

MĀORI DATA SOVEREIGNTY NETWORK

HOME

# Our Data, Our Sovereignty, Our Future

**INDIGENOUS DATA SOVEREIGNTY:  
LESSONS FROM AOTEAROA**

Indigenous Cardiovascular  
Health Conference 2019

Maui Hudson

13 June 2019



# INDIGENOUS DATA SOVEREIGNTY

**Indigenous Data Sovereignty is a discourse about rights and interests**

- Indigenous / Treaty rights
- Cultural Intellectual Property rights
- Indigenous research ethics, data ethics

- 1. Data for Governance:** Gaining access to use data to transform the lives of our people.
- 2. Governance of Data:** Managing access to data to ensure use is relevant and responsive.

# INDIGENOUS DATA SOVEREIGNTY

TOWARD AN AGENDA

Edited by TAHU KUKUTAI  
and JOHN TAYLOR



'A debate-shaping book . . . it speaks to a fast-emerging field; it has a lot of important things to say; and the timing is right.'

— Stephen Cornell, Professor of Sociology  
and Faculty Chair of the Native Nations Institute,  
University of Arizona



PRESS

ISBN 9781760460303 (Print) ISBN 9781760460310 (Online) CAEPR RESEARCH MONOGRAPH NO. 38

This book is available to download for free or hard copies are available to purchase from:  
[press.anu.edu.au/publications/series/centre-aboriginal-economic-policy-research-caepr/indigenous-data-sovereignty](http://press.anu.edu.au/publications/series/centre-aboriginal-economic-policy-research-caepr/indigenous-data-sovereignty)

# CONTEXT: CHALLENGE OF COMPETING INTERESTS OPEN DATA & INDIGENOUS DATA SOVEREIGNTY

## 1. Six Principles for **Open Science**

- a. Open Data
- b. Open Source
- c. Open Methodology
- d. Open Peer Review
- e. Open Access
- f. Open Educational Resources

## 1. Five Enormous Transformations

- a. The new knowledge revolution
- b. Big Data and the Internet Explosion
- c. Social connectivity
- d. Evolutionary programming
- e. Artificial intelligence

*International Data Week 2018 - Keynote speech  
Prof Ismail Serageldin, Biblioteca Alexandria*

# A COMMITMENT TO INDIGENOUS DATA SOVEREIGNTY (IDS) SPANS THE GLOBE

NATION-STATE BASED, INDIGENOUS LED COMMUNITIES OF PRACTICE

- **TE MANA RARAUNGA MAORI DATA SOVEREIGNTY NETWORK** in Aotearoa/New Zealand
- **UNITED STATES INDIGENOUS DATA SOVEREIGNTY NETWORK**
- **MAIAM NAYRI WINGARA ABORIGINAL AND TORRES STRAIT ISLANDER DATA SOVEREIGNTY COLLECTIVE** in Australia
- **FIRST NATIONS INDIGENOUS GOVERNANCE CENTRE** in Canada
- **NASCENT: SAMI/SÁPMI** in Sweden, Mexico, **FIRST NATIONS, INUIT & METIS** in Canada

RDA INTERNATIONAL INDIGENOUS DATA SOVEREIGNTY INTEREST GROUP



*Maiam nayri Wingara*





# MAORI DATA SOVEREIGNTY: PRINCIPLES

Rangatiratanga – Authority

Whakapapa – Relationships

Whanaungatanga – Obligations

Kotahitanga – Collective benefit

Manaakitanga – Reciprocity

Kaitiakitanga – Guardianship

[www.temanararaunga.maori.nz](http://www.temanararaunga.maori.nz)

## Principles of Māori Data Sovereignty

Brief #1 | October 2018



This Te Mana Raraunga (TMR) Brief provides a general overview of key Māori Data Sovereignty terms and principles.

TMR advocates for the realisation of Māori rights and interests in data<sup>1</sup>, and for the ethical use of data to enhance the wellbeing of our people, language and culture.

**"He rei ngā niho, he paraoa ngā kauae"**

"One must have the right principles for important endeavours."

### Definition of terms

- Māori data refers to digital or digitisable information or knowledge that is about or from Māori people, our language, culture, resources or environments.
- Māori Data Sovereignty refers to the inherent rights and interests that Māori have in relation to the collection, ownership, and application of Māori data.
- Māori Data Governance refers to the principles, structures, accountability mechanisms, legal instruments and policies through which Māori exercise control over Māori data.

<sup>1</sup> Māori rights and interests in data derive from our inherent rights as indigenous peoples, and unique relationships with land, water and the natural world. These rights are recognised in Te Tiriti o Waitangi and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

# MAORI DATA ETHICS: ETHICS OF BIG DATA & MDS PRINCIPLES

Mittelstadt & Floridi (2016)	Te Mana Raraunga (2018)
Informed consent	Informed consent, opportunities for consent from collectives, balance between individual consent and collective governance processes
Privacy	Respect for privacy of individuals and the privacy of groups
Ownership	Māori rights and interests in data should be recognised
Objectivity	Context is important for interpreting data; disaggregation is important for benefit sharing
Big data divides	Data should reduce inequities; data should provide collective benefits; building capacity and connection is important
Group level harms	Governance, ethics and restrictions are necessary to minimise group harms
Epistemology & ethics	Māori values and principles should inform data access and data governance
Fiduciary relationships	Jurisdiction and control are crucial for realising benefits, respect and connections influence relationships
Academic & Commercial practices	Control and guardianship ensure participation in decisions about appropriate future uses
IP in aggregated datasets	Rights and interests in data can be managed at different levels of community
Data access for individuals	Individuals should be able to access data about them

West-McGruer, K., Hudson, M., Kukutai, T. (2019). *Data Ethics & Data Governance from a Māori worldview. Chapter under review.*

# INDIGENOUS DATA GOVERNANCE: C.A.R.E PRINCIPLES

## FAIR

Findable

Accessible

Interoperable

Reusable

## C.A.R.E

Collective Benefit

Authority to Control

Responsibility

Ethics

**#BE FAIR & CARE**



# DRAFT PRINCIPLES OF INDIGENOUS DATA GOVERNANCE

**Collective Benefit.** Data ecosystems shall be designed and function in ways that enable Indigenous Peoples to derive benefit from the data.

**Authority to Control.** Indigenous Peoples rights and interests in Indigenous data must be recognised and their authority to control such data respected. Indigenous data governance enables Indigenous Peoples and governing bodies to accurately determine how Indigenous Peoples are represented within data.

**Responsibility.** Those working with Indigenous data have a responsibility to share how that data are used to support Indigenous Peoples' self-determination and community benefit. Accountability requires meaningful and openly available evidence of these efforts and the benefits accruing to Indigenous Peoples.

**Ethics.** Indigenous Peoples' rights and wellbeing should be the primary concern at all stages of the data life cycle and data ecosystem.



# MAORI DATA ACCESS 1: MAORI DATA AUDIT TOOL (DEVELOPED FOR REVIEW OF MADSA)

1. Does the agreement recognise Māori Data?
2. Does the data sharing agreement allow the creation of additional Māori-specific/iwi-specific data sets?
3. Does the agreement recognise Treaty relationships?
4. Does the agreement recognise Māori rights to data and interests in data?
5. What mechanisms are in place to protect Māori data? (eg quality, security, privacy, confidentiality)
6. What mechanisms are in place to safeguard the use of Māori data?
7. Is the agreement specific about the purpose and use of data?
8. To what extent are the TMR principles given effect to?

<https://www.temanararaunga.maori.nz/new-page-2>



TE MANA  
RARAUNGA  
Māori Data Sovereignty Network

# ETHICALLY & CULTURALLY APPROPRIATE USE OF MAORI DATA (MADSF)

## Purpose

- This document provides guidance on the ethical and culturally appropriate use of Māori data in the Database

## Background

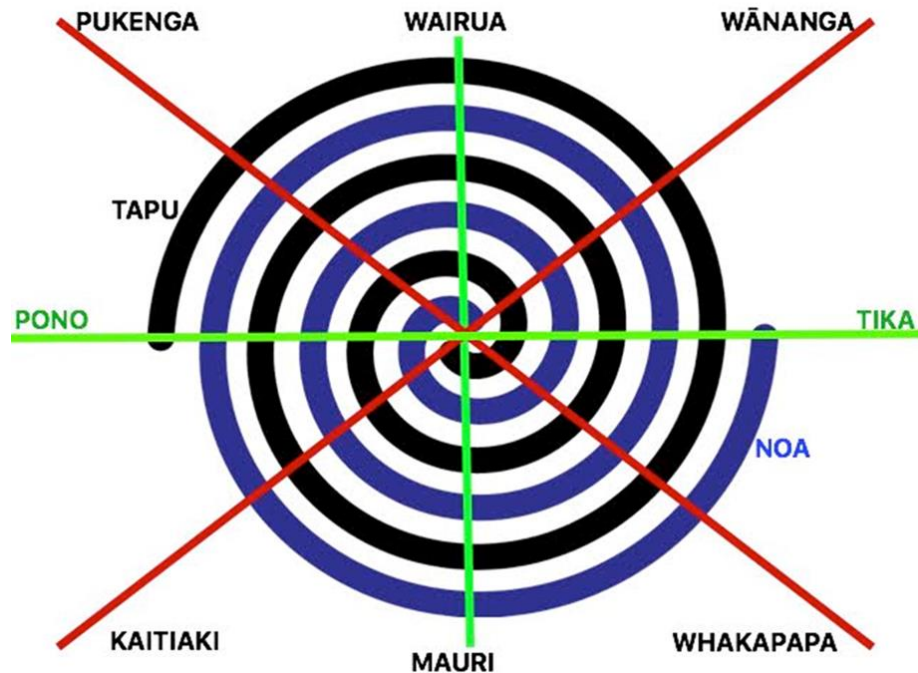
- Guidance for ethical and culturally appropriate data use is informed by concepts of Māori Data Sovereignty and Māori research ethics.
- Māori Data Sovereignty recognises that Māori data should be subject to Māori governance.

## Principles (as outlined previously)

## Process

- The decision to approve or decline information requests that involve Māori data should be considered according to:
  - The principles in the Ethical and Culturally Appropriate Use of Māori Data Guideline
  - Assessment of the documented benefit and risk to Māori
  - More information may also be requested to make a decision.

# MAORI DATA ACCESS 2: TE MANA O TE RARAUNGA MODEL



Uses the Takarangi to reflect the duality that informs Te Ao Māori

**Assessment of the Data**

**Assessment of the Data Use**

**Assessment of the Data Users**

Hudson, M., Anderson, T., Dewes, T.K., Temara, P., Whaanga, H., Roa, T. (2018). He Matapihi ki te Mana Raraunga: Conceptualising Big Data through a Maori lens. In H. Whaanga, T. T. Keegan, T. T., & M. Apperley (Eds.) (2018), *He Whare Hangarau Māori - Language, culture & technology* [Ebook] (pp. 62-71). Hamilton: Te Pua Wānanga ki te Ao, Te Whare Wānanga o Waikato.

Concept	Characteristic	Assessment Question	High	Med	Low
Tapu	Level of sensitivity	“How sensitive is the data?”	Red	Yellow	Green
Noa	Level of accessibility	“How accessible should this data be?”	Green	Yellow	Red
Tika	Level of value	“How does the use of this data add value to the community?”	Green	Yellow	Red
Pono	Level of trust	“Will the community support this use of the data?”	Green	Yellow	Red
Mauri	Level of originality	“How unique is the data?”	Red	Yellow	Green
Wairua	Nature of the application	“Is the data being used in the same spirit as its original purpose?”	Green	Yellow	Red
Whakapapa	Level of relationship	“Does the user have an existing relationship with the data?”	Green	Yellow	Red
Pukenga	Level of expertise	“Does the user have the expertise and experience to use data in a culturally appropriate manner?”	Green	Yellow	Red
Kaitiaki	Level of authority	“Will the data be protected from inappropriate use?”	Green	Yellow	Red
Wananga	Level of responsibility	“Does the institution have the necessary infrastructure to ensure the use of the data in a culturally appropriate and ethical manner?”	Green	Yellow	Red



# IDI TIKANGA FRAMEWORK

<b>Safe people</b>	<b>Pūkenga</b>	<b>Whakapapa</b>	<b>Scores /4</b>
Researchers can be trusted to use data appropriately	Researchers have experience researching Te Ao Māori topics	Researchers have existing relationships with the communities the data comes from (2pts)	Pūkenga = X/2 Whakapapa = X/2
<b>Safe Projects</b>	<b>Pono</b>	<b>Tika</b>	<b>Scores /6</b>
The project has a statistical purpose and is in the public interest	Level of accountability to community of research is explained (3pts)	Use of data will add value to Māori and improve outcomes for Māori and NZ (3pts)	Pono = X/3 Tika = X/3
<b>Safe Settings</b>	<b>Kaitiaki</b>	<b>Wānanga</b>	<b>Scores /10</b>
Ensuring the data is secure and preventing unauthorised access to the data	Decision-makers of the project are identified and Māori are involved in decision-making (5pts)	Institutions have established systems, policies and procedures to ensure data is used in culturally appropriate and ethical ways (5pts)	Kaitiaki = X/5 Wānanga = X/5
<b>Safe Data</b>	<b>Wairua</b>	<b>Mauri</b>	<b>Scores /10</b>
Personal information is not identified	Māori community objectives align with project research objectives (5pts)	Level of transformation of the data from its original collection purpose is explained (5pts)	Wairua = X/5 Mauri = X/5
<b>Safe Output</b>	<b>Noa</b>	<b>Tapu</b>	<b>Scores /10</b>
Stats NZ results do not contain identifying results. Outputs must be confidentialised.	Accessibility of data and awareness of the impact on Māori (5pts)	Sensitivities in the use of data are identified including privacy issues for individuals and communities (5pts)	Noa = X/5 Tapu = X/5

# MAORI DATA SCIENCE: TE PAE RARAUNGA INDIGENOUS DATA SCIENCE PLATFORM

Kaupapa Maori led programme at interface of data science & indigenous knowledge

## Key themes

1. Maori Data Sovereignty
2. Maori Data Science
3. Maori Data Capability

## Potential project

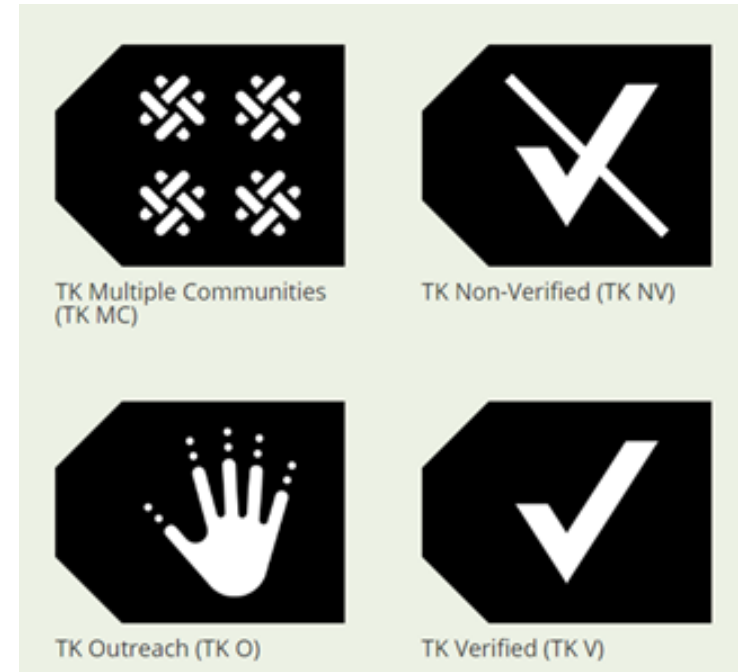
- a. Decolonising algorithms → #Better\_AI
- b. Maori approaches to Artificial Intelligence
- c. Building community 'data warriors'

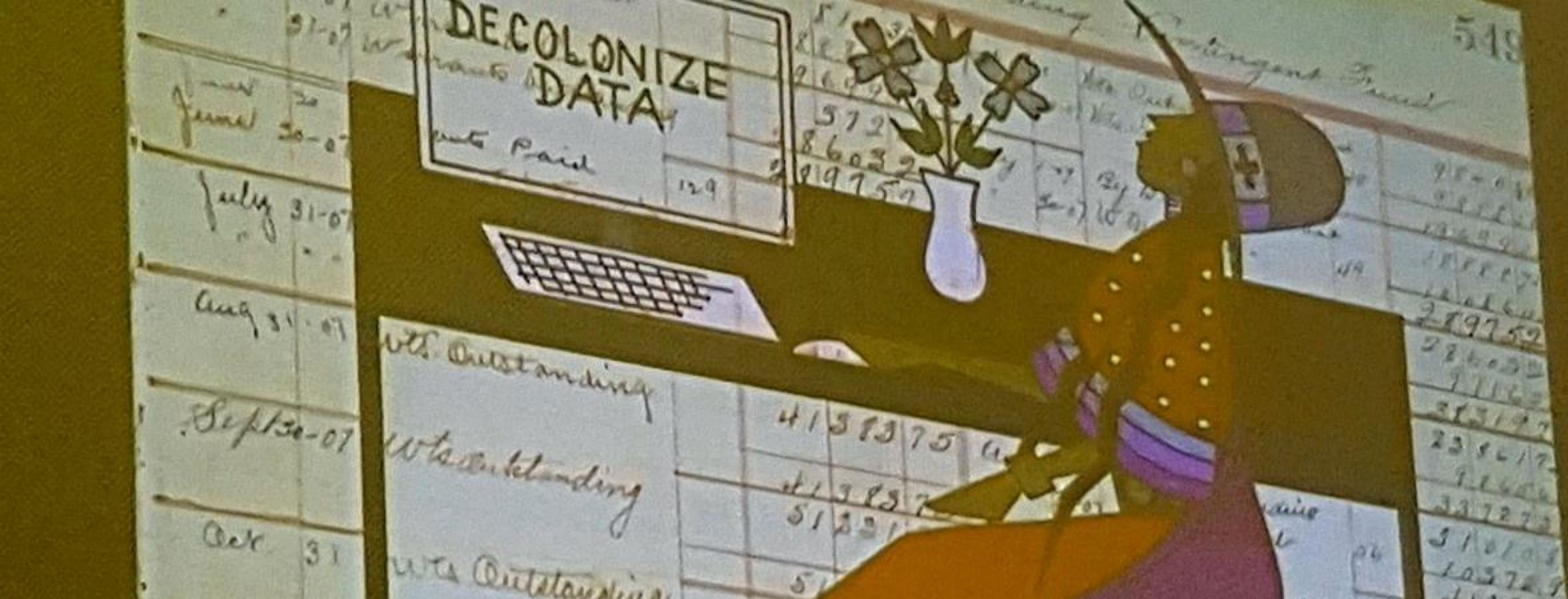
# MAORI DATA IN DATA ECOSYSTEM:

## Better Publication Practices

- a. Disclosure of origin statements
- b. Disclosure of community support statements (collective consent)
- c. Data Availability statements
- d. Partnering around development and implementation of biocultural labels

## Recognising cultural metadata





INDIGENOUS CONTROL OF INDIGENOUS DATA  
INDIGENOUS CONTROL OF INDIGENOUS NARRATIVES  
INDIGENOUS CONTROL OF INDIGENOUS ASPIRATIONS



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