



UiT Norges
arktiske universitet

Research Data Management at UiT: An introduction

Tromsø, 29 September 2022

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Research and publication support, University Library

The aim of this presentation

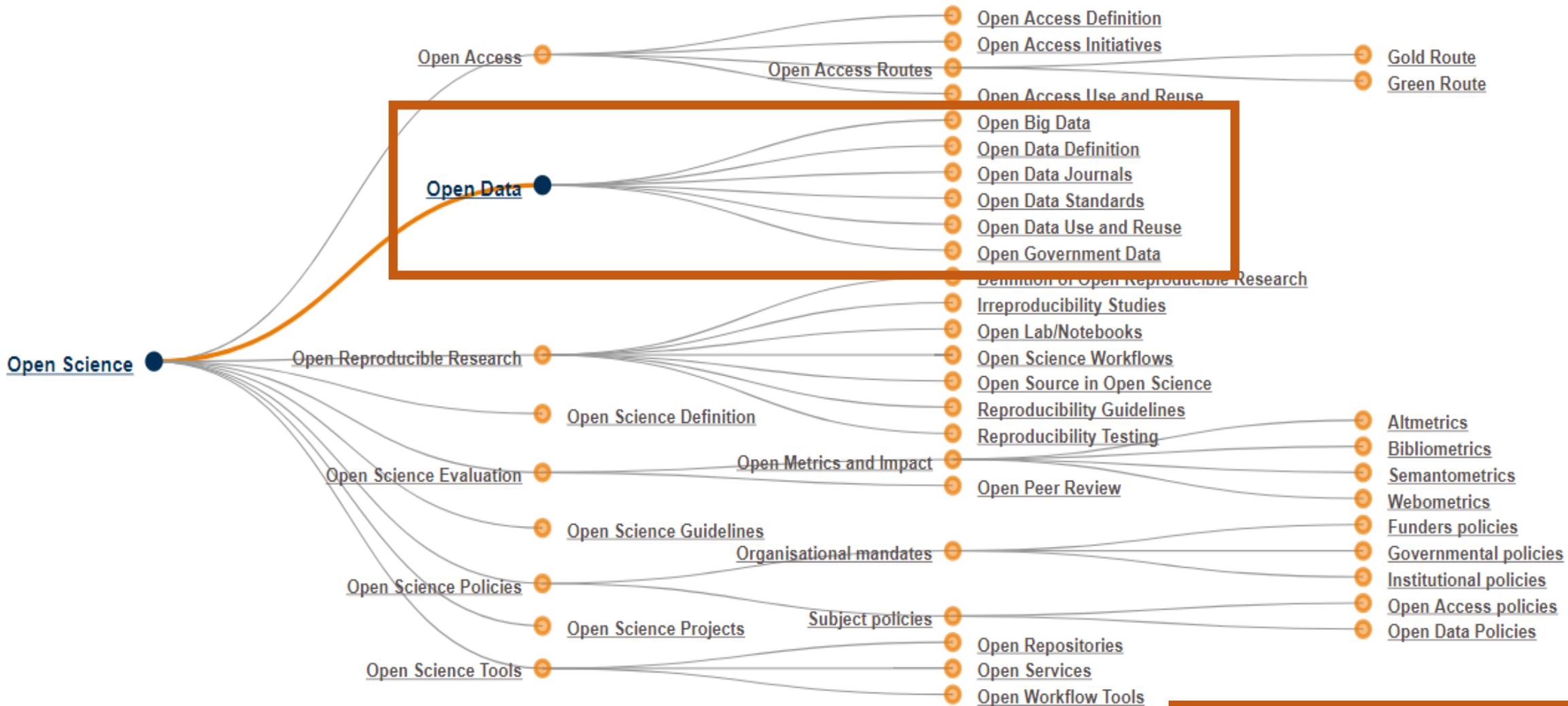
We will discuss:

1. Principles and guidelines for research data management (RDM) at UiT
2. How RDM at UiT fits into a larger context
3. Support Services offered at UiT
4. Q&A

<https://site.uit.no/rdmtraining/>

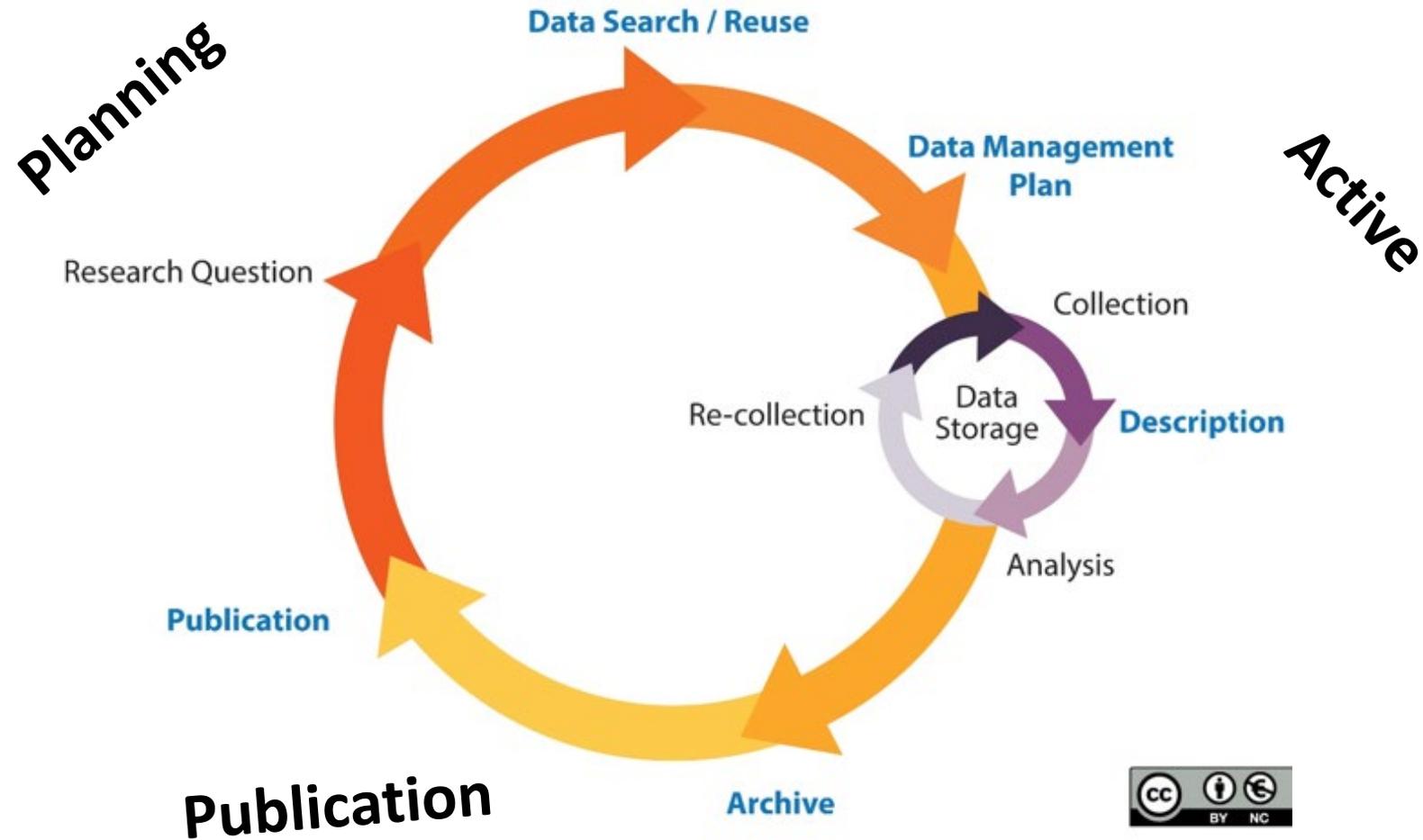
<https://en.uit.no/research/research-dataportal>





Open Data are online, free of cost, accessible data that can be used, reused and distributed provided that the data source is attributed. (Foster Open Science)

The Research Data Management Lifecycle



Principles and guidelines for RDM at UiT

Effective as of September 1, 2017

Applies to all projects that started 01.09.2017 or later

Applies to all employees, including PhD students

Updated February 2021

[Principles and guidelines for research data management at UiT](#)



PRINCIPLES AND GUIDELINES for research data management at UiT¹

Adopted by:	The University Board	Date:	09.03.17, (S 15-17)
Unit responsible:	Department of Research and Development	Archive ref.:	2016/4122, reg.
Last amended by:	Department of Research and Development	Date:	09.03.2017

1. Purpose

Good management and sharing of research data is a key principle for UiT The Arctic University of Norway, rooted in the value of increased transparency and quality of research, and in our social mission as a broad-based research university in the North.

UiT endorses the principles for research data management of the Research Council of Norway² and the EU³ – *Open as standard and As open as possible, as closed as necessary*. All research data shall be made openly accessible. Exceptions to this rule will be when other considerations demand limitations to the access, such as matters of a security, personal privacy, commercial or legal nature. In such cases, this shall be accounted for in the data management plan of the research project.

The purpose of the UiT principles and guidelines for research data management is to clarify responsibility and provide guidance about how the institution and its employees shall manage, share, and archive research data in line with the institution's administrative, financial, and ethical guidelines.

2. Ownership of data

As a general rule, UiT owns all research data produced by employees at UiT, in accordance with the *Regulations for securing and management of work results at UiT*. This also applies to employed PhD candidates and researchers on temporary contracts.

UiT does normally not claim ownership to the research data of students, unless the students are employed at UiT (PhD candidates) or this is specifically agreed, e.g. for externally funded projects. This also applies to exchange students and guest researchers.

In cases where the research data is produced by research projects funded in full or part under third party contract, the terms of the agreement will determine ownership as well as rights to use the data and research findings. Permission to exploit and/or publish the research data shall not be granted to commercial parties without UiT retaining the rights to make the data openly accessible for reuse.



Principles and guidelines for RDM at UiT

Purpose:

Clarify responsibility and provide guidance about how the institution and its employees shall **manage, share, and archive research data** in line with the institution's administrative, financial, and ethical guidelines.

Change of perspective:

Not an administrative burden, *but part of good research practices.*

Principles and guidelines: Research data

Research data definition:

All registrations, notes, and reporting which are **produced or arise in the course of research** and which are **regarded as being of scientific interest and/or scientific potential**.

Formats include, but is not limited to, **numbers, text, source code, photographs, films, and sound**

Principles and guidelines for RDM at UiT

Ownership

As a general rule, UiT has the right to take ownership of all research data produced by employees at UiT.

Storing and archiving

The researcher shall ensure that the research data is securely stored, backed up, and archived in systems approved by UiT

Open publishing

Research data shall be made openly available for future use by all relevant users, providing this is not prevented by any legal, ethical, security, or commercial reasons

Permission to exploit and/or publish the research data shall not be granted to commercial parties without UiT retaining the rights to make the data openly accessible for reuse

Open Data - Benefits to society and the research community



- Easier to reuse data
- Cost-effective utilization of research funds
- The research becomes transparent and reproducible
- Reduces the risk of fraud
- Duplication of work can be avoided
- Prevents data loss.
- Can facilitate more interdisciplinary research.
- Helps to make publicly funded research visible
- Facilitator for «citizen science»

Data sharing requirements: Funders & Authorities

UiTs Principles and guidelines for RDM

[Principles and guidelines for RDM at UiT](#)

EU, Horizon 2020

As open as possible, as closed as necessary

[Guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon 2020](#)

The Research Council of Norway

Open by default

[Open Access to Research Data, Policy for The Research Council of Norway](#)

Norwegian Ministry of Education and Research

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

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

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: publishers

Editorial policies

Authorship

Competing interests

Research Ethics

Reporting standards and availability of data, materials, code and protocols

Image integrity and standards

Plagiarism and duplicate publication

Corrections, Retractions and Matters Arising

Peer Review

Confidentiality

Acknowledgements

Preprints & Conference Proceedings

Press and embargo policies

Reporting standards and availability of data, materials, code and protocols

An inherent principle of publication is that others should be able to replicate and build upon the authors' published claims. A condition of publication in a Nature Portfolio journal is that **authors are required to make materials, data, code, and associated protocols promptly available to readers without undue qualifications.** Any restrictions on the availability of materials or information must be disclosed to the editors at the time of submission. Any restrictions must also be disclosed in the submitted manuscript.

After publication, readers who encounter refusal by the authors to comply with these policies should contact the chief editor of the journal. In cases where editors are unable to resolve a complaint, the journal may refer the matter to the authors' funding institution and/or publish a formal statement of correction, attached online to the publication, stating that readers have been unable to obtain necessary materials to replicate the findings.

On this page

<https://www.nature.com/nature/editorial-policies/reporting-standards>

Data and Materials Availability after Publication

After publication, all data and materials necessary to understand, assess, and extend the conclusions of the manuscript must be available to any reader of a Science Journal. After publication, all reasonable requests for data, code, or materials must be fulfilled. Any restrictions on the availability of data, code, or materials, including fees and restrictions on original data obtained from other sources must be disclosed to the editors as must any Material Transfer Agreements (MTAs) pertaining to data or materials used or produced in this research, that place constraints on providing these data, code, or materials. Patents (whether applications or awards to the authors or home institutions) related to the work should also be declared.

Fossils or other rare specimens must be deposited in a public museum or repository and available for research.

Unreasonable restrictions on data, code, or material availability may preclude publication. Problems in obtaining access to published data are taken seriously by the Science Journals and can be reported at science_data@aaas.org.

<http://www.sciencemag.org/authors/science-journals-editorial-policies>

Open data – Benefits for the researchers



- Provides greater visibility and more citations
- You get an overview of the use (downloads)
- You make your research transparent and verifiable
- You show your expertise at Open Science for future applications
- Scientific legacy
- Openness promotes order in data management



UiT Open Research Data

DataverseNO > UiT Open Research Data

Contact Share



The Stein Rokkan Research Group for Quantitative Social and Political Science



Search this dataverse...

Find Advanced Search

Datasets (4)

Files (3,629)

Dataverse Category

- Research Project (2)
- Department (1)
- Research Group (1)

Publication Year

- 2019 (346)
- 2018 (188)
- 2017 (25)
- 2016 (15)
- 2020 (7)

Distributor Name

UiT Open Research Data (553)

Subject

- Earth and Environmental Sciences (526)
- Physics (385)
- Medicine, Health and Life Sciences (40)

1 to 10 of 581 Results

Sort

Replication Data for: Auroral Image Classification with Deep Neural Networks



Apr 14, 2020

Kvammen, Andreas; Wickstrøm, Kristoffer; McKay, Derek; Partamies, Noora, 2020, "Replication Data for: Auroral Image Classification with Deep Neural Networks", <https://doi.org/10.18710/SSA38J>, DataverseNO, V3

Results from a study of automatic aurora classification using machine learning techniques are presented. The aurora is the manifestation of physical phenomena in the ionosphere magnetosphere environment. Automatic classification of millions of auroral images from the Arctic and A...

Questionnaire for motivation in mobile health



Apr 3, 2020

Henriksen, André; Woldaregay, Ashenafi Zebene; Issom, David-Zacharie; Pfuhl, Gerit; Richard, Aude; Årsand, Eirik; Sato, Keiichi; Hartvigsen, Gunnar; Rochat, Jessica, 2019, "Questionnaire for motivation in mobile health", <https://doi.org/10.18710/28SRMJ>, DataverseNO, V2, UNF:6:n0cjZA3X6VyQdVUJnYXoDg== [fileUNF]

This is a questionnaire used in a project where the aim was to understand what motivates people to share self-collected health data, collected by mobile wearables and sensors.

Carbon Dioxide Transportation Energy Model



Apr 1, 2020

Jackson, Steven, 2020, "Carbon Dioxide Transportation Energy Model", <https://doi.org/10.18710/SAIANK>, DataverseNO, V1

This dataset comprises a model for the calculation of the energy consumption associated with the transportation of CO2, the basis data for the model, validation data and a set of sample results. The model is intended for use as part of the study of Carbon Capture and Storage (CCS)

UiT Open Research Data

A platform for archiving, sharing, reusing, and citing open research data.

Global network: Part of DataverseNO which is part of the international platform Dataverse

Available for uploading by all employees and students at UiT via Feide login.

Harvested by search engines.

Available to all for download and reuse.

opendata.uit.no





UiT Open Research Data

- DOI (permanent link)
- Automatically generated reference
- Version control
- Temporary lock on files (ex. until the publication date of article)
- Possibility to share access and editing permission before publication – private URL (ex. for peer review, collaboration project)



Open Access | Published: 15 March 2016

The FAIR Guiding Principles for scientific data management and stewardship

Mark D. Wilkinson, Michel Dumontier, [...] Barend Mons 

Scientific Data **3**, Article number: 160018 (2016) | [Cite this article](#)

179k Accesses | **2299** Citations | **1793** Altmetric | [Metrics](#)



 An Addendum to this article was published on 19 March 2019

Abstract

There is an urgent need to improve the infrastructure supporting the reuse of scholarly data. A diverse set of stakeholders—representing academia, industry, funding agencies, and scholarly publishers—have come together to design and jointly endorse a concise and measurable set

RESEARCH DATA - OPEN BY DEFAULT

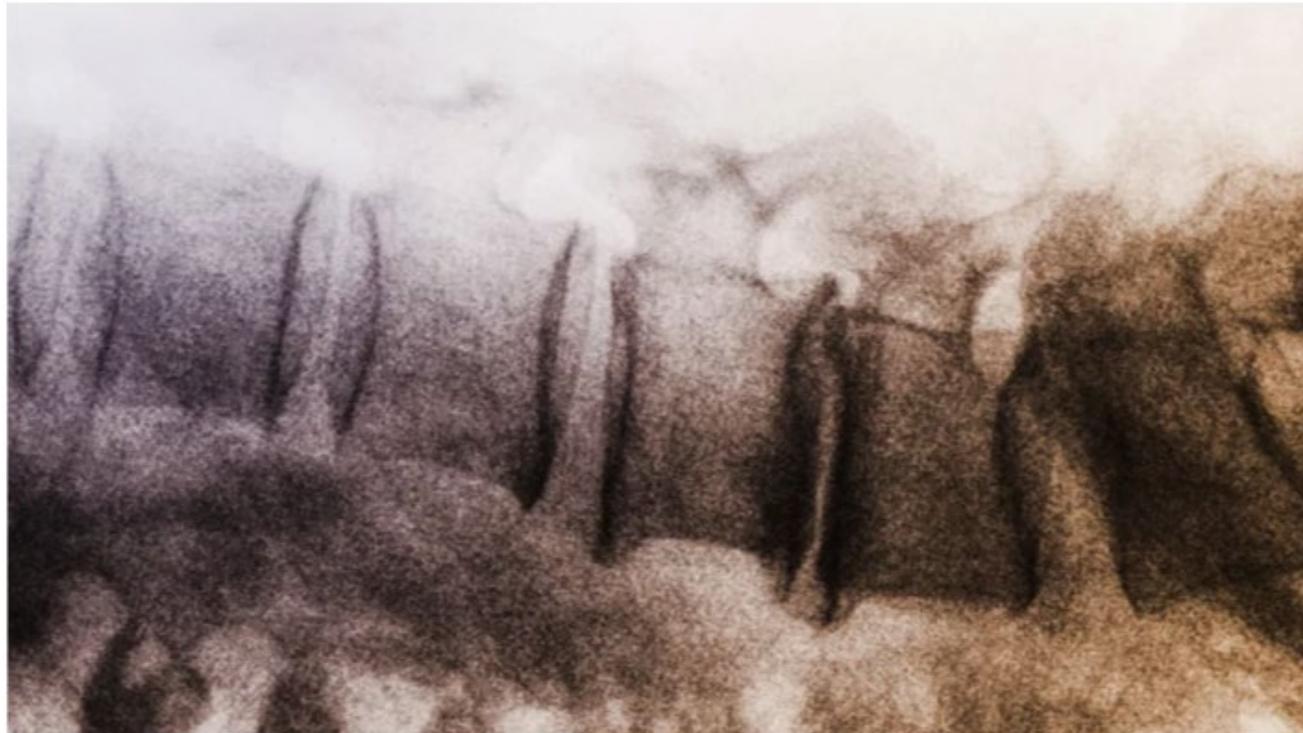


Future reuse of data using AI

10.14.15

The Latest Medical Breakthrough In Spinal Cord Injuries Was Made By A Computer Program

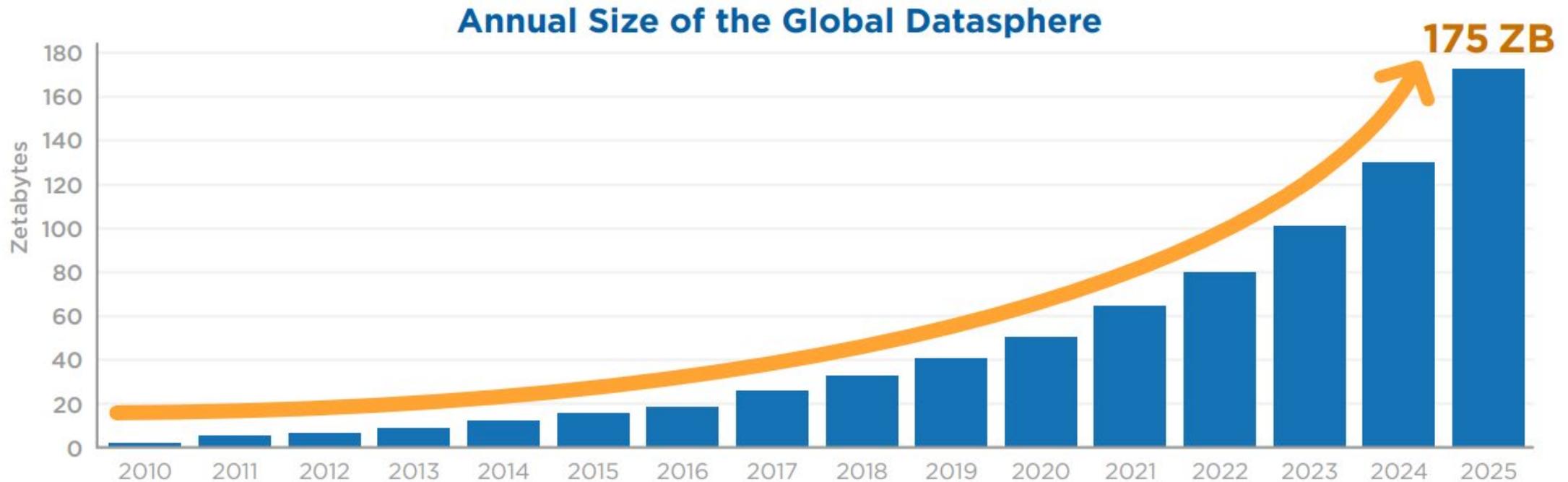
New software sifts through the information gathered in long forgotten studies and finds new avenues for researchers to pursue—like a new advance in treating spinal injuries.



[ALL IMAGES: ALPHA ZYNIISM VIA SHUTTERSTOCK]

Lindsay (2015)

Global Datasphere Expansion is Never-ending



Source: Data Age 2025, sponsored by Seagate with data from IDC Global DataSphere, Nov 2018

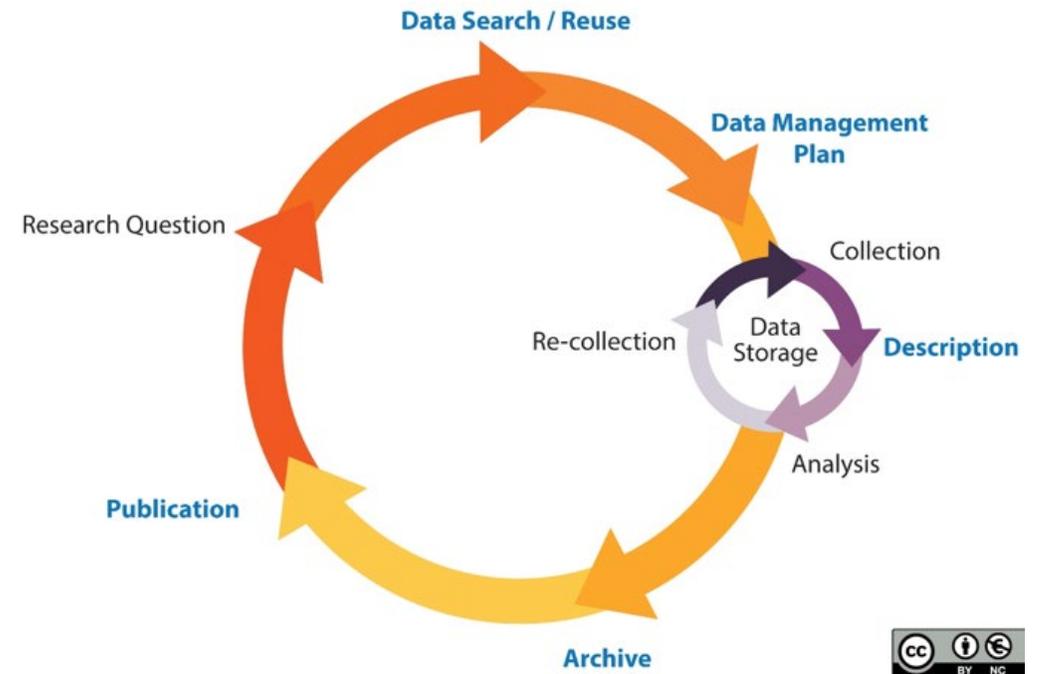
1 ZB (Zettabyte) = 1 trillion Gigabytes = 1,000,000,000,000,000,000 bytes

Principles and guidelines for RDM at UiT

Responsibility of the Researcher:

- Secure storing and backing up data in UiT approved systems
- Document data with rich method descriptions and standardised metadata.
- Equip data with licenses for access and reuse.
- Make data openly available and accessible
- Data Management Plan (DMP)

The Research Data Management Lifecycle



Principles and guidelines: Data management plan

Projects generating research data shall provide a data management plan (DMP)

DMPs describe how research data will be collected, processed, stored and made accessible

- General information about the research project
- Responsibilities and rights / ownership of data
- Collection and generating data
- Documentation and metadata
- Storage and preservation during the project
- Archiving and sharing
- Ethics and consent

[Principles and guidelines for research data management at UiT](#)

Templates for DMPs

Project subject to notification to NSD:

[NSD template](#)

Project funded by EU:

[DMPonline](#)

All other projects:

[UiT template](#)

Need help/feedback?

researchdata@hjelp.uit.no

Data Management Plan

NSD offers a tool for creating a data management plan. A data management plan can be submitted as part of a project application for research funding and / or actively used during a research project.

Log in to use the data management planner



Data Management Plan for employees at UiT

Note: This template is under development. Therefore, it is important that you download the template from [Forskingsdataportalen UiT](#) every time you create a new management plan.

For feedback you may send the completed plan to research-data@support.uit.no.

(English template, version 20.11.2017)

The guidelines for research data management at UiT are found in the [Principles and guidelines for research data management at UiT](#) (henceforth: UiT guidelines). Note in particular the following key principles:

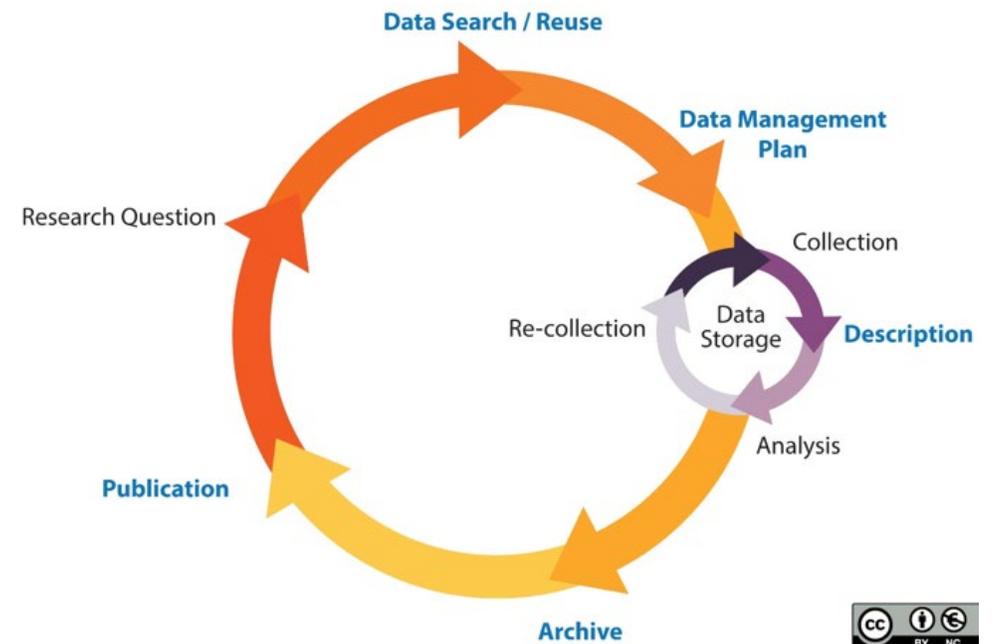
- As a general rule, UiT has ownership of all research data generated by employees at UiT (cf. section 2).
- Setting up a data management plan is mandatory for all research projects involving data (cf. section 4.2).
- Research data shall be archived either at UiT Open Research Data or in other appropriate and reliable archives, ensuring that UiT will have continuous access to use the data (cf. section 4.3).
- Research data shall be made openly available for further use provided that there are no legal, ethical, security or commercial reasons for not doing so (cf. section 1 and 4.4).
- Research data shall be provided with metadata that enables other researchers to search for and use the data (cf. section 4.6).

Principles and guidelines for RDM at UiT

UiTs responsibility:

- Services for data processing and storing
- Data archiving and publishing service
- Guidance and support

The Research Data Management Lifecycle



Support services cover:

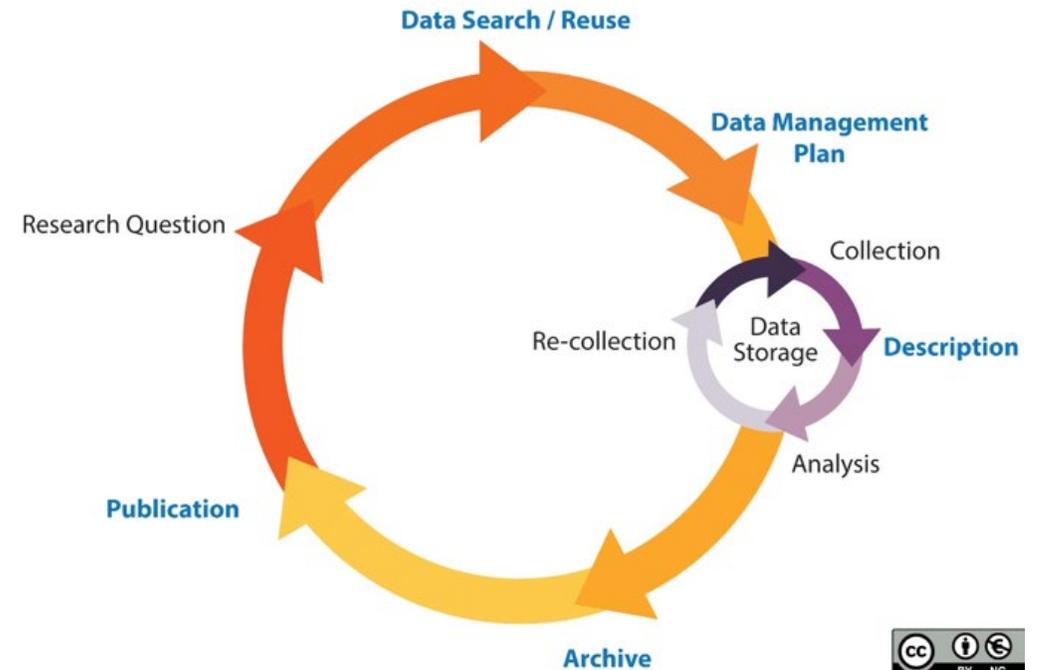
UiT offers coverage for all three phases of a research data management lifecycle:

1. The initial phase (planning)
2. The active phase (data collection and analysis)
3. Archiving and publication

Support offered:

- Storing and archiving data
- Licenses and legal agreements
- Advice on data management plans
- Courses in research data management

The Research Data Management Lifecycle



The Research Data Portal



UiT Norges arktiske universitet

SØK MENY

Research data portal

Home Top Research Research Career **Research data portal** Open science Innovation Research ethics

<https://uit.no/forskning/forskningsdata>

researchdata@hjelp.uit.no

Research at UiT / Research data portal

The data we collect or generate is highly valuable, both to us and to other researchers. Good routines for handling and archiving research data allow researchers to more easily benefit from and build on the work of others. As a result, you can help to promote more research, knowledge growth, and innovation.

UiT's research data portal provide students and employees information on [storing](#), [handling](#), [archiving](#), [making available](#), and [sharing](#) research data. You will find information about all stages of the research data life cycle here.

If you have any questions or queries, please contact UiT's research data support group at researchdata@hjelp.uit.no.



Research Data at UiT

Fair principles, guidelines, ethics and personal data protection at UiT



Planning

Data management plans, re-use of data, contracts and licenses



Processing and storage



Upcoming events

Contact us

New datasets in UiT ORD

TGO Ramfjordmoen Ionosonde Data March 2022. [Read more](#)

Benchmark dataset for graph classification. [Read more](#)

Replication Data for: Liposomal delivery of antibiotic loaded

Webinars in 2022

Courses at UiT are open to anyone.

For more info and registration, click [here](#)

Workshop: Learn how to use RSpace Enterprise as an electronic lab notebook (ELN) or Laboratory information management system (LIMS). 7. OCTOBER 2022	▶
How to manage sensitive research data 8. NOVEMBER 2022	▶
How to structure and document research data 14. NOVEMBER 2022	▶
Data cleaning 14. NOVEMBER 2022	▶
How to store research data 14. NOVEMBER 2022	▶
How to archive research data 15. NOVEMBER 2022	▶
How to search and cite research data 15. NOVEMBER 2022	▶
How to archive data in UiT Open Research Data 16. NOVEMBER 2022	▶
How to use an electronic research notebook 17. NOVEMBER 2022	▶
How to write a data management plan 18. NOVEMBER 2022	▶
Research data: Rights and licenses 18. NOVEMBER 2022	▶

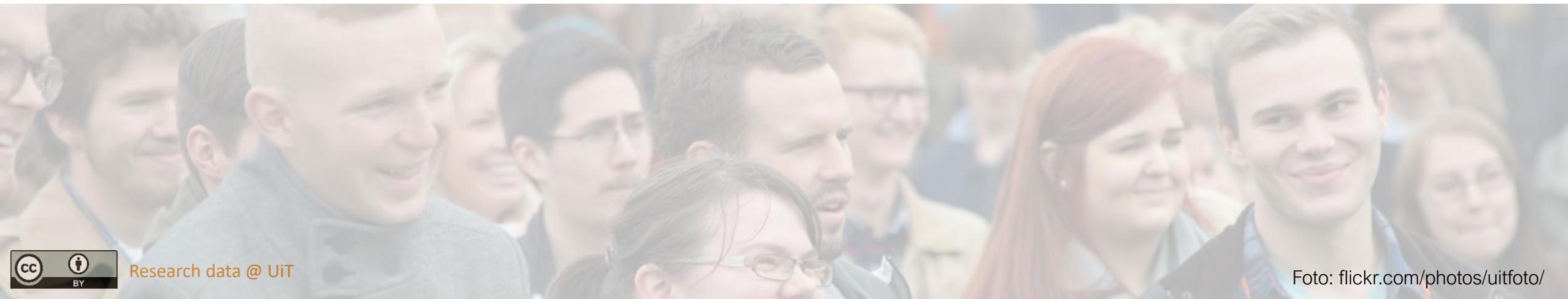


Take control of your PhD journey (GEN-8001)

A biannual seminar series for ph.d.-students from all fields of study

2 ECTS credits, course code GEN-8001

Topics: Academic integrity, Literature search, Open Access, Research Data Management, Reference management (EndNote)



Drowning in «old» data?

- Do you have previously collected data that you would like to archive?
- Approaching retirement and you would like your data to be preserved in a proper way?
- Contact us at researchdata@hjelp.uit.no for advice and tips on proper and efficient data management.



Feedback:

skjema.uio.no/ubevalen

Date: 05.04.2022

Subject: research data – intro



ruby 🇺🇸 @roobeekeane · 23 Aug

when the Zoom call ends and I am left with my thoughts



271

31.4K

190.5K



References

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