Decolonising Information Retrieval Research

SIGIR-AP'24 Melbourne/Naarm Satellite – 11 Dec 2024

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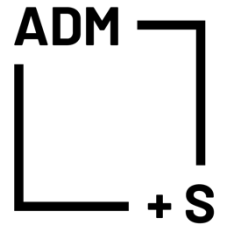damiano.spina@rmit.edu.au
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Warning

Some of the content in these slides may be culturally sensitive.

It may also contain inaccurate content, definitely incomplete, and based on my limited experience. I am just at the start of this journey.

If you want to walk this journey together, want to help me improving this material, or you have any questions, do not hesitate to contact me: damiano.spina@rmit.edu.au

Information Retrieval on Country

by Treahna Hamm
(Firebrace),
Yorta Yorta

Positionality Statement

- Non-Indigenous

- Privileged Immigrant, White, Male, Multilingual

- Information Retrieval Researcher

- Computer Scientist

- Capoeirista

Responsible AI Research Needs Impact Statements Too

Alexandra Olteanu
Microsoft Research

Michael Ekstrand
Drexel University

Carlos Castillo
ICREA and UPF

Jina Suh
Microsoft Research

All types of research, development, and policy work can have unintended, adverse consequences—work in responsible artificial intelligence (RAI), ethical AI, or ethics in AI is *no* exception.

Do We Need Them?

"I'm just optimising my neural-based ranker using existing test collections (MS-MARCO). I just look at NDCG numbers, why should I need a positionality statement?"

- Where the relevance judgements come from?
- Your system wins the TREC Deep Learning Track, who benefits from it?

The value of positionality statements becomes more obvious when we move to other information access scenarios (e.g., fairness-aware ranking, crowdsourcing tasks, …)

Decolonising Research

When Indigenous people become the researchers and not merely the researched, the activity of research is transformed. Questions are framed differently, priorities are ranked differently, problems are defined differently, people participate on different terms. (Smith 1999, cited in Zavala [1, p. 59])

- Decolonisation vs. Indigenisation
- Acknowledgement of Country (territorial ack.) vs. Welcome to Country

Smith, L.T. (1999). Decolonizing methodologies: Research and Indigenous peoples. New York: Palgrave.
Zavala, M. (2013). What do we mean by decolonizing research strategies? Lessons from decolonizing, Indigenous research projects in New Zealand and Latin America. Decolonization: Indigeneity, Education & Society 2(1), 55 – 71.

We Do IR on Country More Often Than We Think

https://native-land.ca/

Thanks to Bhaskar Mitra for the pointer!

How to Acknowledge Country

1. Name Country
2. Pay respects to Ancestors and Elders, past and present
3. Respectfully acknowledge Aboriginal and Torres Strait Islander/First Nations peoples that may be joining
4. [Optional] Positionality (who is acknowledging Country)/tell a relevant story/share how you feel connected to Country/..

Territorial Acknowledgement – SIGIR 2021

Before going fully virtual, SIGIR 2021 was planned to be located in Tiohtià:ke, also known as Montréal, and the island is called Mooniyang in Anishnabemowin. Tiohtià:ke/Montréal is situated on unceded Indigenous lands and traditional territory of the Kanien'kehá:ka and Anishnaabe Nations. We, the organizers and the conference attendees who are based in Tiohtià:ke/Montréal, recognize the Kanien'kehá:ka nation as the custodians of the lands and waters on which we stand. Tiohtià:ke has historically served as a meeting place for many First Nations. Today Tiohtià:ke/Montréal is home to a diverse population of Indigenous and other peoples. We again welcome our diverse group of attendees from across the world to join us virtually and to simultaneously acknowledge their own physical location and share their respective land acknowledgment, using tools like https://native-land.ca/.

(We are grateful for the technological acknowledgement from The Feminist Media Studio and the territorial acknowledgement from Université Concordia which we consulted and heavily derived from for the above acknowledgment.)

https://sigir.org/sigir2021/technological-acknowledgment/

Do We Need to Care?

(in Australia)

SIGIR 2025 LOW RESOURCE ENVIRONMENTS TRACK

CALL FOR PRESENTATION PROPOSALS

Low-resource environments are characterised by limited access to resources, such as test collections for training or benchmarking Information Retrieval (IR) techniques, restricted access to research funding, or limited computing infrastructure. These environments can be found in low-income countries, and in underserved communities within middle- and high-income countries. Low-resource environments encompass the **places, people, and platforms** involved in accessing information. These environments present unique IR problems, requiring innovative solutions and new perspectives. However, the IR community, and SIGIR in particular, has seen limited work addressing these challenges, and limited participation by people working in low-resource environments.

https://sigir2025.dei.unipd.it/low-resource-environments-track.html

The National Science and Research Priorities

https://www.industry.gov.au/publications/national-science-and-research-priorities-2024

ABORIGINAL LANGUAGE AREAS IN VICTORIA: A RECONSTRUCTION
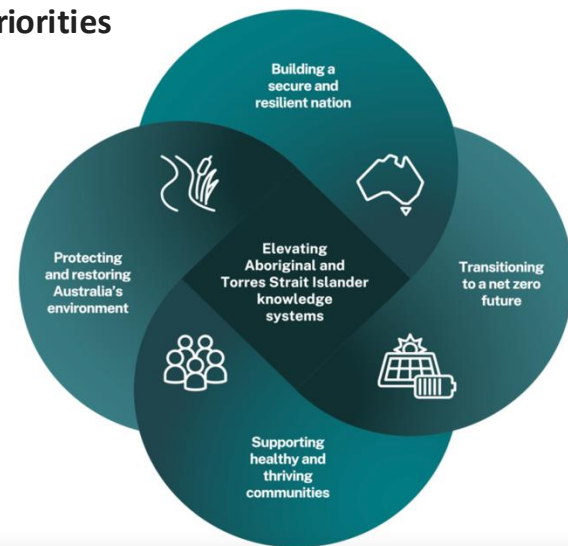
Is an Aboriginal tale of an ancient volcano the oldest story ever told?
Eruption 37,000 years ago may have sparked a legend about four giants
11 FEB 2020 · BY COLIN BARRAS
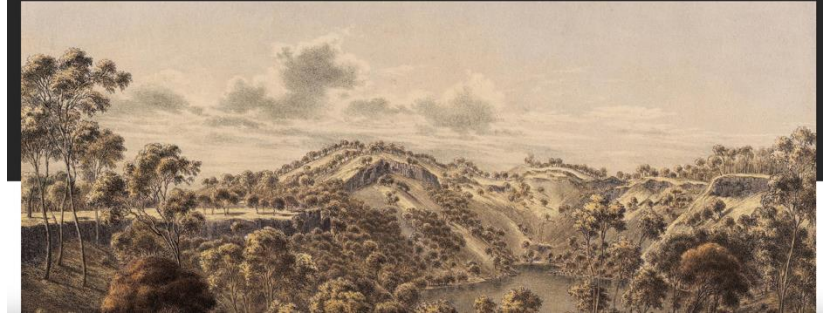
**3 Ps of Software Engineering:
People, Process, Product**

Estimated

TP	**FN**
FP	**TN**

Actual

Estimated

Actual

TP **Indigenous-led IR Research**	**FN**
FP	**TN**

Estimated

	TP **Indigenous-led IR Research**	**FN**
FP		**TN** **Racism**

Actual

Estimated

	TP	FN
Actual	Indigenous-led IR Research	
	Acknowledging Country Listening, being curious Using Indigenous Word Citing Indigenous Authors …	
	FP	**TN** Racism

Estimated

Actual

TP Indigenous-led IR Research Acknowledging Country Listening, being curious Using Indigenous Word Citing Indigenous Authors …	**FN**
FP Extractive research	**TN** Racism

Estimated

Actual

	TP	**FN**
	Indigenous-led IR Research Acknowledging Country Listening, being curious Using Indigenous Word Citing Indigenous Authors …	
	FP	**TN**
	Extractive research	Racism Not doing anything

Estimated

Safe Zone!

Actual

TP **Indigenous-led IR Research**	**FN**	
	Acknowledging Country **Listening, being curious** **Using Indigenous Word** **Citing Indigenous Authors** **…**	
FP **Extractive research**	**TN** **Racism** **Not doing anything**	

Some Mistakes I Made So Far

- **Recording of didgeridoo & berimbau to acknowledge Wurundjeri & Bunurong Country**
  - **Clapsticks, possum skin drums, and voice are used in Kulin Nation**
- **Using Indigenous words without explicit permission (who is benefitting?)**
- **Not checking sensitivity of questions in a form to register an Indigenous artist as an RMIT supplier**

10. Modern Slavery

Under the Commonwealth Modern Slavery Act (2018) large entities with over AU$100 million in annual consolidated revenue must prepare an annual Modern Slavery Statement.

Are you obliged to report under this Act (or an equivalent)? *

Please select...

bit.ly/walert

Customised AI-powered chatbot for Open Day (SCT)

A conversational ~~agent~~ conversation starter:

- Opportunities and limitations of customised AI-powered chatbots, e.g.,
  Retrieval-Augmented Generation (RAG) systems
- Evaluation framework and guidelines on how to test solution built in-house
- Walert means "possum" in Woi wurrung and Boon wurrung languages: significance of possum skin cloaks for the Traditional Custodians of Country

Demo available at: RMIT UNIVERSITY RACE Hub

PhD Course - Responsible AI from the Lens of an Information Access Researcher

damianospina.com/teaching/responsible-ai/

Group Activities - 4 Groups:

 Marram (Kangaroo)   **Gurrborra (Koala)**
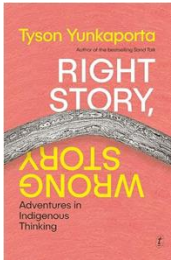
 Warin (Wombat)   **Dulai wurrung (Platypus)**

https://deadlystory.com/page/aboriginal-country-map/Aboriginal_Country_Completed/Wurundjeri/Wurundjeri_Language
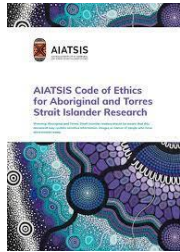
Case Studies in Data Science

Guest Lecturer:
Dr Tyson Yunkaporta
"There is no data without story, there is no story without data."

Individual Assignment

Indigenous Protocol and AI:
Position Paper

AIATSIS
Code of Ethics

Individual Reflective Portfolio

Question 2. How connected you feel to Country? Are the resources shared in this course helping you walk through your reconciliation journey? How do you think you can contribute to the reconciliation journey as a data scientist?

Oral Presentations

How to Pitch A Demo
Quiz: What is the oldest oral story ever told?

What Can We Do?

- Start small
- Be respectful, but not afraid of making mistakes
- You will make mistakes, learn from them
- Share, repeat

The development of AI literacy within the indigenous community is a key driver in the development and uptake of AI within regional and remote communities. The Indigenous Australian Datathon offers a unique opportunity to develop smart, community-centric solutions that can reshape understanding and future directions for Indigenous communities. By bringing together subject matter experts, innovators, design thinkers, and data scientists, the datathon promises to foster collaboration and create connections that will endure long after the event is over.

https://indigenousaustraliandatathon.com/

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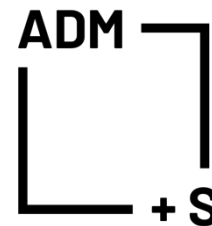damiano.spina@rmit.edu.au
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