WP 2.2 Defining ORD guidelines

Gorka Fraga González

Hester van de Wiel

https://doi.org/10.5281/zenodo.XXXXXXX





WP2.2.1 Assessment of available ORD guidelines

This tasks describes existing general and field-specific ORD guidelines. We discuss how useful and feasible to implement these guidelines are for the reference project. For general ORD guidelines, we use the <u>openscience.uzh.ch</u> guidelines as reference. They are provided by UZH and thus relevant to the goals of AFFORD in terms of creating a support framework linked to this institution. For field-specific guidelines, we focus on <u>Brain Imaging Data Structure-BIDS</u> and its corresponding data-modality specifications and extensions. We choose BIDS because it is one of the most advanced guidelines in neuroimaging and it already has a system for extension proposals and ongoing extension requests to animal research data and imaging modalities that align to the reference project (e.g., CT, microscopy).

General Open Science Guidelines

The <u>www.openscience.uzh.ch</u> webpage is maintained by the UZH (LIBRARY + ZI?) and consists on a compilation of resources (tutorials and links to a network of centers, departments and collaborators). The content covers different aspects of data management, organization, security and a focus on the FAIR principles.

Domain-specific guidelines: Brain Imaging Data Structure - BIDs

The Brain Imaging Data Structure-BIDS describes data organization principles that are meant to be easy to adopt and generalize across labs, in order to facilitate data sharing between researchers. Since its initial focus on functional magnetic resonance imaging in humans, it has expanded to accommodate other brain imaging modalities like electroencephalography, positron emission tomography. It is meant to be developed collaboratively by scientists and since it started, a large ecosystem of tools and resources evolved around BIDS (e.g., peer-review publications, video tutorials series, software to validate or generate metadata). In this line, there are open proposals for extensions in which scientists working with a specific data modality can propose variations to accommodate to their data. The open proposals are discussed by other scientists in the field and by the broader BIDS community and once accepted they can be integrated in the main documentation site as a new modality following BIDS. It covers a range of aspects of data organization like folder structure, filenames conventions, metadata and file formats and workflows for data (pre)processing and analysis.

WP2.2.2 Customize selected guidelines

Present it to allow efficient and effective resource monitoring (WP21) —> cost-efficient stuff Schematic

- Data
 - Raw
 - Preview/thumbnails
 - Derivatives
- Metadata

- .JSON
- Tables
- Code
- Documentation
 - Filenaming convention
 - Metadata/data specifications
 - Procedures
 - READMEs

WP2.2.3 Determination of field-specific repositories

Here we can refer to Swiss National Science Foundation <u>overview of data repositories</u> . List considerations.

Maybe mini-table with some features that were discussed regardign storage https://gitlab.uzh.ch/crsuzh/afford/-/wikis/Documentation/Storage

intended term (permanent, temporal), file size, scalability, persistent identification, accessibility, visibility, security, permissions, version control, back up

WP2.2.4 Refine customized guidelines based on WP21 (resource monitoring) and WP42 (resource analysis for FAIR)

Here on going versions of Guidelines proposed to INTERFACE, on going discussion on what's useful and not, limitations. And what lead to changing to the refined guidelines

WP2.2.5 Deliverable: refined guideline

Link to ORD Guideline from AFFORD pages