INFORMATION LITERACY

aka How to survive your PhD







Piled Higher and Deeper" by Joi www.phdcomics.com





Agenda

- Research data management + Research Data Unipd
- Open Science
- UniPd Library System services for authors



Rakicevic Nenad from **Pexels**

What do we mean with research data?

Link alle domande

Which kind of data does your community of research produce (e.g. video, graphics, computer codes, numbers, ...)?

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What are research data?



data





Recorded information (regardless of the form or the media in which they may exist) necessary to support or validate a research project's observations, findings or outputs





Digital texts or digital copies of text



Audio





Databases

BUT ALSO...

- Computer Aided Design (CAD)
- Waveforms
- Computer codes
- Statistics (SPSS, SAS)
- File Matlab
- Artistics products
- Web files



Graphics

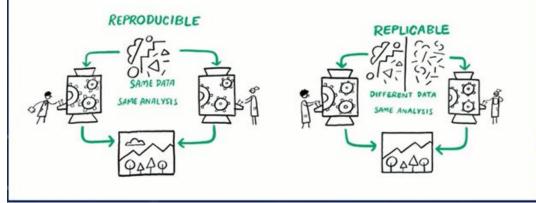
Data Types

| Data Type | Value | Example |
|--|--|--|
| Observational data captured around the time of the event | Usually irreplaceable | Sensor readings, telemetry, survey results, neuro-images |
| Experimental data from lab equipment | Often reproducible but can be expensive | Gene sequence, chromatograms, toroid magnetic field readings |
| Simulation data generated from test models | Model and metadata (inputs) more important than output data. Large modules can take a lot of computer time to reproduce | Climate models, economic models |
| Derived or compiled data | Reproducible (but very expensive) | Text and data mining, compiled databases, 3D models |

Reproducibility vs. Replicability

Open Methods

- Reproducible: A result is reproducible when the same analysis steps performed on the same dataset consistently produces the same answer.
- Replicable: A result is replicable when the same analysis performed on different datasets produces qualitatively similar answers.



Do you know how much your data cost?

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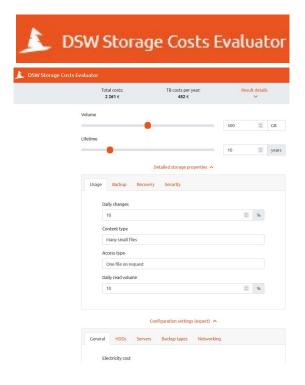
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Data Costs





Data management costing tool

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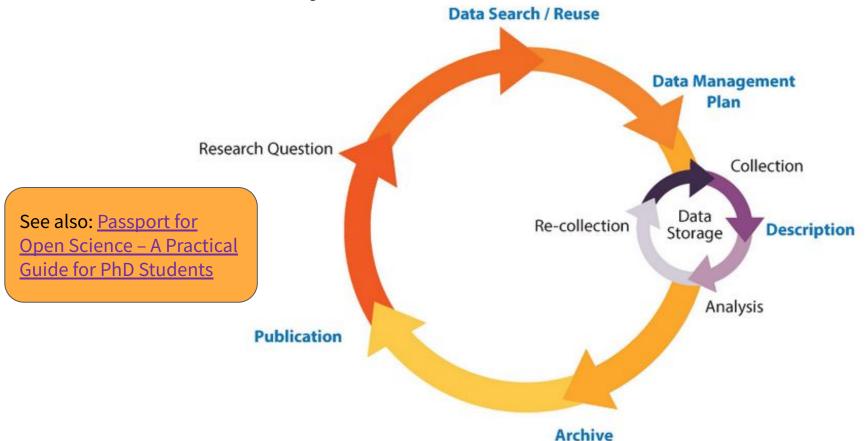
Guides for Researchers

How to identify and assess Research

Data Management (RDM) costs

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Research data lifecycle



Open Data

Open Data are online, free of cost, accessible data that can be used, reused and distributed, provided that the data source is attributed.



It is the philosophy of Open Access applied to data

Data are open when anyone can access, use and share

Anyone means: academics, politicians, private citizens, economic stakeholders

Open methodology

= the use of open methodologies throughout the entire research cycle, making it open and available to everyone online at the very moment the research is conducted.

pre-registration: https://www.cos.io/initiatives/prereg

Open Notebooks

- https://openlabnotebooks.org
- https://theopennotebook.com/
- Foster: <u>OpenLab/Notebook</u>

Open Codes

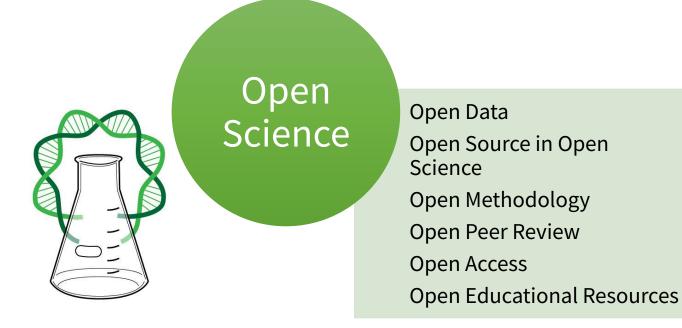
- Code Ocean
- Protocols.io



Open Science

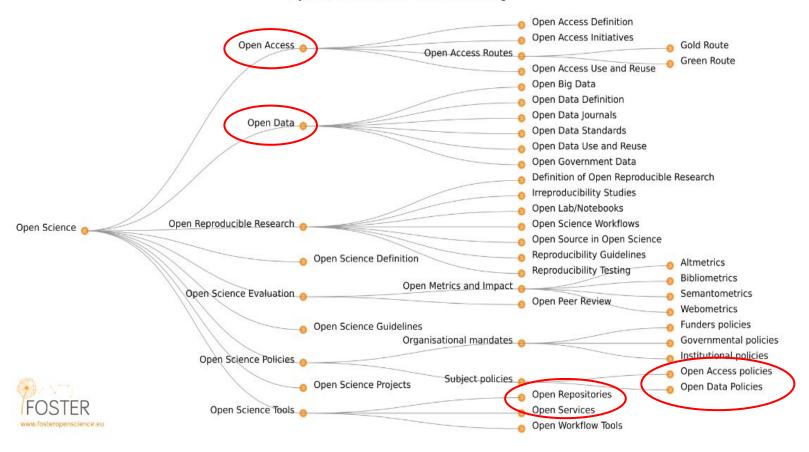
"Open science is the movement to make scientific research, data and dissemination accessible to all levels of an inquiring society"

FOSTER consortium

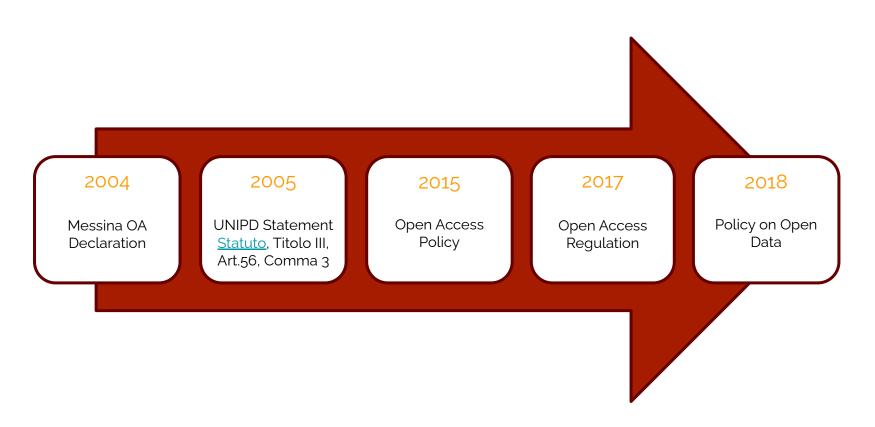


Andreas E. Neuhold – CC BY 3.0

Open Science Taxonomy



The journey towards Open Science at the University of Padova



Tips on the management of research data

Managing research data: 7 steps



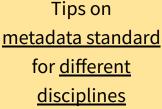
1. Collect research data



2. Name data rationally



3. Structure data in hierarchical systems





4. Annotate data trough metadata



5. Pay attention to file formats



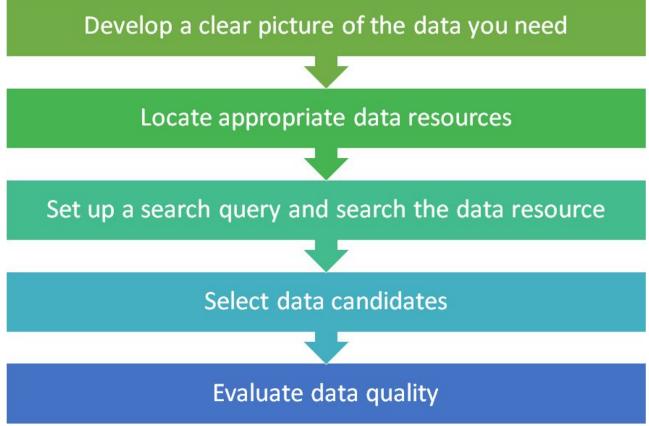
6. Organize dataset versions



7. Storage and preservation

First step: collect research data

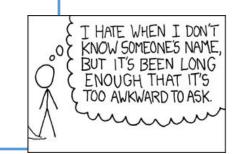




Second step: file name strategy

A file name is a principal identifier of a file

- •• File name should help to identify the **content** of the file
- •• Good file names provide useful clues to the **status** and **version** of a file, **uniquely identify** a file and **help in classifying and sorting** files



File naming strategy should be consistent in time and among different people

- •• In both quantitative and qualitative research file naming should be systematic and consistent across all files in the study
- •• A group of cooperating researchers should **follow the same file naming strategy**.







File Naming





- ☐ clean stu svy_backup.csv
- ☐ clean stu svy_backup backup.csv
- ☐ stu survey FINAL clean.csv
- ☐ 11.5.23 clean stud svy.csv
- ☐ clean stu svy 11.05.2023_AS edits.csv

Lewis, Crystal: Data Management in Large-Scale Education Research,

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Attribution-NonCommercial-ShareAlike 4.0

International License

📂 data

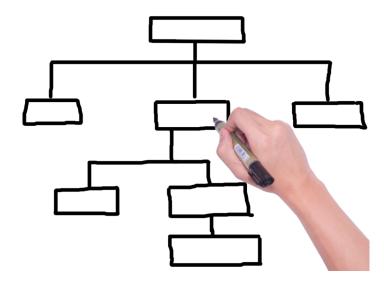
- □ stu_svy_clean_v01.csv
- □ stu_svy_clean_v02.csv
- □ stu_svy_clean_v03.csv
- ☐ changelog.txt

| File Name | Date Created | Change |
|---------------------------|--------------|---------------------------------------|
| stu_svy_clean_v01 .csv | 2023-10-15 | Original clean data |
| stu_svy_clean_v02 .csv | 2023-11-05 | 3 students added to the raw data |
| stu_svy_clean_v03 .csv | 2023-11-06 | Error found in recoding of stu_gender |

Third step: structure research data

Structuring your data files in folders is important for making it easier to locate and organize files and versions.

The decision on how to organize your data files depends on the plan and organization of the study. All material relevant to the data should be entered into the data folders, including detailed information on the data collection and data processing procedures.



Î

Directory Structure





- DATA
- From data-computer
- Mary's dissertation
- **Old** DATA
- PDFs from schools
- Project coordination
- project new
- project new data-2
- wave 1



- project_new
 - 01_grant_mgmt
 - 02_project_coordination
 - 03_documentation
 - 04_participant_tracking
 - **5**05_data
 - wave1
 - wave2

Lewis, Crystal: Data Management in Large-Scale Education Research.

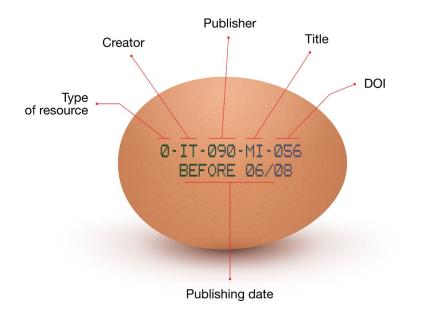
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International License

Fourth step: annotate using metadata

Metadata means "data about data".

It is defined as the data providing information about one or more aspects of the data and it is used to summarize basic information about data, which can make easier to track and work with specific data.





non-proprietary formats of files?

Do you collect your data in proprietary or

used in your research area?

What are the most common data formats

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Fifth step: file formats

When preparing to collect research data, you should choose **open**, **well-documented** and **non-proprietary formats** wherever possible.

The choice of format will vary depending on how you plan to analyze, store and share your data.

It is advisable to store your data for use in future, which means to convert them from a current data format to a long-term preservation format. Most software applications offer export or exchange formats that allow a text-formatted file to be created for importing into another program.

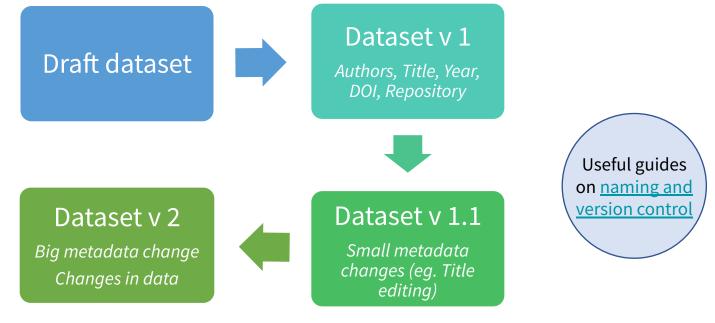


Recommended formats

Sixth step: organize data in dataset versions

Versioning is important for long-term research data management where metadata and/or files are updated over time.

It is used to track any metadata or file changes (e.g., by uploading a new file, changing files structure, adding or editing file metadata...) once a dataset has been published.



http://guides.dataverse.org/en/latest/user/dataset-management.html

Where do you store your data?

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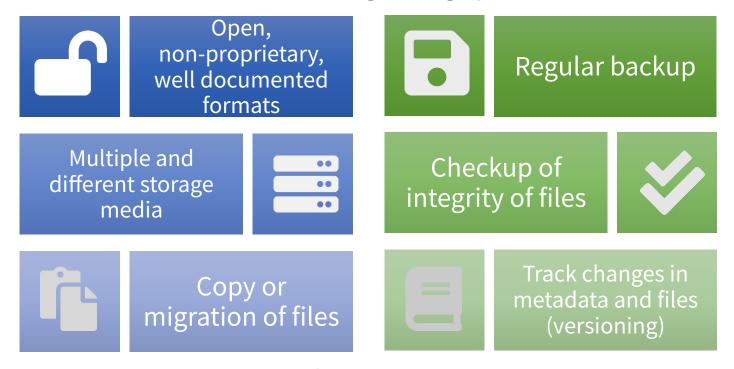
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Seventh step: storage and preservation

Data storage in safe archives adhering to relevant standards.

Preservation actions should ensure that data remains authentic, reliable and usable while maintaining its integrity



Checklist for storage and preservation

data?

Do you manage personal and sensitive

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General Data Protection Regulation

Since 25 May 2018, the <u>General Data Protection Regulation</u> (GDPR, European Union, 2016) applies to any EU researcher who collects <u>personal data of living persons</u>.

So, when processing personal data, researchers should adhere to the following six principles:

I. Process lawfully, fair and transparent

IV. Personal data should be accurate and, where necessary kept up to date

II. Keep to the original purpose

V. Remove data which are not used

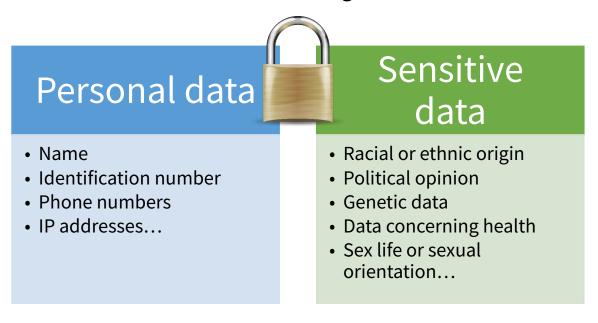
III. Minimise data size

VI. Ensure data integrity and confidentiality

The so-called "research exemption" means that principles 2 and 5 are less stringent when applied to data collected for research projects, public interest, statistical purposes

Privacy, sensitive and personal data

Research data may contain information about living, identifiable individuals, or other information that is sensitive, for example about criminal justice or national security. You are responsible for ensuring that your handling of all these data is secure and compliant with laws and regulations.



Privacy, sensitive and personal data





- Make a risk assessment
- Choose which data to collect, ensuring compliance with the minimization principle
- Prepare informed consent form, with information on: research, data sharing and conservation, subjects involved, rights of the interested party

Privacy, sensitive and personal data

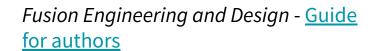


After data collection

- Protect IDs (eg. with pseudonymisation, or retaining information that allows identification in a separate archive)
- Anonymize whenever possible
- Aggregate data
- Regulate access where necessary



Publishers' policies on research data - Elsevier



ELSEVIER

Home > Authors > Tools and resources > Research Data

Sharing research data

As a researcher, you are increasingly encouraged, or even mandated, to make your research data available, accessible, discoverable and usable.

Sharing research data is something we are passionate about too, so we've created this short video and written guide to

Please read our guidelines on sharing research data for more information on depositing, sharing and using research data and other relevant research materials.

For this journal, the following instructions from our research data guidelines apply.

Option C: Research data deposit, citation and linking

You are required to:

- Deposit your research data in a relevant data repository.
- · Cite and link to this dataset in your article.
- If this is not possible, make a statement explaining why research data cannot be shared.

https://www.elsevier.com/researcher/author/ /tools-and-resources/research-data

Publishers' policies on research data - Springer

Animal Cognition - Submission guidelines

Research Data Policy - Springer

Supplementary Information (SI)

Springer accepts electronic multimedia files (animations, movies, audio, etc.) and other supplementary files to be published online along with an article or a book chapter. This feature can add dimension to the author's article, as certain information cannot be printed or is more convenient in electronic form.

Before submitting research datasets as Supplementary Information, authors should read the journal's Research data policy. We encourage research data to be archived in data repositories wherever possible.

Data repository guidance

This resource is intended as a guide for those who are unsure where to deposit their data, and provides examples of repositories from a number of disciplines. This does not preclude the use of any data repository which does not appear in these pages. Please be aware that some repositories may charge for hosting data.

Data should be submitted to discipline-specific, community-recognised repositories where possible. In cases where a suitable discipline-specific resource does not exist, data may be submitted to a generalist data repository, including any generalist data repositories provided by universities, funders or institutions for their affiliated researchers.

Authors should consult individual journal guidance in case of more specific repository recommendations, as some Springer Nature journals maintain their own research data repositories. For more information browse our repositories FAQs.

Repository examples

Mandated data types Materials science

Biological sciences Physics

Chemistry and chemical biology Social science

Earth, environmental and space sciences Generalist repositories

Health sciences

Publishers' policies on research data - PLOS

Introduction

PLOS journals require authors to make all data necessary to replicate their study's findings publicly available without restriction at the time of publication. When specific legal or ethical restrictions prohibit public sharing of a data set, authors must indicate how others may obtain access to the data.

PLOS ONE - Data Availability

When submitting a manuscript, authors must provide a Data Availability Statement describing com the article is accepted for publication, the Data Availability Statement will be published as part of the

Acceptable data sharing methods are listed <u>below</u>, accompanied by guidance for authors as to wh Availability Statement and how to follow <u>best practices in research reporting</u>.

PLOS believes that sharing data fosters scientific progress. Data availability allows and facilitates:

- > Validation, replication, reanalysis, new analysis, reinterpretation or inclusion into meta-anal
- > Reproducibility of research;
- > Efforts to ensure data are archived, increasing the value of the investment made in funding
- > Reduction of the burden on authors in preserving and finding old data, and managing data
- Citation and linking of research data and their associated articles, enhancing visibility and educate producers and curators.

Acceptable Data Sharing Methods

Deposition within data repository (strongly recommended)

All data and related metadata underlying reported findings should be deposited in appropriate public data repositories, unless already provided as part of a submitted article. Repositories may be either subject-specific repositories that accept specific types of structured data, or cross-disciplinary generalist repositories that accept multiple data types.

If field-specific standards for data deposition exist, PLOS requires authors to comply with these standards. Authors should select repositories appropriate to their field of study (for example, ArrayExpress or GEO for microarray data; GenBank, EMBL, or DDBJ for gene sequences).

The Data Availability Statement must list the name of the repository or repositories as well as digital object identifiers (DOIs), accession numbers or codes, or other persistent identifiers for all relevant data.

Publication is conditional on compliance with this policy. If restrictions on access to data come to light after publication, we reserve the right to post a Correction, an Editorial Expression of Concern, contact the authors' institutions and funders, or, in extreme cases retract the publication.

Data in Supporting Information files

Although authors are encouraged to directly deposit data in <u>appropriate repositories</u>, data can be included in <u>Supporting Information</u> files. When including data in Supporting Information files, authors should submit data in file formats that are standard in their field and allow wide dissemination. If there are currently no standards in the field, authors should maximize the accessibility and reusability of the data by selecting a file format from which data can be efficiently extracted (for example, spreadsheets are preferable to PDFs or images when providing tabulated data).

Upon publication, PLOS uploads all Supporting Information files associated with an article to the figshare repository to increase compliance with the FAIR principles (Findable, Accessible, Interoperable, Reusable).

FINDABLE

Data easy to find thanks to rich metadata and unique and persistent identifier

FAIR

DATA

REUSABLE

Clear and accessible usage licences and detailed provenance of data

ACCESSIBLE

Metadata always accessible and open universally implementable protocols

INTEROPERABLE

Controlled vocabularies
and standard
cross-references to
other (meta)data

Retractions vs. Reproducibility

Retraction of articles due to lack of data, citations and methodologies are increasing.

The inability to access to data and methods prevents from reproducing experiments and validate results.

Scientific publications of affiliated authors in Italy retracted due to fraud. Review and analysis $\underline{\mathbf{w}}$

Gonzalo Marco-Cuenca, José Antonio Salvador-Oliván, Rosario Arquero-Avilés, Chiara Faggiolani, Brenda Siso-Calvo

Abstract

The purpose of this study is to review the publications retracted due to fraud written by authors with affiliation in Italy in the period 2000-2020. For the identification of retracted publications, Retraction Watch Database has been used and Web of Science and Pubmed databases have been used for their verification and review. A total of II2 retractions were obtained due to fraud related the criteria

Author asks to retract nearly 20year old paper over figure questions, lack of data

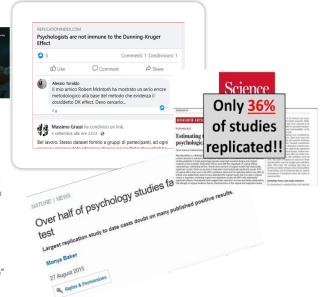
The last author of a 1999 paper has asked the journal to retract it less than one month after a user raised questions about images on PubPeer.

Yesterday, last author Jim Woodgett posted a note on the site saying the author who generated the figures in question could not find the original data, and since he agreed the images appeared "suspicious," he had contacted the journal to retract the paper.

Here's the note from Woodgett, based at Lunenfeld-Tanenbaum Research Institute at Mount Sinai Hospital in Toronto:

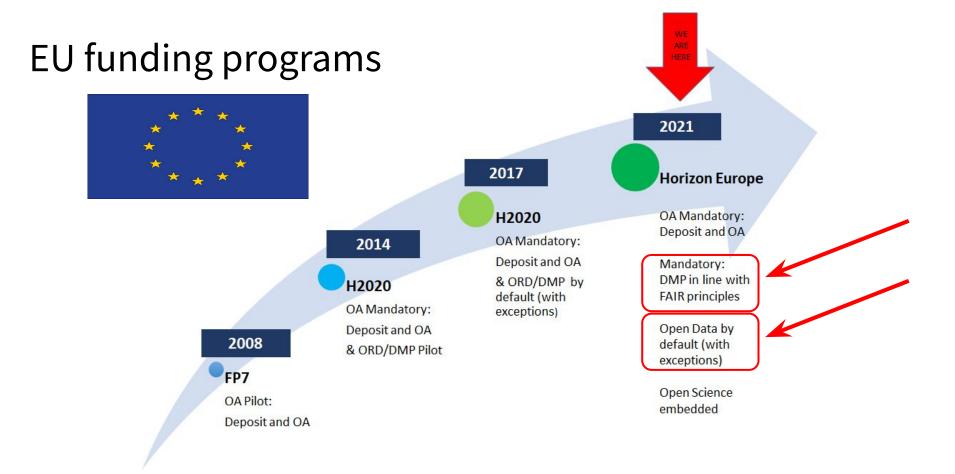
...the person who generated the original data cannot source it and, as a consequence, a request to retract this paper based on the discrepancies in figure 5B and C has been submitted and approved.

The PubPeer exchange is over a pair of figures in the 1999 paper, "Regulation of the protein kinase activity of Shaggy(Zeste-white3) by components of the wingless pathway in Drosophila cells and embryos," which has been cited 77 times, according to Thomson Reuters Web of Science. ents 77.68% of the retractions reviewed. 20.54% of retractions are associated with data and 1.79% with both causes. There is an average of 5.6 articles retracted per year in the period analyzed. The tracted works are research articles in the area of Life Sciences and Biomedicine. It is noteworthy that 37% of be cited after their retraction.



JLIS: https://www.jlis.it/article/view/12711

Rete Italiana Open Science: https://www.facebook.com/groups/172297443522463/



From OpenAIRE webinar: Horizon 2020 Open Science Policies and beyond, October 22nd, 2019 by Emilie Hermans (Ghent University) https://www.slideshare.net/OpenAIRE_eu/horizon-2020-open-science-policies-and-bevond-with-emilie-hermans-openaire

Funding programs requiring OPEN DATA: European Union

COMMISSION RECOMMENDATION (EU)
2018/790 of 25 April 2018 on access to and preservation of scientific information

DIRECTIVE (EU) 2019/1024 OF THE
EUROPEAN PARLIAMENT AND OF THE
COUNCIL of 20 June 2019 on open data and
the re-use of public sector information

<u>Horizon Europe Programme Guide</u>



The mission of the ERC is to support excellent research in all fields of science and scholarship. The main outputs of this research are new knowledge, ideas and understanding

The ERC considers that providing free online access to these materials is the most effective way of ensuring that the fruits of the research it funds can be accessed, read, and used as the basis for further research.

Horizon Europe (2021-2027)

2. Research Data in Horizon Europe

Once your project has generated research data:

- Deposit the research data (or other outputs) in a trusted repository.
- You must provide open access to research data under the principle 'as open as
 possible, as closed as necessary'. In general, you should deposit data generated
 or collected by the project as soon as possible after data production/generation or
 after adequate processing and quality control have taken place
- License the research data or dedicate them to the public domain. Make your data
 available under the latest available version of the Creative Commons Attribution
 International Licence (CC BY) or a licence with equivalent rights, or the latest
 version of the Creative Commons Public Domain Dedication (CC0) or equivalent,
 which waives any rights to the data.
- Provide information via the repository about any research output or any other tools and instruments needed to re-use or validate the data.
- Metadata of deposited research data must be open under a Creative Commons
 Public Domain Dedication (CC0) or equivalent (to the extent legitimate interests
 or constraints are safeguarded), in line with the FAIR

principles (Findable, Accessible, Interoperable and Re-usable), in particular machine-actionable.

3. Open access costs in Horizon Europe

You can allocate funds from your ERC grant to costs related to scientific publications and to storage and maintenance of research data generated by the ERC funded project.

DMP = Data Management Plan



DMP: Guidelines & tools



DCC = Digital Curation Centre

• https://www.dcc.ac.uk/dmponline



DMP templates according to funders' specific requirements

 https://dmponline.dcc.ac.uk/public templates





Data Stewardship Wizard

DMP which can be exported using selected template and format, including machine-actionable ones

https://ds-wizard.org/

Science Europe

Research Data Management Guidance and Templates for D

https://scienceeurope.org/orities/research-data/resmanagement





Horizon Europe

Funding & tender opportunities > Project reporting templates > Data management plan (HE)

 https://ec.europa.eu/info/funding-tend ers/opportunities/portal/screen/how-t o-participate/reference-documents:pro gramCode=HORIZON

UniPD International Research Office

FAIR Data Management Plan: Guidelines and annotated template

https://biblio.unipd.it/biblioteca-digitale/per-chi-pubblica/documenti-e-materiali/unipd_dmp-guidelines_08-04-2024_v2.pdf



DMP: some examples

CESSDA (Consortium of

European Social Science Data

Archives)

Link to pdf version here

Link to editable version in this page

DCC (Data Curation Centre) Link to DMP Checklist here

Zenodo

more than 2000 results for "data management plan" research

Organising and documenting your data

- How will the data be conected?
 Is specific software or hardware or staff required? 15 specific sortware or nargware or start require
 Who will be responsible for the data collection? Who will be responsible for the data collection?
 During which period will the data be collected?

Where will the data be collected?

 How will you organise your data?
 Will the data be organised in simple files or more complex databases?
 How will the data making discontinuous the notions he account. In a videos, text, photos), is it possible

- · How will the data quality d
- If data consists of many d structure the data in a log

Data type and size

- What type(s) of data w • What is the scope, qua
- · After the project: Wha

Processing your data

Interoperability

· Will you make use of est vocabularies) in the pro-

Which coding is used (if how does your coding r

If applicable:

- . What is your strategy concerning versioning your data files (and scripts) during the
- Will you create and/or follow a convention for versioning your data?
- Who will be responsible for securing that a "Masterfile" will be maintained, documen and versioned according to the project guidelines?
- . How can different versions of a data file be distinguished?

File format

- In what format will
- · Will your (final) data

Folder structure ? . How will you struc

File structure ar

. How will you stri

Documentatio · What documen

- - . How will data quality ! · What data quality con

- Is there any program that can be use How will metadata for each Can metadata be added directly into th-
- program or document?

Metadata standard (if applicable) • What metadata standard(s) will you use?

Data Quality

 Will you make use of establ and hardware you use relate

and hardware? If not, how does the softw

Storing your data and metadata

 Storage
 How and where will the (meta)data be stored during the project? • For how long will the (meta)data be stored?

- How, where and at what intervals will the (meta)data be backed-up? How will data be recovered in the case of a (meta)data loss incident?

- How will sensitive (meta)data be protected? (if applicable)



Open Data @ UniPD

The 1° December
2018 the Policy on the
management of
research data of the
University of Padova
entered into force.

WHO and WHAT

- "This policy applies to all University research projects limited to the parts for which the University is responsible"
- "Staff people are required to observe it".

WHERE

 "Research data must be archived into the digital repository of the University of Padova called Research Data Unipd, or into a digital repository that complies with international standards".

HOW

- Data must be stored correctly, completely, respecting their integrity.
- They must also be accessible, identifiable, traceable, interoperable and, where possible, available for subsequent use (FAIR principles)".





UNIPD DI PADOVA HOME **BROWSE HOWTO ABOUT** LOG IN Search... SEARCH

Research Data Unipd is a research data archive. The service aims to facilitate data discovery, data sharing, and reuse as required by funding institutions (e.g. European Commission).

Anyone has access to data. The deposit of datasets is reserved to institutional users: they can log in with their Single Sign-On (SSO) credentials.

The University of Padua recognises the importance of data management for maintaining the quality of scientific research and is committed to applying the highest standards for their collection, archiving and preservation, as stated in the University of Padua Policy on the Management of Research Data (ITA).

For more information on Research Data Management and Repositories, please refer to the Open Research Data section on the University Library System website, or contact the Library Helpline.

Search... SEARCH

LATEST ADDITIONS >

View items added to the repository in the past 90 days.

BROWSE REPOSITORY >

Browse the items in the repository by Year, Subject, Department and Author.

SEARCH REPOSITORY >

Search the repository using a full range of fields. Use the search field at the top of the page for a quick search.

Research Data Unipd supports OAI 2.0 with a base URL of https://researchdata.cab.unipd.it/cgi/oai2

Research Data Unipd is indexed in:













Research Data Unipd

Purposes

It is a platform for long-term management and archiving of research data and for the access and re-use of data necessary to validate the results of scientific publication

Features

- Authentication via the University's SSO
- DOI attribution
- Connection between dataset and articles from the publisher's website or deposited in Padua Research Archive
- ERC subjects

FAIRness

It allows the self-archiving of datasets of any format with FAIR mode (Findable, Accessible, Interoperable, Reusable), as recommended by most funders.

Research Data Unipd e i Principi FAIR

DOI:

https://www.doi.org

Author identifier system(s):

ORCID

Metadata standard

DataCite Metadata Schema

Metadata standard

Dublin Core

Licenze:

GNU General Public License (GPL) 2.0

Open Data Commons Open Database

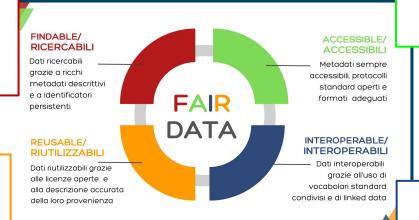
License (ODC ODbL) 1.0

<u>Creative Commons licenses</u> Tipologia degli elementi:

Resource Types

Provenance:

w3.org (vocabolario)



OpenAIRE Guidelines for Literature, institutional, and thematic Repositories Access Level
Protocollo di accesso:
OAI-PMH

Linked Data format:

JSON-LD

Costruzione pagine web:

Schema.org

Soggetti: tassonomia ERC

SW: EPprints

Research data

Raw data



Processed data

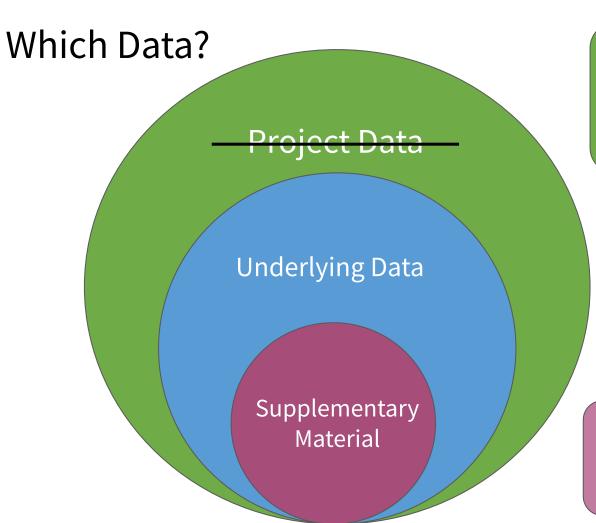


Analyzed data

original data, collected or created; often not reproducible or reproducible only at a high cost

subjected to an initial intervention (e.g. digitized, compressed, selected, validated, anonymized...)

already processed, interpreted, analyzed; presented in various ways (texts, tables, graphs...)



All data used or generated during the activity of research

All data that validate the results described in a publication

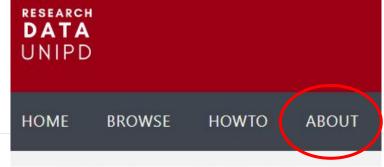
All information that complete a publication (they might include data)

Research Data Unipd - Test

If you want to access the archive and do some tests without risks, please use:

https://researchdatatest.cab.unipd.it/

(only from the university network and/or via proxy)



About the Repository

Research Data Unipd supports research produced by members of the University of Padua. The service aims to facilitate data discovery, data sharing, and reuse as required by funding institutions (e.g. European Commission).

According to the <u>University of Padua Policy on the Management of Research Data</u>, data must be stored in a correct, complete and reliable way, respecting their integrity. They must also be accessible, identifiable, traceable, interoperable and, where possible, available for subsequent use as stated in the <u>FAIR principles</u>.

Quality

Datasets published in the Archive have a set of metadata that ensure that data are described and discoverable. Before publication, dataset records are checked by Editors for the presence of appropriate metadata.

Metadata Policy

All published metadata are released under a <u>CCO licence</u>.

Re-using data

We encourage researchers to use licences on their datasets to promote the reuse of the research data. The licence to be preferred is <u>Creative Commons Attribution 4.0</u>, but several others are used. Any re-use must acknowledge the Creators in an appropriate manner, ideally through a citation similar to that provided with the record.

Recommended formats and data files

Formats and data files

Submission policy

Submission policy concerning depositors, quality & copyright

Data deposit agreement

Agreement to terms and conditions

Restauro di beni mobili della Biblioteca dell'Orto botanico di Padova. Restoration of cultural assets of the Padua Botanical Garden.

Andreoli, Lorisa (2019) Restauro di beni mobili della Biblioteca dell'Orto botanico di Padova. Restoration of cultural assets of the Padua Botanical Garden. [Data Collection]

· https://phaidra.cab.unipd.it/search_obje...

https://phaidra.cab.unipd.it/search obje...

Related publications • https://phaidra.cab.unipd.it/o:4855

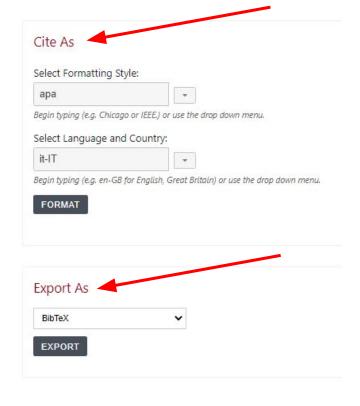
Collection description

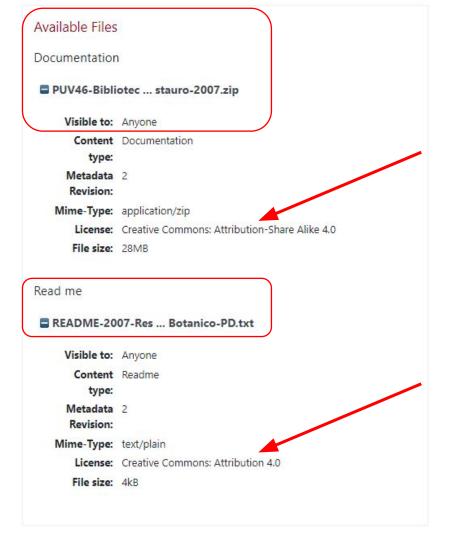
La documentazione è relativa ai dati del restauro, effettuato nel 2007, di beni mobili conservati presso la Biblioteca dell'Orto botanico di Padova, INFORMAZIONI SUI BENI MOBILI 1) RESTAURO DELL'ICONOTECA DEI BOTANICI L'Iconoteca dei Botanici comprende 2.380 ritratti di botanici italiani e stranieri dalla seconda metà del XVII secolo alla prima metà del XX secolo. La collezione è composta di fotografie (carte salate, albumine, aristotipi, platinotipi, stampe alla gelatina a sviluppo), negativi su vetro, incisioni, acquerelli, disegni, dipinti e stampe fotomeccaniche. La collezione prende avvio nel 1843 a seguito della donazione all'Orto di sette ritratti ad olio di botanici, e successivamente il Prefetto dell'Orto Pier Andrea Saccardo (prefetto dal 1879 al 1915) decide di sviluppare in modo sistematico tale collezione a completamento dell'opera La Botanica in Italia, allargando le sue ricerche anche ai botanici stranieri. Il restauro dell'Iconoteca ha riguardato: a) restauro dei negativi su lastra di vetro b) restauro di stampe fotografiche in cornice c) restauro di stampe PRESENTAZIONE DELL'ICONOTECA DEI BOTANICI: https://phaidra.cab.unipd.it/collections/iconoteca botanici 2) RESTAURO DI ACQUARELLI OTTOCENTESCHI I 3 acquarelli ottocenteschi incorniciati non fanno parte dell'Iconoteca dei botanici. Trattandosi di un restauro di documenti cartacei, è stato fatto assieme alle stampe (vedi punto c) dell'Iconoteca dei Botanici.



| , wando | e Files | | | |
|---------------|----------------|-----------------|-----|--|
| Docume | ntation | | | |
| ■ PUV4 | 6-Bibliotec | stauro-2007.zip | | |
| Read me | 2 | | | |
| ■ READ | ME-2007-Res | Botanico-PD. | txt | |
| _ | | | | |
| | | | | |
| Cite As | | | | |
| | matting Style: | | | |

Info on files and additional functions





Intellectual Property protection of Research Data

When is research data NOT protected?

Copyright is triggered the moment there is creative activity, but a simple piece of data, isolated and 'raw', cannot be protected; it belongs to everyone and no one.

Not all databases are creative, many are merely compilative as they collect large masses of data and organise them according to common criteria: in numerical order (from the largest to the smallest or vice versa), in alphabetical order, in chronological order, according to a geographical division (by region, by province, by country).

Data as such, like facts, principles, mathematical concepts and methods are not protected by copyright.

RAW DATA ARE NOT PROTECTED BY COPYRIGHT.

When is research data protected?

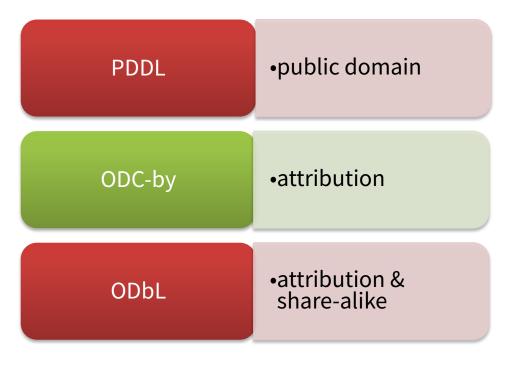
EU Directive on the protection of databases (96/9/EC) - "sui generis right"

Non-creative databases which, however, required a substantial investment ⇒ subject only to sui generis right protection ⇒ extraction and re-utilisation of substantial parts of the database are reserved ⇒ 15 years of protection

Creative databases that denote a creative character in the organisation of the data ⇒ subject to sui generis right protection and copyright protection at the same time ⇒ both activities of extraction and re-utilisation of substantial parts and activities normally covered by copyright are reserved ⇒ 70 years of protection

Licenses on Data

Open Data Commons Licenses



https://opendatacommons.org/index.html



Pandey S, Cherubini P, Saurer M, Carrer M & Petit G (2020) Dataset of paper: Effects of climate change on treeline trees in Sagarmatha (Mt. Everest, Central Himalaya)

Petit, Giai (2020) Pandey S, Cherubini P, Saurer M, Carrer M & Petit G (2020) Dataset of paper: Effects of climate change on treeline trees in Sagarmatha (Mt. Everest, Central Himalaya). [Data Collection]

- DOI: 10.1111/jvs.12921 (Publisher)
- Related publications http://hdl.handle.net/11577/3345504 (Padua Research Archive)

Data & article reported findings



SAVE THE DATE

LOVE DATA WEEK

FEBRUARY 10-14, 2025

Love Data Week 2025

February 10-14, 2025 #LoveData25

List of events

Supporting authors

Library System support services

About publishing

Open Science >

- What is Open Science?
- Open Science Pillars
- Insights

Open Access >

- UniPD Policy and Regulations
- Policy and UE Requirements
- OA Colours
- Self-archiving
- Padua Research Archive and other repositories
- Insights

While publishing >

- Mandates from funding bodies
- Before publishing
- Persistent Identifiers (PIDs)
- Agreements with publishers
- APC Economic facilitations for authors
- After publishing
- Other services for authors

publishing" of the Library System web portal, researchers will find information on Open Access, on publishing, and on the management of data.

In the section "About

Open Research Data >

- UniPD Policy and UE Requirements
- DMP Data Management Plan
- Where to store datasets: Research Data Unipd
- Insights

Impact of research >

- Journal-level metrics
- Author-level metrics
- Misleading metrics
- Author IDs
- Normalized or "weighted" metrics, quartiles and percentiles

Open Access publishing agreements and discounts

- Read & Publish OA agreements
- Requirements for accessing the facilitations
- List of publishers



Library Welcome Kit NEW

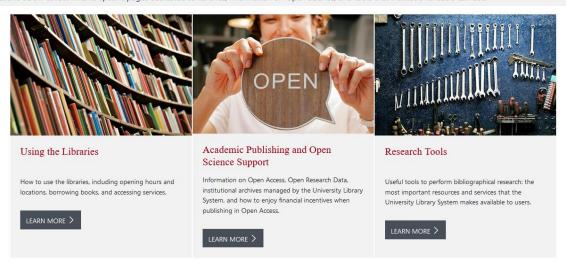
Welcome to the University of Padua Library System!

The Welcome Kit is dedicated to the Faculty and Staff who recently joined the University of Padua. It is a starting point for learning about the University Library System and its services. It can also be useful for international students, together with the training courses provided by the University Library System.

The Library System offers various services, from lending books and multimedia materials to accessing databases and electronic resources. It also provides spaces for study and learning and organizes cultural and educational events. Qualified staff assist users in finding and using resources, guaranteeing an inclusive service accessible to all.

In line with the University of Padua's orientation towards Open Science, the Library System also offers information and economic support to institutional authors in publishing Open Access scientific products and managing Open Research Data.

The three sections below collect links to specific pages dedicated to libraries, information on Open Science, and tools that institutional users can use.



https://biblio.unipd.it/en/welcome-kit

Library System support services

Authors can submit specific requests using the Library System Help Service, choosing the address:

- Supporto alla pubblicazione accademica [Scholarly publishing support]
- Consulenza tematiche diritto d'autore [Copyright support]
- Supporto Open Science (Open Access, Open Data)" [Open Science support]



Kyle James ttps://www.flickr.com/photos/jameskm03/2711755476



Library System support services

Before and after publishing articles and data, improve your knowledge with:

Scholarly Communication and principles of Open Science

a Training Course composed by five modules.

It aims to introduce early-career researchers to scientific communication and to the principles of Open Science (Open Access, Open Data, Open Licences).



OA Support Group of the UniPd Library System



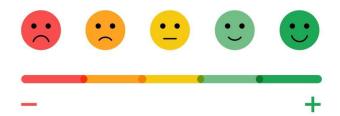
This work is distributed under a <u>Creative Commons</u> <u>Attribution-ShareAlike 4.0 International</u> (CC BY-SA 4.0)

Satisfaction survey

http://www.cab.unipd.it/corsi-sba
-questionario

Username: 33270

No password required





The collected information will be used only for statistical purposes in order to improve the quality of the courses for library users.

We appreciate your cooperation and help!