



Finding and reusing research data

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University of Oslo

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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.

“**Open Science** has the potential of making the scientific process more **transparent, inclusive** and **democratic**. It is (...) a true game changer in bridging the science, technology and innovation gaps and fulfilling the **human right to science**.”



UNESCO Recommendation on Open Science

<https://youtu.be/I3Wkvx> ZaFo

<https://www.unesco.org/en/natural-sciences/open-science>

More data sharing – more data to discover!

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** and **reproducibility** in research



Data discovery: how-to

DATA DISCOVERY PROCESS

1

Develop a
clear
picture of
the **data**
you need

2

Locate
appropriate
data
resources

3

Set up a
search
query and
search the
resource

4

Select
data
candidates

5

Evaluate
data
quality

Develop a clear picture of
the data you need

Deciding on what kind of data you need

- What is the **theme/domain** you study?
- What is your **research question**?
- What are the **constructs/concepts** and how you will operationalize them?
- What is your **theory**?
- What **study** will you perform?
- What specific characteristics should the data have?

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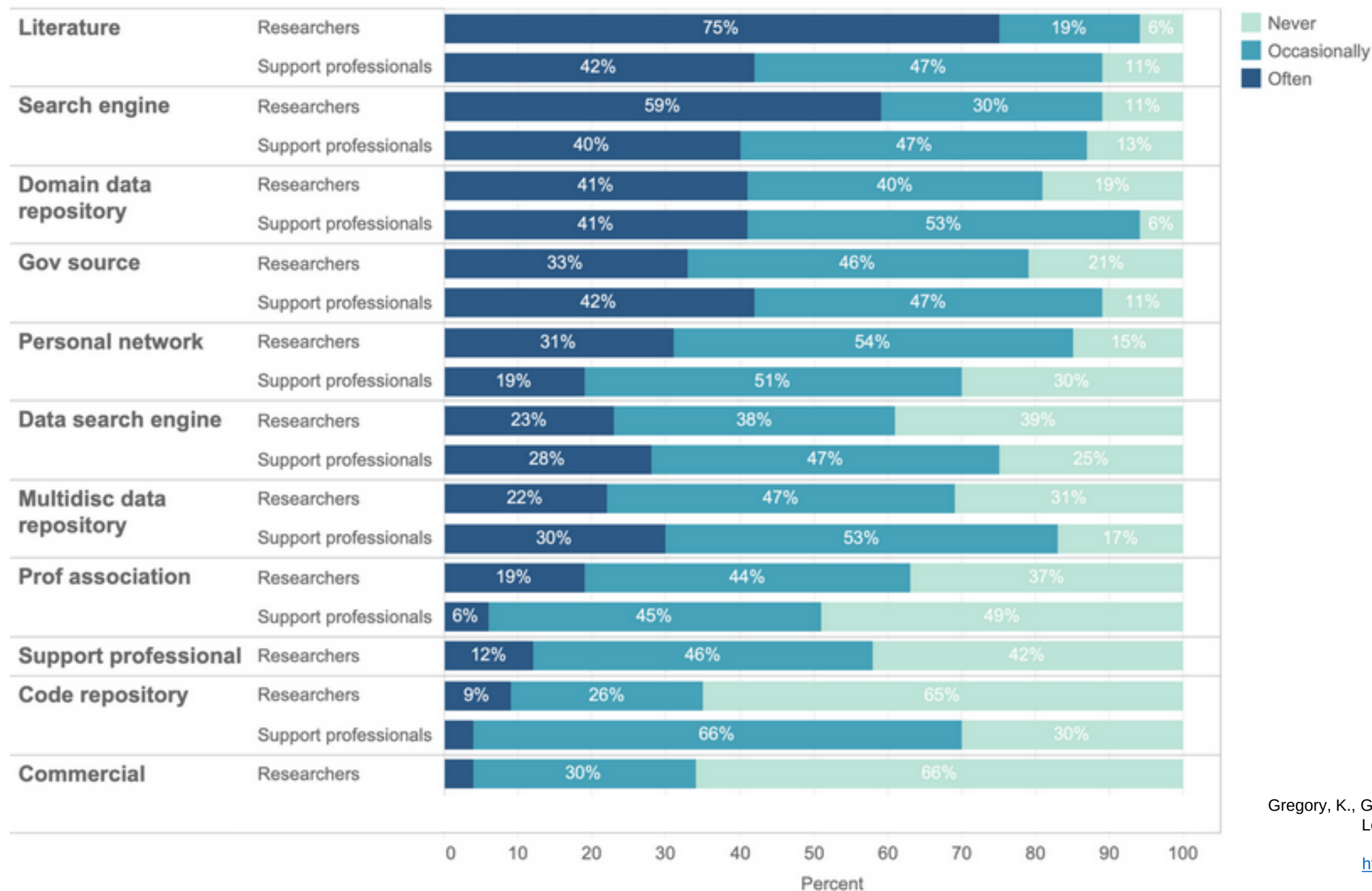
Select
data
candidates

5

Evaluate
data
quality

Locate appropriate data resources

How frequently do you use the following to find data?



Gregory, K., Groth, P. Scharnhorst, A., Wyatt, S. (2020).
 Lost or found? Discovering data needed for
 research. *Harvard Data Science Review*.
<https://doi.org/10.1162/99608f92.e38165eb>

Where do I look for the data?

- Discipline-specific repositories
- General-purpose repositories
- A search engine or (meta)data aggregator
- A data journal

Where do I look for the data?

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Search for discipline-specific repositories

re3data.org
REGISTRY OF RESEARCH DATA REPOSITORIES

Search...

Search

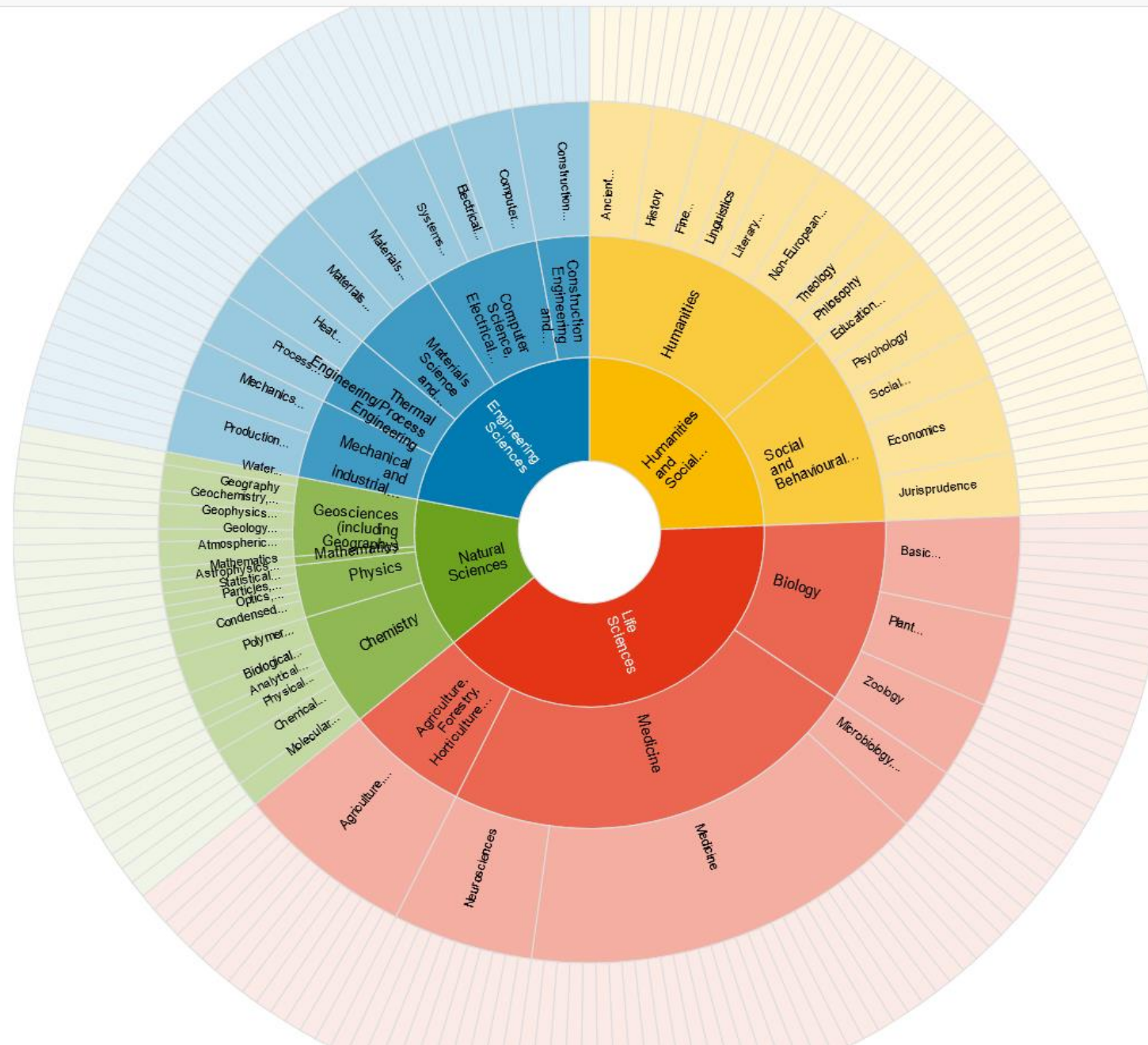
Browse ▾

Suggest

Resources ▾

Contact





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 ▾

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 ▾

Metadata standards ▾

PID systems ▾

Provider types ▾

Quality management ▾

Repository languages ▾

Software ▾

Syndications ▾

Repository types ▾

Versioning ▾

Search...

Search

Toggle short help

← Previous

1

Next →

Sort by ▾

Found 4 result(s)

Eurac Research CLARIN Centre

ERCC

Linguistics

Humanities and Social Sciences

Humanities

General and Applied Linguistics

Artificial Intelligence, Image and Language Processing

Computer Science

Computer Science, Electrical and System Engineering

Engineering Sciences

Content type(s)

Databases

Scientific and statistical data formats

Structured text

Software applications

Country

Italy

European Union

The Eurac Research CLARIN Centre (ERCC) is a dedicated repository for language data. It is hosted by the Institute for Applied Linguistics (IAL) at Eurac Research, a private research centre based in Bolzano, South Tyrol. The Centre is part of the Europe-wide CLARIN infrastructure, which means that it follows well-defined international standards for (meta)data and procedures and is well-embedded in the wider European Linguistics infrastructure. The repository hosts data collected at the IAL, but is also open for data deposits from external collaborators.

Michigan Corpus of Academic Spoken English

MICASE

Humanities and Social Sciences

Humanities

Linguistics

General and Applied Linguistics

Individual Linguistics

Content type(s)

Structured text

Audiovisual data

Country

United States

MICASE provides a collection of transcripts of academic speech events recorded at the University of Michigan. The original DAT audiotapes are held in the English Language Institute and may be consulted by bona fide researchers under special arrangements. Additional access: <https://lsa.umich.edu/eli/language-resources/micase-micusp.html>

The University of Pittsburgh English Language Institute Corpus

PELIC

Linguistics

General and Applied Linguistics

Humanities

Humanities and Social Sciences

Content type(s)

Standard office documents

Archived data

Source code

Images

Country

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 development in a natural classroom setting.

Search for discipline-specific repositories



FAIRsharing.org
standards, databases, policies

search through all content

SEARCH

Databases

A registry of knowledgebases and repositories of data and other digital assets.

SHOW FILTERS



Clear All

Registry: Database



Some examples

Example: NIPH (FHI)



Access to data

Researchers can apply for access to data from health registries and health studies, as well as biological material from the biobanks. Here you will find guidelines and electronic application forms.



 [Les på norsk](#)

 [Get the latest news](#)

HOW DO I APPLY FOR ACCESS? —



ARTICLE

How to apply for access to data

The Norwegian Institute of Public Health (NIPH) can provide access to data from health registries and population-based health surveys once an application for data is approved.

Updated 09.12.2020



ARTICLE

Application form for access to data

For applications for access to data or biological samples from studies or mandatory national health registries at the NIPH.

Updated 09.12.2020

Example: NIPH (FHI) – Big Data



Norwegian Mother, Father and Child Cohort Study (MoBa)

STATUS: ACTIVE

The Norwegian Mother, Father and Child Cohort Study is a unique study where over 90,000 pregnant women were recruited from 1998 to 2008. More than 70,000 fathers have participated.



 [Les på norsk](#)

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FOR RESEARCHERS

ARTICLE

What is the Norwegian Mother, Father and Child Cohort Study?

The Norwegian Mother, Father and Child Cohort Study (MoBa) is a study of the causes of disease among mothers and children. MoBa began to recruit pregnant women in 1999. Fathers were also invited.

Updated 05.07.2021

ARTICLE

Access to data and biological material from MoBa

On this page we have gathered relevant information for researchers applying for access to data from the Norwegian Mother, Father and Child Cohort Study (MoBa)-.

Updated 07.07.2021

ARTICLE

Information for MoBa researchers

Here you will find the price list, the variable list, MoBa protocols, admission documents and guidelines for publications.

Updated 18.08.2021

Example: NIPH (FHI) - Statistics

Norhealth

Search

?

- Norhealth (N= Norway, H= health regions, C= county figures)
 - About population
 - Childhood and living conditions
 - Environment
 - Accidents and injuries
 - Living habits
 - Nutrition
 - 📊 Fruit consumption, 16-79 years (C)
 - 📊 Fruit consumption (N)
 - 📊 Fruit consumption daily, by education attainment (NH)
 - 📊 Vegetable consumption (16-79 years)
 - 📊 Vegetable consumption (N)
 - 📊 Vegetable consumption daily, by education attainment (NH)
 - 📊 Fruit and vegetable consumption, daily (C)
 - 📊 Soft drink consumption (C)
 - 📊 Soft drink consumption (N)
 - 📊 Soft drink consumption daily, by educational attainment (NH)
 - Physical activity
 - 📊 Physically active more than 150 minutes per week, 16-79 years (C)
 - 📊 Exercise less than weekly, self-reported at military muster (C)
 - 📊 Physically active more than 150 minutes per week (N)
 - 📊 Physical activity, by educational attainment (NH)
 - Smoking and snus use
 - 📊 Smoking, adults, yearly figures (N)
 - 📊 Smoking, by educational attainment, 25-74 years, yearly figures (N)
 - 📊 Daily smoking, by educational attainment, 25-74 years (NHC)
 - 📊 Snus use, adults (NHC)
 - 📊 Snus use, adults, yearly figures (N)
 - 📊 Smoking, adults (NHC)
 - 📊 Snus use, by educational attainment, 25-74 years, yearly figures (N)
 - Alcohol
 - Health and disease
 - Life expectancy
 - 📊 Life expectancy (NC)
 - 📊 Life expectancy by age, yearly figures (C)
 - 📊 Life expectancy, by educational attainment (NC)
 - 📊 Life expectancy, difference between education levels (NC)
 - 📊 Life expectancy by age and education, yearly figures (C)
 - 📊 Total mortality (NHC)
 - 📊 Total mortality, by educational attainment
 - 📊 Total mortality, by educational attainment (NHC)
 - Self-Reported Health
 - 📊 Somatic pain, 16-79 years (C)
 - 📊 Somatic pain (N)
 - 📊 Somatic pain, by educational attainment (NH)
 - 📊 Headache or migraine, 16-79 years (C)
 - 📊 Headache or migraine (N)
 - 📊 Headache or migraine, by educational attainment (NH)

Norhealth

System requirements: Norhealth works best in an updated browser. Especially in older versions of Internet Explorer, you can experience problems, like reduced-size dialog boxes or unresponsive system. If you experience such problems, try to open Norhealth in Firefox or Chrome.

In some indicators, the English version of metadata (definitions) can be lacking and will be added later.

Statistics

Norhealth contains more than 100 indicators. Within each indicator, you can create your own tables, figures and maps by using the menus and icons at the top of the page. Navigate the menu in the left-hand margin or use the free text search to find statistics.

Privacy

Visitor statistics are recorded for Norhealth. The editorial and technical personnel use these statistics to develop the content and navigation. Visitor statistics are based on Google Analytics and we use a feature where the exact IP address of the visitor is not stored at either Google or NIPH.

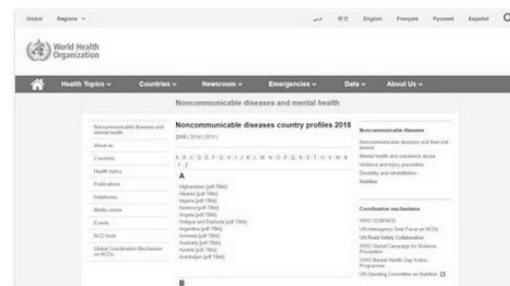
Copyright

The content and layout on these webpages (www.norgeshelsa.no) are protected by copyright. The Norwegian Institute of Public Health gives permission to copy text, tables and figures referring to the source, Norwegian Institute of Public Health (www.norgeshelsa.no). Reference to the source must be given for every table and figure. We recommend the use of links by reuse on internet. We are not responsible for misuse of the statistics.

Data collections

The World Health Organization manages and maintains a wide range of data collections related to global health and well-being as mandated by our Member States.

Explore our key health data products and resources from across the organization.



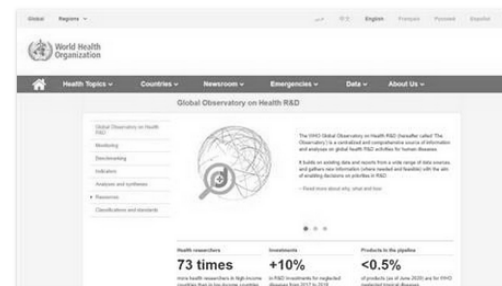
Noncommunicable diseases profiles

Number of lives that can be saved by implementing WHO 'best buys', Risk of premature death, National targets, Risk factors, National Systems Response



e-SPAR

Electronic State Parties Self-Assessment Annual Reporting Tool (e-SPAR) is a web-based platform proposed to support State Parties of the International Health Regulations (IHR) to fulfil their obligation to



The global observatory for health research and development

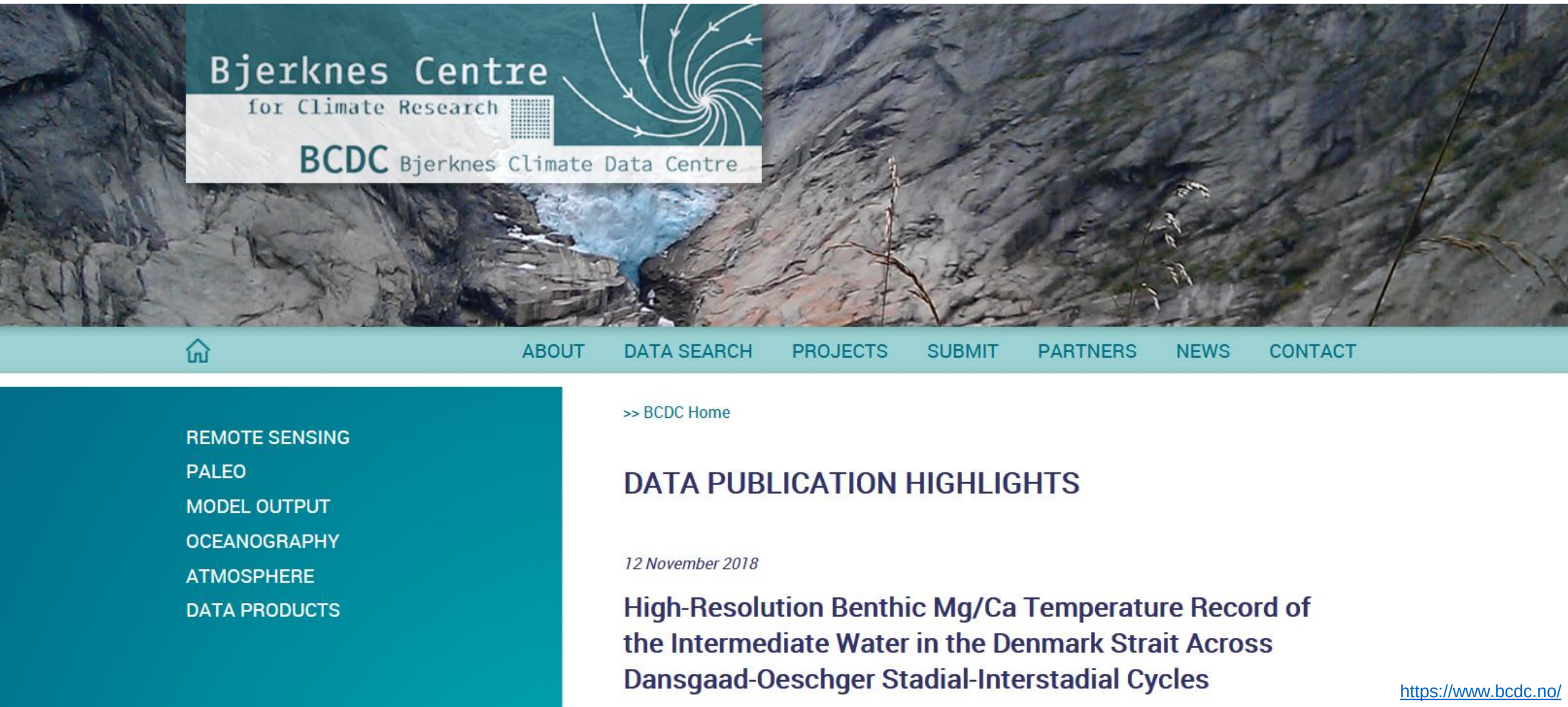
The WHO Global Observatory on Health R&D is a centralized and comprehensive source of information and analyses on global health R&D



HIV laws and policies database

Laws and Policies Analytics is a platform to view data on HIV-related laws and policies in countries compiled from official sources and reported by both national authorities and civil society to UNAIDS and the World

Example: BCDC



Bjerknes Centre
for Climate Research

BCDC Bjerknes Climate Data Centre



ABOUT

DATA SEARCH

PROJECTS

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PARTNERS

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PALEO

MODEL OUTPUT

OCEANOGRAPHY

ATMOSPHERE

DATA PRODUCTS

>> BCDC Home

DATA PUBLICATION HIGHLIGHTS

12 November 2018

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

<https://www.bcdc.no/>

Example: OPEN POLAR



Discover the Arctic and Antarctic

All Fields ▾

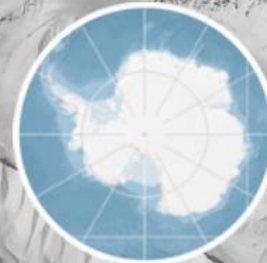
🔍 Find

🔍 Advanced

Search by map



Arctic



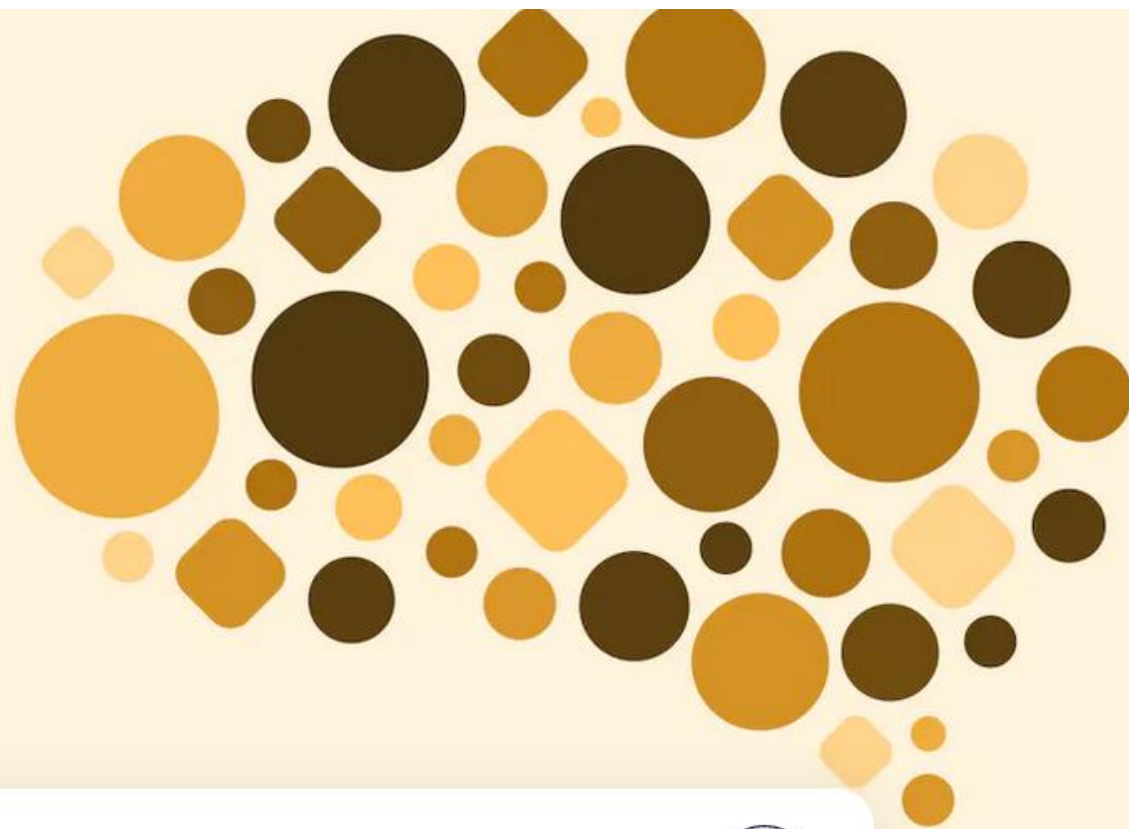
Antarctic

Example: SURVEY BANK (Sikt)

Surveybanken

Her kan du finne, analysere og laste ned data fra spørreundersøkelser. Surveybanken inneholder 750 000 spørsmål fra mer enn 3000 spørreundersøkelser tilbake til 1957.

Se hvordan folks holdninger og meninger har endret seg siden midten av forrige århundre.



Søk i surveydata. F.eks. tillit politikere, valgundersøkelse



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- A data journal

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General purpose repositories



NTNU Open Research Data



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Search engines



Dataset Search

Search for Datasets



Try [coronavirus covid-19](#) or [education outcomes site:data.gov](#).

[Learn more](#) about Dataset Search.

Search engines



LoginEnglish

Basic searchAdvanced searchBrowsingSearch history

Advanced Search

Entire Document	☒	
Title	☒	
Author	☒	
ORCID iD	☒	
Subject Headings	☒	
DOI	☒	
(Part of) URL	☒	
10 Hits per page	☒	☐ Boost open access documents

Document Type

☒ All

☒ Text

☐ Book☐ Book part☐ Journal/Newspaper☐ Article contribution☐ Other non-article

☐ Conference object☐ Report☐ Review☐ Course material☐ Lecture☐ Manuscript

☐ Patent☐ Thesis☐ Bachelor thesis☐ Master thesis☐ Doctoral and postdoctoral thesis

☒ Musical notation☒ Image/Video☒ Software

☒ Map☐ Still image☐ Dataset

☒ Audio☐ Moving image/Video☐ Unknown

Access

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Data journals

scientific data

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nature > scientific data > about

About

[Principles](#)

[Open Access](#)

[FAQ](#)

About

Scientific Data is a peer-reviewed, open-access journal for descriptions of scientifically valuable datasets, and research that advances the sharing and reuse of scientific data.

[Read our key principles](#) ▶



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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Evaluate
data
quality

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.

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?)

searchRxiv

Sharing search strategies for better evidence synthesis

Search searchRxiv

Search

[Advanced Search](#)

Submit a search

Sign up for alerts

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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** (e.g. README files, data dictionaries or codebooks) 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?



Kaitlyn M. Werner, PhD

@kaitlynmwerner



Open science truly is beautiful. Someone recommended a paper w. open data relevant to this question. Within minutes I was able to analyze my question because the data/code was so beautifully and efficiently organized -- the best I've seen! Major props to [@russpoldrack](#) and team.



Kaitlyn M. Werner, PhD @kaitlynmwerner · May 1

I have been thinking a lot about socioeconomic status and self-control/self-regulation. I'm starting to plan an esm+diary study where I can start digging into this topic in more detail, but in the meantime I'm curious: what are the interesting papers you've read in this space?

[Show this thread](#)

11:52 PM · May 9, 2022 · Twitter Web App

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>



Solvang, Øystein; Stein, Jonas; Brattland, Camilla, 2020, "Covid-19 Municipal Level (Norway) Social Science Dataset", <https://doi.org/10.18710/NMKI2B>, DataverseNO, V2

 Cite Dataset ▼

Learn about [Data Citation Standards](#).

EndNote XML

RIS

BibTeX

The dataset is a cross-sectional dataset covering social and public health data pertaining Norwegian municipalities. The dataset was compiled from public register data and media related fatalities is current as of ultimo July 2020. Data on other variables is from 2018, 2

Document what you find and
what you do!

Let's see an example!

Example

Dataset: Covid-19 Municipal Level (Norway) Social Science Dataset



Questions?

Contact us at:

research-data@uio.no

Workshops in research data management and sharing

November 20th – 27th

Upcoming Workshops

Workshop on Data Management Plans

Nov. 20, 12:00 PM, Georg Sverdrups hus: DSC-Oasen

Workshop on Data Documentation

Nov. 23, 9:00 AM, Georg Sverdrups hus: DSC-Oasen

Workshop on Archiving in DataverseNO

Nov. 27, 12:00 PM, Georg Sverdrups hus: DSC-Oasen

Research data management

Norwegian

Welcome to UiO's data management pages maintained by the research data group at [Digital Scholarship Center](#).

Data management plans (DMPs) >

Data classification and storage >

Data organization >

Data documentation and metadata >

Data sharing and publishing >

Finding and reusing data >

[Norwegian
version of this
page](#)

Digital Scholarship Centre

At the Digital Scholarship Centre (DSC) you get guidance on how you can make the best possible use of digital tools and methods in your research and communication activities.

Open Access



Information about open access publishing, publisher agreements, self-archiving, requirements, and guidelines.

Open and reproducible research



Make your research more transparent and reproducible.

Research Data Management



Managing your data both during and after a research project.

Text-mining



Information about digital tools for searching, mining, and analysing textual data.

Systematic search



Information about systematic literature searching, how to get started, and how to get help.

Visualisation



Use of visual methods to explore, communicate and understand data.

Carpentry@UiO



Offers workshops in foundational digital skills such as coding and data management.

Reference management



Styles, tools, and information on reference management.



Open Science Lunch

Each last Thursday of the month at 12:00 we invite you to join us for a lunch seminar to hear about how to make your research more open. We will discuss research transparency and visibility, open publishing, data sharing, and more!

Upcoming

Time and place: Nov. 30, 2023 12:00 PM – 1:00 PM, Zoom

Research catalogue: collaborate on and publish artistic research

Join us for the Open Science Lunch to hear about making artistic research more open

ReproducibiliTea

Journal Club

**JOIN IN AND DISCUSS WITH FELLOW
STUDENTS AND RESEARCHERS**

**OPEN RESEARCH, REPRODUCIBILITY
and RESEARCH IMPROVEMENT**



Join us

Everyone is welcome to join us - whether you are an enthusiast of open and reproducible research, a skeptic, or a cautious explorer. Currently, all meetings are hybrid with the possibility of joining on-site at Blindern or via Zoom. Grab a cup of tea (coffee?) and join us!

Subscribe to our mailing list





Carpentry@UiO

Carpentry@UiO is a community of people who are passionate about learning, teaching, and sharing best practices and digital skills for making the research process more reproducible and effective. If you want to get involved, or join one of our workshops, check us out!



The Unix Shell

Shell speeds up repetitive and tedious processes. It is also essential skills needed to use high-performance computing (HPC) resources.



Version Control with Git

Git helps you to keep track of what you've done, for a better collaboration and for yourself in future. In the workshop we use GitHub as well.



Programming in Python

Python is now widely used in scientific computing with various powerful packages. Carpentry@UiO runs workshops for participants with no programming experience ("Plotting and Programming in Python" lesson) and for participants at intermediate level ("Programming with Python" lesson, episodes 10-12).



R for Reproducible Scientific Analysis

R is commonly used for statistical analysis, but it is also a powerful programming language. Workshops on R focuses on teaching best practices for scientific computing: breaking down analyses into modular units, task automation, and encapsulation. Workshops on R may use lessons from Data Carpentry instead.



Using Databases and SQL

Databases include powerful tools for search and analysis, and can handle large, complex data sets. The lesson will show how to use a database to explore research data by using SQL.

Det senteret for digitalforskerstøttes nyhetsbrev,
en del av Universitetsbiblioteket i Oslo

The Digital Scholarship Centre's Newsletter,
part of the University of Oslo Library

DSC NEWS

Senter for digitalforskerstøtte
Digital Scholarship Centre



<https://sympa.uio.no/ub.uio.no/subscribe/dsc-news/subscribe>

Thank you!

Contact us at:

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:
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