



THE UNIVERSITY of EDINBURGH  
Digital Research Services



# DIGITAL RESEARCH SERVICES

RESEARCH FACILITATION TEAM



Connect researchers  
and service providers



A circular portrait of Dr Eleni Kotoula, a woman with blonde hair and glasses, wearing a white top.

**College of Arts, Humanities and Social Sciences**

Dr Eleni Kotoula  
Eleni.Kotoula@ed.ac.uk

Schedule an online meeting

Help you navigate the complex  
landscape of digital tools



A circular portrait of Dr Sarah Janac, a woman with dark hair, wearing a patterned sweater.

**College of Medicine and Veterinary Medicine**

Dr Sarah Janac  
Sarah.Janac@ed.ac.uk

Schedule an online meeting

A circular portrait of Dr Andre de Araujo Vieira, a man with dark hair and a beard, wearing a light-colored shirt.

**College of Science and Engineering**

Dr Andre de Araujo Vieira  
Andre.Vieira@ed.ac.uk

Schedule an online meeting

Tailored approach  
to the problem



Community  
Building &  
Networking

Dr André Vieira

Research Facilitator, CSE



Enhance the research with digital  
resources



Produce digital  
resource-related  
training material

# PRESENTATION STRUCTURE



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- 
- 1. WHAT IS DIGITAL RESEARCH SERVICES?**
  - 2. RESEARCH FACILITATOR ROLE**
  - 3. WEBSITE**
  - 4. PLAN FOR THIS ACADEMIC YEAR**
  - 5. PROMOTIONAL MATERIAL**

Dr André Vieira

Research Facilitator, CSE

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- 



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**A single point of access to all of the data and computing services available to researchers at the University of Edinburgh.**

Dr André Vieira

Research Facilitator, CSE



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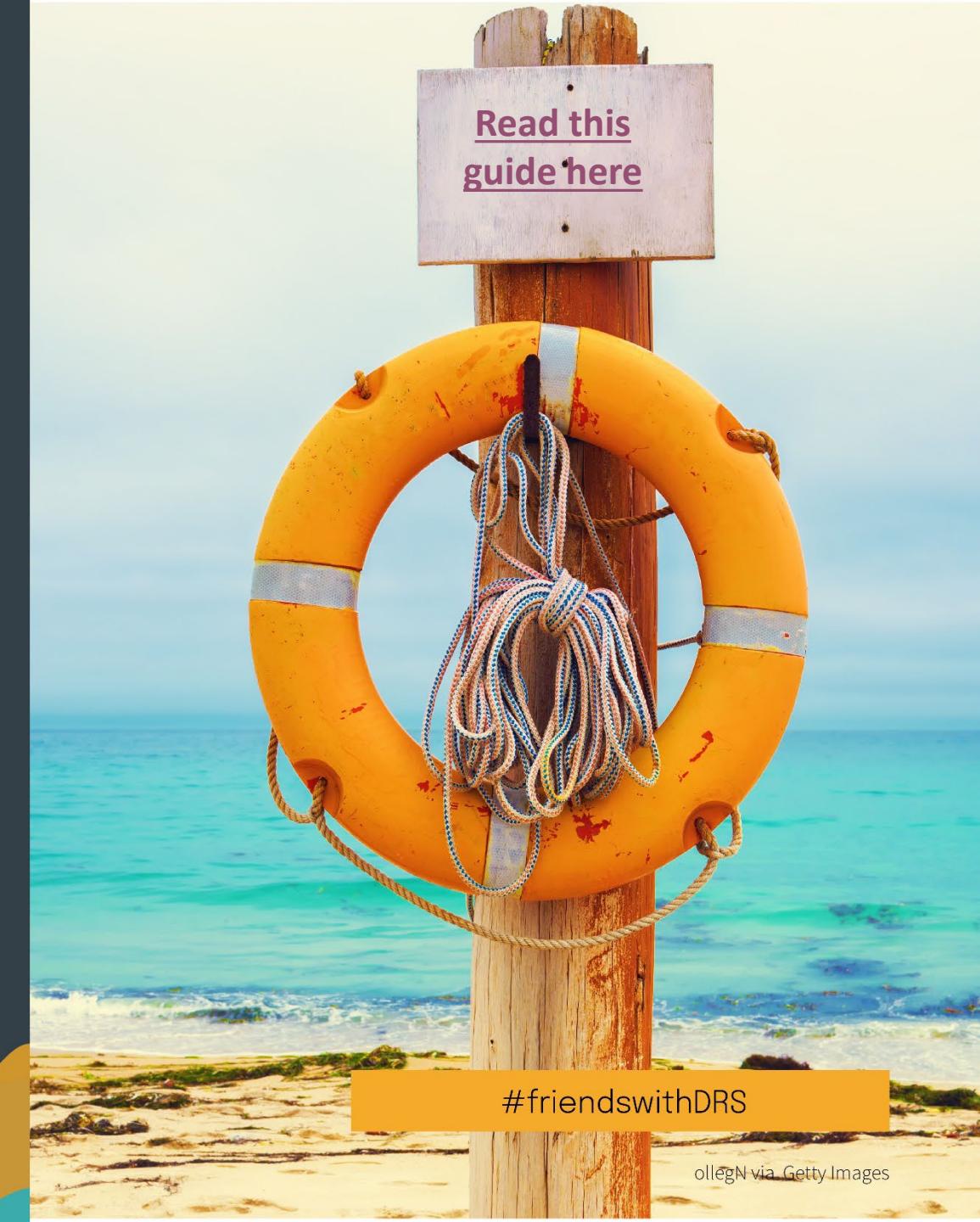
# PGR Student? We've got you covered

Discover the basics of Digital  
Research with our Survival Guide!

Tips and advice on data management, storage, sharing and research  
comouting as well as publishing and preserving your work.

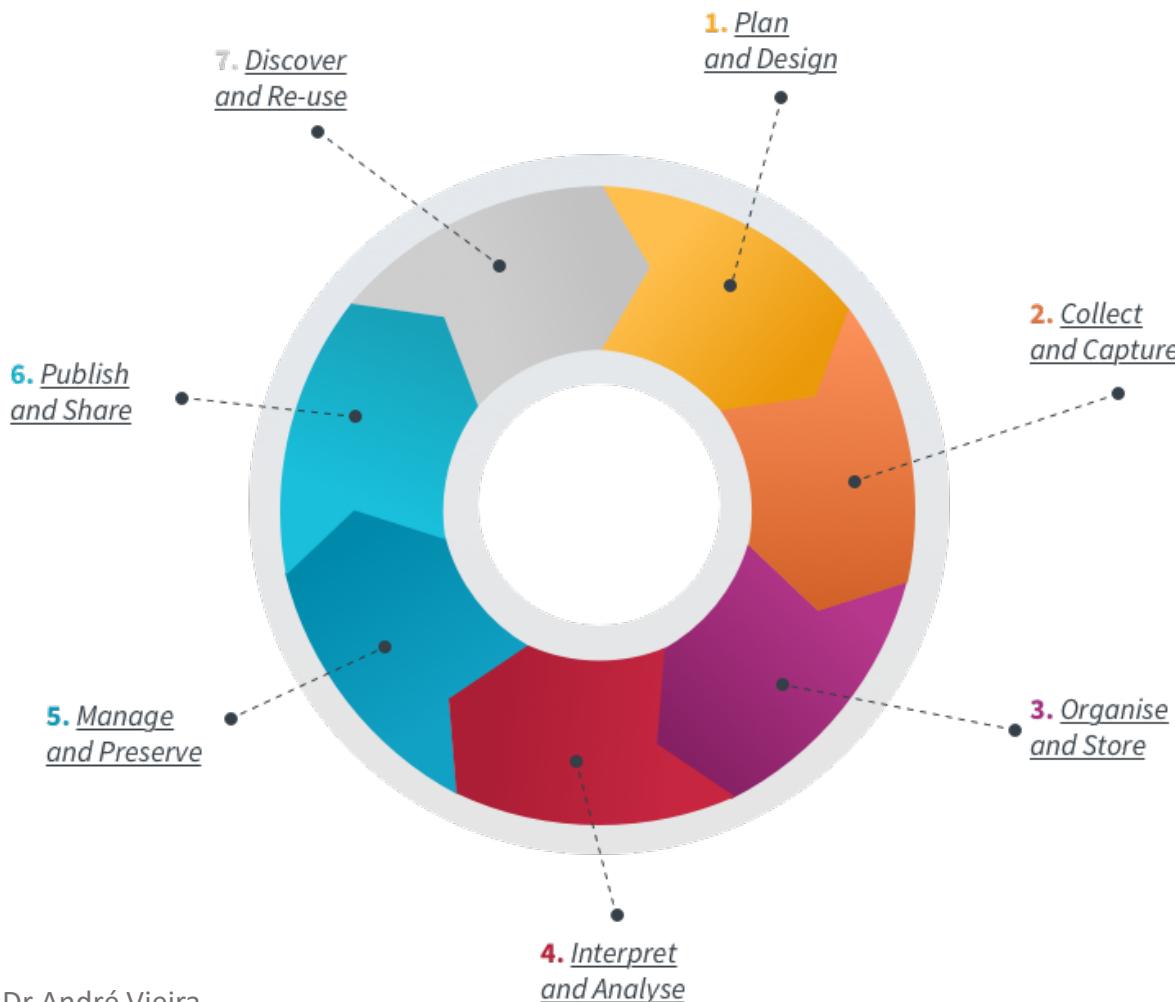
[digitalresearchservices.ed.ac.uk](http://digitalresearchservices.ed.ac.uk)

[Read this  
guide here](#)



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ollegN via Getty Images



- **Scale up research projects**
- **Develop digital skills**
- **Comply with best research practices and meet funder requirements**
- **Become part of a research community**
- **Share, publish and promote their work – open research**

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### DMPonline

Make data work for you with Data Management Plans meeting institutional funder requirements.

- Research Computing
  - ✓ Plan and Design
  - ✓ Collect & Capture
  - ✓ Organise and Store
  - ✓ Interpret and Analyse
  - ✓ Manage and Preserve
  - ✓ Publish and Share
- Office Equipment
  - ✓ General Computing
  - ✓ Telephony, Printing and Scanning

### Research Computing Funding Checklist

Helpful list of computing items to consider when applying for funding, with costs.



### Find Data for Reuse

Find sources of data to reuse in your own study, research or teaching.



### Centre for Research Collections

Access to University of Edinburgh cultural and heritage collections.



### DataStore

Safely save data while you work on it.



### Online Software Sustainability

A free evaluation of your software to highlight any sustainability issues.



### Eddie

A high-performance Linux computing cluster to run analysis faster than a desktop computer.



### DataVault

Store your research data for the long term, safely and privately, in DataVault.



### Research Data Support

Help and advice for researchers and their data needs through all stages of a research project.



### EPCC

A national centre accelerating computing throughout industry, academia and commerce.



### DataShare

Share your data with other researchers. Make your data FAIR!



### Digimap

An online map and data delivery service, available by subscription to specific establishments.



# "Data**What?**"

A Guide to Essential Data Tools

## Data**Store**

Store active research data



## Data**Sync**

Share data with external collaborators

## Data**Share**

An open access repository - find or deposit data



## Data**Vault**

Preserve data securely and privately for years



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# Watch how we can support research across disciplines & domains

Visit our Digital Research Services Media Hopper Channel

Home to videos relevant to data and compute services and digital research tools.

[digitalresearchservices.ed.ac.uk/training/media-hopper-channel](https://digitalresearchservices.ed.ac.uk/training/media-hopper-channel)



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Video archive

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# Keeping safe your project files and folders

- Back up (almost) everything created by a human or recorded by a machine as soon as it is created.
- Always backup your files in 3 places, at least one should be off-site.
- USB sticks are a failure-prone option and are not a valid solution for backup of scientific data
- A robust backup cannot be achieved manually – the University gives you DataStore



# DataStore

## Why use DataStore

Group space (\\\csce.datastore.ed.ac.uk\csce\biology\groups\YOUR-GROUP)

Private (\\\csce.datastore.ed.ac.uk\csce\biology\users\YOUR\_LOGIN)

### Useful resources

- Introductory presentation  
[15 min Data Storage Options presentation](#) login to Media Hopper to view

- Instructions how to use:  
<https://www.ed.ac.uk/information-services/computing/desktop-personal/connect-uni-file-storage>
- BioRDM wiki (recipes for difficult use-cases)

## Why use Datastore?

- Accessible from anywhere on campus
- Resilient, backed up
- Free for majority of users
- Group space access managed by AD
- 500Gb quota for research staff

It is not encrypted at rest; for sensitive data we do suggest encrypting on disk.

# Why use DataSync?

- Available off-site
- Resilient
- Free at point of use
- Collaborative with external partners
- Can create shares with password/limited time expiry
- Secure transfer

[Why use Data Sync](#) video

# University resources - Collaboration

## Sharepoint / OneDrive

<https://uoemy.sharepoint.com>

- For documents, presentations, reports, etc.
- Excellent for collaborative work on shared documents
- Online versions of Word / Excel
- Your desktop Word can directly sync with sharepoint files
- DON'T bounce emails with your PI – co-edit on sharepoint!!!

# University resources - Collaboration

## UoE WIKI

<https://www.wiki.ed.ac.uk>

- projects' websites,
- making notes, organizing files,
- even a simple ELN  
(can be private or public)

<https://www.wiki.ed.ac.uk/display/RDMS>

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# Digital Research Services

A single point of access to all of the data and computing services available to researchers at the University of Edinburgh.

Working with you throughout the research life cycle

Use the interactive lifecycle to access resources relevant to each research stage.

FEEDBACK [Q](#)

The diagram illustrates the research life cycle as a circular process. It is divided into seven segments, each labeled with a number and a brief description:

- 1. Plan and Design
- 2. Discover and Re-use
- 3. Publish and Share
- 4. Analyse and Interpret
- 5. Create and Develop
- 6. Plan and Design (repeated)
- 7. Discover and Re-use (repeated)

I am looking to perform the following task(s)

- Finding data
- Gathering data

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## RESEARCH IN ACTION

### Running a Minecraft Server on Eleanor for Many Users

Using Eleanor to implement a multiplayer Minecraft server with a custom world.

[Related items](#)

#### WHAT IS MINECRAFT?

Minecraft is a creative first-person video game which permits players to build and navigate complex block-based 3D worlds. Elementary "circuit" functions allow interactive areas of the world to be programmed using basic building blocks. In a multiplayer server, all users inhabit the same persistent world. Due to the size of the world, and the fact that new areas are generated algorithmically, the server can require a reasonable amount of computing resources. This is less of an issue in this project, as the world is largely pre-built. The goal is to allow at least sixty users to access the service simultaneously. Generally speaking, getting 8 users running lag-free on a standard server is a bit of a challenge – usually due to disk performance.

#### Minecraft environment:



#### IMPLEMENTATION

The Minecraft server software is delivered as a single-



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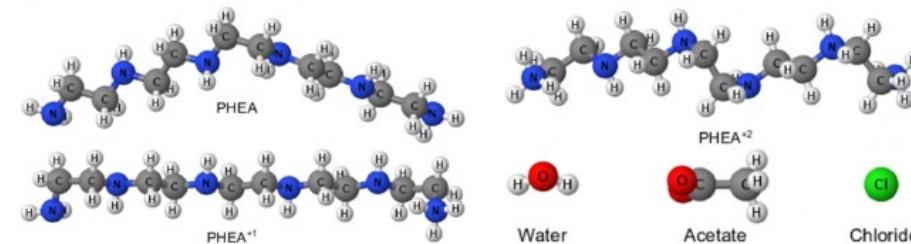
## Clustering in Aqueous Pentaethylenehexamine (PEHA) Solutions

Large-scale Molecular Dynamics Simulations

[Publications](#) [Related items](#)

Importance of the formation of giant clusters in solutions is becoming increasingly recognized. However, little attention has been paid to the formation of giant clusters in solutions of small, relatively soluble but non-amphiphilic molecules. In this work, it was presented a general methodology based on molecular dynamics that can be used to investigate such systems. As a case study, the focus was on the formation of apparently stable clusters of pentaethylenehexamine (PEHA) in water. These clusters have been used as templates for the construction of bioinspired silica nanoparticles. To better understand clustering in this system the effect of PEHA protonation state (neutral, +1, and +2) and counterion type (chloride or acetate) on PEHA clustering in dilute aqueous solutions (200 mM and 400 mM) using large-scale classical molecular dynamics was studied.

[Further Information](#) >



"We find that large stable clusters are formed by singly-charged PEHA with chloride or acetate as the counterion. Large clusters

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## Develop Your Skills

We offer a wide range of training and development opportunities, from skills workshops to software carpentries. Find out how we can help you boost your research skills.

### Filter

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### Keyword

Reset filters



### Events Calendar

[Visit Events Calendar >](#)

### myEd events

[Visit myEd events >](#)



### Introduction to Eddie (ECDF)

Get an introduction to Eddie - a high performance computing cluster running a Linux operating system.



# edinburgh genomics.

### Edinburgh Genomics Training

A selection of workshops in coding and genome analysis run by bioinformaticians ([external link](#)).



AD INSTITUTE FOR  
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## News and Updates

Keep up to date with the latest news and updates from Digital Research Services at the University of Edinburgh.



28 August 2023  
**2023-24 Welcome Week**

A warm welcome to new and returning members of our community!



17 August 2023  
**Major new GPU Service launched to support research**

The Edinburgh GPU Service supports scalable data processing and artificial intelligence workloads.



11 August 2023  
**Open Science Framework - OSF**

Join the Research Data Services (RDS) team for a FREE lunch and a chance to find out all



19 July 2023  
**Creativity and AI**

On generative AI and human-computer creative interactions.

### Upcoming Events

#### Introduction to Open Science Framework

30th August 13:00-15:00  
Main Library, 6th Floor, Centre for Research Collections  
Register via [Eventbrite](#)

#### 2023 Digital Research Ambassadors Event

2nd October 2023  
InSpace (Central Area)  
More info here: [Digital Research Ambassadors \(ed.ac.uk\)](#)

#### Digital Research Bootcamp

4th and 5th December 2023  
50 George Square (1.02 Computing Lab 2 / Project Room 1.06)  
More info here: [2023-24 Digital Research Bootcamp \(ed.ac.uk\)](#)

#### Lunchtime Seminar Series

January-April 2024  
Various  
More info here: [2023-24 Lunchtime Seminars \(ed.ac.uk\)](#)

#### Tweets from @DRS\_UoE





# Resource Finder

Our interactive resource finder helps identify the tools and services suited for your research project.



Welcome to our resource finder! Below are some key points for you to consider:

+ More Info

- The Resource Finder summarises the available data and computing resources at the University of Edinburgh.
- You can use either the colourful wheel or the dropdown table to follow the lifecycle.
- You can answer as many or as few questions as you like and even start at the beginning.
- More and more resources should pop up as you go through the phases.
- If you like, you can hide resources using the eye icon. You can also do this from the eye icon beside the eye icon.
- If you wish to revisit or share your responses and associated resources, a unique URL will be generated.
- For a full catalogue of tools and support, please visit our Resources page.
- ER - External Resources

Watch [the explainer video](#) to get started (1:34 min).

## Plan and Design(5)

Do you have a Data Management Plan? [i](#)

Yes  No

Have you budgeted your project? [i](#)

Yes  No

Have you identified a funder/funding call?

Yes  No

Have you completed ethical approval for your project (if it applies)?

Yes  No

[Reset Phase](#)

[+ Related Resources \(5\)](#)

## Collect and Capture

## Organise and Store

## Interpret and analyse

## Manage and Preserve

[Copy Results URL](#) 

 **Research Professional**

Research Professional

Searchable and exportable database of research funding calls; news, and online training.

 **Edinburgh Research Office**

Get support in identifying funding, crafting your application and managing your award (ER).

 **FIDMP ONLINE**



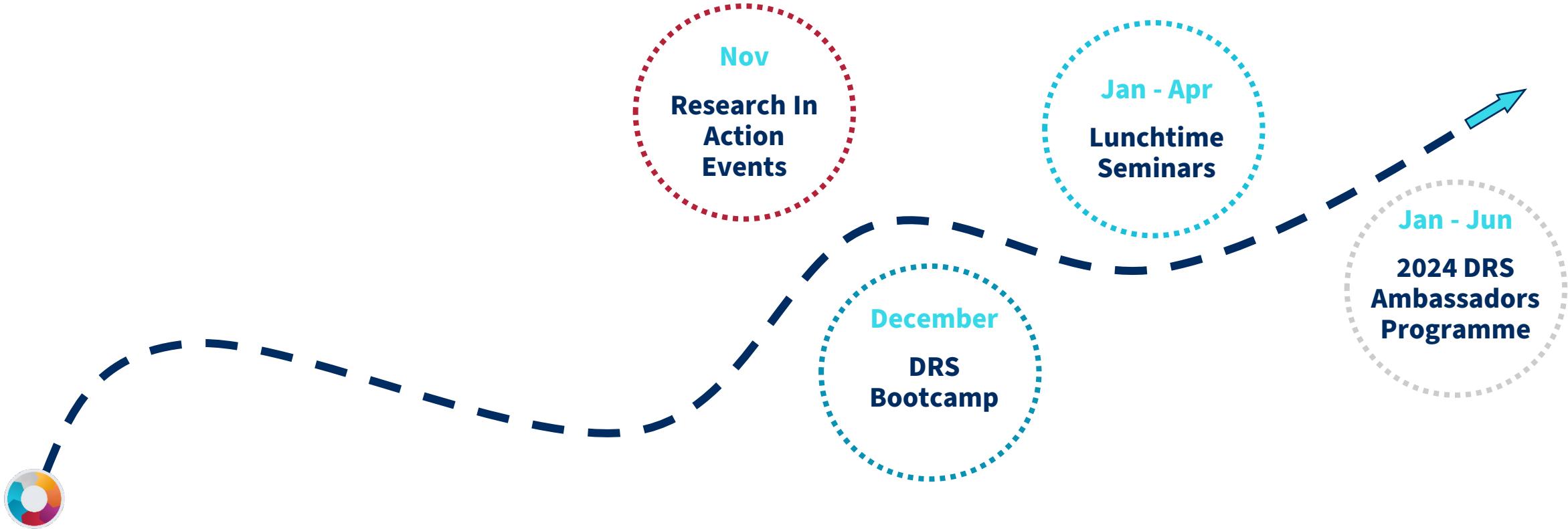
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## 2023 – 2024 ACTIVITIES



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# Here to help you Stay on Track

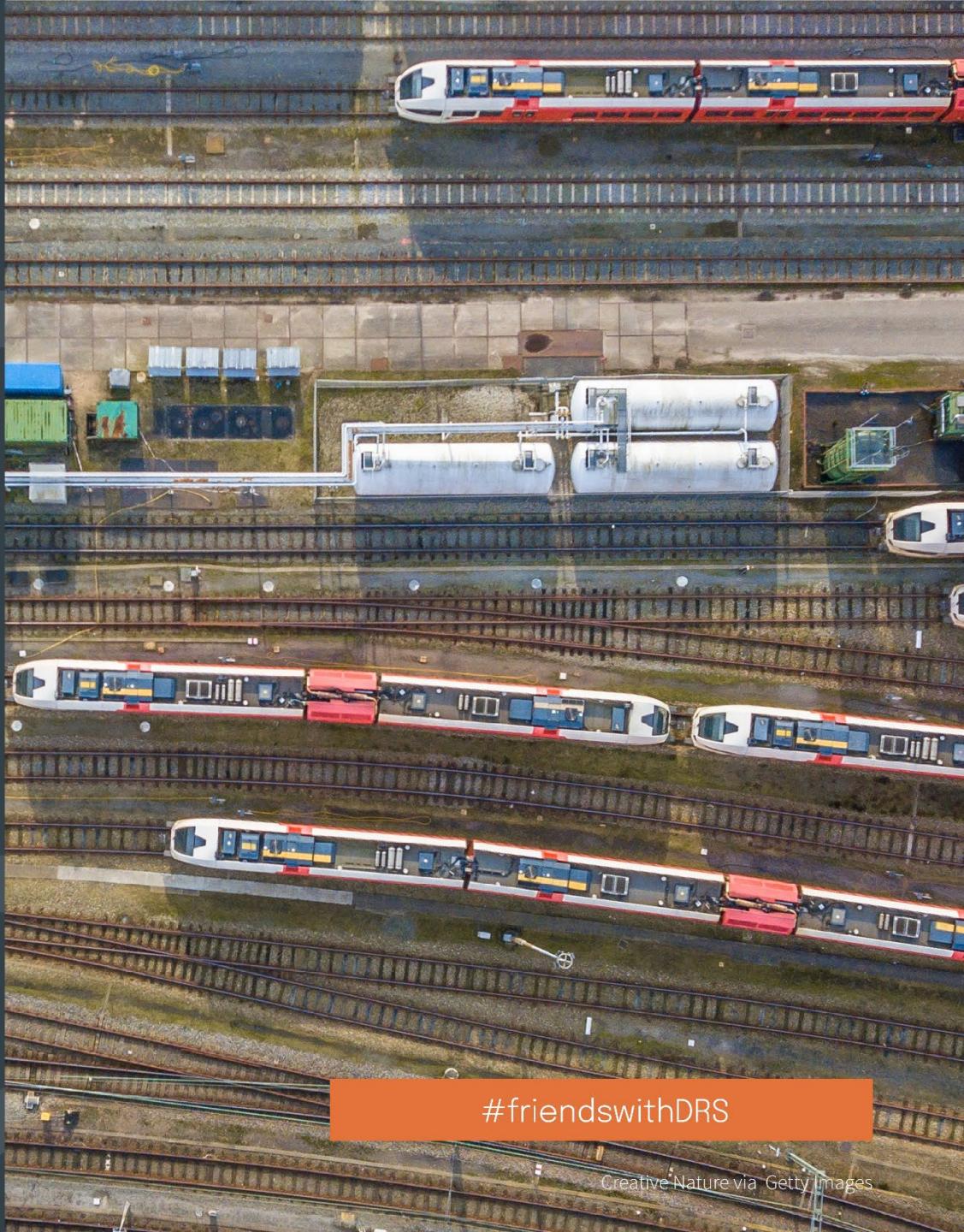
Our Research Facilitators  
are here to help you find the  
right tools for your project

You can schedule an online meeting through our website – with just one click.

[digitalresearchservices.ed.ac.uk/contact](http://digitalresearchservices.ed.ac.uk/contact)

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Creative Nature via Getty Images





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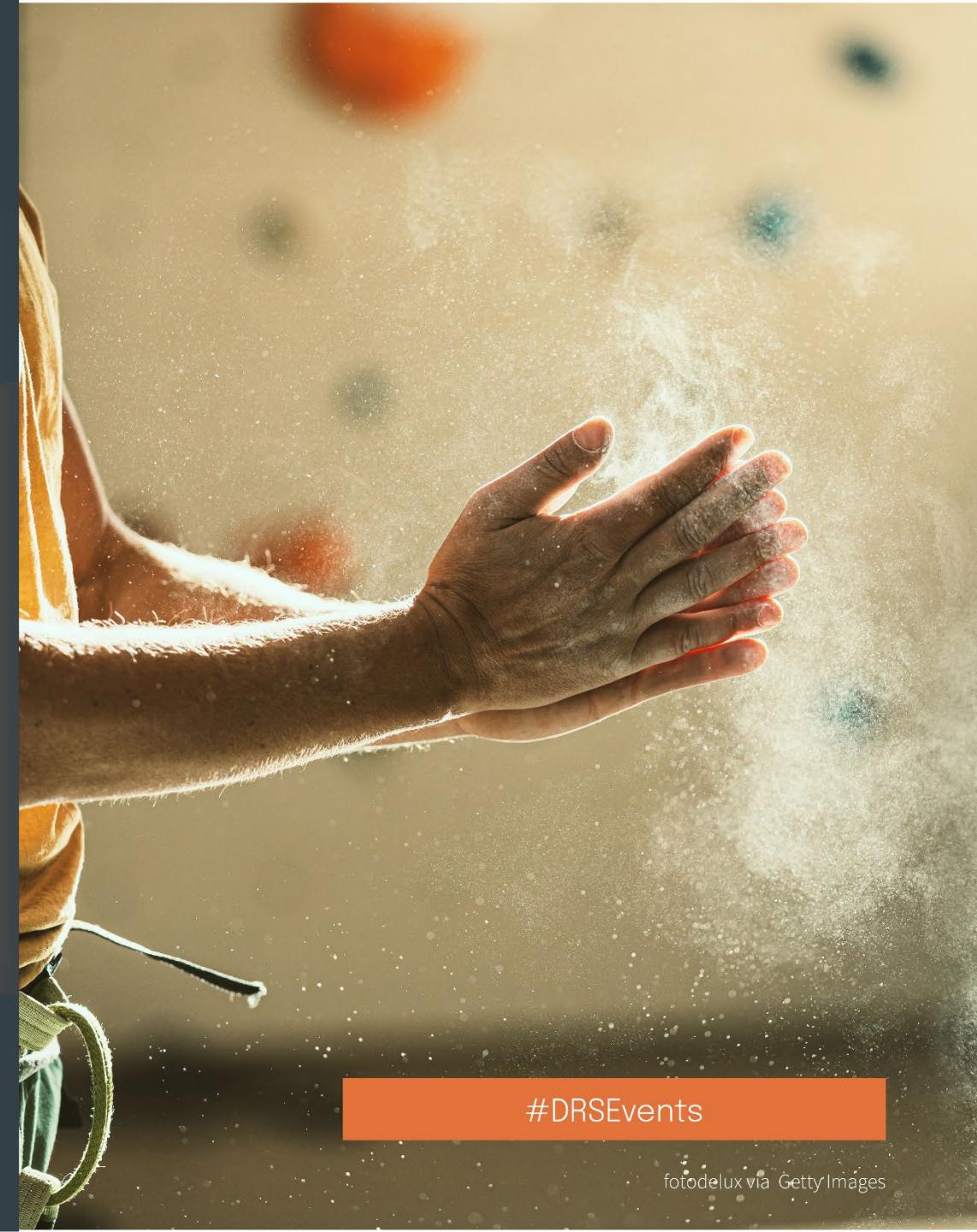
# Get to Grips with Digital Research

Join our two-day Boot Camp  
tailored to your level of expertise

Topics include:

- Introduction to the digital research lifecycle
- How to master research data management
- Research computing
- How to publish and manage your research profile

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#DRSEvents

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# Deep-Dive into Digital Research

We have a full calendar of  
training events for you to  
choose from this semester!

Join us and learn skills that will take your research to the next level

[digitalresearchservices.ed.ac.uk/news-and-events](https://digitalresearchservices.ed.ac.uk/news-and-events)

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# Why not enjoy a slice of Digital Research?

Join our Lunchtime Seminar  
Series, in person or online.

Each seminar examines a different portion of the digital research lifecycle through lightning talks from service providers and researchers at The University of Edinburgh.

[digitalresearchservices.ed.ac.uk](http://digitalresearchservices.ed.ac.uk)



#DRSEvents

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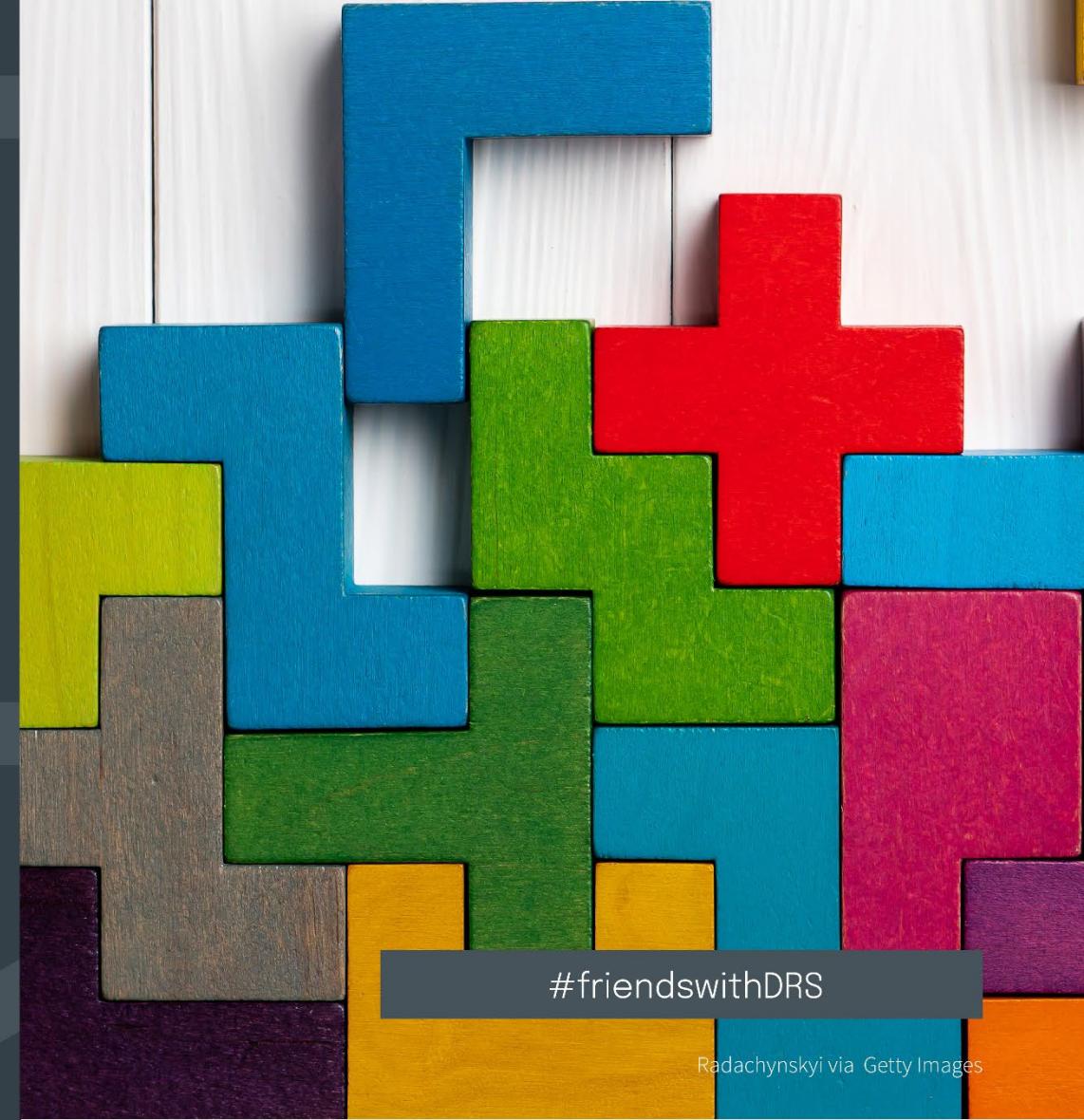
# Slot in some Digital Research Training

Find out how we can help you  
boost your research skills.

[digitalresearchservices.ed.ac.uk/training](https://digitalresearchservices.ed.ac.uk/training)

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# THANK YOU!



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