

Evolution of eResearch Services at UC

*Increasing institutional
support & researcher
engagement*

**Dr Anesh Nair &
Dr Kyle Hemming**



Acknowledgement of Country

The University of Canberra acknowledges the Ngunnawal people, traditional custodians of the lands where Bruce Campus is situated. We wish to acknowledge and respect their continuing culture and the contribution they make to the life of Canberra and the region. We also acknowledge all other First Nations Peoples on whose lands we gather.

UC's eResearch team



Dr Anesh Nair
*Research Ethics, Integrity
and Biosafety Manager*



Dr Kyle Hemming
*Digital Research Analyst
(UC / Intersect)*

Researcher challenges

Needs:

- Timely IT support

Issues:

- Systems
- Processes
- Applications
- Data (mis)management



Today's outline



eResearch pre-2021



UC Onion

Takeaways



eResearch pre-2021

eResearch Pre-2021

eResearch Catalogue

eResearch Analyst

eResearch Committee

Pre-2021 Catalogue

Internal web pages

– Single portal

The screenshot shows a web portal for eResearch. On the left is a navigation menu with the following items: Research and Enterprise portfolio, R&E Portfolio news, Research and Enterprise Plan and Strategy, Research Excellence Awards, Research Policies and Procedures, Policy consultation, Graduate Research Office, Research Centres and Institutes, Research & Innovation Services, Innovation and Business Development, and Research Grants. The main content area has a breadcrumb trail: Staff Portal > Research and Enterprise portfolio > Research & Innovation Services > eResearch > eResearch. The main heading is 'eResearch', followed by the text 'eResearch is the application of IT to research.' and 'At UC there are six key areas of eResearch which you can investigate more on, below.' Below this text are six blue-tinted boxes with white text: 'Research Data Management and Storage', 'Software and Tools', 'Computing', 'Training and Events', 'Research Grants', and 'Resources'.

Research and Enterprise portfolio

- R&E Portfolio news »
- Research and Enterprise Plan and Strategy »
- Research Excellence Awards »
- Research Policies and Procedures >
- Policy consultation >
- Graduate Research Office »
- Research Centres and Institutes >
- Research & Innovation Services ∨
- Innovation and Business Development »
- Research Grants »

Staff Portal > Research and Enterprise portfolio > Research & Innovation Services > eResearch > eResearch

eResearch

eResearch is the application of IT to research.

At UC there are six key areas of eResearch which you can investigate more on, below.

- Research Data Management and Storage
- Software and Tools
- Computing
- Training and Events
- Research Grants
- Resources

Pre-2021 Catalogue

Internal web pages

- Single portal
- Unstructured content

The screenshot displays the 'eResearch' page within a 'Research and Enterprise portfolio'. The page features a left-hand navigation menu and a main content area with a grid of six key areas.

Navigation Menu:

- Research and Enterprise portfolio
- R&E Portfolio news >>
- Research and Enterprise Plan and Strategy >>
- Research Excellence Awards >>
- Research Policies and Procedures >
- Policy consultation >
- Graduate Research Office >>
- Research Centres and Institutes >
- Research & Innovation Services >
- Innovation and Business Development >>
- Research Grants >>

Breadcrumbs: Staff Portal > Research and Enterprise portfolio > Research & Innovation Services > eResearch > eResearch

eResearch

eResearch is the application of IT to research.

At UC there are six key areas of eResearch which you can investigate more on, below.

- Research Data Management and Storage
- Software and Tools
- Computing
- Training and Events
- Research Grants
- Resources

Pre-2021 Catalogue

Internal web pages

- Single portal
- Unstructured content

Research and Enterprise portfolio	
R&E Portfolio news	»
Research and Enterprise Plan and Strategy	»
Research Excellence Awards	»
Research Policies and Procedures	>
Policy consultation	>
Graduate Research Office	»
Research Centres and Institutes	>
Research & Innovation Services	≈
Innovation and Business Development	»
Research Grants	»

Resources for Research Data Management

An easy way to find, explore and reuse Australia's public data: <https://data.gov.au/Data.gov.au> is the central source of Australian open government data. Anyone can access the anonymised public data published by federal, state and local government agencies.

<https://researchdata.andcs.org.au/> Research Data Australia caters specifically for researchers but also has broader relevance to others including policy makers, educators and business people. Research Data Australia covers a broad spectrum of research fields - across sciences, social sciences, arts and humanities. Much of the data you can discover here is immediately accessible online via our partners and free to use (subject to any licence conditions).

<https://www.re3data.org/> re3data.org is a global registry of research data repositories that covers research data repositories from different academic disciplines. It presents repositories for the permanent storage and access of data sets to researchers, funding bodies, publishers and scholarly institutions. re3data.org promotes a culture of sharing, increased access and better visibility of research data. The registry went live in autumn 2012 and is funded by the [German Research Foundation \(DFG\)](#).

[FigShare](#) is an open access repository for all file types and disciplines, no charge to upload and re-use.

<https://www.dataone.org/> Data Observation Network for Earth (DataONE) is the foundation of new innovative environmental science through a distributed framework and sustainable cyberinfrastructure that meets the needs of science and society for open, persistent, robust, and secure access to well-described and easily discovered Earth observational data.

<https://www.rcsb.org/> This resource is powered by the Protein Data Bank archive-information about the 3D shapes of proteins, nucleic acids, and complex assemblies that helps students and researchers understand all aspects of biomedicine and agriculture, from protein synthesis to health and disease.

ANDS data citation guide: <https://www.ands.org.au/working-with-data/citation-and-identifiers/data-citation>

ANDS sharing sensitive data guide: https://www.ands.org.au/_data/assets/pdf_file/0010/385309/sensitive-decision-tree.pdf

Google dataset search: <https://toolbox.google.com/datasetsearch>. Here are some information about this service: <https://productforums.google.com/forum/#!topic/webmasters/nPq4BW6iPIA>

Pre-2021 Catalogue

Internal web pages

- Single portal
- Unstructured content
- Relevance?

Staff Portal > Research and Enterprise portfolio > Research & Innovation Services > eResearch > eResearch

eResearch

eResearch is the application of IT to research.

At UC there are six key areas of eResearch which you can investigate more on, below.

- Research Data Management and Storage
- Software and Tools
- Computing
- Training and Events
- Research Grants**
- Resources

Research and Enterprise portfolio

- R&E Portfolio news >>
- Research and Enterprise Plan and Strategy >>
- Research Excellence Awards >>
- Research Policies and Procedures >
- Policy consultation >
- Graduate Research Office >>
- Research Centres and Institutes >
- Research & Innovation Services >>
- Innovation and Business Development >>
- Research Grants** >>

Pre-2021 eResearch Analyst

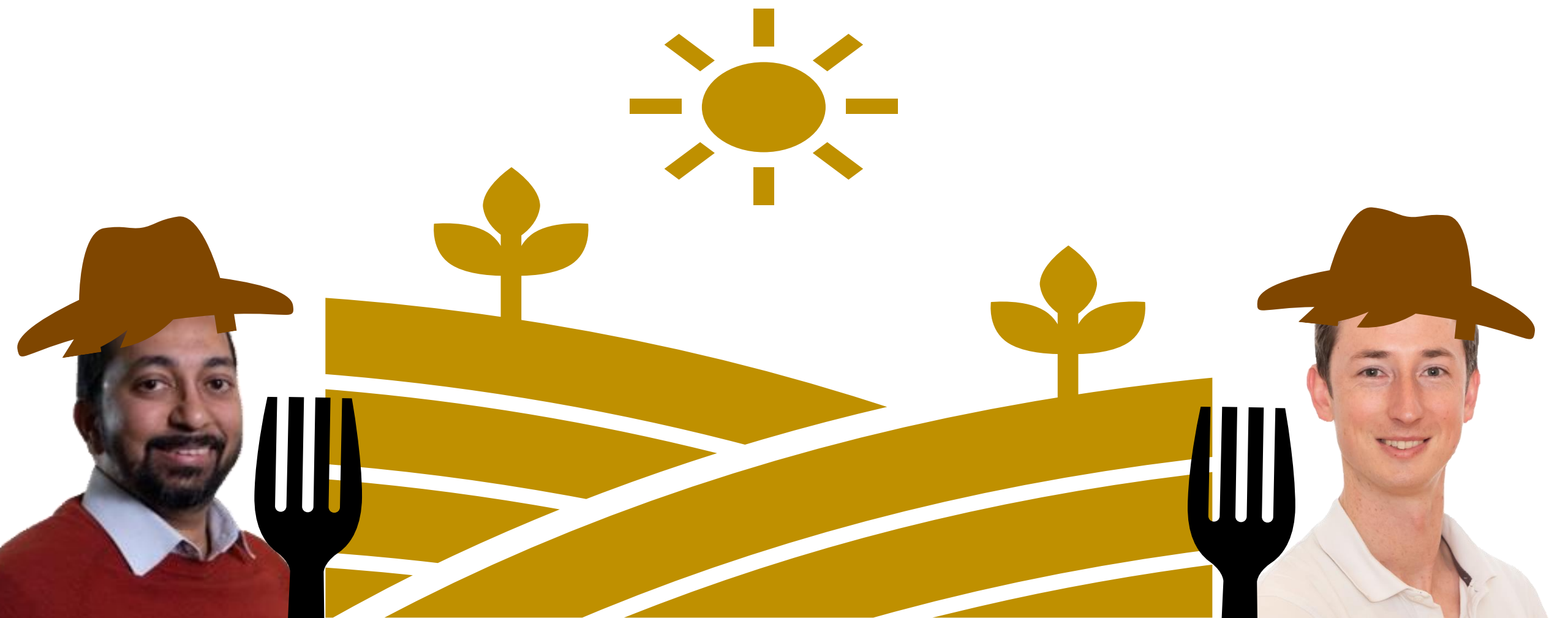
- Ad hoc support
 - HPC
 - Specific projects
- Limited strategic University-level support
- Limited awareness among UC stakeholders
- Misalignment with eResearch Committee

UC eResearch 2021+

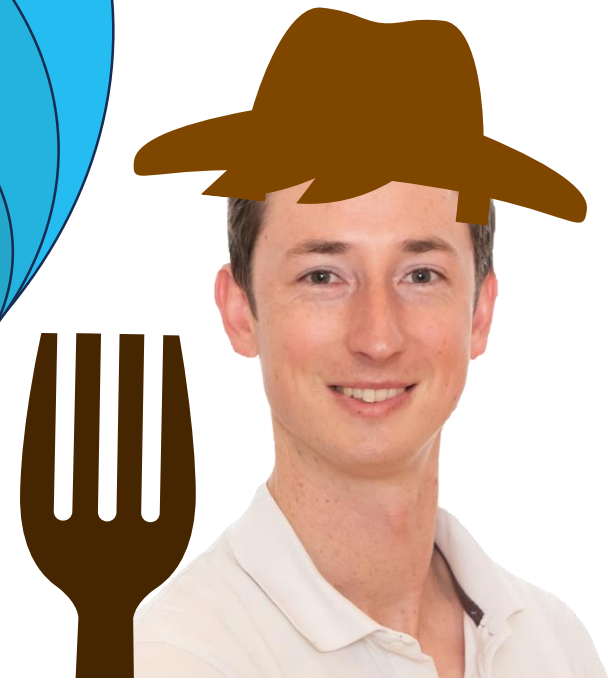
The New eResearch team



The New eResearch team



The UC Onion



2021+ Web Pages

Relevant
Structured

The screenshot shows the University of Canberra Staff Portal. The header includes the university logo and the text 'UNIVERSITY OF CANBERRA | Staff Portal'. A navigation bar below the header contains links for 'Office of the Vice-Chancellor', 'Academic portfolio', 'Research and Enterprise portfolio' (which is highlighted), 'People and Diversity', 'Operations portfolio', and 'Digital portfolio'. The main content area is titled 'eResearch' and includes a breadcrumb trail: 'Staff Portal > Research and Enterprise portfolio > Research & Innovation Services > eResearch'. The page describes eResearch as the application of digital information and communication technology to research and lists six key areas of support: Data Management Planning, Data Storage & Sharing, Software & Tools, High Performance Computing, Training & Support, and eResearch Committee. A left-hand sidebar menu lists various items under the 'Research and Enterprise portfolio' and 'Research & Innovation Services' categories, with 'eResearch' selected at the bottom.

UNIVERSITY OF CANBERRA | Staff Portal

Office of the Vice-Chancellor | Academic portfolio | **Research and Enterprise portfolio** | People and Diversity | Operations portfolio | Digital portfolio

Staff Portal > Research and Enterprise portfolio > Research & Innovation Services > eResearch

eResearch

eResearch is the application of digital information and communication technology to research.

The eResearch Team at the University of Canberra provides eResearch support across six key areas.

Please click on each area for more information, and get in touch with the dedicated [eResearch Team](#) if you have any queries.

- Data Management Planning
- Data Storage & Sharing
- Software & Tools
- High Performance Computing
- Training & Support
- eResearch Committee

Research and Enterprise portfolio

- R&E Portfolio news >>
- Research and Enterprise Plan and Strategy >>
- Research Excellence Awards >>
- Research Policies and Procedures >
- Policy consultation >
- Graduate Research Office >>
- Research Centres and Institutes >
- Research & Innovation Services >>

Research & Innovation Services

- Innovation and Business Development >>
- Research Grants >>
- Researcher Budget Toolkit >
- Research Analytics >>
- Research Integrity and Ethics >>
- eResearch >>**

2021+ Web Pages

Relevant
Structured

- About
- Access
- Support

The screenshot shows the eResearch web page with a left-hand navigation menu and a main content area. The navigation menu includes items like 'Research and Enterprise portfolio', 'R&E Portfolio news', 'Research and Enterprise Plan and Strategy', 'Research Excellence Awards', 'Research Policies and Procedures', 'Policy consultation', 'Graduate Research Office', 'Research Centres and Institutes', 'Research & Innovation Services', 'Innovation and Business Development', 'Research Grants', 'Researcher Budget Toolkit', 'Research Analytics', 'Research Integrity and Ethics', and 'eResearch'. The main content area has a breadcrumb trail: 'Staff Portal > Research and Enterprise portfolio > Research & Innovation Services > eResearch'. The title is 'eResearch'. The text describes eResearch as the application of digital information and communication technology to research, and lists six key areas: Data Management Planning, Data Storage & Sharing, Software & Tools, High Performance Computing, Training & Support, and eResearch Committee. Annotations include a red circle with '1' above 'Data Management Planning', a red circle with '2' to the left of the 'Research Grants' menu item, and a red circle with '3' above 'Training & Support'. A red double-headed arrow connects 'Data Management Planning' and 'Data Storage & Sharing'.

Staff Portal > Research and Enterprise portfolio > Research & Innovation Services > eResearch

eResearch

eResearch is the application of digital information and communication technology to research.

The eResearch Team at the University of Canberra provides eResearch support across six key areas.

Please click on each area for more information, and get in touch with the dedicated [eResearch Team](#) if you have any queries.

1

2

3

- Data Management Planning
- Data Storage & Sharing
- Software & Tools
- High Performance Computing
- Training & Support
- eResearch Committee

About, Access, Support: Software

Software & tools

UC offers access to a range of software and tools to support research. These tools cover capture data (e.g. surveys), analysing data (e.g. statistical software), visualising data outputs (e.g. Python, R), as well managing published materials as well publishing your own data. For a list of research data storage options, see this [page](#).

Click below to see more information, how to access, and support options for the tools that UC offers.

Survey Tools

[REDCap](#)

Analysis, Statistics & Programming

[ArcGIS](#)

[NVivo Pro \(v12\)](#)

[Python](#)

[R](#)

[SPSS](#)

[Other tools](#)

Literature Management & Data Publishing

[Digital Commons \(DC\) Data Publisher & Storage tool](#)

[Endnote](#)

[ReDBox Data Management Planner](#)

[Data Storage Tools](#)

REDCap (Research Electronic Data Capture): online survey tool

REDCap: Research Electronic Data Capture

REDCap is a secure web application for building and managing online surveys and databases. While REDCap can be used to collect virtually any type of data in any environment, it is specifically geared to support online and offline data capture for research studies and operations.

The UC REDCap server is now operational and all staff and students can create an account simply by logging in through the UC Single Sign-On. Visit redcap.canberra.edu.au and select the Institutional login via the Australian Access Federation. Select University of Canberra and enter your UC credentials when prompted. HDR students should use their Staff Affiliate account details to get full access to REDCap (student accounts cannot create REDCap projects).

Keep an eye on our [Training & Events](#) page for information about upcoming courses in REDCap or use the help and guides inside REDCap itself once you have logged in.

Pre-2021

About, Access, Support: Software

2021+

Software & tools

UC offers access to a range of software and tools to support research. These tools cover capture data (e.g. surveys), analysing data (e.g. statistical software), visualising data outputs (e.g. Python, R), as well managing published materials as well publishing your own data. For a list of research data storage options, see this [page](#).

Click below to see more information, how to access, and support options for the tools that UC offers.

Survey Tools

[REDCap](#)

Analysis, Statistics & Programming

[ArcGIS](#)

[NVivo Pro \(v12\)](#)

[Python](#)

[R](#)

[SPSS](#)

[Other tools](#)

Literature Management & Data Publishing

[Digital Commons \(DC\) Data Publisher & Storage tool](#)

[Endnote](#)

[ReDBox Data Management Planner](#)

[Data Storage Tools](#)

REDCap

1

About

REDCap (Research Electronic Data Capture) is a secure web application for building and managing online surveys and databases. REDCap is useful for single-surveys as well as repeated-measures (longitudinal) studies.

All REDCap data is stored on-site at UC. REDCap is recommended for collecting sensitive information by the [Human Research Ethics Committee \(HREC\)](#) at UC.

If you're unsure whether your research requires ethics approval contact the Research and Integrity Team via humanethicscommittee@canberra.edu.au.

2

Access

REDCap is freely available for UC members with staff accounts.

(1) You can access REDCap through your web browser by visiting redcap.canberra.edu.au. (It may be useful to bookmark the address.)

(2) Select the Institutional login via the Australian Access Federation (AAF).

(3) Select "University of Canberra" from the dropdown menu, and enter your staff (s123456) UC credentials when prompted.

HDR students: should also use their UC staff account to log in, as student accounts (u123456) do not have access to REDCap.

Honours/Masters students: your supervisor needs to create the project and add your student account to the project as a user, then you can amend the project as needed. They may also need to change your account permissions, which can be done in the "user rights" menu on the left-hand panel. If you or your supervisor have any questions, please [get in touch](#).

3

Support

UC offers multiple REDCap training events through each semester, for details of the next available session, see the [Training & Events Page](#).

For discrete project specific or technical support, please [get in touch](#).

About, Access, Support: DMP

Resources for Research Data Management

An easy way to find, explore and reuse Australia's public data: <https://data.gov.au/Data.gov.au> is the central source of Australian open government data. Anyone can access the anonymised public data published by federal, state and local government agencies.

<https://researchdata.andis.org.au/> Research Data Australia caters specifically for researchers but also has broader relevance to others including policy makers, educators and business people. Research Data Australia covers a broad spectrum of research fields - across sciences, social sciences, arts and humanities. Much of the data you can discover here is immediately accessible online via our partners and free to use (subject to any licence conditions).

<https://www.re3data.org/> re3data.org is a global registry of research data repositories that covers research data repositories from different academic disciplines. It presents repositories for the permanent storage and access of data sets to researchers, funding bodies, publishers and scholarly institutions. re3data.org promotes a culture of sharing, increased access and better visibility of research data. The registry went live in autumn 2012 and is funded by the [German Research Foundation \(DFG\)](#).

[FigShare](#) is an open access repository for all file types and disciplines, no charge to upload and re-use.

<https://www.dataone.org/> Data Observation Network for Earth (DataONE) is the foundation of new innovative environmental science through a distributed framework and sustainable cyberinfrastructure that meets the needs of science and society for open, persistent, robust, and secure access to well-described and easily discovered Earth observational data.

<https://www.rcsb.org/> This resource is powered by the Protein Data Bank archive-information about the 3D shapes of proteins, nucleic acids, and complex assemblies that helps students and researchers understand all aspects of biomedicine and agriculture, from protein synthesis to health and disease.

ANDS data citation guide: <https://www.ands.org.au/working-with-data/citation-and-identifiers/data-citation>

ANDS sharing sensitive data guide: https://www.ands.org.au/_data/assets/pdf_file/0010/385309/sensitive-decision-tree.pdf

Google dataset search: <https://toolbox.google.com/datasetsearch>. Here are some information about this service: <https://productforums.google.com/forum/#!topic/webmasters/nPq4BW6iPIA>



Research Data Management

[UC Policy](#) states that every research project at UC is expected to have a research data management plan (RDMP).

[ReDBox](#) (Research Data Box) is UC's RDMP tool.

- [ReDBox is used to describe research data.](#)
- [ReDBox does not store or allow access to research data.](#)

Importantly, ReDBox does not store nor provide access to the research data it describes - see [research data storage tools here](#).

The sections below will help you effectively govern the data for your particular research, to meet UC and ACT Policies and help keep your data safe and secure. Please get in touch with the [eResearch Team](#) if you have any questions.

Research Data Management Planning Steps:

1. [Purpose of research data management planning](#)
2. [Creating and updating an RDMP in ReDBox](#)
3. [Save a pdf of your completed RDMP](#)
4. [Creating a persistent record of where your data is stored](#)

Researcher-Specific Guidelines

[Academic researcher guidelines](#)

[Access research data storage tools](#)

Pre-2021

2021+

Takeaways

44 new/improved pages

Structured

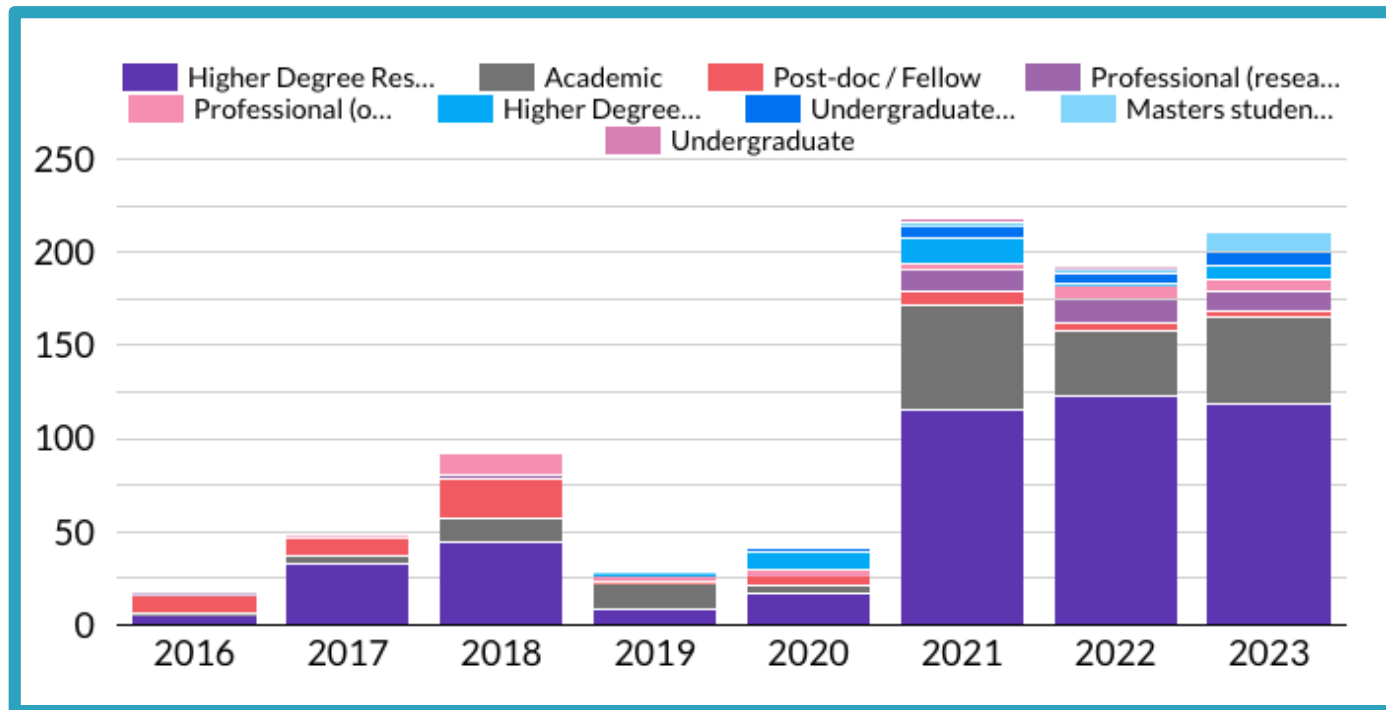
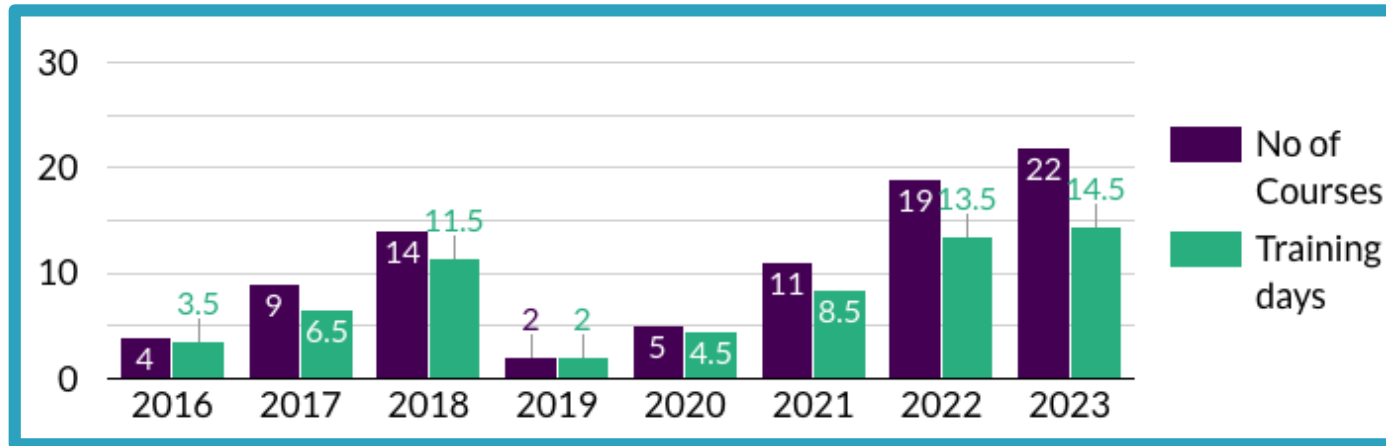
Relevant

About, Access, Support

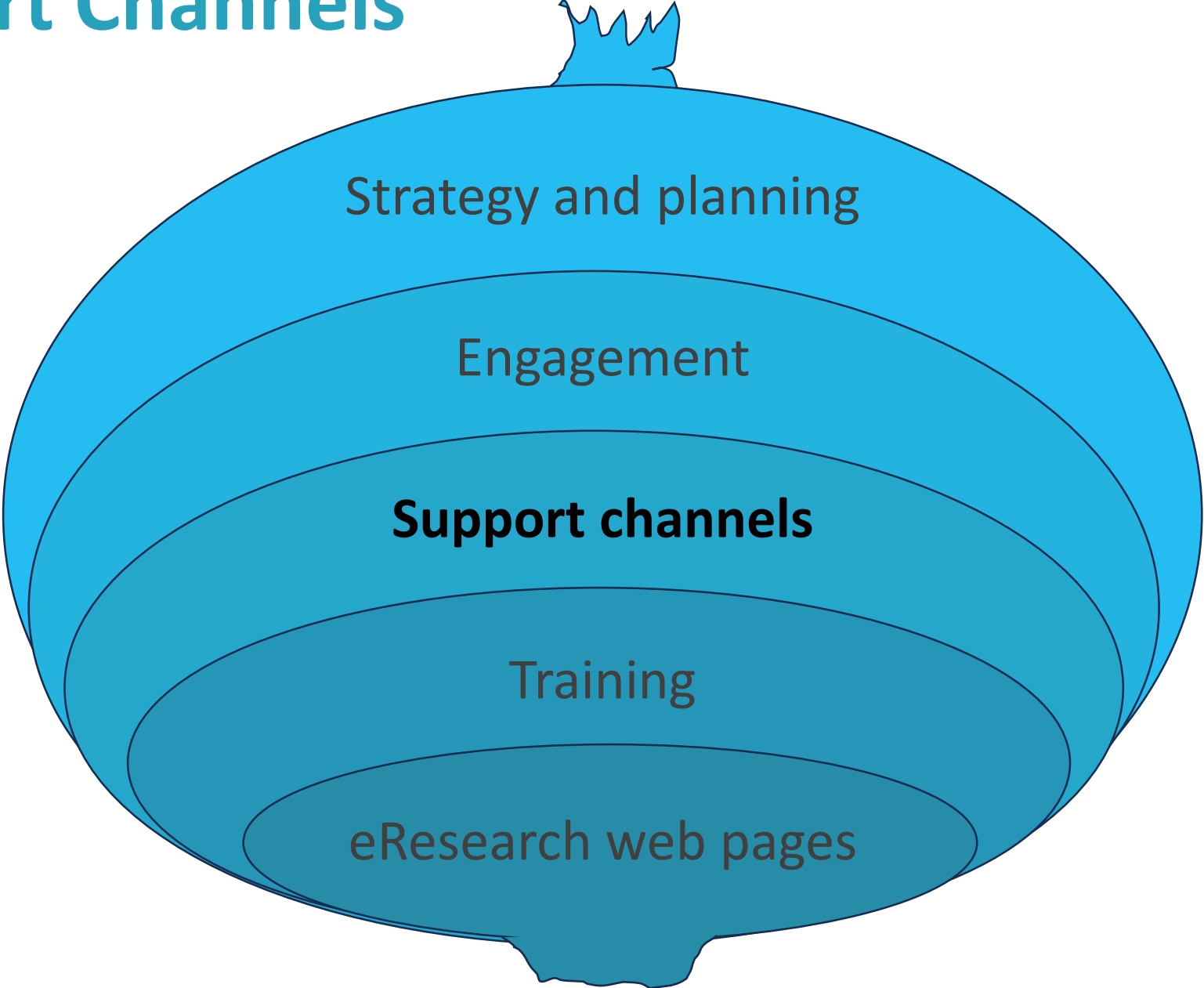
Training



Training



Support Channels



Strategy and planning

Engagement

Support channels

Training

eResearch web pages

Support Channels

Training

eResearch inbox

Teams channel

One-on-one support



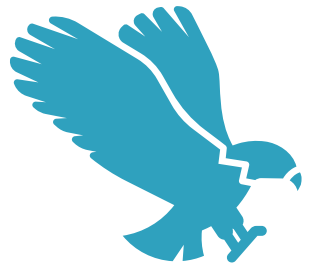
Support Channels

Training

eResearch inbox

Teams channel

One-on-one support



Support Channels



Training

eResearch

Teams

One-o

The screenshot displays the Microsoft Teams interface. On the left, a sidebar lists 'Your teams' including 'Digital Research Support' (with a 'General' channel), 'Research and Innovatio...' (with 'General', 'eResearch', and 'Innovation and Business Dev' channels), and 'eResearch Committee'. Below this is a 'Hidden teams' section. The main area shows two messages from 'Kyle.Hemming' dated '27 June 2023' and '18 July 2023'. The first message is titled 'Accessing REDCap' and provides instructions for logging in. The second message is titled 'Why do I get directed to a MyUC page?' and explains that HDR students can be re-logged in. A red box highlights the title of the second message. At the bottom, there is a 'New conversation' button.

Your teams

- Digital Research Support ...
 - General
- Research and Innovatio... ...
 - General
 - eResearch
 - Innovation and Business Dev
 - Research Data Analytics
 - 1 hidden channel
- eC eResearch Committee ...

Hidden teams

27 June 2023

Kyle.Hemming 27/6 4:04 pm
Accessing REDCap
Hi [redacted], to access REDCap, please log into [this site](#) using your staff ID (s123456 number/password) and follow the steps in the Access section. Please let me know if you have any troubles.
Kyle
Reply

18 July 2023

Kyle.Hemming 20/7 10:00 am Edited
Why do I get directed to a MyUC page ?
Hi [redacted], HDR students can get re-logged in to the MyUC page when they log to the university web site using their student (u123456) log in. This can even happen automatically, if your web browser has saved these log in details.
[See more](#)
15 replies from you, [redacted], and 2 others
Reply

New conversation

Support Channels

Training

eResearch inbox

Teams channel

One-on-one support



Support Channels

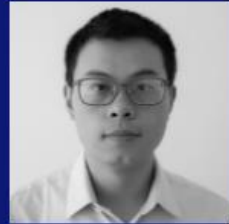


Training

eResearch i

Teams chan

One-on-one



Takeaways

Quick troubleshoot IT, methods questions

Timely

Efficient

Contextualise training



S&P + Engagement



S&P + Engagement



Stakeholder	Benefits
ADRs	Strategy, gravitas, faculty events
Faculty comms	Training, events
HDR office	Training, events
IT	Strategy, info
eResearch Committee	Strategy, info



Final takeaways

Takeaways + future directions

Onion seems to work

Resources need engagement

To do:

- Automate applications
- Update information

eResearch web pages & more, doi:
10.17632/fs2p6h8357.1

