Bern, 01.04.2021

u^b

_b_
**UNIVERSITÄT
BERN**

Bern Data Science Day 2021 - April 23

What are the key issues to consider when publishing research data openly?

Ethical and legal aspects of DS; Data representation, formatting, storage, and transfer.

Olga V. Churakova, Gero Schreier, Dirk Verdicchio
Open Science, University library Bern, Bern, Switzerland
E-Mail: openscience@ub.unibe.ch

Abstract

Data documentation, sharing and data reuse are important aspects of the scientific data lifecycle. Archiving of clean, high-quality data with rich documentation can be a challenging part in research projects. A crucial aspect that can easily be overlooked in this context is rights to data re-use. Our presentation aims to provide an overview of the key aspects by data sharing, archiving and re-using. Research data can be a subject to legal [1, 3] or ethical [2,3] constrains, which should be clarified at the beginning of data collections. Before making research data publically available, it is necessary to check who holds the data ownership rights (a principal investigator, project partners, or third parties contributing data, research or commercial organizations). This information can be clarified with the help of legal offices at the University of Bern [4,5], if it is not defined under contractual agreements or project consortium agreements [1]. Cantonal, federal or international laws, depending on the organizations and data creators involved should be taken into consideration for each specific dataset. Data sets are often protected by copyrights or property rights. Therefore, it is important to retain all rights and grant rights to re-use research data and metadata. The Creative Commons (CC) licenses CC 0 or CC BY are recommended [6, 7, 8]. This practice is in line with the policies and recommendations of funders like the European Commission [9,10]. However, it is important to notice that the CC 0 license cannot be applied to data which cannot be shared openly because of data protection, e.g., ethical consideration, or contractual agreements; data that will be commercially exploited (patents); some forms of processed data; codes, software and elaborate visualizations. By data sharing, researchers can select a data repository of their choice, however, it is important to check requirements of funding agencies as well as legal and ethical aspects. A good research data repository corresponds to FAIR principles (Findable, Accessible, Interoperable, and Reusable) and provide a Digital Object Identifier (DOI) for the dataset [7]. Be aware that, for example, the Swiss National Science Foundation will only cover upload costs for non-commercial data repositories [11]. Data reuse is a challenging and rather complex topic, therefore, legal and ethical restrictions, licenses, sources, and descriptions must be considered when using third-party datasets. Open Science team at the University Library Bern offers support with data management plans through the whole research data life cycle and consulting in data usage bilateral and for groups. We are seeking to reach out to a broad audience of data scientists by transferring and exchange of knowledge in data science and research data management, extending network and strengthening collaboration. Open Science team at the University Library Bern offers support in writing, reviewing of data management plans through the whole research data life cycle and consulting in data usage individually and in the groups.

References:

[1] Act of the University of Bern UNIG Art. 70 und PG Art. 60

[2] Federal Act on Research involving Human Beings – Human Research Act (2011/2014)

[3] Data Protection Act, Canton of Berne (1986/2013)

[4] Legal service office of the university of Bern (data protection, legal questions) E-Mail

[5] Unitectra supports researchers in the commercialization of research results into new products and services (patents, licenses), in the negotiation of research agreements as well as in the creation of a spin-off company E-Mail

[6] CC licenses

[7] FAIR Data Principles. SNSF Open Research Data Policy

[8] Federal Act on Copyright and Related Rights

[9] EU-Commission. Exploitation and open science in Horizon Europe

[10] General model grant agreement for the Horizon Europe Programme (Horizon), Euratom research and training programme (euratom) (He mga — multi & mono).

[11] SNSF