FUS data managment

Welzel, Paschen & Hansen, 2022

Type of data

label	origin	storage destination
Demographic	Clinical IT (OLAT) / Questionnaire	**RedCap**
General clinical	Clinical IT (OLAT) / Interview	**RedCap**
MRI	Clinical system	**XNAT**
Questionnaire/ Neuropsychology	Clinical assessment	**Clinical IT (OLAT)/ RedCap**
Movement analysis	Sensor system	**Disk**
EEG	EEG recording computer	**Disk**

Proposed format

RedCap
XNAT
Clinical IT (OLAT)
Disk


```
|— README
|— dataset_description.json
|— participants.json
|— participants.tsv
|— sub-01\
  └─ eeg\
  └─ mri\
  └─ motion\
|— sub-02\
  └─ eeg\
  └─ motion\
  └─ ...
```

BIDS

- Storage system of raw-data and metadata in the same location
- Specification per entity (MRI, PET, EEG, genetics, motion, …)
- Online documentation and widely accepted (+2000 citation since 2016)
- Big set of application (Validator, High Performance Computing, …)
- Research steering committee and company independent

Gorgolewski, Nature Scientific Reports, 2016

Research output

- MRI & EEG most popular toolboxes support BIDS for data import

- Clinical & behavioral data is stored in UTF-8 table formats which can be utilized with common statistical programs (R, SPSS, Python, …)

- Motion data requires self written analysis scripts (Currently adapted to BIDS format)