
Data Guidelines Documentation

SciLifeLab

Aug 20, 2020

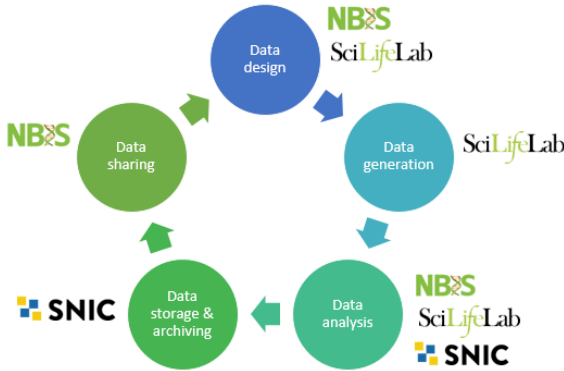
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SciLifeLab is committed to the principles of *FAIR* (Findable, Accessible, Interoperable and Reusable) research data, i.e. that data should be easily accessed, understood, exchanged and reused. We work actively to ensure that the investments done by the society in research infrastructure resources can achieve the highest possible impact.

Research data management concerns the organization, storage, preservation, and sharing of data that is collected or analysed during a research project. Proper planning and management of research data will make project management easier and more efficient while projects are being performed. It also facilitates sharing and allows others to validate as well as reuse the data.

The purpose of these guidelines is to serve as an information resource to researchers regarding research data management. Click on any of the data types for guidance on good data management practices during the data life cycle, including available infrastructures for data generation and analysis and appropriate data repositories for sharing. There is also overarching guidance, applicable to all data types, on e.g. metadata standards and managing sensitive data under General information.

Data types:	Generic guidance:
<div style="text-align: center; margin-bottom: 20px;"> <h1>CHAPTER 1</h1> </div> <hr/> <div style="text-align: center; margin-bottom: 20px;"> <h2>COVID-19</h2> </div> <hr/> <h3>1.1 General information</h3> <p>Please see the Swedish COVID-19 Data Portal for the latest information regarding Swedish efforts in COVID-19 research, including data generating facilities. Also see the European COVID-19 Data Portal and Horizon 2020 guidelines regarding COVID-19 for useful information on European level.</p> <h3>1.2 Data Life Cycle</h3> <p>The data life cycle is typically divided into design, generation, analysis, storage & archiving, and sharing. Below you will find information about standards and infrastructure resources available during these phases.</p>  <pre> graph TD A[Data design] --> B[Data generation] B --> C[Data analysis] C --> D[Data storage & archiving] D --> E[Data sharing] E --> A </pre> <h4>1.2.1 Data design</h4> <p>During this phase you plan for which data is needed to answer your research question. High quality science is often only possible if the resource facilities you intend</p>	<div style="text-align: center; margin-bottom: 20px;"> <h1>CHAPTER 6</h1> </div> <hr/> <div style="text-align: center; margin-bottom: 20px;"> <h2>General information</h2> </div> <hr/> <p>The following sections contain general guidelines, independent of datatype. Metadata contains information about appropriate standards for (meta)data formats. If sensitive data is part of your project, we recommend reading the Sensitive data page. Also, there is a collection of Data protection officers (for sensitive data processing) and Research data offices (for data management guidance) at the different universities who can assist you further.</p> <h3>6.1 FAIR principles</h3> <p>FAIR stands for Findable, Accessible, Interoperable and Reusable:</p> <ul style="list-style-type: none"> To be Findable: Data and metadata should be easy to find by both humans and computer systems. Basic machine readable descriptive metadata allows the discovery of interesting data sets and services. To be Accessible: Data and metadata should be stored for the long term such that they can be easily accessed and downloaded or locally used by machines and humans using standard communication protocols. To be Interoperable: Data should be ready to be exchanged, interpreted and combined in a (semi)automated way with other data sets by humans as well as computer systems. To be Reusable: Data and metadata are sufficiently well-described to allow data to be reused in future research, allowing for integration with other compatible data sources. Proper citation must be facilitated, and the conditions under which the data can be used should be clear to machines and humans.

to use gets involved already in the planning phase of a project. Consultation and advice regarding data management planning, data generation and data analysis are offered by NBIS and SciLifeLab. It is wise to write a data management plan, using either

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 In [Wilkinson, et al 2016](#) a set of principles were defined for each of these properties. Below, each of the principles are explained further as adapted from [FAIR principles translation](#)

These pages are provided to you by [NBIS data management team](#) and [SciLifeLab Data Centre](#). You can reach us by sending an email to data-management@scilifelab.se.