Data Management Strategy

Global Health Engineering, ETH Zurich

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Preface

At the Global Health Engineering (GHE) group at ETH Zurich we are committed to applying open science principles to ensure our research is reproducible, verifiable, and reusable for the greatest possible impact. Good practice in research data management (RDM) forms a key element in conforming to these principles. We are guided by the principle of open by default and apply it to all our research products.

This data management strategy (DMS) is designed to assist students and faculty at GHE in defining responsibilities, rules and guidelines for the coordination of daily and long-term data management.

1 Introduction

1.1 Data at GHE

- small (few MBs)
- tabular
- non-sensitive
- topics
  - waste management
  - sanitation
  - air quality

1.2 Workflow

- GHE RDM workflow

2 Responsibilities

2.1 Group principles

- nothing is stored locally on a hard drive
- everything is a project (no project related files are stored in folders of individuals)
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2.2 Individual tasks

- Staff
  - Professor
  - Senior Scientist
  - Open Science Specialist / Data Steward
  - Administrative assistant
  - Scientific Assistant
  - Visiting guests
- Students
  - visiting students (mobility students)
  - BSc
  - MSc
  - PhD

2.3 Approval

- Sharing research data: As our approach is “open by default” it requires approval to not share research data.

3 Data collection

3.1 Types

- quantitative data
  - experimental data
  - survey data
  - sensor data
  -
- qualitative data
  - observations
  - interview transcripts
- photos
- videos

3.2 Tools

- spreadsheet-based
- survey tools
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4 Data documentation

5 Data processing

6 Data security

7 Data publication

8 Data archiving

9 RDM costs

10 Confirmation

Glossary

analysis-ready data Definition ...

raw data Definition ...

data underlying publication Definition ...

final data Definition ...

intermediate data Definition ...

processed data Definition ...

unprocessed data Definition ...

data frame Definition ...

[research data] Definition ...

[open science] Definition ...

References