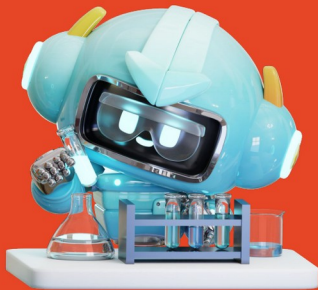


# *Driving AI Adoption in Research*

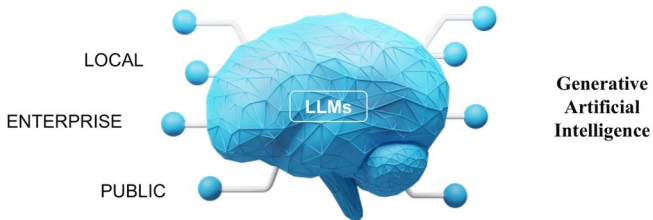
Darya Vanichkina (University of Sydney)  
Glen Charlton (Intersect)  
Kyle Hemming (Auckland)  
Benjamin Goudey (BioCommons)  
Anastasios Papaioannou (UTS)  
Julie Iskander (WEHI)  
Patrick Tung (UNSW)  
Nathaniel Butterworth (Google)



THE UNIVERSITY OF  
SYDNEY

*Celebrating 175 years*

## Definition of “AI” for this BoF



# Session Plan

**Goal:** Opportunities for cross-institutional collaboration initiatives around *AI literacy, infrastructure readiness* and *policy & guideline alignment* across the region.



**1) Scene-Setting**  
the landscape of  
challenges



**2) Focused Discussion**  
around 3 key topics  
(pick one!)



**3) Come Together**  
to summarise and  
plan next steps

# AI Adoption in Research Landscape



# 1. *Guidelines for Using AI/AI for Research at Your Institution*



**Julie Iskander**



Waipapa  
Taumata Rau  
**University  
of Auckland**

**Kyle Hemming**

## Group 1: Guidelines


**Goal:** Exploring other people's guidelines + sticky beaking if any make sense to us.

1. Collaborate closely to create guidelines applicable to universities on how to use AI for research.
2. Risk of adoption - guidelines for sensitive data, IP, etc.
3. Local data centres for running our models or OK for our stuff to be running in the US/offshore?

<https://tinyurl.com/eRes25ai>



# WEHI GUIDELINES

**RESPONSIBLE USE OF GENERATIVE AI TOOLS** 

<p><b>CHECK YOUR COURSE GUIDELINES</b></p> <p>Remember that each course and assessment task may have different guidelines regarding AI tools. It is your responsibility to check whether the use of AI is allowed in each of your courses and assessments.</p> <p>See University of Melbourne's <a href="#">Disability resources and digital assistance tools</a>.</p> <p>Always refer to your course outline or ask your course convenor about the use of AI.</p>	<p><b>MAINTAIN YOUR ACADEMIC INTEGRITY</b></p> <p>You should acknowledge any AI-generated content you include in your assessments, including quotes, paraphrases, or summaries. Reporting AI-generated outputs into your own words will require proper citation.</p> <p>See University of Melbourne's <a href="#">Acknowledging AI tools and technology</a>.</p> <p>Do not copy-and-paste AI-generated material and claim it as your own.</p>	<p><b>PROTECT PERSONAL INFORMATION</b></p> <p>This includes personal addresses, emails, phone numbers, intellectual property (such as a thesis), as well as other sensitive information.</p> <p>If you need guidance consult your supervisor or Dr Jess Burgin.</p> <p>Do not include your own or others' personal or private information in prompts.</p>	<p><b>VERIFY ACCURACY OF AI OUTPUTS</b></p> <p>Generative AI tools can produce invalid or unreliable information, aka 'hallucinations' or 'hallucinations'. In addition, some outputs may contain bias. Always verify the information these tools provide and refer to reliable and credible sources.</p> <p>If you're unsure about any information or need guidance consult your supervisor or Dr Jess Burgin.</p> <p>Verify accuracy of AI outputs.</p>	<p><b>GUIDELINES FOR TRANSLATION TOOLS</b></p> <p>Relying on generative AI to translate your writing into English can negatively impact your learning and reduce the effectiveness of your work. Additionally, you may find it challenging to explain AI-generated content to others.</p> <p>See University of Melbourne's <a href="#">guide for students responsible translation and editing tools</a>.</p> <p>Avoid using AI tools to translate your writing (unless given permission).</p>
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Work in progress:

- Monthly seminars
- Awareness around:
  - Sensitive Data Risk
  - Vibe coding

## WEHI AI in Medical Research & Education Working Group (AIMREd)

The WEHI AI in Medical Research & Education (AIMREd) Working Group is committed to guiding the effective use and ethical implementation of Artificial Intelligence (AI) and Machine Learning (ML) technologies in WEHI's research endeavours, academic training of students, and the provision of WEHI educational resources on these topics.

## *2. Platforms and Infrastructure for GenAI*



**Nathaniel Butterworth**



**Glen Charlton**

## Group 2: Infrastructure

1. Cloud.
2. On Prem.
3. National - NCI Resourcing.



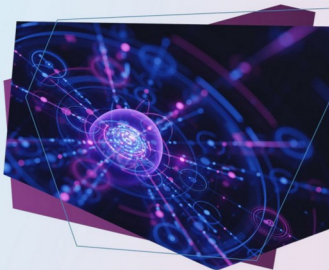


Australian Government  
Department of Industry,  
Science and Resources

National  
Artificial  
Intelligence  
Centre



## Australia's artificial intelligence ecosystem: growth and opportunities



Alexandra Bratanova, Stefan Hajkowicz, David Evans,  
Haohui Chen, Sarah Bentley, Hien Pham and Sarah Hartman  
June 2025

[industry.gov.au/NAIC](https://www.industry.gov.au/NAIC)

Figure 1: Percentage rates of AI adoption across Australian industries, December 2024

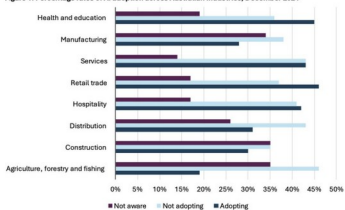
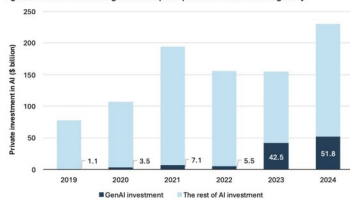
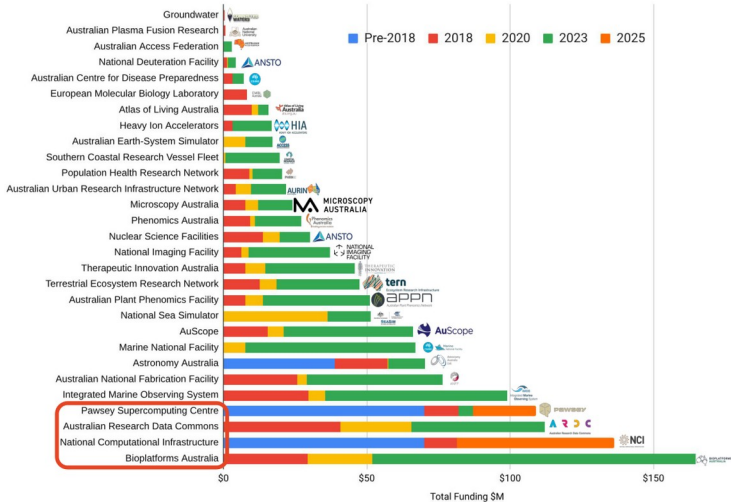


Figure 2: Private investment in generative AI (GenAI) and total investment in AI globally



<https://www.industry.gov.au/sites/default/files/2025-06/australias-artificial-intelligence-ecosystem-growth-and-opportunities-june-2025.pdf>

# National Collaborative Research Infrastructure Strategy



## :: What are we doing well



- Initial investments into tools to make it easier for researchers to use cloud computing.
- Balancing the arguments for use of Commercial Cloud, On Premise and National research infrastructure.
- Investment in training researchers to be able to use AI on cloud infrastructure.
- Grant schemes to give researchers access to cloud resources.

## :: **Barriers** to AI Readiness



### **Types of Infrastructure:**

- Commercial Cloud.
- On Premise.
- National - (NCI, Pawsey, Nectar, etc.)

### **Barriers to Adoption:**

- Access the right resources.
- Cost or complexity with pricing.
- Data privacy and security concerns.
- Technical knowledge gap.
- Institutional policies.

:: The **ask?**



**What is the ask of this session:**

If you have a billion dollars, how would you split the investment for:

- Types of Infrastructure.
- Addressing barriers to adoption.

## UNSW

- On-prem cluster.
- NCI allocations.
- Possible commercial cloud for inference.



**UNSW**  
SYDNEY

# High-Performance Computing (HPC)

## UTS HPC Cluster

UTS Internal on-prem High-Performance Computing (HPC) Infrastructure

**184** Compute Nodes  
**6000+** CPU cores  
**64+** TB of Memory  
**320+** GPUs

## NCI Gadi

Access to the largest national HPC Infrastructure (NCI) using an allocation scheme

**12 million** SUs

## Private Nodes

Assistance in procuring, deploying, and maintaining private nodes tailored to researchers' needs

**64** Compute Nodes

# Cloud Computing

## ARDC Nectar

Access to the ARDC Nectar Research Cloud Compute. Provides flexible, scalable, and secure access to virtual machines

**200** Cores

## AWS

Provisioning access to AWS Cloud Computing for researchers

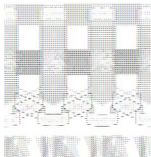
- A. Self-funded access**
- B. eResearch funded**

## HPC Bursting via Cloud (Testing)

Lets HPC workloads to scale from on-premises clusters to cloud, providing elastic resources for short-term peaks and on-demand access to CPUs or GPUs.

### *3. Sharing Tools and Experience*

**Anastasios Papaioannou**



**Patrick Tung**

## Group 3: Sharing Tools

1. Sharing what tools and platforms our researchers are currently using.
2. Sharing knowledge, guidance and considerations for widely used GenAI applications in research.
3. How do we create mechanisms to help us help our researchers and us to share this kind of information?

[tinyurl.com/eRes25ai](https://tinyurl.com/eRes25ai)



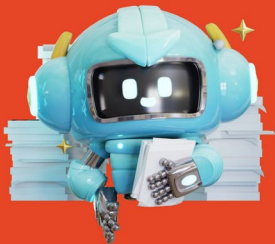
# **What GenAI Tools are Currently Used by Researchers?**

# *Wrap-Up*

## Collaboration Opportunities Discussion

1. Guidelines group.
2. Infrastructure group.
3. Resource and knowledge sharing group.





Thank you! *Questions?*