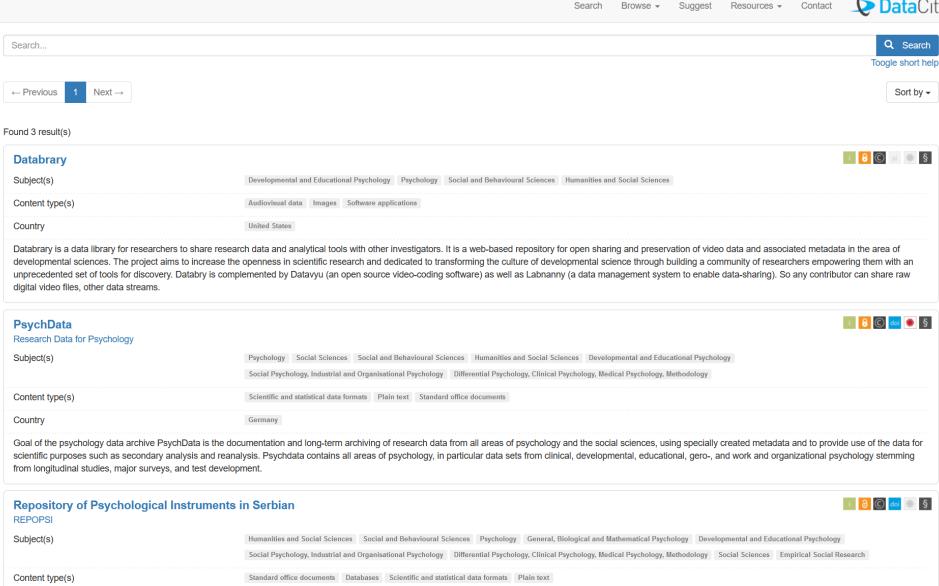
Filter Reset all Subjects ⊟ Humanities and Social Sciences (3) Social and Behavioural Sciences (3) Psychology (3) General, Biological and Mathematical Psychology (1) Developmental and Educational Psychology (3) Social Psychology, Industrial and Organisational Psychology (2) Differential Psychology, Clinical Psychology, Medical Psychology, Methodology Social Sciences (2) Empirical Social Research (1) Content Types ⊞ Countries AID systems ⊞ API ⊞ Certificates ⊞ Data access ⊞ Data access restrictions Database access ⊞ Database licenses ⊞ Data licenses 🕀 Data upload ⊞ Data upload restrictions Enhanced publication Institution responsibility type \boxplus Institution type 🖽 Keywords ⊞ Metadata standards 🕀 PID systems ⊞ Provider types ⊕ Quality management Repository languages ⊞ Software 🕀 Repository types Versioning H



re3data.org Filter Reset all Subjects ⊟ **Humanities and Social Sciences (3)** Social and Behavioural Sciences (3) Psychology (3) General, Biological and Mathematical Psychology (1) Developmental and Educational Psychology (3) Social Psychology, Industrial and Organisational Psychology (2) Differential Psychology, Clinical Psychology, Medical Psychology, Methodology Social Sciences (2) Empirical Social Research (1) Content Types Countries **H** AID systems : API 🕀 Certificates ⊞ Data access Data access restrictions Database access Database licenses Data licenses H Data upload restrictions Enhanced publication Institution responsibility type Institution type Keywords ⊞ Metadata standards PID systems Provider types Quality management H Repository languages

Software **B**

Repository types



The Repository of Psychological Instruments in Serbian (REPOPSI; https://osf.io/5zb8p/), run by the Laboratory for Research of Individual Differences at the University of Belgrade and hosted on the Open Science Framework, is an open-access repository of psychological instruments. REPOPSI is a collection of psychological measures, scales, tests, and other research instruments commonly used in social and behavioral science research. Documented are

United States Serbia

Country



REMOTE SENSING
PALEO
MODEL OUTPUT
OCEANOGRAPHY

ATMOSPHERE

DATA PRODUCTS

NEWS

Currently there are no events

https://www.bcdc.no/

>> BCDC Home

DATA PUBLICATION HIGHLIGHTS

12 November 2018

High-Resolution Benthic Mg/Ca Temperature Record of the Intermediate Water in the Denmark Strait Across Dansgaad-Oeschger Stadial-Interstadial Cycles

Sessford et al. have performed a high-resolution, multi-proxy analysis of the sediment core GS15-198-36CC and recently published their results.

The core was retrieved from the northern bank of the Greenland-Iceland Ridge, and exhibits a 30-year temporal resolution during the Dansgaard-Oeschger events 8-5 (40-30 ka). Multiple proxy records were measured for this time period: magnetic susceptibility, oxygen and carbon isotopes for *N. pachyderma* and *C. neoteretis*, absolute abundance of benthic species *C. neoteretis* and *E. excavatum*, and trace element ratios of benthic species *C. neoteretis*.

Search this website



The Global Open Access Portal for Research Data and Publications on the Arctic and Antarctic

HOME ABOUT SUGGEST & CONTRIBUTE RELATED PROJECTS OPEN POLAR TEAM FEEDBACK & CONTACT NEWS

















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General purpose repositories







NTNU Open Research Data







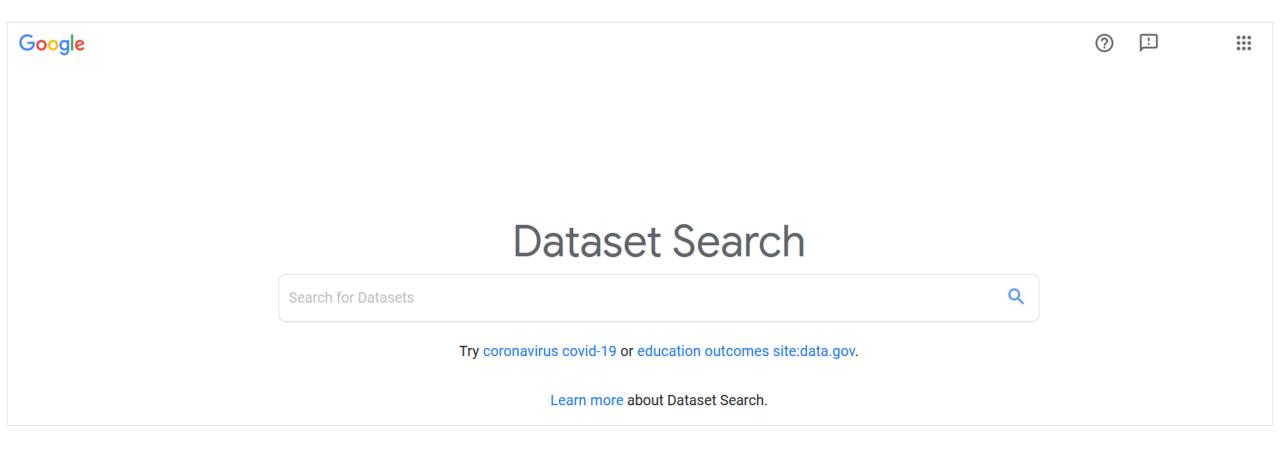
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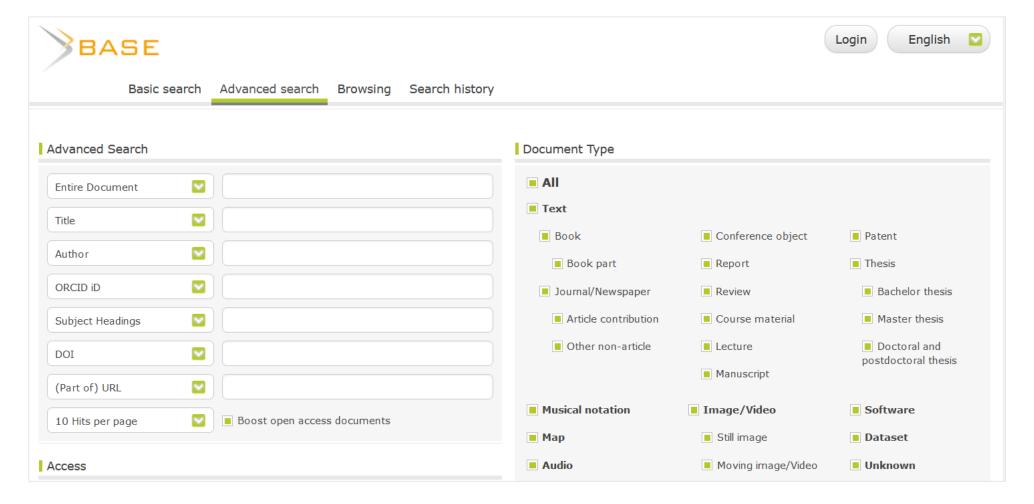
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Search engines



Search engines



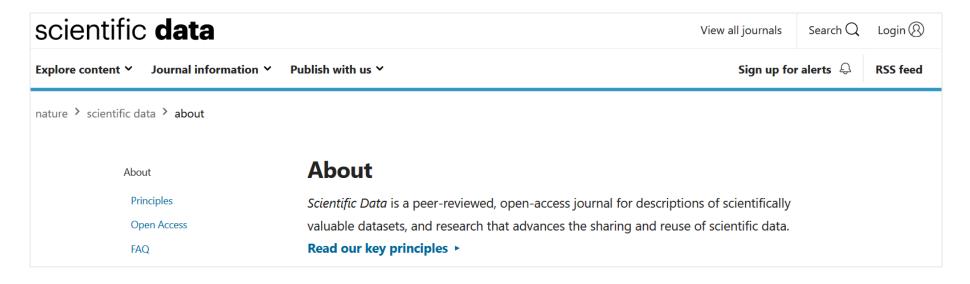
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Data journals





Co-Editors-in-Chief: Katherine Royse & Jian Peng

Impact factor: 2.714

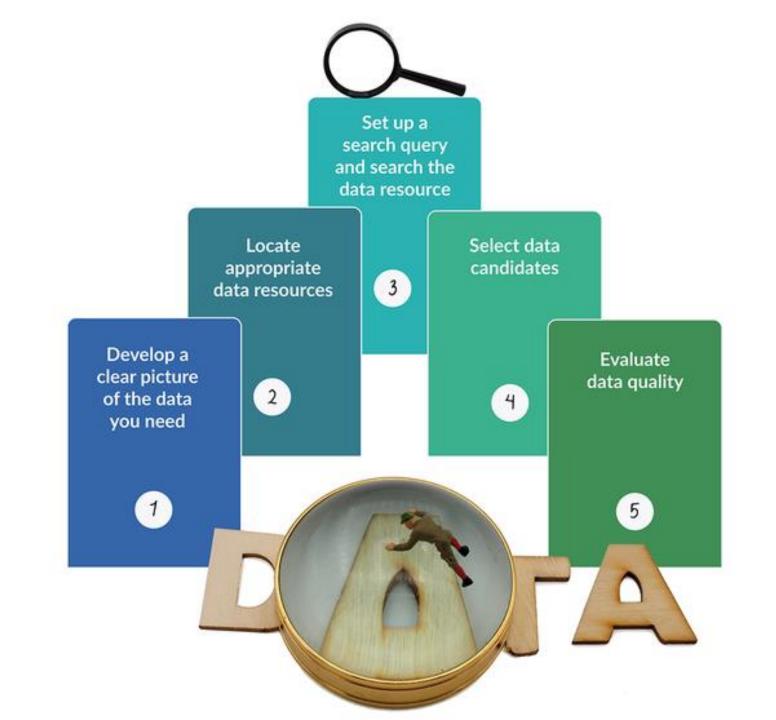
2019 Journal Citation Reports (Clarivate Analytics): 74/200 (Geosciences, Multidisciplinary) 42/93 (Meteorology &

Atmospheric Sciences)
Online ISSN: 2049-6060



LATEST ISSUE >

Volume 7, Issue 2 November 2020



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Set up a search query and search the data resource

How to search the data resource?

- Familiarize yourself with the structure of the data resource
- Register yourself as a user
- Learn how the data repository advanced search functions work
- Ask for help!
 - Ask your subject librarian: https://www.ub.uio.no/english/using/guidance/index.html
 - Consult information pages: https://sokogskriv.no/en/searching/

How to set up search queries?

Choose **keywords**

- -Use the terms from your discipline
- -Focus on main concepts
- -Think of possible synonyms

Use **boolean operators** (if allowed)

-Terms such as AND, OR

In general search engines (e.g. Web of Science) add «data» or «dataset» to the search query or choose the type of document in the filters.

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Mentimeter

What would be an example search query for the data you need?

monolingual AND (bilingual OR multilingual)

"automated program repair" AND security

humanrights AND business

Metagenomics AND ectomychorrhiza

Genetic variation AND caryophyllaceae

Liver endothelial cells OR LEC OR LECs OR LSEC OR LSECs OR liver sinusoidal endothelial cells OR liver scavenger endothelial cells

Louisville hotspot AND track AND bathymetry AND Cretaceous AND seamount



Adjusting your search: you might have to broaden or narrow down your scope

If your search is too narrow:

- Check your spelling
- Use more general search terms
- Turn off some of the filters you applied
- Use more synonyms

If your search is too broad:

- Use more specific search terms
- Use more search terms
- Use more filters
- Check the use of boolean logic (is it applied correctly?)



Sharing search strategies for better evidence synthesis

Search...

Search

Submit a search



Covid-19 vaccination response in people taking immunosuppressants.

Covid-19 vaccination response in people taking immunosuppressants, especially Azathioprine.

Systematic reviews in high impact general internal medicine journals.

The search uses the 5 highest impact General and Internal Medicine journals that publish systematic reviews from the 2011 Journal Citation Reports in ...

Metal mining impacts on social ecological systems in boreal and Arctic regions. Background: Mining activities, including prospecting, exploration, construction, operation,

Twitter feeds

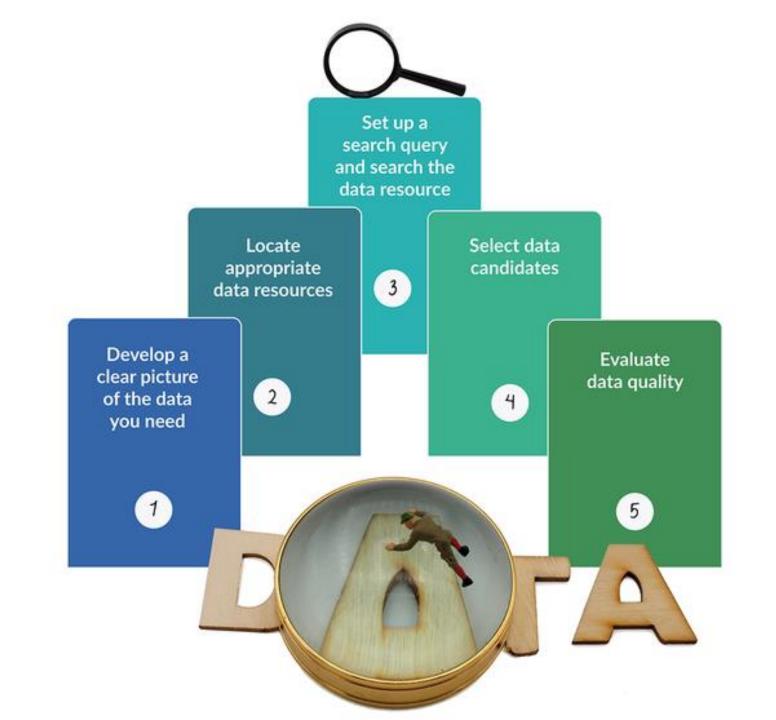












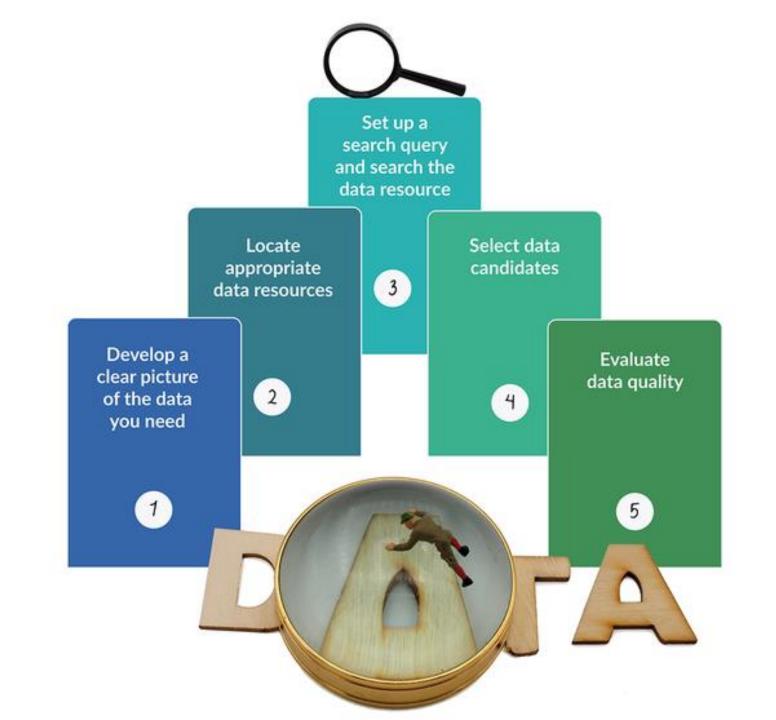
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Select data candidates

Can I use these data?

- Are the data relevant to your research questions?
- Are the concepts appropriate?
- Are the variables and the indicators appropriate?

*Check dataset documentation very carefully!

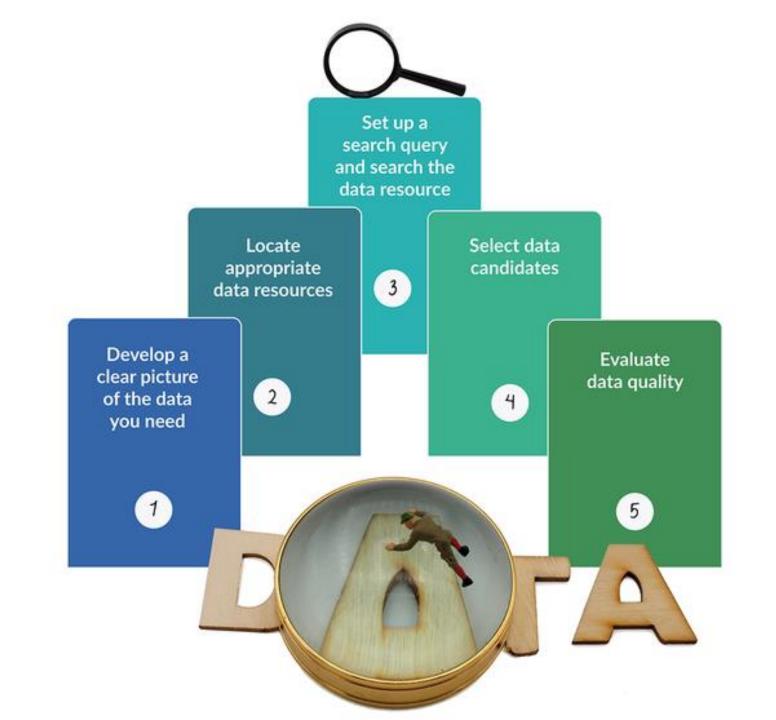


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Evaluate data quality

What is the quality of the data?

- What information was collected, from whom, when and where?
- Who collected the data and when?
- Why was the data created? (research, social policy, marketing?)
- How was the data collected? (methodology)
- How was the data processed? Were there any changes in data?
- Is the data "clean" (were nonlogical and erroneous values deleted?)
- What quality assurance procedures were used? Did researchers use verified measurement tools?



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Other considerations

Access the data: is it free? Do I need to register? Is the access restricted? Do I need to apply to get access?

Data format: is the format of the files correct for your analyses? Do you need to transform the files or the dataset?

Missing data: are there any missing data in the dataset? How are you going to handle missing data?

Cite the data

Harvard citation style:

Author names. Year. Title of resource. [medium type]. Host institution name, Physical location. Date of access. Identifier

Vancouver citation style

Author names. Title of resource [medium type]. Host institution name: Physical location; Year of publication. [Date accessed].

Available from: Identifier

Cite the data

Harvard citation style example:

Scarrow, S., Webb, P., Poguntke, T., 2017, Political Party Database, 2011-2014, [data collection], UK Data Service, Accessed 17 October 2018. SN: 8265, http://doi.org/10.5255/UKDA-SN-8265-1

Document what you find and what you do!

Examples

Dataset: Human Bodily Micromotion in Music Perception and Interaction



Replication data for: What makes a word easy to acquire?



Discover qualitative data: NorFisk Dataset

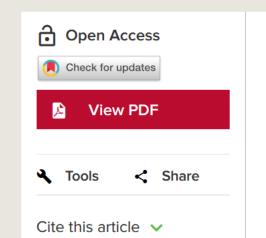




Discover and reuse the data from literature!

PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B

BIOLOGICAL SCIENCES



Research article

How many dinosaur species were there? Fossil bias and true richness estimated using a Poisson sampling model

Jostein Starrfelt and Lee Hsiang Liow

Published: 05 April 2016 https://doi.org/10.1098/rstb.2015.0219

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Thank you!

Questions?

Email UiO's research data experts research-data@uio.no



Open Access Week 2021

Join us for a series of national and local events during the Open Access Week and learn about open research, open publishing, and data sharing!

Time: Oct. 25, 2021 9:00 AM-Oct. 29, 2021 4:00 PM

https://www.ub.uio.no/english/courses-events/events/all-libraries/2021/open-access-week-2021.html

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National Open Access Week events

Monday 25th - Friday 29th October

As part of this year's Open Access Week, several Nonwegian academic libraries, together with RDA (Research Data Alliance) Nonway and ELIXIR Nonway, present a series of events with topics related to open publishing, open science and data sharing. All events are digital and are open to anyone interested.

Here you can find the full program for the national Open Access Week events in Norway and register for each weblnar.

Local events at the University of Oslo

Monday 25th October

11:00-12:30: Shut Up and Write: Documentation (on-site)

is it difficult to set aside time to write proper documentation for your data collection? We offer a structured information and writing session for you!

13:00-14:30: Shut Up and Write: Data Management Plan (on-site)

is it difficult to set aside time to write proper Data Management Plan for your research project? We offer a structured information and writing session for you!

Tuesday 26th October

13:00-14:30: Sharing and archiving research data

Are you keen on sharing your research data? Or does your publisher or funder require that your dataset is available? In this course we will introduce you to data sharing and how to do it yourself. The course is a part of a series of research data management courses.

VVednesday 27th October

13:00-14:30: Data discovery and reuse

There are lots of data out there to discover and reuse. In this course we will introduce you to the concept of data discovery and show you the basics on how to work with secondary data. The course is a part of a series of research data management courses

Thursday 28th October

12:00-13:00: Open Science Lunch: Open your research with ORCID

Join us for our monthly online Open Science Lunch and learn about what ORCID is and how it can help make your research more open. Read more about Open Science Lunch series and upcoming events here.

14:00-15:00: ReproducibiliTea Journal Club. Join us for our bit-weekly, online discussion of articles about open science practices, research reproducibility and meta-research. You can sign up for our mailing list to receive regular updates or get in touch directly if you have any questions.

Illustrasjonsfoto: Colourbox.com



Open Science Lunch 2021

Organized by **Digital Scholarship Center** and **Open Research University of Oslo Library**

Each last Thursday of the month at 12.00 we invite you to join us virtually for an online open lunch to hear about how to make your research more open.

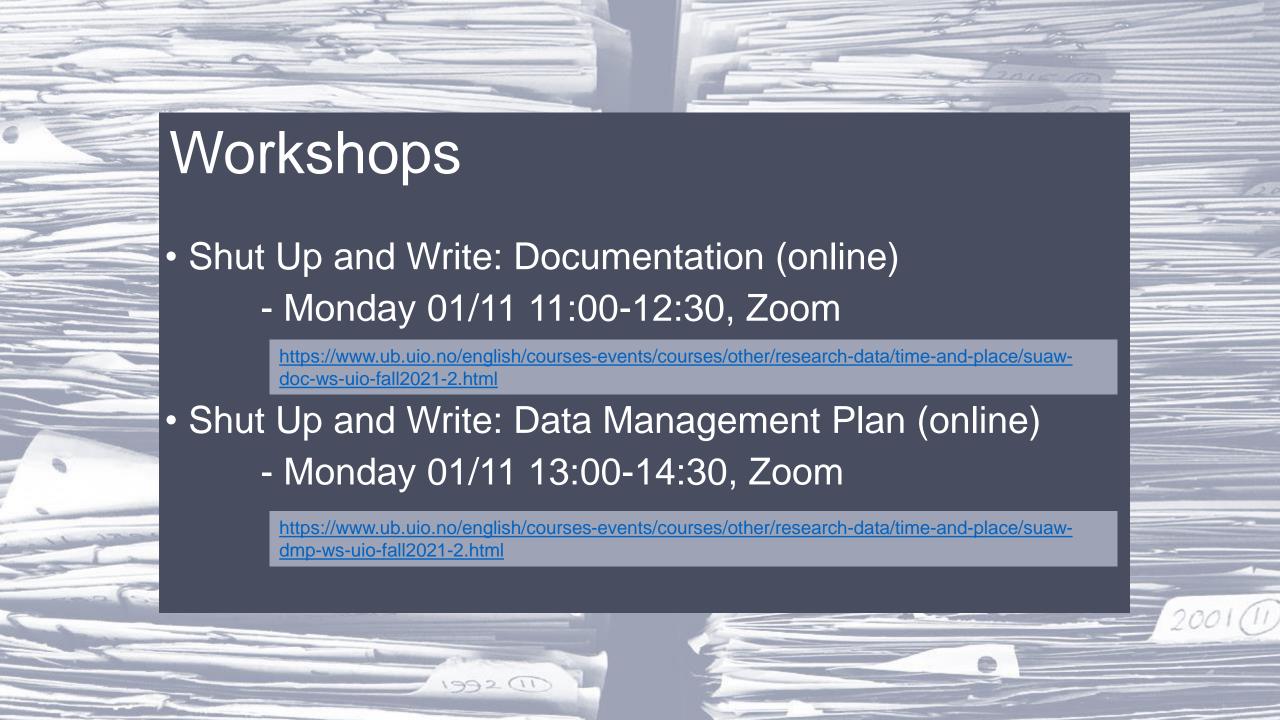
August 26th Agata Bochynska The benefits of preregistering your research

September 30th
Daniel Kalvø
A short guide to Plan S

October 28th
Ivana Malovic
Open your research with ORCID

November 25th
Elin Stangeland
Open and FAIR data





Thank you!

Questions?

Email UiO's research data experts research-data@uio.no

Sources

CESSDA. The process of data discovery. https://www.cessda.eu/Training/Training-Resources/Library/Data-Management-Expert-Guide/7.-Discover

UCL Data discovery & re-use: https://www.ucl.ac.uk/library/research- support/research-data-management/best-practices/how-guides/data-discovery-re-use

Gould Library: Data, Datasets and Statistical Resources https://gouldguides.carleton.edu/c.php?g=146834&p=964067

MacInnes, J. (2020). Secondary Analysis of Quantitative Data. In P. Atkinson, S. Delamont, A. Cernat, J.W. Sakshaug, & R.A. Williams (Eds.), *SAGE Research Methods Foundations*. https://www.doi.org/10.4135/9781526421036870195

Learn how to use the boolean operators in search queries: https://www.youtube.com/watch?v=lEo96kOKGmA







SCIENCE

A Famous Honesty Researcher Is **Retracting A Study Over Fake Data**

Renowned psychologist Dan Ariely literally wrote the book on dishonesty. Now some are questioning whether the scientist himself is being dishonest.



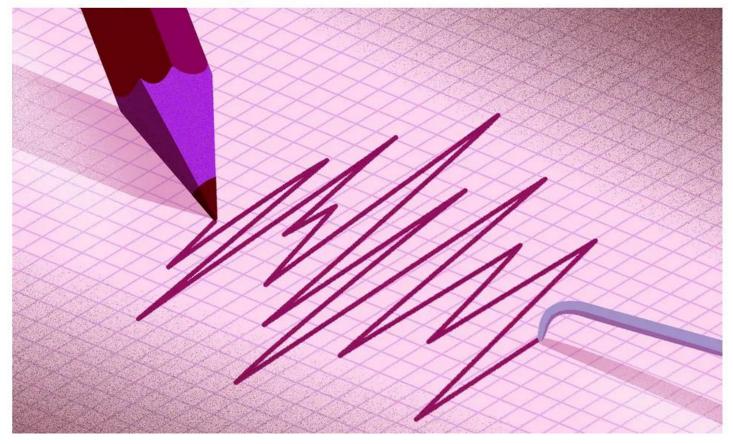
Stephanie M. Lee

Posted on August 20, 2021, at 2:40 p.m. ET









"When the researchers published their 2020 update, they posted the data from their 2012 paper for the first time. Publicly sharing data was once a rarity in science but is slowly becoming more commonplace amid calls for greater transparency."