

Guidelines for research data management at Mid Sweden University

Published: 2022-02-22

Decision-makers: Anders Fällström.

Responsible function: University Library

Administrator: Anders Danielsson

Date of decision: 2022-02-22

Period of validity: Until further notice

Latest review: 2022-10-07

Summary: The aim of the guidelines is to describe and explain the different aspects and principles that researchers at Mid Sweden University have to consider when managing research data. The guidelines can, through support and guidance, be a document that facilitates good and effective research data management in line with the increased demands of different actors within the research community. The guidelines complement Mid Sweden University's policy for research data management.

Previous versions: -

Innehållsförteckning

Guidelines for research data management at Mid Sweden University	3
Subject matter.....	3
Definition of research data	3
Definition of metadata	3
FAIR principles.....	3
Data Management Plans	4
Research data in collaboration with others	5
Responsibility for research data.....	5
Research data and results	6
Making research data accessible according to FAIR.....	6
Scientific Ethical Consents.....	7
Research data as a public document.....	7
Information security.....	8
Preservation and deletion of research data	8
Support function — DAU.....	9

Guidelines for research data management at Mid Sweden University

Subject matter

The aim of the guidelines is to describe and explain the different aspects and principles that researchers at Mid Sweden University have to consider when managing research data. The guidelines are a document that, through support and guidance, facilitates good and effective research data management, in line with the increased demands of different actors. The guidelines complement Mid Sweden University's policy for research data management (DNR: MIUN 2020/1906). See also our web resource about research data for more information.¹

Definition of research data

Research data in this document refers to digital information that has been collected for analysis for a scientific purpose. Examples of research data are statistics and measurement data, transcribed interviews and survey responses, results from experiments, observations from fieldwork, recorded interviews (video/audio) and images.

Definition of metadata

Metadata is structured information used to describe and categorise digital information, i.e., "information/data about data". There are different types of metadata: descriptive, administrative, or structural. Descriptive metadata can be, for example, title or author, administrative metadata can be file formats, licenses, and rights, while structural metadata may be, for example, a static link such as a Digital Object Identifier (DOI).

FAIR principles

At EU and national level, there are requirements for publicly funded research to be made freely available. It includes both scientific publications and related research data. As a result, *all research* data funded in whole or

¹ <https://www.miun.se/biblioteket/publicera-och-analysera/hantera-forskningsdata/>

in part from public funds shall be handled in accordance with the internationally accepted FAIR principles.

Managing research data according to the FAIR principles means making data *Findable, Accessible, Interoperable* and *Reusable*. One benefit of managing data FAIR is that machine readability is considered. FAIR does not automatically mean that data should be made open access, but it should be described and made findable. FAIR data should be "*as open as possible, as closed as necessary*".

Data Management Plans

Mid Sweden University recommends a data management plan for research projects containing research data. Several research funders require data management plans for projects that have been granted funding.

A data management plan is a document that aims to describe in a structured way the management of research data in a project. The data management plan should cover all phases of the project from planning and collecting, creating, or generating data, to analysis, publishing and archiving. The plan makes it easier to keep track of your data during the project and can also make it easier to comply with the FAIR principles. In addition, the data management plan may facilitate the preparation of an ethical review application.

DMPonline is a tool for creating data management plans recommended by research funders, including the Swedish Research Council. Mid Sweden University advises researchers to use DMPonline to create data management plans and offer support, review of data management plans and guidance.²

² [As a researcher at Mid Sweden University, you have free access to DMPonline: https://dmponline.miun.se](https://dmponline.miun.se)

Research data in collaboration with others

The question of principality and who is responsible for research data can be complicated in collaborative research with other higher education institutions, organisations, private companies or healthcare.

When creating a data management plan, agreements should be established between the parties, which govern how the collaboration will work and how research data will be managed within the framework of the project. Agreements in that section may, for example, relate to who is responsible for which data, the handling of sensitive data or the costs associated with the data management.

Responsibility for research data

According to the definition in the Ethics Review Act (Act on Ethics Review of Human Research (SFS 2003:460)), research principal is a government agency or a natural or legal person in whose activities the research is carried out. It is the research principal who, together with the individual researcher, is legally responsible for ensuring that the activities comply with the rules of the Ethics Review Act. In addition to the responsibility for data management Mid Sweden University is a public authority with archival responsibility.

Archiving legislation constitutes a mandatory legal framework and deals with issues relating to the preservation and deletion of documents at a public authority. It is also the higher education institution that assesses whether certain data should be disclosed upon request in accordance with the principle of public access to official records. Data protection legislation means additional responsibility for the higher education institution in the handling of research data containing personal data.

Research data collected at Mid Sweden University belongs, as a general rule, to the university and the university therefore has the principal responsibility for data.

There may be exceptions to the university's property rights as a result of copyright rules. A document containing data relating to a work protected by copyright may nevertheless be subject to archiving liability, while at the same time subject to copyright protection. The university must consider copyright when applicable.

Research data and results

The Swedish "lärarundantaget" means that patentable inventions produced by university teachers are owned by the inventor. In addition, there are so-called "upphovsrättsliga lärarundantag", which means that the teacher has the copyright in works produced in the service, such as publications and educational material. Mid Sweden University does not claim patent rights or any other intellectual property rights relating to the results of the research. The researcher is not expected to make research data available until the results of the research are published.

What is considered to be research data and research results should in most cases be clear. If questions arise regarding the demarcation between research data and research results, these issues should be addressed in consultation with Mid Sweden University's support function DAU (Data Access Unit).

Making research data accessible according to FAIR

In what degree research data can be made open access or not is a case-by-case assessment. The assessment may be influenced by provisions in law and by research ethical considerations and carried out in consultation with the DAU function. Such an assessment is made before data have been collected and should be documented in a data management plan for each project.

A funder may require that research data be published openly available to grant applications for research funding, a funder may also have requested that data be treated confidentially. If such an agreement exists, data cannot be made open until any time embargo has expired. Such an agreement does

not necessarily affect the possibility for someone to request data based on the principle of public access. In order to deny disclosure of a document or part of a document (data) upon request, the information must be protected by secrecy according in the Public Access to Information and Secrecy Act (SFS 2009:400).

Data can be made accessible to varying degrees and still considered to be handled according to the FAIR principles. When data is confidential under the Public Access to Information and Secrecy Act, only metadata can be made available during the period of confidentiality. In other projects, aggregated data may be published openly, while raw data may only be released upon request. There are also projects where all data can and should be open access. It is possible to choose between different levels of accessibility for sharing data. The researcher, in consultation with the project leader, is responsible together with the DAU to indicate the appropriate level. Some examples of reasons why research data cannot be made open access are that it contains personal data, is subject to confidentiality under the Public Access to Information and Secrecy Act, is security protected or that there are ethical aspects that prevent open access to data.

Scientific Ethical Consents

When research data consists of data from persons participating in a research study, the individuals have normally given their consent for participation in the research. This consent is in some cases limited to the individual research study. Such limited consent constitutes an obstacle to open sharing. If the research participant has consented to the use of research data in other research, it *may* be made open provided that it does not contain confidential information. Such data may, for example, be sensitive personal data.

Research data as a public document

Research data within the University's activities is archived and can then be requested by everyone as a public document. The right of access to official documents is restricted by secrecy. It is therefore the secrecy rules that limit

what can be kept confidential if someone requests access to stored research data. The question whether or not to make research data open access is relevant for dissemination and re-use, but it does not affect the question whether research data is public or confidential.

Information security

Information security is about protecting information from various types of threats, such as transparency from unauthorised persons or distortion of information. In accordance with the FAIR principles, research data shall be as open as possible but as closed as necessary while protecting all data from leaking, distorting or destroying. A security system for data protection consists of three different parts: a technical, a physical and an organizational. The three parts shall complement each other and create a secure system.

Research data shall be handled in such a way as to ensure that the information is protected against unauthorised access (confidentiality), inaccurate changes (property), and that the information is accessible when needed (accessibility). It is also important to ensure that the information is not altered, sought, or disclosed to anyone who is not authorised to consult it.

Information classification is an important part of achieving good information security for your research data. The information classification is crucial for which storage space can be used for the management of research data. At Mid Sweden University there are guidelines for how information classification should be done, see *Modell för klassificering av information* DNR: MIUN 2020/2488.

Preservation and deletion of research data

Research data shall be preserved and archived for as long as possible, but in some cases, it may be allowed to delete data earlier. Current information and valid deletion decisions can be found on Mid Sweden University's web.

Support function — DAU

Mid Sweden University has a support function called DAU (Data Access Unit) consisting of representatives from central parts of the administration. This function shall support and consult the university's researchers in research data management, data management plans and open data. The support function can provide advice and recommendations on issues such as metadata registration, law, archiving, storage, and technical solutions. The DAU function is part of a national network where the majority of Swedish higher education institutions are under the direction of SND (Swedish National Data Service). The University Library has a coordinating and delegating role at Mid Sweden University. The support function can be reached at the following address: researchdata@miun.se