

Open Science Policy

Guidelines for

Department of History (IH)

Department of Language and Communication (ISK)

Department for the Study of Culture (IKV)

29 April 2021

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Preamble

On March 9, 2018 the University of Southern Denmark (SDU) enacted its Open Science Policy which encourages researchers to make their data and publications openly accessible in order to enhance the potential impact of the research at SDU on research communities and society as a whole.¹

This policy includes three main elements, which form the outline of this document.²

- Data management planning
- FAIR research data, and
- Open access to research papers

The overall idea of Open Science is to make the research process as transparent as possible and to give open access to research results and publications which also include public access to methods and empirical approaches including data sets, data codes and statistic program syntaxes.

This document addresses topics and questions to be considered in the process of implementing the Open Science Policy at three departments within the Faculty of Humanities at SDU: Department of History, Department of Language and Communication and Department for the Study of Culture.

At the outset, it is important to note that researchers within the Humanities are facing different challenges in implementing the policy than e.g. researchers within natural science and health science departments.

First, the data underpinning the research often consist of texts, field notes, video recordings and other qualitative data and interpretations (that are non-numerical), which makes the data either related to persons, context-sensitive or closely linked to the individual researcher. These features challenge the value and the interoperability of the data with regards to its potential reuse by other researchers.

Second, researchers within the Humanities tend to collect and analyse data within their scholarly field over extended periods of time. This contrasts with research centered around shorter timebound projects. Consequentially, researchers within the Humanities might be more reluctant to provide open access to such datasets, since they represent 'work in progress' and because such datasets likely are the source of upcoming publications. For instance, at the Department of History, often such datasets are handed over to Danish National Archives when a researcher retires.

Third, some disciplines within the Humanities differentiate themselves from e.g. researchers within natural science and health science departments in that books (monographs and anthologies) make up significant parts of their publications. It is challenging to see how books can be encompassed under Open Access publishing in its current form.

¹ SDU Open Science Policy is available on: <https://www.sdu.dk/-/media/files/bibliotek/sdu+open+science+policy-09032018.pdf?la=da&hash=85E2E3AAB639F9BA2984AEB6F8EAD1A1A7DF48B4>

² <https://www.sdu.dk/en/bibliotek/forskere/research+data+management+support/the+sdu+open+science+policy>

Purpose of this Open Science Policy document is to

- Help researchers at our Departments to increase their scientific impact by making publications open and data publicly available.
- Help researchers to find and use existing resources, tools and IT infrastructures in the most efficient way and leading them to the right support for data management.
- Ensure that all research data are managed in line with requirements from funding agencies and journals, and compliant with the Danish Code of Conduct for Research Integrity, current legislation and ethical protocols.
- Ensure that primary materials and research data are available to support research findings and to contribute to other research projects, where possible.
- Enable Open Science by making data FAIR: **F**indable, **A**ccessible, **I**nteroperable (accessible and usable across disciplines and methods) and **R**eusable (see below)
- Promote visibility of research from the University of Southern Denmark.

This Open Science Policy document and GDPR

All recommendations in the Open Science Policy below should be compliant with the framework of the GDPR, including the issue of identifiability of individuals in anonymous data. In addition, this policy should be compliant with legal requirements, such as privacy and data protection, policies by the funding agencies, the rules of Good Scholarly Practice at SDU and The Danish Code of Conduct for Research Integrity³ and the University of Southern Denmark Open Science Policy. The SDU Open Science Policy encourages transparent methods and public access to results, including publications, data, codebooks related to the data sets, and syntaxes in statistics programs (e.g. SPSS syntaxes, STATA do-files, R code) for data management as well as statistical analyses.

Definitions

- **Open Access** means publishing research results in a way that provides immediate, free online access to the publication and/or research data without any barriers, as defined in the Berlin declaration.⁴ The Danish government encourages use of the so-called “green” mode of Open Access, or self-archiving. Self-archiving means publishing in a journal which is not Open Access and at the same time - or following an embargo periode - depositing a copy of the publication in a personal or institutional repository (e.g. PURE).
- **Open Science** means that scientific knowledge including research data and publications should be openly shared as early as possible with reuse in mind. Therefore, it is supportive of Open Science to publish data, publications and other aspects of scientific research in a way that allows for usage beyond reading, e.g. text mining, analysis, visualisation and more.

³ <http://ufm.dk/publikationer/2014/the-danish-code-of-conduct-for-research-integrity>

⁴ The Berlin declaration on Open Access, see: <https://openaccess.mpg.de/Berlin-Declaration>

- **Research data** refer to material, records, files, and other evidence underpinning the research projects' findings, or other outcomes, including (the list is not exhaustive).⁵ These includes:
 - Experimental and observational data.
 - Questionnaires, test, surveys, interviews, respecting copyright and protected psychometric tests and survey instruments.
 - Responses to questionnaires, tests, surveys and interviews
 - Audio and video recordings.
 - A collection of datasets, for example a collection of letters or an archive of historical images
 - Transcriptions of interviews and other audio recordings.
 - Annotations and coding of data
 - Data, regardless of form of storage (paper, electronically) or storage media.
- **Research data management** means planning for and organising the collection, analysis, storage, re-use and disposal of research data. It ensures that researchers and institutions can fulfil their obligations towards funding agencies, improve the efficiency of their research, and make data available for others to verify their findings or for reuse, where appropriate.⁶

Assessment of Research, the San Francisco declaration

Open Science interlinks with the way in which individual researchers are assessed.

- Our three departments support the general recommendation of the *San Francisco Declaration on Research Assessment (DORA)*,⁷ implying that one should not use simplified journal-based metrics (e.g. Journal Impact Factors or H-index) as a surrogate measure of the quality of research articles, to assess a researcher's contribution, or in hiring/promotion. In practice, however, this does not represent a challenge since such measures are rarely used within the Humanities.
- Furthermore, for the purposes of research assessment e.g. in relation to hiring/promotions, our three departments aim to consider the value and impact of all research outputs and processes, including datasets, software, knowledge sharing, peer review activity, research management, research cooperation, establishment and participation in research networks, hosting of conferences, editorial work, dissemination of research (forskningsformidling) and teaching in addition to research publications. This accords with the recommendations in the DORA report as well as a recent report by Styrelsen for Forskning og Uddannelse titled 'Fremtidens meritering, 2019'.⁸ How and when this policy on research assessment will be

⁵ For a definition of research data, see the SDU Open Science Policy on <https://www.sdu.dk/-/media/files/bibliotek/sdu+open+science+policy-09032018.pdf?la=da&hash=85E2E3AAB639F9BA2984>

⁶ These definitions are from the SDU open science policy p. 2-3: <https://www.sdu.dk/-/media/files/bibliotek/sdu+open+science+policy-09032018.pdf?la=da&hash=85E2E3AAB639F9BA2984>

⁷ San Francisco Declaration on Research Assessment, see <https://sfdora.org/read>

⁸ Fremtidens meritering: Afrapportering og anbefalinger fra udvalget for bedre meritering i dansk forskning. <https://ufm.dk/publikationer/2019/fremtidens-meritering>

implemented within each Department is yet to be decided by the the respective Departments.

Responsibility for communicating and implementating the procedures

The scope of these guidelines apply to all scientific personnel (including PhD students). These guidelines are communicated by the Head of Departments to all employees as part of their introduction to the department. In addition, implementation of the guidelines can be discussed at departmental meetings and be included in courses in responsible conduct of research in the MA and PhD programs.

Registration with ORCID

The three Departments **strongly recommends** that all researchers register with ORCID⁹ via PURE¹⁰ and create a public ORCID profile.¹¹

1. Data Management Planning

When commencing a new research project

- All research projects at SDU **must have** a data management plan.¹²
- The data management plan must be written at the beginning of the project,
- The data management plan must be updated when necessary and
- The data management plan must be stored along with other documentation relating to the project.
- The data management plan is a tool in which the individual researcher reflects over data and data issues relevant to all phases of a research project. For some projects, a data management plan might conclude, that further considerations of data is of no relevance to the project.

Responsibilities and scope

- The person responsible for the project (i.e. the Principle investigator) is responsible for writing and updating the data management plan.

⁹ See <https://orcid.org/>

¹⁰ The easiest way to register with ORCID at SDU is through PURE, see <https://www.sdu.dk/da/forskning/forskningspublicering/orcid>. Researchers should be aware that duplicates may appear in ORCID; this might be resolved by contacting the PURE support team on puresupport@bib.sdu.dk

¹¹ Edit the "Visibility preferences" in the "Account settings" in ORCID.

¹² SDU Open Science Policy p. 2. Available on: <https://www.sdu.dk/-/media/files/bibliotek/sdu+open+science+policy-09032018.pdf?la=da&hash=85E2E3AAB639F9BA2984>

- PhD thesis supervisors are responsible for supervising the student's writing and updating the data management plan.
- Literature searches for studies, public databases, available data and funding, and similar exploratory data searches and collections, in preparation for a research project or proposal, **do not require a data management plan**. At this stage, protection of confidentiality, untested ideas, possibility of access to data and funding, hypothesised results and possible patents are important for innovation, creativity and output of the research process.

What should be covered in the data management plan?

- For data management plans required from funding agencies, the respective funding agency's template should be used. See: <https://dmponline.deic.dk/>.
- For other data management plans, it is also recommended to use the template from the Digital Curation Center as above: <https://dmponline.deic.dk/>
- Description of the data to be collected in the project is required, using guidelines from the Danish National Archives (Rigsarkivet). See (in Danish): <https://www.sa.dk/da/forskning-rigsarkivet/anmeldelse-aflevering-forskningsdata/>
- Estimation of the value of the data for long-term preservation or reuse, using the researcher's or student's best judgement and knowledge of the data and subject area. This general requirement is of specific relevance for the decision of the Danish National Archives as to whether the data can be archived under the proposed ministerial order of mandatory data reporting. See (in Danish): <https://hoeringsportalen.dk/Hearing/Details/60866>.
- Any data management plan **must** include considerations as to what happens to the data when someone leaves the department or the project have ended. Should the data be archived, transferred to another person, or deleted?

Support for and guidelines to writing data management plans are available at: <https://www.sdu.dk/en/bibliotek/forskere/research+data+management+support/data+management+plan>

2. Research Data

Our three Departments support the *Sorbonne Declaration on Research Data Rights*¹³ and thus are committed to practicing and promoting data handling according to the FAIR principles (see below) whenever relevant and in consideration of the special circumstances pertaining to research within the Humanities listed in the preamble to this document. This implies that researchers within our Departments pledge to handle their research data in accordance with the FAIR principles.

¹³ Sorbonne Declaration on Research Data Rights <https://www.leru.org/files/Sorbonne-declaration.pdf>

Supporting the Sorbonne declaration places a premium on the idea of sharing data, the preparation of data in an open and FAIR manner, the recognition of the value of data and of the work entailed in making data sets publicly accessible.

A key element in adhering to the FAIR principles is that data as a minimum are made publicly accessible as metadata (i.e. a description of the content of a given data set, methods used and contact information of the researcher) allowing for the data to be discovered by other researchers and can be made available if the researcher agrees to it.

Which data ought to be made publicly accessible? Generally all data sets which underpins research outputs e.g. individual articles or books should be made publicly accessible. Furthermore also unique data sets, costly data sets and data collected longitudinally should be made publicly accessible. Examples of data that are not meant to be published are temporary data, explorative data, small data sets and data sets which are easily to recreate and data sets restricted by GDPR.

It is recommended that data sets which are not published are deleted when there is no longer use for them. Furthermore it is strongly encouraged that researchers that hold rare datasets and datasets with a unique value archive these in the Danish National Archives (Rigsarkivet) - if accepted by the Archives.¹⁴

All data underpinning publications should be retained for a minimum of 5 years after publication of the results, as stated in the Danish Code of Conduct for Research Integrity.¹⁵

Researchers can consult the SDU Research Data Management Support¹⁶ for inquiries about which data to publish and the best solution for publication and storage.

General principles pertaining to research data

Research data must be:

- Acknowledged as valuable output of research that should be made openly available and reusable, where possible.
- Covered by a data management plan when commencing a new research project.
- Stored securely and appropriately.
- Made **F**indable, **A**ccessible, **I**nteroperable and **R**eusable (FAIR).
- Retained for a minimum of five years after publication of the research.
- Considered archived at Danish National Archives (Rigsarkivet) if accepted, instead of deleted or anonymised at the end of the project, according to current legislation.¹⁷
- Managed in line with ethical protocols, including confidentiality.

¹⁴ See guidelines: <https://www.sa.dk/da/forskning-rigsarkivet/anmeldelse-aflevering-forskningsdata/>

¹⁵ See <https://ufm.dk/publikationer/2014/the-danish-code-of-conduct-for-research-integrity>

¹⁶ See <https://www.sdu.dk/en/bibliotek/forskere/research+data+management+support>

¹⁷ Only a requirement for personal data.

- Managed in compliance with legal requirements for privacy and data protection GDPR.

The FAIR principle of data handling

- **Findable** means that others can discover your (meta)data. This implies that they should be published in a repository that assigns a persistent identifier (e.g a DOI number) and that relevant metadata should be assigned to data preferably according to a community-specific metadata standard.
- **Accessible** means that your data can be made available to others directly by download or through contact with the author. A data license (e.g. Creative Commons) or a clear data accessibility statement needs to be attached and data should be archived in long-term storage. *In case of personal data, then at least the metadata should be published open access along with the contact details and preferably the ORCID of the principal investigator.*
- **Interoperable** means that your data can be integrated with other data. The use of standardized metadata, standard terminology and broadly used open formats for (meta)data is encouraged.
- **Re-usable** means that your data can be used for new research. (Meta)data should be well-documented and released under a clear usage license, which is as open as possible (e.g. Creative Commons, MIT, GPL, etc.).

Examples of why research data should be made publicly accessible

- Required by funders or publishers (e.g. Horizon 2020).
- An obligation towards collaborators.
- To expose the department's research and increase the impact.
- To enable new research and collaborations.
- For public interest.
- For secondary data analysis in other projects.
- For use in teaching and student projects.
- To heighten credibility and accountability of research at the department.
- To improve transparency and reproducibility.
- To prevent or detect research fraud, as well as biased and selective analyses and publication.
- To make replication of statistical and psychometric analyses possible.

Data which should not be made publicly accessible

The data types below do not have to be publicly accessible. They are however, subject to the creation of a Data Management Plan and the FAIR principles as per the Open Science Policy

- Administrative data.
- Data from third parties, data repositories and administrative registers with conditions limiting reuse, publication and dissemination (e.g. materials on loan from museums or archives) or copyrighted materials.
- Publicly available data including literature (news media, books and journals)
- Studies included in systematic reviews and meta-analyses. The exemption does not apply to documentation of searches, selection of studies for review and analyses in tables, figures and similar supplementary material routinely published online with reviews.

How to make research data publicly accessible?

- As a minimum data which underpin a publication should be made publicly accessible as metadata (a description of the content of a given data set, methods used and contact information of the researcher) allowing that data can be discovered by other researchers and can be made available if the researcher agrees to it.
- A more comprehensive way to publish data is that the researcher make the data that underpins a publication publicly accessible in full, implying that data should be stored in a publicly accessible folder with documentation (e.g code book) that allows graphs to be reproduced and results to be recalculated.
- All datasets should receive a license for reuse, e.g. Creative Commons.¹⁸
- All data should include all necessary documentation and metadata.
- Use open and long-lived file formats such as .csv alongside R, SPSS, STATA, SAS or other files for statistical or data management software.
- Use Danish National Archives/Danish Data Archive (Rigsarkivet/Dansk Data Arkiv), only for preservation (if accepted).¹⁹

Where to publish research data?

The university library offers guidance and links to a directory of academic open access repositories: <https://www.sdu.dk/en/bibliotek/forskere/research+data+management+support> on how to publish research data.

¹⁸ See concerning licenses: <https://creativecommons.org/licenses/?lang=da>, (in Danish) <https://creativecommons.dk/>, <http://sciencecommons.org/projects/publishing>

¹⁹ <https://www.sa.dk/da/brug-arkivet/dda/>

- It is recommended that if a researcher cannot identify a repository of special relevance for his/her research field, he or she use the Zenodo repository.²⁰ This repository is created on behalf of the EU, maintained by CERN and allows for direct upload and management of the site by the researcher. Furthermore it is citable, meaning that each upload of metadata or full data sets receives a unique object identifier - a DOI.

Data storage options for active projects

See the General Data Protection Regulation (GDPR) guidelines. Research Data Management support (rdm-support@bib.sdu.dk) and system administrator Erik B. Madsen (erikm@sdu.dk) can advise on options.

Best practices for storage of data

- Use of predefined file structures.
- Use of file versioning systems.
- Sample labelling and tracking.
- Discipline-specific metadata standards.
- File naming, dating and versioning according to best available methods and practices. The university library can advise on this, contact Research Data Management Support.²¹ See also: <http://library.stanford.edu/research/data-management-services/data-best-practices/best-practices-file-naming>
- Use of lab notebooks, preferably electronic, for experimental data.

Department staff is encouraged to develop additional recommendations for best practices, based on experience with implementation of the open science policy.

Long-term preservation/archiving

All data should be stored for a minimum of five years after publication of the research (required permissions should be obtained or extended, including from the Danish Data Protection Agency). Beyond this minimum requirement, several types of research data should be preserved for long term access and reuse, including (the list is not exhaustive):

- If it would be unethical to subject humans or animals to unnecessary repetition of experiments, trials, observations or other research activities.
- If it would be unethical or indefensible to waste research funds and human resources that could be put to better use (i.e. prevention and cure of disease) on unnecessary repetition of experiments, clinical trials and observational research.

²⁰ <https://zenodo.org/>

²¹ Write to: rdm-support@bib.sdu.dk

- Data and materials that are impossible or hard to reproduce.
- Data and materials that are costly to produce, in terms of funding, time or human resources.
- Data and materials that can be reused in new projects, serve as benchmarks, as reference or are of public interest.

Archiving as an alternative to deletion

Valuable data and materials should be preserved by archiving in the Danish National Archives (Rigsarkivet). Preserving your data and materials in this archive fulfils legal requirements of deletion when a data processing permission expires.

Documentation of archived data is required, using guidelines from the Danish National Archives (Rigsarkivet) (in Danish).²²

If the Danish National Archives (Rigsarkivet) declines to archive the data, the person responsible for the data is responsible for deleting or anonymising the data if the data can be linked to an individual.

How to preserve data after the project (e.g. PhD Project) has ended

- Document the data, using guidelines from the Danish National Archives (Rigsarkivet).
- According to the permission from the Danish Data Protection Agency, personal and sensitive data should either be archived in the Danish National Archives (Rigsarkivet) or permanently deleted or anonymised before the permission expires.
- Data is encouraged to be offered to the Danish National Archives (Rigsarkivet) with the least restrictive conditions for access possible. Use Guidelines of the Danish National Archives (Rigsarkivet) for documenting, reporting and archiving research data are available in Danish: <https://www.sa.dk/da/forskning/for-forskere/anmeldelse-aflevering-forskningsdata/>.

3. Open Access to publications

Information about open access publishing at SDU (in Danish): <https://www.sdu.dk/da/forskning/forskningspublicering>

Type of Open Access recommended

- At SDU all members of staff are encouraged to publish all their articles as *Green Open Access* if permitted by the journal. The green way to Open Access includes articles published in traditional subscription journals – that are not Open Access – but allow a version of the article (“final author version approved”), after publication, to be placed in an Open Access institutional repository,

²² See, <https://www.sa.dk/da/forskning-rigsarkivet/anmeldelse-aflevering-forskningsdata/>

which is PURE at SDU. This is also referred to as 'self-archiving', which is done by the author him- or herself.

- **Provided that external funding is secured**, publishing in *Full* or *Gold Open Access* publications is recommended, as readers have access to these publications immediately and without restrictions (i.e., no subscriptions, no fees, etc.). This type of publication is typically funded via 'article processing charges' paid by the author/funding entity.
- **Publishing in *Diamond Open Access* journals** are recommended. These are journals which are fully open access and do not charge any subscriptions fees nor article processing charges. There is a great variety in scope and impact of such journals, but there is a growing number of high-quality journals whose credentials are monitored in DOAJ (Directory of Open Access Journals) – including peer review process, indexing, institutional backing etc.

Type of Open Access not recommended

- There is a variant of *Gold Open Access* called *Hybrid Open Access*, where the authors publish in traditional subscription journals but buy an *Gold Open Access* to their article through payment of an 'article processing charges'. The *Hybrid Open Access* option is **not recommended** by the departments.

Funding of Open Access publications

- The three Departments of History, of Language and Communication and for the Study of Culture **do not provide any funding** for publishing Open Access.
- Reimbursement for specific Open Access publications could earlier be applied for with the SDU library, however currently this fund is not in operation. However, the library has made several agreements which offer waivers or discounts on Article Processing Charges for publishing Open Access with certain publishers. For instance, a recent agreement between Elsevier and the research libraries in Denmark entails that Danish authors in the institutions covered by the agreement can publish Open Access at no cost in Elsevier's hybrid journals. Please confer²³ and²⁴ for further information on these agreements and the agreement with Elsevier.

Where can we publish with open access?

See: Directory of Open Access Journals (www.doaj.org).

²³ <https://www.sdu.dk/da/forskning/forskningspublicering/open+access/publiceringsaftaler>

²⁴ <https://www.sdu.dk/da/forskning/forskningspublicering/open+access/publiceringsaftaler/elsevier>

Concerning this document

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Note: Approved by the SDU Research and Innovation (RI) council on 29 April 2021

This is a revised version of the policy. The first version, dated 28 January 2019 was to a considerable extent an adaption of the document 'Guidelines for the Department of Psychology: Implementation of the Open Science Policy' written by Robin Kok, Malcom Bang and Susanne S. Pedersen in collaboration with Asger Væring Larsen and Evgenios Vlachos from the University Library of Southern Denmark (SDUB). The adaptation at that time was carried out by Martin Hvidt (Department of History), Rasmus Gahrn-Andersen (Department of Language and Communication) and Rune Graulund (Department for the Study of Culture).

The revisions to the present version have been carried out by Martin Hvidt (Department of History), Rasmus Gahrn-Andersen and Søren Vigild Poulsen (Department of Language and Communication) and Eva Lykkegaard (Department for the Study of Culture).

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