



UNIVERSITY OF  
AUCKLAND  
Waipapa Taumata Rau  
NEW ZEALAND

**ENGINEERING**

Te Herenga Mātai Pūkaha

# COMPSYS/ELECTENG/ SOFTENG 770: Capstone

## Lecture 2.1: Te Tiriti o Waitangi



# Whakataukī

Ko te manu e kai ana i te miro  
nōnā te ngahere

The bird that consumes the  
miro owns the forest.

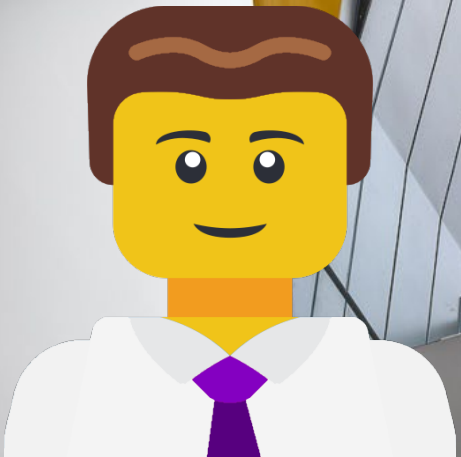
Ko te manu e kai ana i te mātauranga  
nōnā te ao

The bird that consumes  
knowledge owns the world



# Learning Aims

- By the end of today's lecture, you should be able to:
- Explain what Te Tiriti o Waitangi is, and why it is important to New Zealand,
  - Apply the concepts from Māori data sovereignty data in an application,
  - And describe how Māori and Pākehā can build relationships for future engagement.



# Te Tiriti o Waitangi

## What is Te Tiriti o Waitangi?

- Agreement between \_\_\_\_\_
  - Signed in \_\_\_\_\_
- Two versions

## Why is it important?

- Intended as a foundation for relationships between the two peoples
- Builds on \_\_\_\_\_



# Te Tiriti o Waitangi

## Three articles:

- 1<sup>st</sup> article – governance
- 2<sup>nd</sup> article – full rights of chieftainship
- 3<sup>rd</sup> article – protection

## Treaty principles:

- \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
- } \_\_\_\_\_



# Some Background

## Māori Society

- Iwi
- Hapū
- Marae
- Whānau





# Some Background

There is no one Māori world view!

- Māori originated from multiple islands in the pacific
- Some common \_\_\_\_\_
  - But many different \_\_\_\_\_



# Some Background

## Te Ao Māori/The Māori World

- Hierarchal society
  - Traditional values
- \_\_\_\_\_
  - Over a 1,000 years of history!
- \_\_\_\_\_ are important
- Different world view on \_\_\_\_\_
  - Kaitiakitanga, or \_\_\_\_\_
  - Compared to the European model of individual ownership





# Data Sovereignty

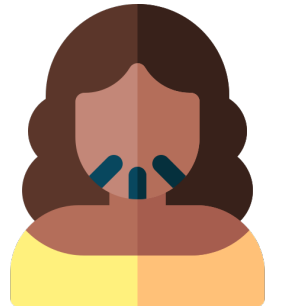
What is Data Sovereignty?

“...data is subject to the laws of the nation within which it is stored.”

*Prof. Tahu Kukutai, University of Waikato*

Deals with the questions of:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



# Data Sovereignty

**Indigenous Data Sovereignty** states that data is subject to the laws of the nation from which it is collected (including Tribal nations)

**Māori Data Sovereignty** refers to the inherent rights and interests that Māori have in relation to the collection, ownership, and application of Māori data.

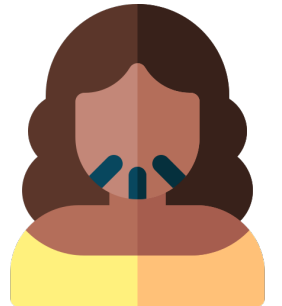
Includes:

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# What is Māori Data Sovereignty?

Māori Data Sovereignty refers to the inherent rights and interests Māori, whānau, hapū, iwi and Māori organisations, have in relation to the creation, collection, access, analysis, interpretation, management, dissemination, re-use, and control of data relating to Māori, whānau, hapū, iwi and Māori organisations as guaranteed in Article II of Te Tiriti/Treaty of Waitangi (Taiuru, K. 2020)



# What is Māori Data Sovereignty?

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The Queen of England agrees to protect the chiefs, the subtribes and all the people of New Zealand in the unqualified exercise of their chieftainship over their lands, villages and all their treasures. But on the other hand the Chiefs of the Confederation and all the Chiefs will sell land to the Queen at a price agreed to by the person owning it and by the person buying it (the latter being) appointed by the Queen as her purchase agent.

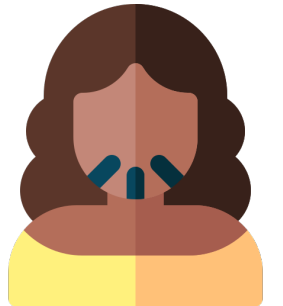
*Translation by Professor Hugh Kawharu*

# Data Sovereignty

What does this mean for us?

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Beware of \_\_\_\_\_!



# Kanohi ki kanohi

How do we build relationships?

- An important part of te ao Māori
- Start with the three principles:
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
- Takes time
- Trust referrals are valued
  - Works both ways





# Kanohi ki kanohi

## Co-design

- Collaborative Process
- User-Centered
- Iterative and Adaptive
- Empathy and Understanding
- Shared Ownership



# Kanohi ki kanohi

What if we don't know anyone of Māori descent?

- Cultural awareness
  - For example, what is \_\_\_\_\_
- Ensure the design has \_\_\_\_\_
- Find information online
  - Although make sure you verify it!
- Look at existing standards:
  - <https://www.stats.govt.nz/reports/data-standard-for-maori-business/>
  - <https://data.govt.nz/toolkit/data-governance/maori/>



# An Example From Last Year

## Holistic Report

### Te Tiriti o Waitangi

As part of our Te Tiriti obligations, we will develop the application to handle multiple languages. Te Reo Māori will be included in the list of available languages: however, since no one on our team speaks Te Reo Māori, it will not be included in the initial delivery. Instead, we will add the infrastructure for multiple languages. To evaluate this approach we will implement Chinese as an alternate language to test the effectiveness of this approach.


### Front End Software

We intend to allow users to change languages as part of our design. This will help meet our Te Tiriti obligations, as well as make the system more friendly for volunteers who are not confident in speaking English.

We will include changing languages on the login screen for our application. Once the language is selected, we will store it in the local database, so it only needs to be changed once. All remaining screens will use the selected language

### Conclusion

... As part of our Te Tiriti obligations, we have included the ability to include Te Reo Māori as a language. While we do not speak Te Reo Māori, we have designed the ability to change languages in the system. This choice means adding Te Reo Māori in future will be as simple as adding the translations to the system rather than forcing a redesign of the interfaces. ...



# Coming up next...

Upcoming lectures:

- Tuesday: Plunket
- Next Monday: ***no lecture!***
- Following Tuesday: sustainability

Assignments due:

- Risk analysis
- Team charter

Regular mentor meetings