HUMBOLDT-UNIVERSITÄT ZU BERLIN



Guidelines

A supplement to the Humboldt-Universität zu Berlin Research Data Management Policy

Preface

Humboldt-Universität zu Berlin acknowledges significance of research data as a key basis for scientific and scholarly knowledge. In light of the "Rules of the Humboldt-Universität zu Berlin for Safeguarding Good Scholarly Practice and Investigating Allegations of Scholarly Misconduct" (Satzung der Humboldt-Universität zu Berlin zur Sicherung guter wissenschaftlicher Praxis und zum Umgang mit Vorwürfen wissenschaftlichen Fehlverhaltens, in German) the Academic Senate adopted the "Humboldt-Universität zu Berlin Research Data Management Policy" (Grundsätze zum Umgang mit Forschungsdaten an der Humboldt-Universität zu Berlin, in German). Following guidelines complement this document and provide practical advice for implementing this policy.

There is a need for the University to provide central support to implement the policy. Under the aegis of the Vice President for Research, central services including the Computer and Media Service, the University Library and the Research Service Centre will cooperate on a strategic roadmap for the development of research data management services. These services will be integrated into existing service infrastructure and will be coordinated with academic units. International cooperation with other higher education institutions has guided the development of these. The Research data management initiative, which started in the summer of 2012, has coordinated this issue.¹

General remarks

When publishing research data, the guidelines recommend as a general principle that data should be "accessible by default, restricted if necessary". Depositing research data in appropriate data archives or repositories facilitates visibility and the potential for reuse. Humboldt-Universität supports the principles of "Open Data".²

Research data management advice for the different phases of research activity is given below.

Planning phase: before starting a research activity

Requirements of funding organisations

In case of third-party funded research, special requirements for sharing research data may apply. Project leaders should enquire about the relevant policies in advance. Some funding organisations explicitly require that research data be made openly available after the end of the project. Such requirements apply especially to research data underlying scholarly publications.

¹ Activities of the Initiative are documented on http://www.cms.hu-berlin.de/dataman/ (available in German)

² For an explanation please see The Royal Society (2012). Science as an open enterprise, p. 12. Available online http://royalsociety.org/uploadedFiles/Royal_Society_Content/policy/projects/sape/2012-06-20-SAOE.pdf

More and more frequently funding organisations expect data management plans to be submitted in grant applications. A "data management plan" should normally describe what types of data will be produced, how they will be documented and archived, and what potential reuse is anticipated. German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) for instance expects a plan "detailing how this data will be transferred to existing databases or repositories", whenever research data with potential for reuse is systematically collected. Associated costs may be integrated into research proposal. Similarly, German Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung, BMBF) asks for an "exploitation plan" illustrating scholarly and/or technical prospects of success. Within the Open Research Data Pilot in the EU Framework Programme for Research and Innovation "Horizon 2020", data management plans must be part of application and will be evaluated. For this purpose the Commission provides a special template.

Following questions might offer some helpful starting points when developing a plan:⁶

- What is the aim of the project? Which institutions or people will be involved?
- What types of data will be collected or reused and how?
- What subject-specific standards will be applied (e.g. data formats, metadata, ontologies)?
- How will research data be stored, secured, archived and shared?
- Are there any legal, temporal or other constraints regarding data sharing?

A data management plan should help to clarify basic questions and responsibilities during planning phase. To support researchers at HU, an instruction manual will be developed and made available online on the project website.⁷

Legal requirements

In most research activities, and especially when publishing research results, a legal and regulatory framework must be taken into account. Specific research methods e.g. in the social or life sciences are subject to strict regulations, such as data privacy or prior approval by the ethics committee. Protection of copyright and legitimate interests of third parties must likewise be ensured. Therefore essential legal provisions must be considered at the planning stage of each research activity.

II. Implementation phase: during research activity

Subject-specific standards

Different scholarly disciplines and their research domains apply different methods in handling research data. This makes comprehensive recommendations for concrete procedures hard to define. As a basic principle researchers should become acquainted with established data

³ For further details please see Information for the Planning Phase: Is the research data that results from the project to be made accessible?

http://www.dfg.de/en/research_funding/proposal_review_decision/applicants/submitting_proposal/index.ht ml#micro14785910

⁴ For further details please see Richtlinien für Zuwendungsanträge auf Ausgabenbasis (AZA), p. 9. Available online http://www.bmbf.de/pubRD/0027.pdf (in German)

⁵ See Guidelines on Data Management in Horizon 2020. Available online http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

⁶ Partially referring to Data Management Services in MIT Libraries: http://libraries.mit.edu/data-management/

⁷ Instruction manual build on DMPonline tool developed by the Digital Curation Centre https://dmponline.dcc.ac.uk/

formats, software, and the standards for documentation and annotation of research data, such as ontologies, controlled vocabularies or metadata schemes in the respective scholarly community. The latter is often driven by international initiatives and helps to present research results in a more comprehensible and interoperable manner. Using open, non-proprietary file formats further supports the access to and long-term availability of research data.

III. Final phase: completing research activity

Releasing research data

For research data to be truly *accessible* in terms of good practice – especially those underlying scholarly publications – they should be deposited in appropriate web-based data archives or repositories, instead of merely storing them locally. ¹⁰ In this way research data can be found and cited more easily, and overall research results made available more broadly. Some data archives or repositories have special requirements in order to archive research data with them. Researchers should inform themselves about these rules. Consulting directories such as the "Registry of Research Data Repositories" (<u>re3data.org</u>) might be helpful. ¹¹

Contact details

For an individual consultation on funding requirements and handling research data in your project, please contact the Research data management initiative. ¹²

Please note that this translation is made available in addition to the original version of the "Handlungsempfehlungen in Ergänzung zu den Grundsätzen zum Umgang mit Forschungsdaten an der Humboldt-Universität zu Berlin". Only the German version is authoritative.

⁸ See for example http://www.dcc.ac.uk/resources/metadata-standards

⁹ See also http://libraries.mit.edu/data-management/store/formats/ and http://data-archive.ac.uk/create-manage/format/formats-table

¹⁰ According to German Research Foundation research data underlying scholarly publications has to be available for at least ten years for the purpose of verification of published results.

¹¹ Re3data.org aims to create a global registry of research data repositories. It is funded by the German Research Foundation (DFG) and implemented by Berlin School of Library and Information Science at Humboldt-Universität zu Berlin, GFZ German Research Centre for Geosciences and library of the Karlsruhe Institute of Technology (KIT); http://www.re3data.org/about/

¹² For contact details please see http://www.cms.hu-berlin.de/dataman/kontakt