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(Data) Sharing is Caring

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Hello!

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Sharing Data - Why?

- **Preservation:** Prevent data loss/unfindable files
 - Can you still use data when people leave?
- **Recognition** for all research outputs (data, code, protocols)
- **Collaboration**
- Increases **quality** of scientific practice through increased transparency
- **Equitable access** to resources
- **Cost/time efficient** (after a learning curve)



Funder requirements: Wellcome, European Commission

- **Wellcome:** “We expect our researchers to manage research outputs in a way that will achieve the greatest health benefit. This may involve **making outputs widely available**”
- **Horizon Europe:** Data should be available on a data repository.



Journal requirements: American Journal of Physical Anthropology

- “The **American Journal of Physical Anthropology** expects you to archive all the data from which your published results are derived in a public **repository**.”
- Publish a **data availability statement** to confirm the presence or absence of shared data.
- **Data sharing in biological anthropology**: Guiding principles and best practices (Turner & Mulligan 2019)



FAIR

Findable

Archive your data in a **data repository** with metadata and a persistent identifier

F

Accessible

Determine what should be shared
Ensure there is an access procedure in place
≠ open!

A

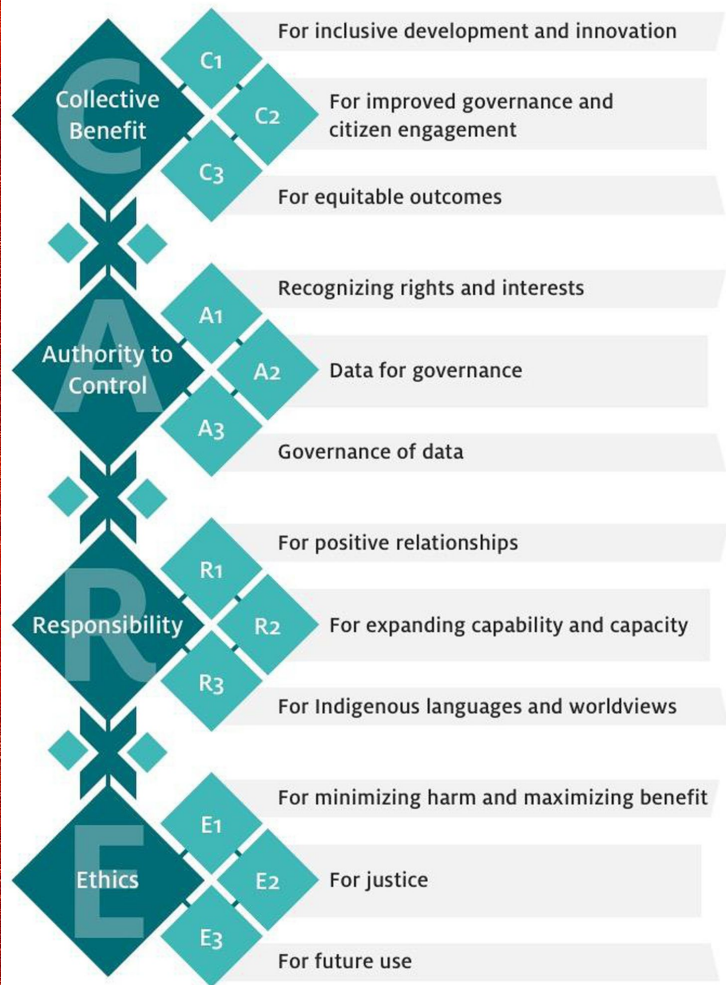
Use **open/common formats** and languages
Consistent vocabulary
Metadata standards

Interoperable

I

Apply a **licence** to specify how others can reuse your data
Documentation
Reusable

R



The **CARE principles** facilitate Indigenous control in data governance and reuse, promoting equitable participation (Carroll et al. 2020)

- Relevant for many populations (privacy, future use, reuse, stewardship concerns)
- can be used as a standard in crafting policies on data acquired about communities or populations

Consultation with communities is expected (Turner & Mulligan 2019)



Sharing Data - How?

- **CARE:** Consult your research team and any collaborators/community
- **FAIR:** Data repository, documentation, license



MadScientist
@MadS100tist

...

"Data will be available upon request"



Not open/FAIR Data

- Data availability decreases by 17% per year
- Chance of email address working decreases by 7% per year

'research data cannot be reliably preserved by individual researchers'

- **Vines et al. 2014**

"We received **no response to 41.3%** of our data requests" - **Tedersoo et al. 2021**



Data repository

Online archive that curates research datasets and provides long-term access

- Finalised datasets
- ~10-15 years

Find a repository?

Check publications in your field

- FAIRsharing
- re3data



Data repository

The Qualitative Data Repository



Budget available?



Data repository



(50 GB)

Free (sometimes up to a certain limit)
Does your institution have one?

EASY (100 GB)



(5 GB)



AmtDB





IsoArcH: one of the largest repositories for isotopic data

> 40.000 data points

> 13.000 specimens

> 500 archaeological sites

$\delta^{13}\text{C}$, $\delta^{15}\text{N}$, $\delta^{18}\text{O}$, $\delta^{34}\text{S}$, $^{87}\text{Sr}/^{86}\text{Sr}$, $^{143}\text{Nd}/^{144}\text{Nd}$

Free to use, but joining the association ensures sustainability of the repository (25 euros per year)

Special issue: IsoArcH best practices for managing and sharing data

Cheung 2021, Bernardini et al. 2021

Get in touch with Dr. Kevin Salesse: Kevin.Salesse@vub.be

Data in Brief: Open Access, publication fees waived! **Deadline: 31st October**

HOME

Welcome to IsoArcH!

IsoArcH is an open access and collaborative isotope database for bioarcheological samples from all time periods and all around the world. It consists of georeferenced isotopic, archaeological, and anthropological information related to the study of 1) dietary and mobility patterns of human and animal populations, 2) animal and crop management practices, and 3) past climates and environments.

IsoArcH aims at facilitating information exchange, collaboration, and discussion between science-based archaeologists (anthropologists, zooarchaeologists, archaeobotanists, etc.), generalist archaeologists, and historians. It is designed in a cooperative perspective, where users are able to explore and download all the available data from the database, and may contribute to expand the content of the website by uploading new data.

As of now, IsoArcH compiles data from dozens of scientific publications for 8,562 humans, 3,624 animals, 566 plants, and 10 organic residues coming from 532 archaeological sites.

In addition, IsoArcH allows one to undertake multi-scale analysis, and to realize extensive studies and syntheses on the issues of paleodiet, food production, resource management, migrations, paleoclimate and paleoenvironmental changes. It offers the opportunity to create large isotopic baselines for animals and plants in order to better understand the diet and the mobility of humans or animals. Furthermore, isotopic data may be displayed on historical maps, which makes it possible to re-contextualize ancient biogeochemical data within global geopolitical frameworks. Finally, IsoArcH allows the users to customize their own digital maps, and to export them for personal purposes.

IsoArcH is a completely free tool, created for you and with you. All content is distributed under the terms of a Creative Commons license (CC BY-NC-SA 4.0).

The project team thanks the very large number of people and sponsors who have generously encouraged the IsoArcH initiative.

INSIDE ISOARCH

Recherche...

RECHERCHER

NEWS AND EVENTS

Welcome to IsoArcH

Publication presenting IsoArcH and its research potential has been published. Have a look here: <http://uriz.fr/5Msb>

Log in you to get a member-only access to the website and its stored data.

IsoArcH v.1.1 has been released the 31/05/2019.

TWITTER FEED

ISOARCH Database Retweeted



Chris Cheung 20h

I think it's time to bring this up again. If you are an #ECR in #archaeology and would like to hv some experience in #manuscriptReviewing, feel free to sign up on this sheet. And for people who are submitting one soon here is also a good place to look for potential #reviewers! <https://t.co/1tucfzr.com>





Justin Stewart
@thecrobe

skimmed the protocol













Documentation is key!

- README files
- Guide for data documentation
- Data Dictionary
- Code Book


protocols.io




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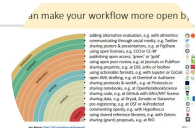


Additional Resources



Turing Way

The Turing Way is an open source community-driven guide to reproducible, ethical, inclusive and collaborative data science.



Kramer & Bosman

Rainbow of open science practices



Ainsworth 2019

Research Culture is Broken: Open Science can Fix It (video)



Library Support

Your institute probably has a Research Data Management or Open Science support team that is happy to help you!



Rchaeology

Facebook/Slack group dedicated to sharing applications of rstats in archaeology and related field. Also on Twitter.



ReproducibiliTea

A journal club initiative that discusses things such as data sharing. Find your local node and join!



Thanks!

Any questions?

You can find me at

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- e.plomp@tudelft.nl



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