

Unlocking the Power of Data Management Plans: Building Machine-Actionable DMPs for Better Research Data Management

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MACHINE ACTIONABLE DMP WORKSHOP, RESEARCH DATA ALLIANCE PLFNARY 2017 (RDA)



University of California

CDL

California Digital Library

MARCH 20, 2018

BURG, SWEDEN





University of California

CDL

California Digital Library

CDL was founded by the University of California in 1996

University of California Curation Center (UC3) is CDL's program concerned with maintaining, preserving, and adding value to digital research data throughout its lifecycle UC3 areas of focus:

- Research data management
- Data publication and data metrics
- Persistent identifiers
- Digital preservation
- Data/software skills training



DMPTOOL

One of the founding members of DMPRoadmap.

Focused on US based funders, but supporting many institutions globally including South America, and Asia

Free, community supported service since 2011.

377 participating institutions supporting +90K users.



Build your Data Management Plan [Funder Requirements](#) [Public DMPs](#) [Help](#)

Language ▼



Create Data Management Plans that meet requirements and promote your research



92,751 Users



377 Participating Institutions



88,847 Plans

Sign in / Sign up

Email address *

For SSO, use institutional address.

Continue

Problems signing in? [Contact us.](#)

Latest News from DMPTool

Supporting the upcoming NIH data sharing requirements with the DMPTool

[View all news](#)



Features Supporting maDMPs

Ability to link a plan to research outputs the project has generated– such as journal articles, preprints, datasets, data papers, and software. [Example](#)

Ability to access DMPs as structured JSON files complying with the RDA Common Standard

Metadata Scheme for DMPs. Can be done via the UI or API.

The DMPTool currently supports the following identifiers within a DMP:

- IDs for DMPs
- RORs for research organizations
- Funder Registry IDs for funders
- ORCiDs for DMP creators and collaborators



Connecting people with ORCID

DMP IDs generated via the DMPTool are automatically linked to the DMP creator's ORCID record

EAGER: The FAIR Island Project for Open Science

Project Details Collaborators Write Plan Research Outputs Request feedback Download Finalize / Publish

Set plan visibility

Public or organizational visibility is intended for finished plans. You must answer at least 50% of the questions to enable these options. Note: test plans are set to private visibility by default.


- Private: visible to me, specified collaborators and administrators at my organization
- Organization: anyone at my organization can view
- Public: anyone can view

Save

Register your plan and add to ORCID

Get a [DMP ID](#) for your data management plan.

Register



Click "Register" to get a DMP ID

Defining Structured Research Outputs

Re3data for Repositories

RDA Metadata Standards Catalog
(adding FAIRSharing this Spring)

Repository search X

- Select a subject area - - Select a repository type -

- Enter a search term (e.g. DNA, titanium, FAIR, etc.) -

No results matched your filter criteria.

Metadata Standard search X

- Enter a search term (e.g. DataCite, Dublin, Biological, etc.) -

Displaying metadata standards **1 - 10** of **108** in total 1 2 3 4 5 ... Next Last

ABCD (Access to Biological Collection Data)

The Access to Biological Collections Data (ABCD) Schema is an evolving comprehensive standard for the access to and exchange of data about specimens and observations (a.k.a. primary biodiversity data). The ABCD Schema attempts to be comprehensive and highly structured, supporting data from a wide variety of databases. It is compatible with several existing data standards. Parallel structures exist so that either (or both) atomised data and free-text can be accommodated.

The ABCD Schema was ratified as a standard by the Biodiversity Information Standards Taxonomic Databases Working Group (TDWG) in 2005. It was developed as a community-driven effort, with contributions from CODATA, BioCASE and GBIF among other organizations.

<https://abcd.tdwg.org/>

ABCD Zoology

ABCD Zoology is an application profile of ABCD tailored for use in zoological contexts. It was the first official application profile to use the RDF-based version 3.0 of ABCD.

Connecting Research Outputs Post Award



[UCOP homepage](#)
[UC3 Helpdesk](#)

Admin ▾

Test Plan

1

Project Details Collaborators Write Plan **Project Outputs** Request Feedback Finalize Download Follow-Up

Funding Outcome

Funding status

- Please select one - ▾

Grant number/url

Project Outputs

Link this plan to research outputs the project has generated– such as journal articles, preprints, datasets, data papers, and software. You can link in-press or embargoed work if a DOI or other URL-based identifier has been assigned to it.

[Link a project output](#)

Connected Research Outputs

Project Details

Collaborators

Write Plan

Research outputs

Finalize

Download

Follow-Up

Funding Outcome

Funding status

Funded


Grant number/url

<https://www.moore.org/grant-detail?grantId=GBMF>


Save funding information

Research Outputs

Link this plan to research outputs the project has generated– such as journal articles, preprints, datasets, data papers, and software. You can link in-press or embargoed work if a DOI or other URL-based identifier has been assigned to it.

Plaisance, L., N. Knowlton, G. Paulay, and C. Meyer. 2009. “Reef-Associated Crustacean Fauna: Biodiversity Estimates Using Semi-Quantitative Sampling and DNA Barcoding.” [Article]. *Coral Reefs* 28 (4): 977–86. <https://doi.org/10.1007/s00338-009-0543-3>. 

Nitta, Joel H. 2008. “Exploring the Utility of Three Plastid Loci for Biocoding the Filmy Ferns (Hymenophyllaceae) of Moorea.” [Article]. *TAXON* 57 (3): 725–36. <https://doi.org/10.1002/tax.573006>. 

N/A Inventaire National Du Patrimoine Naturel. 2022. “Inventaire Des Mollusques Terrestres Et Aquatiques De Polynésie Française - Moorea Biocode : Mollusques Terrestres Et Aquatiques.” [Dataset]. UMS PatriNat (OFB-CNRS-MNHN), Paris. <https://doi.org/10.15468/bnnbax>. 

This page describes a data management plan written for the Federation of American Societies for Experimental Biology (faseb.org) using the DMPTool.

FAIR annotated dataset of stroke MRIs, CTs, and metadata



Read the data management plan

Contributors to this project

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Project details

Research domain: Health sciences

Project Start: October 03, 2022

Project End: October 01, 2027

Created: October 14, 2022

Modified: October 15, 2022

Ethical issues related to data that this DMP describes? no

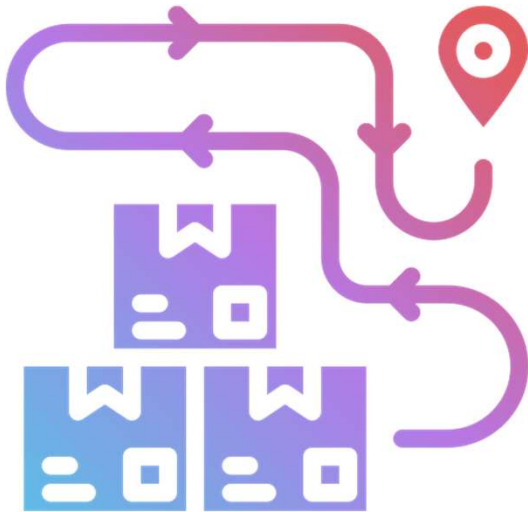
Citation

When citing this DMP use:

Andreia Faria. (2022). "FAIR annotated dataset of stroke MRIs, CTs, and metadata" [Data Management Plan]. DMPHub.

<https://doi.org/10.48321/D1J31B>

RESPONDING TO A CHANGING LANDSCAPE



With increasing mandates from federal funders, conversations are now turning toward implementation and compliance.

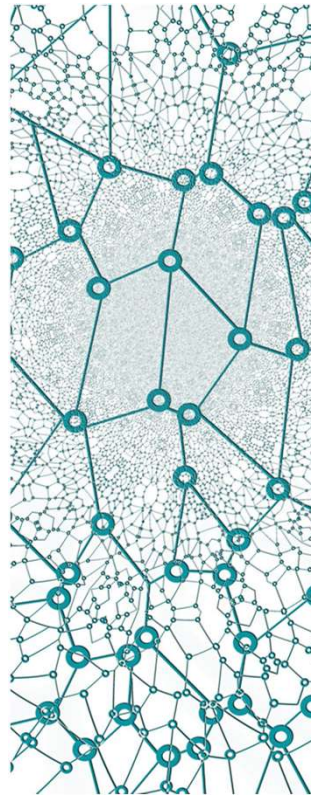
How can institutions demonstrate and track compliance with these new data-sharing requirements?

The next task in the drive toward building a robust research data infrastructure is to build on existing community-driven, open systems and workflows to track research outputs from project inception to long-term preservation.

Scaling data stewardship

Our approach

The coupling of machine-actionable DMPs with PID-enabled infrastructure facilitates the effective tracking of projects over time, allowing these relationships to be shared with the larger research data ecosystem in an open and interoperable manner.



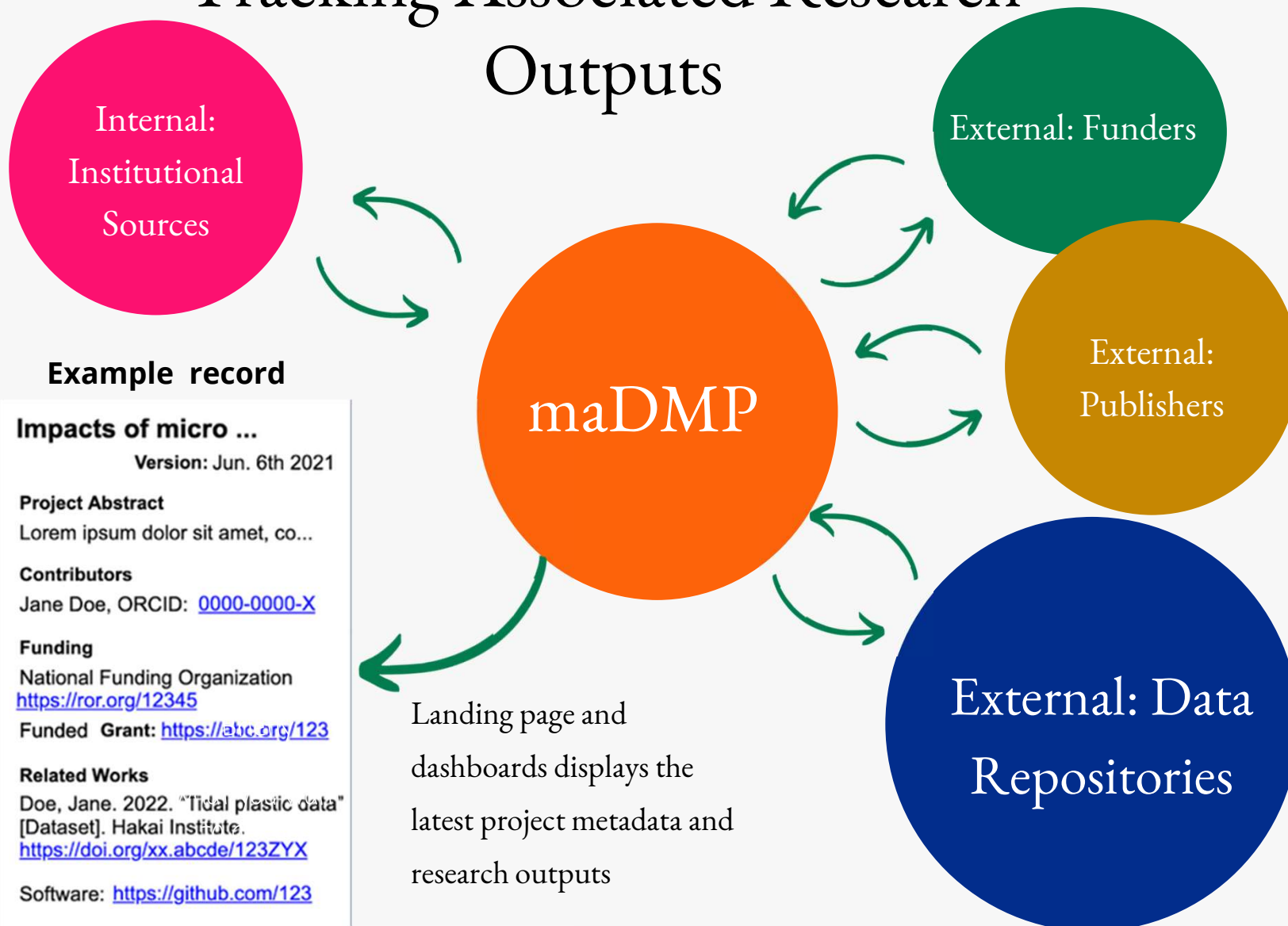
In development

We are working to PIDify DMPs at scale with the ability to upload externally created DMPs and generate DMP-IDs for them.

New output dashboards to track research outputs connected with DMPs



Tracking Associated Research Outputs



New Features Coming in 2023

Upload externally created DMPs into the tool and generate DMP-IDs.

Administrator dashboard to track research outputs associated with DMPs.

Further developments to the API to facilitate integrations with RDM services & tools.

Resources

Blog:

blog.dmptool.org

Documentation:

<https://github.com/CDLUC3/dmptool/wiki>

DMPTool Newsletter:

<https://bit.ly/DMPToolNewsletter>



THANK YOU!

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