

eResearch skills for HASS and Indigenous data

What the ARDC learned from co-design workshops



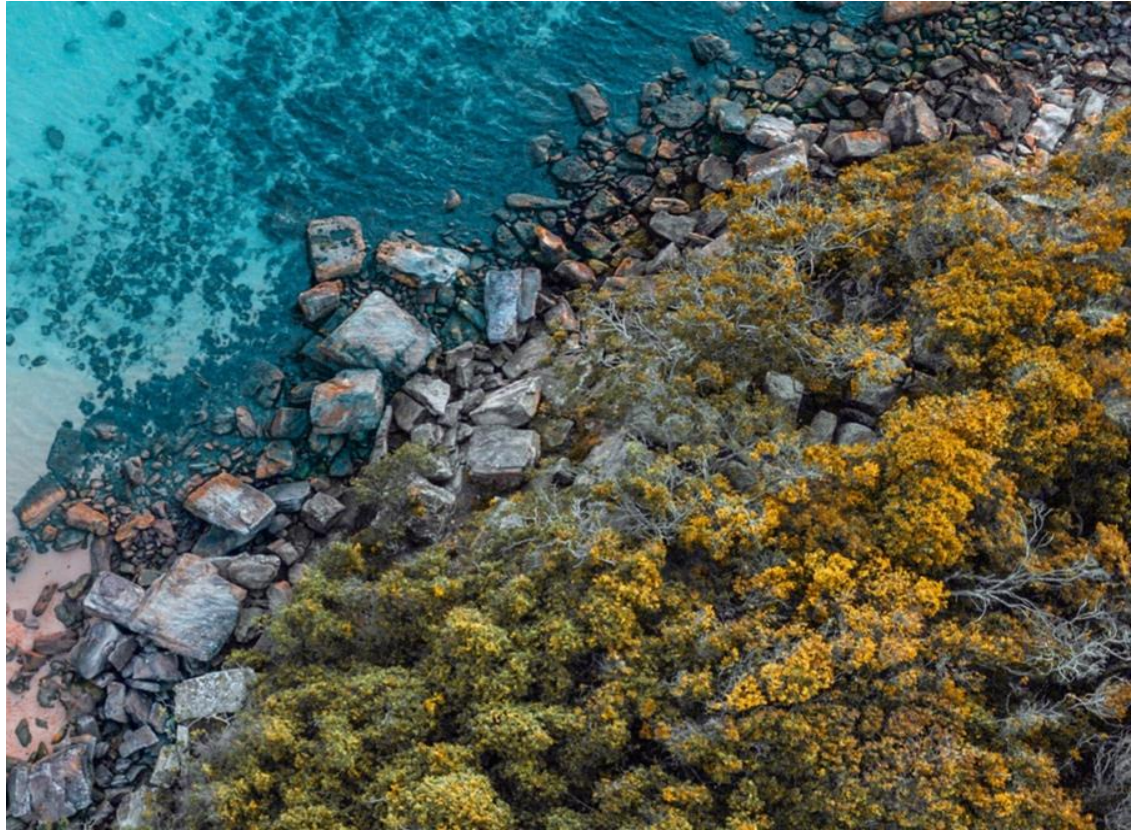
29 October 2024

PRESENTED BY
Kit Greenhill, Skills Development Lead
(HASS and Indigenous)

Australian Research Data Commons


ACKNOWLEDGEMENT OF COUNTRY

We acknowledge and celebrate the First Australians on whose traditional lands we meet, and we pay our respect to their elders past, present and emerging.



1. HASS & Indigenous Research Data Commons

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2. Co-design process

- 
1. HASS & Indigenous Research Data Commons
 2. Co-design process
 3. eResearch Skills needs from feedback
 - How, who, with, what



How

With


Delivery methods

With



Delivery methods

Necessary conditions

- 
1. HASS & Indigenous Research Data Commons
 2. Co-design process
 3. eResearch Skills needs from feedback
 - How, who, with, what
 4. Strategies

1. The HASS & Indigenous Research Data Commons





WHAT IS A RESEARCH DATA COMMONS?

A research data commons brings together people, skills, data, and related resources such as storage, compute, software, and models to enable researchers to conduct world class data-intensive research.

HUMANITIES, ARTS, SOCIAL SCIENCES (HASS) AND INDIGENOUS RESEARCH DATA COMMONS



**Improving Indigenous
Research Capabilities**



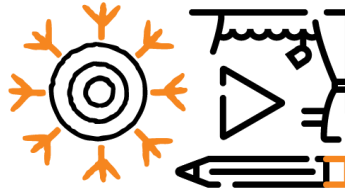
Connections



**Language Data
Commons of Australia**



**Social Science Research
Infrastructure Network**



**Australian Creative
Histories and Futures**



**Australian Internet
Observatory**

Images: Dylan Sarra. No further re-use is permitted.

2. Co-design process



Co-designing Infrastructure for the ARDC HASS and Indigenous RDC – Lessons Learned



Dr. Tom Honeyman¹, Dr. Nichola Burton¹

¹Ardc, Australia

Biography:

Tom is the Solutions Architect for the Humanities, Arts, Social Sciences and Indigenous Research Data Commons (RDC). In this role, Tom works across major projects in the commons to identify and scope work to build or service common needs for participants in the RDC.



Nichola is a Program Manager working with the Humanities, Arts, Social Sciences and Indigenous RDC. In this role, Nichola supports the design and delivery of infrastructure projects within the RDC, including coordinating and developing processes for the most recent rounds of project co-design.

Abstract:

Under its new strategy, the Australian Research Data Commons is developing a smaller number of larger-scale infrastructure initiatives that meet the needs of thematically-linked research communities – the thematic research data commons (RDCs). To ensure that each thematic RDC provides the greatest possible benefit to its target users, we are adopting a process of co-design to identify, shape and deliver these new initiatives. This represents a shift in the design of our infrastructure away from expert-identified solutions, and towards solutions identified based on the lived experience of researchers – with an accompanying shift towards more participatory design methods.

In this talk we will discuss what we have learned regarding the application of co-design methodologies to shape 4 new major initiatives under the HASS and Indigenous Research Data Commons. We'll talk about what frameworks we adopted, how they worked and didn't work, and what we'll do differently in the future.

17:05 today in Lake Room 1-2.

The screenshot shows the Zenodo interface for a dataset record. At the top, there is a blue navigation bar with the Zenodo logo, a search bar, and links for 'Communities' and 'My dashboard'. On the right side of the navigation bar are 'Log in' and 'Sign up' buttons. Below the navigation bar is a grey header for 'Australian Research Data Commons' with its logo. The main content area has a white background. At the top left of this area, it says 'Published January 18, 2024 | Version 1.1'. To the right of this text are two buttons: 'Other' and 'Open'. The title of the record is 'HASS and Indigenous Research Data Commons co-design framework'. Below the title, it says 'Australian Research Data Commons ROR'. The 'Producers' are listed as 'Burton, Nichola¹ ; Honeyman, Tom¹ 

Burton, N., Honeyman, T., & Fewster, J. (2024). *HASS and Indigenous Research Data Commons co-design framework*. <https://doi.org/10.5281/zenodo.10525947>



- 600 participants, 10 two-hour workshops.



Workshop One

To understand the problem and the outcomes we want to create

What we want to achieve.

Stayed away from details of **how**.



Workshop One

“Blue Sky” thinking. Many divergent ideas.

Cannot address all suggestions.

But:

- identified whether on the right track
- could adapt problem statement early
- understand context for what is co-created



Workshop Two

How to achieve outcomes:

- specific solutions
- what would be practical
- what needs to be considered
- who would be involved
- measures of success.

3. What we found out about skills needs





Sifting out skills

About 3000 data points.

Not all about skills.

Some only about one focus area (e.g skills for managing Indigenous data)

LDaCA Workshop Two. Skills section of Miro board





Culturally appropriate, online open resources (e.g., how-to videos, social media posts, Web pages) by & for Indigenous people involved in recording (collecting), using & sharing digital information. These resources must be done by Indigenous people with the support of technologists, but not led by (non-Indigenous) technologists.

Anonymous Participant, Improving Indigenous Research Capability
Workshop One.

HOW



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WHO



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Anonymous Participant, Improving Indigenous Research Capability
Workshop One.



Most skills feedback about:



Most skills feedback about:

HOW



Most skills feedback about:

HOW

- preferred methods of delivery



Most skills feedback about:

HOW

- preferred methods of delivery

WHO



Most skills feedback about:

HOW

- preferred methods of delivery

WHO

- who needs skills



Most skills feedback about:

HOW

- preferred methods of delivery

WHO

- who needs skills
- who should support skills acquisition



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WITH

- necessary conditions for skills acquisition



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- who needs skills
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WHAT

- Topics and learning outcomes.



Most skills feedback about:

HOW

- preferred methods of delivery

WHO

- who needs skills
- who should support skills acquisition

WITH

- necessary conditions for skills acquisition

WHAT

- Topics and learning outcomes.

HOW



HOW

DIY Resources

- How-to guides
- FAQs and help pages
- Self-help knowledge base
- Frameworks, guidelines and policies
- Online guides all in a single place like Libguides
- Lists of definitions of terms



HOW

Examples

- Exemplars
- Case Studies
- Pre-written code in notebooks
- Cookbooks
- Workflows
- Examples, Examples, Examples
- Checklists



HOW

Doing and making

- Data sprints
- Summer/Winter Schools
- Hackathons
- Gamified activities
- Workshops at conferences
- Workshops at events which are not obviously core audiences



HOW

Peer to peer

- Roundtables
- Peer-led teaching
- Carpentries-style events
- Student internships
- Mentoring for HDRs
- “Snowball training” - people do training then share with communities



HOW

Face to face

- Learning on Country
- Face-to-face sessions
- Office hours



HOW

Online

- Remote learning so people can stay on Country
- Webinars
- Short movies
- Open/interactive textbooks



HOW

Formal education

- Micro-courses and micro-credentials
- Formal PhD education
- Integration into undergraduate and postgraduate courses
- High school courses
- New university degrees in subjects like Indigenous Data Sovereignty
- Basic VET courses



HOW

Researchers are aware of many modalities

Ask preference.

HOW

Facilitate peer learning

HOW

If doing synchronous training, consider also producing a DIY resource, favouring examples.

HOW

If producing a DIY resource, consider synchronous training to match.

HOW

Formal education may have a coursework role to support the digital skills of potential researchers.

WHO



WHO

Learners:

- Researchers
- University Administration
- Students
- Indigenous people (in community)



WHO

Learners:

Differences within these groups

- Levels of learning
- Stages of the data lifecycle
- Abilities and equity needs



WHO

Researchers are not the only people who need digital skills training if more data-informed research is to happen in Australia.

THE RIGHT CONDITIONS



WITH Relationships

- Build relationships so right people connect to mentor each other
- Communities of practice
- Online forums to allow communication
- Better collaboration between tool-makers and researchers
- National communities of trainers



WITH

Community control

- Support by technologists but Indigenous communities determine
- Forums to find out from researchers what training they want



WITH

Improve tools

- Easier to use interfaces so training and guides are not necessary
- Allow dataset downloads so people can play
- Sandboxes for experimenting (e.g. with AI)



WITH

Clarification

- Define target audiences
- Information sessions with elders to explain what training is and the benefit to community
- Identify who is responsible for training which people



WITH

Ethics

- Ethical frameworks to guide any training
- Informed by cultural protocols
- Respect, relevance, reciprocity and responsibility as principles for working with Indigenous communities.



WITH

University systems

- Value training as a scholarly activity
- Universities formally valuing and rewarding researchers who have basic data literacy
- Clarification of university role to ensure researchers have basic digital literacy skills
- Sharing materials between universities



WITH

Fit learning journey

- Develop training early so it does not happen as afterthought
- Formal map of all training available to researchers
- Resources that can be updated and consulted long-term
- Remuneration for those being trained
- Jobs at end for people who undertake training
- Research software and management career paths (Retention issues for post-docs)





WITH

Skills are improved in an interconnected system of community, relationships and ethics.

WITH

What looks like a skills deficit may need other things to change, not more training. Like:

- Simplifying tools
- Clarifying need
- Changing how skills are valued

WHAT



WHAT

- Indigenous Data Governance
- Knowledge of each other's techniques and tools to collaborate
- Data collection
- Data ethics
- Consent, permissions, licencing training
- Digital literacy
- Collecting, using, sharing data
- Text analytics
- Application of metadata
- FAIR and CARE



4. Strategies



Indigenous internship





Credit: ARDC and David Hannah, 2024

HASS & Indigenous Summer School 2024



WHAT

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Credit: ARDC and David Hannah, 2024



Brisbane 2025

Credit: ARDC and David Hannah, 2024



Registrations at Eventbrite

ARDC Indigenous Data Governance Masterclass

State Library of Queensland, Southbank, 3 February 2025

HASS and Indigenous Research Data Commons Summer School

University of Queensland, St Lucia, 4-6 February 2025

Credit: ARDC and David Hannah, 2024





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