Business Continuity through Reproducible Research

A practical workshop on building knowledge trust and retention

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Presenting work I did at GU with UKRN

We write research papers to contribute knowledge, insights, or perspectives to a field of study.

By publishing research, we ask our audience to believe in what we say

To accept that the knowledge we have created is true.

This is where Reproducible Research comes in

Reproducible research is the practice of documenting a study's methods, data, and code so that its results can be verified and reproduced by others using the same materials and procedures.

In the reverse, when we're reading papers, how do we know we can trust the outcomes?

A workshop aims to take researchers further down your reproducibility path, by providing concepts and tools they can use in everyday workflows.

....Again

Step 1 - Planning to be organised

Step 2 - Keeping your files Tidy and Organised

Step 3 - Methodology and Protocols

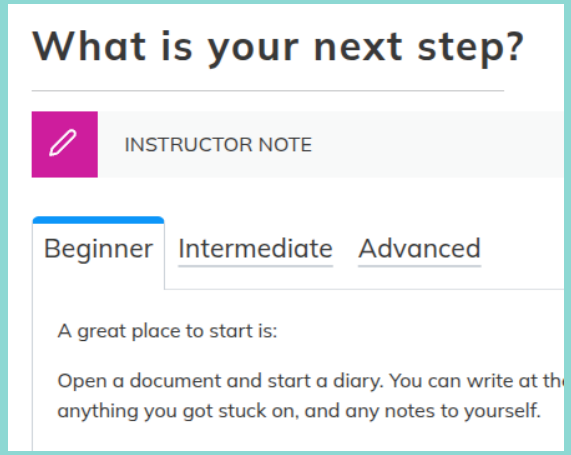
Step 4 - Documentation and writing it down

Step 5 - Testing and Controls

Step 6 - Automation

Step 7 - Publishing, Persistent Identifiers and Preparing for Reuse

This course was made for everyone



Not specific to computational research

Can be at any maturity level

Focuses on what you can do day to day

We build trust in our knowledge

….showing people that they can trust our outcomes

We retain our knowledge

….and also build business continuity into our research groups

KEY POINTS

IN THIS LESSON, WE HAVE LEARNT:

- How to plan our research by considering Data Management Plans and implementing a folder structure
- To keep a copy of raw data safe and secure separate to our working data
- How to consistantly name our files
- To consider and map the metadata of our files

We build trust in our knowledge by:

- Keeping our raw data safe and secure, so we can always come back to it and confirm our work
- Having consistant and standard operating procedures

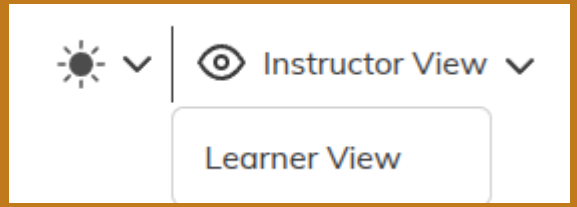
We retain knowledge using:

- Having our files and folders organised, so nothing is lost
- Mapping the metadata of our files, so we know where they came from

We build business continuity by:

- Having our data and materials well organised, so others in our team can find data
- By being clear in our plans through Data Management Plans

Can be used as a self paced learning or as an instructor



Step 1 - Planning to be organised

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Estimated time: 20 minutes

Expand All Solutions +

Data Management Plan

A data management plan (DMP) is a living document for a research project, which outlines data creation, data policies, access and ownership rules, management practices, management facilities and equipment, and who will be responsible for what.

INSTRUCTOR NOTE

Does your institute have a Data Management policy, procedure or page that can be linked for your attendees?

This is a great place to put it!

Link to your institutional Data Management Planning Page

Contact your institute's library or research office to find out more about data management and data

Customise this page for your organisation

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Estimated time: 10 minutes

Expand All Solutions +

The following describes how to customise this workshop for your own institute.

Preparation - What do you need?

You do not need to download or install any special software (git or R) to customise this using this template. All of the steps can be done in your web browser.

How to copy the lessons

1. Make a new Github account.

You do need a Github account - https://docs.github.com/en/get-started/start-your-journey/creating-an-account-on-github should walk you through this. Please note, your username will form part of the URL for the workshop.

Now log in with your new details via https://github.com/login

2. Let's copy (clone) the repository.

Uptake

This has now been taught as a train-the-trainer across +100 trainers across Australia and the UK

Take the workshop home with you

https://carpentries-incubator.github.io/ReproducibleResearch/