Plan Overview

A Data Management Plan created using DMPonline

Title: Shaping a modern approach to open data from a World-leading science facility

Creator: Nian Yang Terence Tan

Principal Investigator: Nian Yang Terence Tan

Data Manager: Nian Yang Terence Tan

Contributor: Steve Collins, Philippe Rocca-Serra, Susanna-Assunta Sansone

Affiliation: University of Oxford

Funder: STFC (Science and Technology Facilities Council)

Template: STFC Template

ORCID iD: 0009-0008-7829-3647

Project abstract:

This project is a collaboration between the University of Oxford and Diamond Light Source that aims to understand the opportunities and barriers in moving towards FAIR (Findable, Accessible, Interoperable, Reusuable) and open data within the Photon and Neutron scientific community. The project is designed to improve the FAIRness level of the science life cycle at Diamond, and deliver novel conceptual and methodological contributions to enhance the value of Diamond research data, while leveraging on and complementing the activities of existing communities and projects.

ID: 152807

Start date: 01-10-2023

End date: 30-09-2027

Last modified: 02-09-2024

Shaping a modern approach to open data from a World-leading science facility

Data types

Specify the types of data the research will generate.

All digital objects will be managed with the implementation of the FAIR Principles.

1. Digital objects from other sources
    - Collecting as many experiment proposals as possible from Diamond Light Source as well as other Photon and Neutron facilities such as the European Synchrotron Radiation Facility.
        - Title
        - Authors
        - Abstract
        - References (if applicable)
        - DOI (if applicable)
2. Digital objects created from project
    - Creating metadata of all the collected experiment proposals. Metadata will be structured in a machine-readable format and linked to the respective experiment proposals.
        - Topics
        - Experimental techniques
    - Producing Python code in Visual Studio Code to collect the experiment proposals and create the associated metadata.
    - Collecting web survey responses from Diamond staff and researchers (number to be determined later).
    - Creating audio recordings of interviews with Diamond staff and researchers (number to be determined later).
    - Creating posters for academic conferences.
    - Writing papers and the final DPhil thesis.

Data preservation

Specify which data will be preserved and how.

Deposit of the thesis in the Oxford University Research Archive (ORA) is a mandatory requirement. The Transfer Report will also be uploaded to the ORA after Transfer of Status has been passed. Upload of other data to the ORA will be contingent on approval from Diamond Light Source.

All data will be uploaded to and stored on a public GitHub repository (https://github.com/terencetan-c/Project-Stakeholder-Group). The static DOIs of any material uploaded to the ORA will also be included in GitHub.

Specify the software and metadata implications.

The Python script used to collect the experiment proposals and create the associated metadata will be provided so that others can reproduce the data. Comments will also be added so that others can understand the code.

A README file will be created in the GitHub repository to describe and contextualise the various data files.

Metadata will be added when depositing data on ORA.

FAIRsharing (https://fairsharing.org/) will be consulted with to find the most appropriate community standards for each digital object.

Specify for how long the data will be preserved.

Data can be stored indefinitely on GitHub repositories and ORA.

Data sharing

Specify and justify which data will have value to others and should be shared.

All data will be shared with permission from the University of Oxford and Diamond Light Source.

Specify and justify the length of any proprietary period.

All data excluding the code will be uploaded to the GitHub repository as soon as possible, with the exception of information deemed confidential by the University of Oxford or Diamond Light Source. The code will be cleaned up and uploaded together with the submission of the thesis.
The thesis will be required to be deposited in ORA after submission.

Specify how data will be shared

The data will be available via the GitHub repository.
A permanent descriptive record is created for all data deposited in ORA and a Digital Object Identifier (DOI) can be requested. Data in ORA will be discoverable through Google and other search engines.

Resources

Specify and justify any resources required to preserve and share the data.

GitHub repositories are free to use and require minimal upkeep from users.

ORA is currently free of charge, and curation and online delivery of the data will be assured by ORA staff, ensuring the long-term preservation, back-up and accessibility of the data.