



UiT Norges
arktiske universitet

How to archive research data

Tromsø, 18 April 2023

University Library

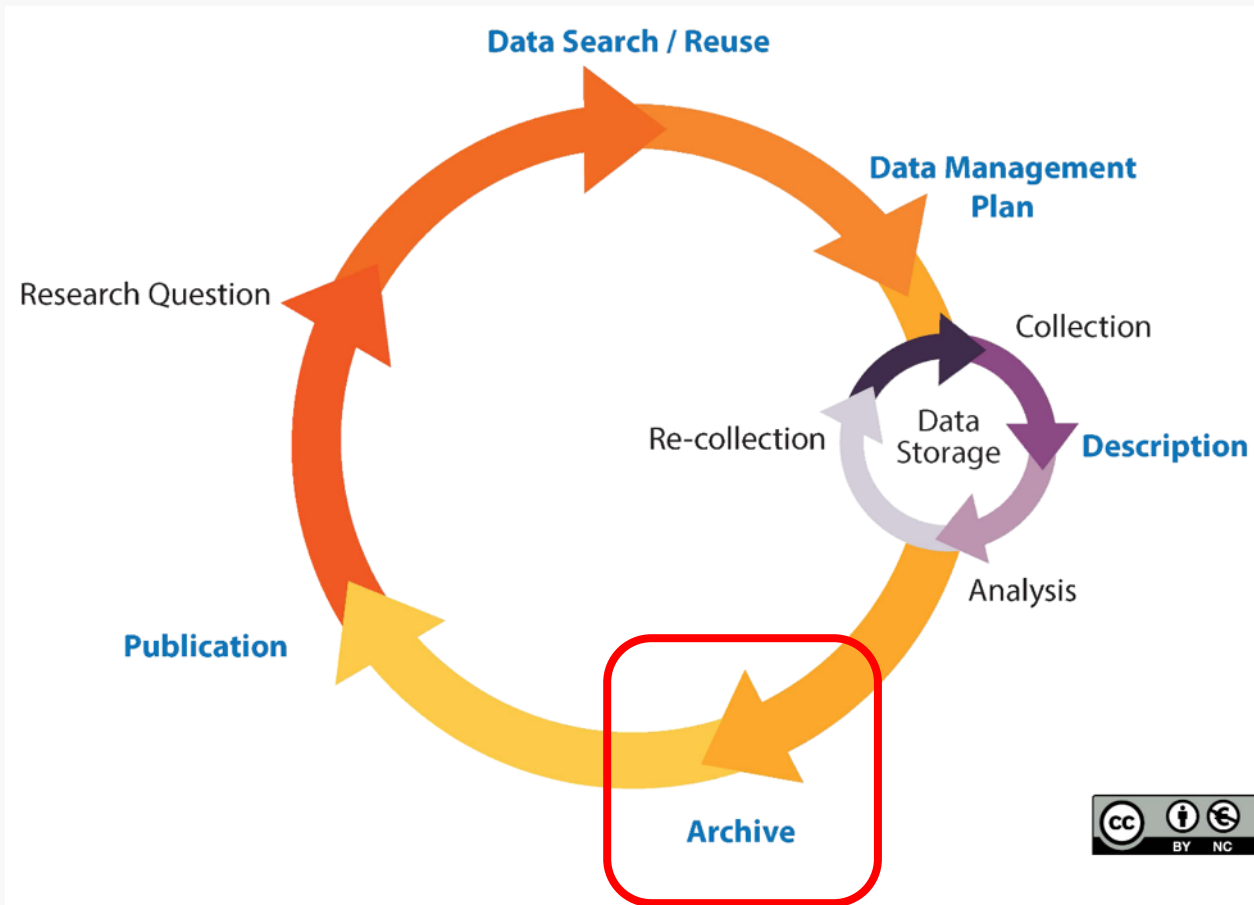
Andreas Klein, PhD

Anna Karpova, Academic Librarian



Learning objectives

- Understand the purpose of archiving (and sharing of) data and/or metadata.
- Be familiar with important criteria in choosing a data repository.
- Know how to proceed when searching for suitable data repositories.
- Know what to do in case your research data contain sensitive information.



Adapted original source:
The University of California, Santa Cruz,
Data Management LibGuide, Research Data Management Lifecycle, diagram,
viewed May 2, 2016 at <<http://guides.library.ucsc.edu/datamanagement>>


Archived datasets

 **DataverseNO** Certified by:  Search - Deposit Guide Support Log In

 **UiT Open Research Data**

DataverseNO > [Contact](#) [Share](#)

Looking for **TROLLing**? Click here: <https://trolling.uit.no/>


NMDC Node UIT


The Stein Rokkan Research Group for Quantitative Social and Political Science


Tromsø Geophysical Observatory


Arctic Language Technology

Search this dataverse... [Advanced Search](#)

Dataverses (5)

Datasets (796)

Files (5,858)

Dataverse Category

Research Project (3)

Department (1)

Research Group (1)

Publication Year

2021 (166)

2020 (61)

2019 (346)

2018 (188)

2017 (25)

[More...](#)

Distributor Name

UiT Open Research Data (644)

NORD Open Research Data (128)

Subject

Earth and Environmental Sciences (591)

Physics (427)

Medicine, Health and Life Sciences (186)

Social Sciences (24)

Computer and Information Science (12)

[More...](#)

Keyword Term

SUN-EARTH INTERACTIONS (407)

aurora (407)

ionodata (407)

ionogram (407)

ionosonde (407)

[More...](#)

1 to 10 of 801 Results [Sort](#)

Replication Data for: «Observing electrical fields and neutral winds with EISCAT 3D» [Print](#)

Oct 11, 2021

 Stamm, Johann; Vierinen, Juha, 2021, "Replication Data for: «Observing electrical fields and neutral winds with EISCAT 3D»", <https://doi.org/10.18710/WPJH80>, DataverseNO, V2

Programming code for article «Observing electrical fields and neutral winds with EISCAT 3D»

Multi-modal on-chip nanoscopy and quantitative phase imaging reveals the nanoscale morphology of liver sinusoidal endothelial cells [Print](#)

Oct 1, 2021

 Butola, Ankit, 2021, "Multi-modal on-chip nanoscopy and quantitative phase imaging reveals the nanoscale morphology of liver sinusoidal endothelial cells", <https://doi.org/10.18710/AWRGH1>, DataverseNO, V1

Visualization of 3D morphological changes in the subcellular structures of a biological specimen is a major challenge in life science. Despite conspicuous refinements in optical nanoscopy, the determination of quantitative changes in subcellular structures, i.e., size and thicke...

TGO Ramfjordmoen Ionosonde Data September 2021 [Print](#)

Oct 1, 2021 - Tromsø Geophysical Observatory

 Tromsø Geophysical Observatory, 2021, "TGO Ramfjordmoen Ionosonde Data September 2021", <https://doi.org/10.18710/MECFBZ>, DataverseNO, V1

About this dataset: This dataset contains ionosonde data in SAO format and ionograms in PNG format, and covers data from September 01-30, 2021. About the Tromsø Ionosonde (1993-present): Since 1980, the ionosonde was situated at 69° 35' N, 19° 13' E at Ramfjordmoen near Tromsø, N...

Replication Data for: Dataset of Consumer-Based Activity Trackers as a Tool for Physical Activity Monitoring in Epidemiological Studies During the COVID-19 Pandemic [Print](#)

Sep 30, 2021

 Henriksen, André; Johannessen, Erlend; Hartvigsen, Gunnar; Grimsgaard, Sameline; Hopstock, Laila Arnesdatter, 2021, "Replication Data for: Dataset of Consumer-Based Activity Trackers as a Tool for Physical Activity Monitoring in Epidemiological Studies During the COVID-19 Pandemic", <https://doi.org/10.18710/TGGCSZ>, DataverseNO, V1

This data set contains daily averages for steps, total energy expenditure (TEE), activity energy expenditure (AEE), and moderate-to-vigorous physical activity (MVPA). The data are collected over two years (2019-2020) and daily averages are grouped by month. In addition, daily ave...

3D SIM data of mitochondria in the cardiomyoblast cell-line H9c2 adapted to either glucose or galactose [Print](#)

Sep 23, 2021



Metadata: Data about data

The screenshot shows the DataverseNO website interface. At the top, there is a navigation bar with the DataverseNO logo, a 'Certified by: CORE TRUST SEAL' badge, and links for 'Search', 'Deposit Guide', 'Support', and 'Log In'. Below the navigation bar is the header for 'UiT Open Research Data' with the Arctic University of Norway logo. A search bar is present with the text 'Search this dataverse...' and an 'Advanced Search' button. On the left side, there are filters for 'Dataverses (5)', 'Datasets (796)', and 'Files (5,858)'. Below these are filters for 'Dataverse Category' (Research Project (3), Department (1), Research Group (1)), 'Publication Year' (2021 (166), 2020 (61), 2019 (346), 2018 (188), 2017 (25)), 'Distributor Name' (UiT Open Research Data (644), NORD Open Research Data (128)), 'Subject' (Earth and Environmental Sciences (591), Physics (427), Medicine, Health and Life Sciences (186), Social Sciences (24), Computer and Information Science (12)), and 'Keyword Term' (SUN-EARTH INTERACTIONS (407), aurora (407), ionodata (407), ionogram (407), ionosonde (407)). The main content area shows search results for '1 to 10 of 801 Results'. The first result is 'Replication Data for: «Observing electrical fields and neutral winds with EISCAT 3D»' dated Oct 11, 2021. The second result is 'Multi-modal on-chip nanoscopy and quantitative phase imaging reveals the nanoscale morphology of liver sinusoidal endothelial cells' dated Oct 1, 2021. The third result is 'TGO Ramfjordmoen Ionosonde Data September 2021' dated Oct 1, 2021. The fourth result, highlighted with a red box, is 'Replication Data for: Dataset of Consumer-Based Activity Trackers as a Tool for Physical Activity Monitoring in Epidemiological Studies During the COVID-19 Pandemic' dated Sep 30, 2021. The fifth result is '3D SIM data of mitochondria in the cardiomyoblast cell-line H9c2 adapted to either glucose or galactose' dated Sep 23, 2021.



Citation Metadata	
Dataset Persistent ID	doi:10.18710/TGGCSZ
Publication Date	2021-09-30
Title	Replication Data for: Dataset of Consumer-Based Activity Trackers as a Tool for Physical Activity Monitoring in Epidemiological Studies During the COVID-19 Pandemic
Author	Henriksen, André (UiT The Arctic University of Norway) - ORCID: 0000-0002-0918-7444 Johannessen, Erlend (UiT The Arctic University of Norway) - ORCID: 0000-0003-4860-9192 Hartvigsen, Gunnar (UiT The Arctic University of Norway) - ORCID: 0000-0001-8771-9867 Grimsgaard, Sameline (UiT The Arctic University of Norway) - ORCID: 0000-0002-0601-0344 Hopstock, Laila Arnesdatter (UiT The Arctic University of Norway) - ORCID: 0000-0003-0072-7421
Contact	Use email button above to contact. Henriksen, André (UiT The Arctic University of Norway)
Description	This data set contains daily averages for steps, total energy expenditure (TEE), activity energy expenditure (AEE), and moderate-to-vigorous physical activity (MVPA). The data are collected over two years (2019-2020) and daily averages are grouped by month. In addition, daily averages for the whole year of 2019 and 2020 are included. Finally, separate variables for the first and second half of March 2020 (pre- and post COVID-19 lockdown in Norway) are included. Data were collected from 113 participants, who shared their physical activity data using privately owned smart watches and activity trackers from Garmin and Fitbit. (2021-09-15)
Subject	Medicine, Health and Life Sciences; Computer and Information Science
Keyword	COVID-19 (MeSH) energy expenditure (MeSH) steps smart watch fitness tracker (MeSH) actigraphy (MeSH) public health (MeSH) SARS-CoV-2 (MeSH) wearables
Related Publication	Henriksen A, Johannessen E, Hartvigsen G, Grimsgaard S, Hopstock LA Dataset of Consumer-Based Activity Trackers as a Tool for Physical Activity Monitoring in Epidemiological Studies During the COVID-19 Pandemic, Data in Brief [submitted] Henriksen A, Johannessen E, Hartvigsen G, Grimsgaard S, Hopstock LA Consumer-Based Activity Trackers as a Tool for Physical Activity Monitoring in Epidemiological Studies During the COVID-19 Pandemic: Development and Usability Study, JMIR Public Health Surveill 2021;7(4):e23806 doi: 10.2196/23806 https://doi.org/10.2196/23806

Language	English
Producer	UiT The Arctic University of Norway (UiT) https://en.uit.no/
Contributor	Other : Martin Mikalsen
Grant Information	UiT the Arctic University of Norway thematic priority grant: Personalized medicine for public health
Distributor	UiT Open Research Data (UiT The Arctic University of Norway) https://opendata.uit.no/
Depositor	Henriksen, André
Deposit Date	2021-09-15
Date of Collection	Start: 2019-01-01 ; End: 2020-12-31
Kind of Data	Observational; Physical activity
Software	Fitbit Garmin

Metadata: Data about data

Files:
Archived
with open
or
restricted
access

The screenshot shows a file management interface with tabs for 'Files', 'Metadata', 'Terms', and 'Versions'. A search bar is present with the text 'Search this dataset...' and a 'Find' button. Below the search bar, there are filters for 'File Type: All' and 'Access: All', and a 'Sort' button. The main area displays a list of files, with the first file being '01_README_file_KnowingAndDoing.txt'. A large white padlock icon is overlaid on the file list, and a red stamp with the word 'CONFIDENTIAL' is placed at the bottom. A green box highlights the 'Download' buttons for the first three files in the list.

File Name	File Type	Size	Date	Downloads	Access
01_README_file_KnowingAndDoing.txt	Plain Text	7.3 KB	Mar 9, 2021	0	Restricted
Assign...	Adobe PDF				Restricted
Data...	Plain Text				Restricted

Why archive data?

Fulfill data sharing requirements

Ensure future access to the data

Increase the impact & visibility of your research

- Enable data reuse for research & innovation
- Get credit
- Find new collaborations
- Comply with expectations during evaluation

Transparency

Reproducibility/Replicability

Encourage improvement & validation of research methods

Make your data *FAIR*



Requirements and expectations

EU, Horizon 2020

As open as possible, as closed as necessary

H2020 Programme: Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020

EU, Horizon Europe (2021-2027)

... robust exceptions to this rule, where access to data needs to be protected and Intellectual Property Rights protected.

Research Council of Norway

Open by default

Open Access to Research Data

Norwegian Ministry of Education and Research

Basic principle 1: Research data must be as open as possible, as closed as necessary.

Basic principle 2: Research data should be managed and curated to take full advantage of their potential.

Basic principle 3: Decisions concerning archiving and management of research data must be taken within the research community

National strategy on access to and sharing of research data

Requirements and expectations

UiT The Arctic University of Norway

The researcher shall make research data openly available for further use to all relevant users, providing there are no legal, ethical, security or commercial reasons for not doing so.

[*Principles and guidelines for management of research data at UiT \(updated 2021\)*](#)



Requirements and expectations: Journals

Data Sharing and Materials Availability

After publication, all data and materials (including computer codes) necessary to understand, assess and extend the conclusions of the manuscript must be available to any reader of the Science Partner Journals. All reasonable requests for data or materials must be fulfilled. **Unreasonable restrictions on data or material availability may prevent publication.**

What, when and where to archive?

What

The research communities are responsible for deciding what is worth archiving/sharing.

Using data from a third party: Reuse license and contract decide

When

As early as possible!

- Scientific publications: No later than at the time of publication.
- Other data: Normally when the project ends, or after an embargo period.

Where

“Rights to use and publish research data shall not be transferred to commercial actors without UiT retaining the rights to make the data available for reuse in teaching and research.”

- Reliable archives where UiT is ensured access to the data
- Funders and journals might point to specific repositories

How to choose a repository

1. Use an external data archive or repository already established for your research domain to preserve the data according to recognised standards in your discipline.
2. If available, use an institutional research data repository, or your research group's established data management facilities.
3. Search for other data repositories in: re3data.org.



Based on <https://www.openaire.eu/opendatapilot-repository-guide>

"Orange County Archives, 1980s" by Orange County Archives is licensed under [CC BY 2.0](https://creativecommons.org/licenses/by/2.0/)



How to choose a repository

Questions you should ask, regardless of whether you plan to archive openly or whether only (parts of) metadata can be shared.

1. Is the data repository reputable?
2. Will the repository take the data you want to deposit?
3. Will the data be safe in legal terms?
4. Will the archive sustain the value of the data?
5. Will the archive support analysis and track data usage?

(Whyte, 2015)



["Orange County Archives, 1980s"](#) by [Orange County Archives](#) is licensed under [CC BY 2.0](#)



UiT Open Research Data

- Archiving, reuse and citation of open research data.
- Upload: Employees and students at UiT (Feide login).
- Download and reuse: Everyone.
- Built on the international platform Dataverse.
- CoreTrustSeal certified
- Datasets curated by the University Library
- Link to the repository: opendata.uit.no
- [Deposit guidelines](https://info.dataverse.no) can be found at info.dataverse.no



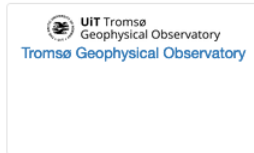


UiT Open Research Data

DataverseNO >

Contact Share

Looking for **TROLLing**? Click here: <https://trolling.uit.no/>



Search this dataverse... [Advanced Search](#)

- Dataverses (5)**
- Datasets (800)**
- Files (5,915)**

Dataverse Category
 Research Project (3)
 Department (1)
 Research Group (1)

Publication Year
 2021 (170)
 2020 (61)
 2019 (346)
 2018 (188)
 2017 (25)

[More...](#)

Distributor Name
 UiT Open Research Data (648)
 NOROpen Research Data (128)

Subject
 Earth and Environmental Sciences (593)
 Physics (428)
 Medicine, Health and Life Sciences (187)
 Social Sciences (25)
 Computer and Information Science (13)

[More...](#)

Keyword Term
 SUN-EARTH INTERACTIONS (407)
 aurora (407)
 ionodata (407)
 ionogram (407)
 ionosonde (407)

1 to 10 of 805 Results

Sort -

Replication data for Using Fitness Trackers and Smartwatches to Measure Physical Activity in Research

Oct 29, 2021

Henriksen, André; Woldaregay, Ashenafi Zebene; Muzny, Miroslav; Hartvigsen, Gunnar; Hopstock, Laila Arnesdatter; Grimsgaard, Sameline, 2021, "Replication data for Using Fitness Trackers and Smartwatches to Measure Physical Activity in Research", <https://doi.org/10.18710/6ZWC9Z>, DataverseNO, V1

This dataset contains a list of 423 consumer-based wrist-worn activity trackers and smart watches, capable of collecting and estimating physical activity levels in individuals, using accelerometer and other sensors. Data were collected by automatic and manual searches through six...

Replication Data for: Is information literacy ability, and metacognition of that ability, related to interest, gender or education level?

Oct 25, 2021

Nierenberg, Ellen; Dahl, Tove Irene, 2021, "Replication Data for: Is information literacy ability, and metacognition of that ability, related to interest, gender or education level?", <https://doi.org/10.18710/HQOJHS>, DataverseNO, V1

This data set contains the replication data and supplements for the article "Is information literacy ability, and metacognition of that ability, related to interest, gender or education level? A cross-sectional study of higher education students". The data was collected as part o...

Replication data for 'Effects of particle precipitation on the polar mesospheric summer echoes observed by EISCAT VHF 224 MHz radar'

Oct 22, 2021

Narayanan, Viswanathan Lakshmi, 2021, "Replication data for 'Effects of particle precipitation on the polar mesospheric summer echoes observed by EISCAT VHF 224 MHz radar'", <https://doi.org/10.18710/YSDZF8>, DataverseNO, V1

The EISCAT VHF 224 MHz radar data measuring the mesospheric heights and D region ionosphere used in the manuscript 'Effects of particle precipitation on the polar mesospheric summer echoes observed by EISCAT VHF 224 MHz radar' submitted for review are provided herein. The data di...

Replication Data for: Forage quality in tundra grasslands under herbivory: Silicon-based defences, nutrients, and their ratios in grasses

Oct 21, 2021

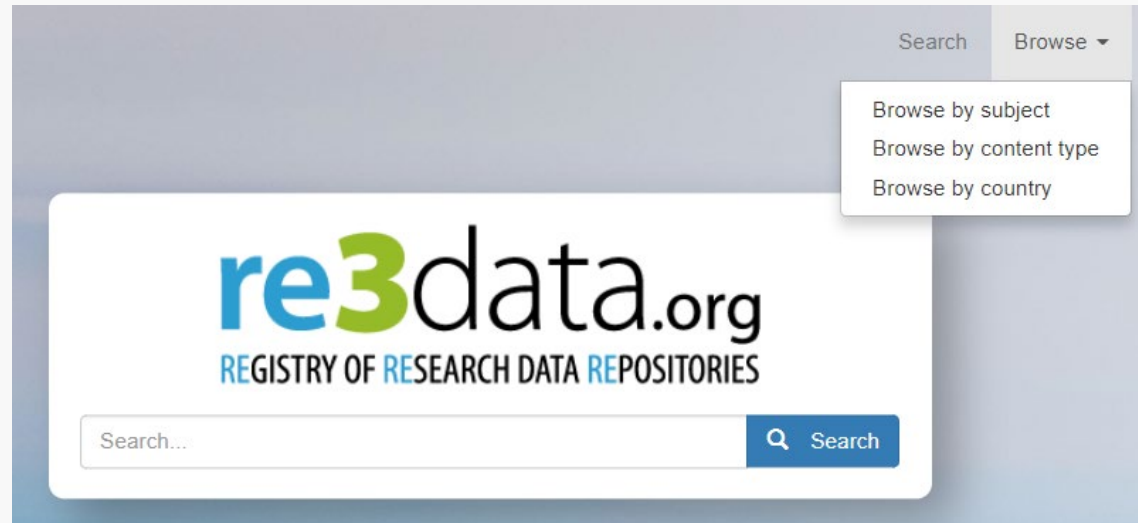
Petit Bon, Matteo; Inga, Katarina Gunnarsdotter; Utsi, Tove Aagnes; Jónsdóttir, Ingibjörg Svala; Bråthen, Kari Anne, 2021, "Replication Data for: Forage quality in tundra grasslands under herbivory: Silicon-based defences, nutrients, and their ratios in grasses", <https://doi.org/10.18710/FKAJVI>, DataverseNO, V1

Dataset used to ask (i) to what extent herbivores (small-rodent winter disturbance and reindeer summer herbivory) modify leaf Silicon-based defence levels in grasses and (ii) to what extent such changes can alter grass quality in terms of leaf Silicon:Nitrogen and Silicon:Phospho...

Attend the webinar later today (12:15–14:00), to learn more about the repository! Find Zoom link at uit.no/forskningsdata



Finding a repository for your data



- About 3100 different repositories (2023)
- Multidisciplinary, search engine
- A lot of information about the repositories: terms of use, standards, persistent identifiers, software, version control, etc.
- <http://www.re3data.org/>



Browse by discipline



Filter

Reset all

Subjects

Humanities and Social Sciences (82)

Humanities (82)

Ancient Cultures (5)

Ancient History (1)

Classical Archaeology (1)

Egyptology and Ancient Near Eastern Studies (1)

History (7)

Fine Arts, Music, Theatre and Media Studies (6)

Musicology (2)

Linguistics (82)

General and Applied Linguistics (2)

Individual Linguistics (2)

Typology, Non-European Languages, Historical Linguistics (6)

Literary Studies (8)

European and American Literature (2)

General and Comparative Literature and Cultural Studies (1)

Non-European Languages and Cultures, Social and Cultural

Anthropology, Jewish Studies and Religious Studies (6)

Asian Studies (1)

Theology (1)

Social and Behavioural Sciences (12)

Education Sciences (2)

Psychology (2)

Social Sciences (6)

Communication Science (2)

Political Science (1)

Economics (3)

Business Administration (1)

Statistics and Econometrics (1)

Life Sciences (6)

Biology (4)

Basic Biological and Medical Research (1)

Browse by discipline

CLARIN-ERIC

Common Language Resources and Technology Infrastructure - European Research Infrastructure Consortium



Subject(s)

Humanities and Social Sciences Linguistics Artificial Intelligence, Image and Language Processing Humanities
Computer Science Computer Science, Electrical and System Engineering Engineering Sciences

Content type(s)

Standard office documents Audiovisual data Scientific and statistical data formats Raw data Plain text

Country

Netherlands European Union

CLARIN is a European Research Infrastructure for the Humanities and Social Sciences, focusing on language resources (data and tools). It is being implemented and constantly improved at leading institutions in a large and growing number of European countries, aiming at improving Europe's multi-linguality competence. CLARIN provides several services, such as access to language data and tools to analyze data, and offers to deposit research data, as well as direct access to knowledge about relevant topics in relation to (research on and with) language resources. The main tool is the 'Virtual Language Observatory' providing metadata and access to the different national CLARIN centers and their data.

Pacific and Regional Archive for Digital Sources in Endangered Cultures

PARADISEC



Subject(s)

Linguistics Typology, Non-European Languages, Historical Linguistics Humanities Humanities and Social Sciences
Musicology Fine Arts, Music, Theatre and Media Studies

Content type(s)

Standard office documents Images Scientific and statistical data formats Audiovisual data

Country

Australia

PARADISEC (the Pacific And Regional Archive for Digital Sources in Endangered Cultures) offers a facility for digital conservation and access to endangered materials from all over the world. Our research group has developed models to ensure that the archive can provide access to interested communities, and conforms with emerging international standards for digital archiving. We have established a framework for accessioning, cataloguing and digitising audio, text and visual material, and preserving digital copies. The primary focus of this initial stage is safe preservation of material that would otherwise be lost, especially field tapes from the 1950s and 1960s.

OLAC

Open Language Archives Community



Subject(s)

Linguistics Non-European Languages and Cultures, Social and Cultural Anthropology, Jewish Studies and Religious Studies
Artificial Intelligence, Image and Language Processing Humanities Humanities and Social Sciences Computer Science



List with main information, including icons that indicate access, persistent identifier, use of standards, etc.

Archiving data with **restricted** access

UiT

“The researcher shall make research data openly available for further use to all relevant users, providing there are no **legal, ethical, security or commercial** reasons for not doing so.”

(Principles and guidelines for management of research data at UiT).

Eventually, support services for all types of data shall be in place*



* work in progress

Which data are you allowed to archive openly?

Archive with

- open access to primary data, processed data and metadata

Archive with

- closed/restricted access to primary data
- open access to processed data and metadata

Archive with

- closed/restricted access to primary data and processed data
- open access to metadata

Archive with

- closed/restricted access to primary data, processed data and metadata

Open (full access)



Closed (no access)

The degree of sensitivity and what is authorised decides where data can be stored, and whether/where the data can be archived.

Archiving data with **restricted** access

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Norwegian Centre for Research Data (NSD)

Datasets published on NSD with data are freely available for download. Datasets published without data are available **pending application approval**, and in some cases, only following authorisation from researcher/producer. Specific rules apply to personal data.

Not sure where to archive your data?

Contact us at researchdata@hjelp.uit.no



Are you sitting on «old» data?

- Do you have previously collected (and processed) data that you want to archive and share?
- Contact researchdata@hjelp.uit.no for tips on good and efficient data management.



["World's Messiest Office Cubicle Discovered in Colorado"](#) by Jeffrey Beall is licensed under [CC BY-ND 2.0](#)

More information and help



UiT Research Data Portal: <https://uit.no/forskningsdata/>



Email: researchdata@hjelp.uit.no

References

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