

# **Incorporating Indigenous Perspectives within ICT Curriculum across Australian Universities**

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## Did you know?

- Technology sector & HE is grappling with Indigenous underrepresentation:
  - In Australia's tech sector Aboriginal and Torres Strait Islander peoples represent fewer than 1% participants [5].
    - only 522 Indigenous students enrolled in IT programs, concerning given 23,000 Indigenous students enrolled in HE[1].
  - New Zealand's technology sector is similar, with Māori people making up just 4% of the technology industry [24].
    - only 650 Māori students were pursuing IT-related bachelor's degrees, concerning as 19,000 Māori students pursuing bachelors. [14].
  - The 2023 Australian Digital Inclusion Index [15] reveals a significant digital divide between First Nations and non-First Nations populations.
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- **Do we agree there is an urgent need to address this disparity?**
  - Collective efforts from government, private sector, community, and the education sector are essential.

# ICT profoundly impacts Indigenous communities

- As I discussed here in 2022 [9], these are some impacts we can cover in ICT curricula:
  - digital divide [16]
  - data sovereignty [23, 28]
  - culturally responsible use of AI [25, 29]
  - cyber-safety & social media [4, 18, 17]
  - cultural bias in ICT solutions' design [6, 12, 18, 20]
- What I have learnt since:
  - Deficit View v Strengths-based View [13, 30]
  - Cultural foundational understanding
    - UniSyd – Kinship Module [19]
  - Framework for the Aboriginal and Torres Strait Islander Histories and Cultures cross-curriculum priority [26, 31]





# Infusing Indigenous Perspectives

- Two key areas where incorporating Indigenous perspectives within ICT curriculum can assist in diminishing underrepresentation & impacts of ICT:
  - support Indigenous students to feel ***culturally safe*** and supported in the ICT discipline by including Indigenous knowledges and approaches in education and to enable them to create solutions for ***community benefit***
  - develop skills in non-Indigenous students to ***productively engage*** with Indigenous communities to create user-centred solutions for and with them.





## Indigenous Strategy

- Universities Australia, in collaboration with the National Aboriginal and Torres Strait Islander Higher Education Consortium, released its ***Indigenous Strategy*** 2017-2020 [2] and 2022-2025 [3].
  - These strategies commit all member universities to meaningfully integrate Indigenous cultural content into their curricula to ensure that ***all*** students graduate with an awareness of Aboriginal and Torres Strait Islander values and knowledge.
- **Has your University committed?**





# Approaches to infusing Indigenous content

## Curriculum Indigenisation [11]

- Integrating Indigenous knowledge and perspectives into the content and throughout the curriculum

## Decolonising Curriculum [27]

- Eliminates colonial ideology and practice

## Cultural Competency

- Develops awareness of the need to consider culture



## Known hurdles

- Efforts to incorporate Indigenous content into curricula have highlighted challenges that can hinder effective learning [9, 10]
  - shortage of Indigenous academics
  - educator knowledge gaps
  - reinforcing stereotypes
  - lack of educator training
  - overcrowded curriculum
  - avoiding tokenism
  - balancing industry-specific material with Indigenous perspectives
- Consequently, we believe the integration of Indigenous perspectives into ICT curricula has progressed at a slow pace
  - Evidenced through discussions at CoP



## Aims and Objectives of our ALTA Project

- This project aims to explore and report on the incorporation of Indigenous perspectives within ICT curriculum across universities.
- The project will examine all existing ICT bachelor courses in Australia
- The research objectives are to:
  - evaluate the extent to which universities have incorporated Indigenous knowledge and perspectives in their ICT curriculum
  - catalog the various approaches
  - investigate the factors that facilitate or impede progress
  - identify exemplars of best practices at the ICT subject level
  - delineate the critical success factors of such practices





# Research Questions

1. How extensively has ICT curriculum incorporated Indigenous perspectives across Australian universities?
2. What approaches to incorporating Indigenous perspectives within ICT curriculum are employed across Australian universities?
3. What factors facilitate or impede the incorporation of Indigenous perspectives within ICT curriculum?
4. What are the essential characteristics of best practice when Indigenous perspectives have been included within ICT subjects?



# So how are we going?

- Ethics Approval - H0030291
- Appointed our Research Associate – Clair Ryder – who is doing the interviews
- Identified ICT Degrees and Degree Coordinators for Australian Universities
- Stage 1
  - Interview Degree Coordinators
- Stage 2
  - Interview Unit/Subject Coordinators or other people of significance

In all honesty, we are not on schedule







## Currently in stage 1

- Zoom interviews with all identified and willing degree coordinators.
- Degree coordinators will be asked about
  - the extent of Indigenous perspectives within their courses
  - the approaches they have adopted
  - the factors that either facilitate or impede progress in this area.
- If a course has not yet included Indigenous perspectives, the degree coordinator will be interviewed to ***understand the reasons behind this lack of inclusion.***

# What are the challenges?

- Setting up the interviews with a degree coordinator

Yes, more than happy to participate.

Thank you very much for your invitation to this study and we are very happy to make our contribution.

Yes, I am happy to participate with this study. I would also be interested to see what other ICT departments across the country are doing in this space.

I can't see how Aboriginal and Torres Strait Islander content is related to ICT. So, I don't think I'll be of any help in your study.

Due to my heavy workload, it is hard for me to find a time for interview.

Our core BIT courses don't have any Aboriginal and Torres Strait Islander content. However, students can choose 4 business electives.

We haven't yet embedded indigenous perspective into our IT courses.

Please get in touch with our Associate Dean Indigenous (name supplied)



# How can you help?

- Please facilitate an interview with your degree coordinator.
- [Nicole.Herbert@utas.edu.au](mailto:Nicole.Herbert@utas.edu.au)



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**Questions?**

**Thank you**

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