



MĀORI DATA SOVEREIGNTY: IMPLICATIONS FOR DEMOCRACY & SOCIAL JUSTICE

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Ethics in Research: Governance, Democracy & Social Justice

Wellington School of Medicine

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THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

OVERVIEW

1. Data, Democracy & Social Justice
2. BIG, OPEN, FAIR, DATA
3. Maori Data Sovereignty
 - a. Data for Governance
 - b. Governance of Data
 - c. Data supports Development
 - d. Control serves Rights
4. Maori Data Governance

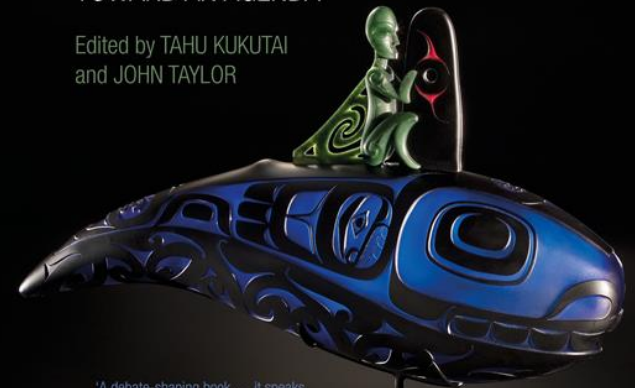
“All data is potential taonga in relation to its utility, through technology or usefulness to the collective”

Dr Will Edwards, Ngāruahine & Data Iwi Leaders Group

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

DATA 4 DEMOCRACY
DATA 4 SOCIAL JUSTICE

WHAT DOES THIS
LOOK LIKE?

MINISTRY DITCHES INCOMPLETE CENSUS DATA IN SETTING DHB FUNDING LEVELS – 13TH FEB 2019

Key Points

- The Ministry of Health says it will not use 2018 Census data to calculate DHB funding and will rely on 2013 population projections instead.
- Last year's "digital first" census attracted a lower than-normal response rate, particularly in rural areas with high Māori populations.
- DHB chiefs have been demanding answers about the impact on their funding, of the poor census response.

TRUSTED USE OF DATA

- The **secondary use of data** is the key issue in the data use context as individuals will have agreed to its collection for its primary purpose.
- Subsequent uses, without explicit permission, through data linkage, data sharing, or data aggregation, create the potential for misuse and (mis)appropriation (**kaiātanga**).
- **Individuals** should **consent** for their data to be included in aggregated data resources.
- **Collectives** should **govern** how those data resources are then used. This can be thought of as supporting processes of collective consent.
- Collective concerns about privacy, benefits and harms can't be addressed through individually focused consent mechanisms.

BIG - OPEN – FAIR- DATA

INTERNATIONAL DATA WEEK 2018



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

Keynote speech – Prof Ismail Serageldin, Bibliotheca Alexandria

THE CHALLENGE OF COMPETING INTERESTS

1. 'Indigenous' support for open data and open science
2. Increasing 'Indigenous' participation in cutting edge science and technology
3. 'Indigenous' aspirations for Indigenous Data Sovereignty
to benefit from innovation and development via tighter control of Indigenous knowledge and indigenous data



CODATA
Committee on Data of the International Council of Science

Promoting Open Data Principles & Practices

Advancing the Frontiers of Data Science

Mobilising Capacity for Open Data & Open Science

www.codata.org

INTERNATIONAL DATA WEEK 2018

DIGITAL FRONTIERS OF GLOBAL SCIENCE

5-8 NOVEMBER 2018
GABORONE, BOTSWANA
#IDW2018

INTERNATIONAL DATA WEEK 2018

Be FAIR and CARE
Draft Principles of Indigenous Data

Collective Benefit. Data ecosystems shall be designed and function in ways that enable Indigenous Peoples to derive individual and collective benefit.

Authority and Control. Indigenous Peoples have inherent rights to exercise control over Indigenous data and to make decisions that enhance control for current and future generations.

Responsibility and Accountability. Those working with Indigenous data have a responsibility to work with Indigenous Peoples to create meaningful evidence that supports self-determination.

Ethics. Indigenous ethical considerations should be a primary concern at all stages of the data life cycle.

International Indigenous Data Sovereignty Interest Group

"DIGITAL FRONTIERS OF GLOBAL SCIENCE"



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.

BE FAIR AND CARE

FAIR

- Findable
- Accessible
- Interoperable
- Reusable

C.A.R.E

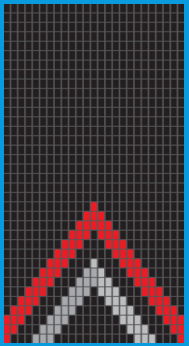
- Collective Benefit
- Authority to Control
- Responsibility
- Ethics

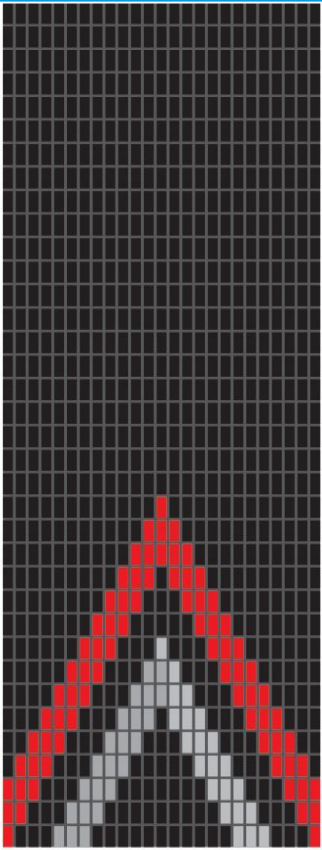
CONTROL SERVES RIGHTS

- **Indigenous Data Sovereignty is a discourse about rights and interests**
- Indigneous / Treaty rights
- Cultural Intellectual Property rights
- Ownership – Exclusive or Shared

- **Control serves Rights**
- Infrastructure influences ownership and possession
- Data Governance controls access and use
- Information influences relevance and usefulness

MĀORI DATA SOVEREIGNTY





TE MANA RARAUNGA

Māori Data Sovereignty Network

ADVOCACY FOR MĀORI

- Data rights and interests
- Data governance
- Data storage and security
- Data access and control

<https://www.temanararaunga.maori.nz/>

DATA FOR MĀORI DEVELOPMENT

- **Access and Use** to transform the lives of our people.
- **Governance and Control** to ensure the data is relevant and responsive.
- **Building Trust and Value for Māori**
 - How do we set up a system that recognises use of data as **dependent and dynamic**? (recognising context)
 - How will **Maori derive value** from the use of data? (realising benefits)
 - How will Maori trust the system that **governs the use** of data? (managing risk)



Independent Māori
Statutory Board

The Māori Report
for Tāmaki Makaurau 2016

SOCIAL & CULTURAL LICENSE

- **Social license** is the ability of an organisation to use and share data because of the confidence that **individuals** have that the organisation will operate in a legitimate and acceptable way*
- **Cultural license** is the ability of an organisation to use and share data because of the confidence **Iwi and Māori Treaty partners** (collectives) have that it will operate in a legitimate and culturally acceptable way*
- Social License determines consensus through individual participation
- Cultural License determines consensus through collective representation

**Definition adopted from MPI Primary Sector Science Roadmap*

PRINCIPLES OF MAORI DATA SOVEREIGNTY

- Rangatiratanga – Authority
- Whakapapa – Relationships
- Whanaungatanga – Obligations
- Kotahitanga – Collective benefit
- Manaakitanga – Reciprocity
- Kaitiakitanga – Guardianship

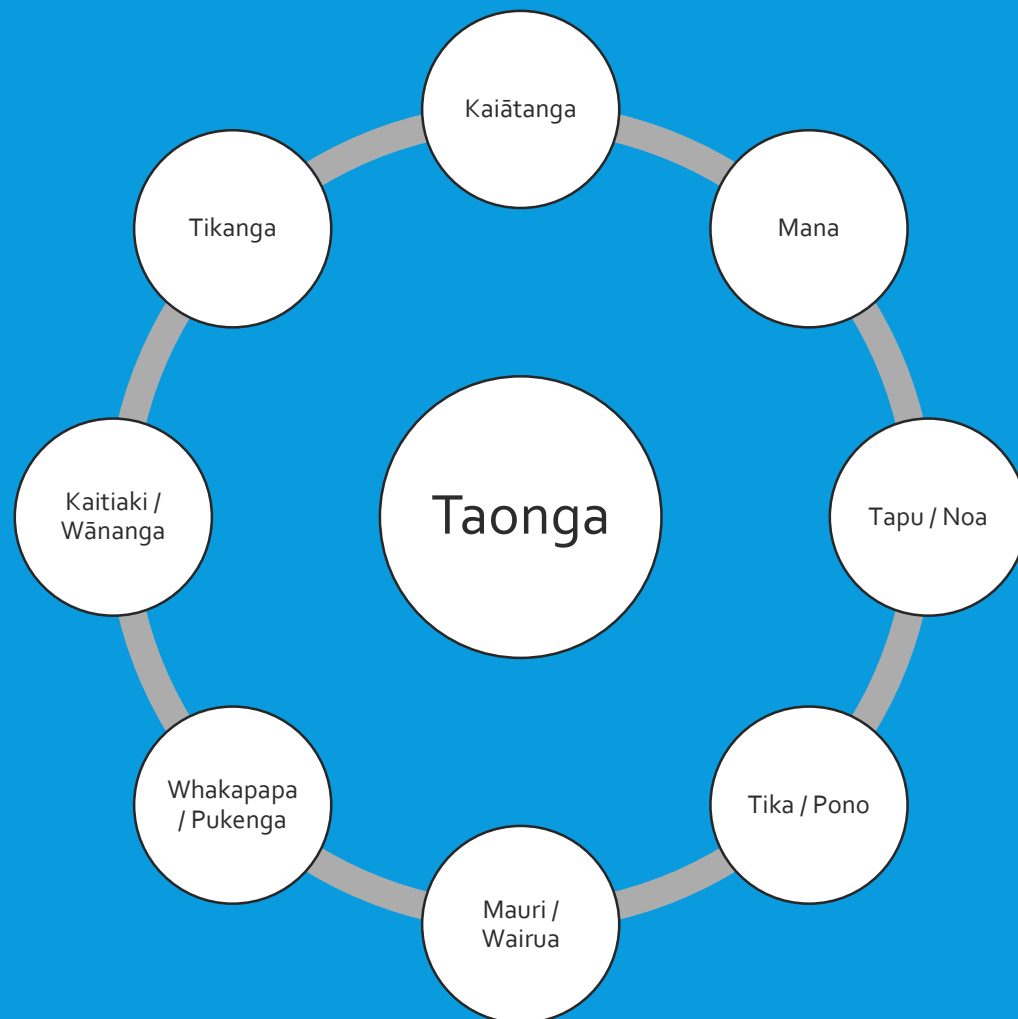
www.temanararaunga.maori.nz

Principles of Māori Data Sovereignty

Brief #1 | October 2018

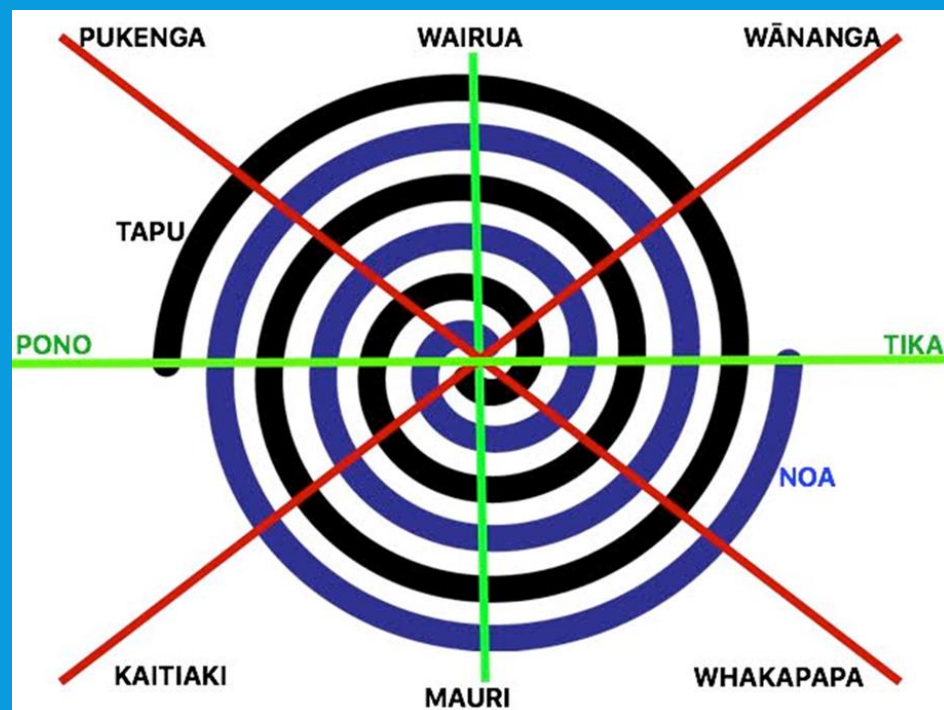
TOWARDS MĀORI DATA GOVERNANCE

RESEARCH PROJECT IDENTIFIED MĀORI CONCEPTS RELEVANT TO DATA USE



TE MANA O TE RARAUNGA MODEL FOR TRUSTED USE OF MĀORI DATA

- Uses the Takarangi to reflect the duality that informs Te Ao Māori
- Assessment of the Data
 - Sensitivity - Tapu / Noa
- Assessment of the Data Use
 - Integrity - Tika / Pono
 - Authenticity - Mauri / Wairua
- Assessment of the Data Users
 - Mandate - Whakapapa / Pukenga
 - Stewardship - Kaitiaki / Wānanga

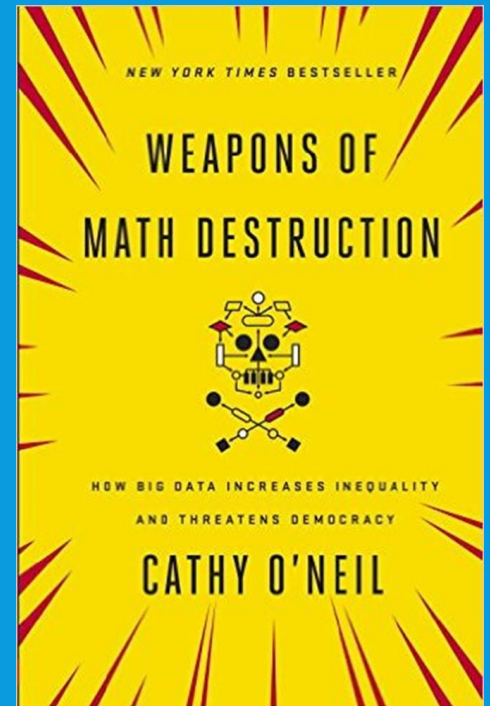


ASSESSMENT FRAMEWORK

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

IDENTIFIES APPROPRIATE LEVEL OF GOVERNANCE

- Assessment predominantly **RED**
- High Sensitivity - Active Governance Required
 - (a) Māori having control over data;
 - (b) Māori partnership arrangement in relation to the data;
- Assessment predominantly **ORANGE**
- Medium Sensitivity – Passive Governance an Option
 - (c) Māori being consulted in respect of the use of Māori data; and
 - (d) the use of Māori data being disclosed to Māori.
- Assessment predominantly **GREEN**
- Low Sensitivity – Creative Commons or Open Data approach



INFLUENCING GOVERNMENT DATA INFRASTRUCTURES

Integrating Māori concepts into Data
Governance Frameworks

5SAFES FRAMEWORK



5Safes	Māori Concept	Characteristic
Safe People	Whakapapa Pukenga	Relationship Expertise / Experience
Safe Projects	Pono Tika	Community Support Value for Community
Safe Settings	Wananga Kaitiaki	Cultural infrastructure Cultural authority
Safe Data	Wairua Mauri	Application Originality
Safe Output	Tapu Noa	Sensitivity Accessibility

SOCIAL INVESTMENT AGENCY: DATA PROTECTION & USE POLICY

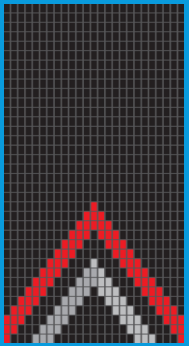
Māori Principles Agency Principles	Kia tau te wairua: Level of Comfort (What)	Kia pumau te mana: Level of Control (Who)	Kia hiki te mauri: Level of Integrity (How)
Only what is needed			
Opt in / Opt out & Consent			
Safety & Capacity			
Sharing Value			
Transparency & Communication			

* Why, when, and where are project related questions

PHRAE WORKBOOK: TREATY OF WAITANGI & CULTURAL RESPONSIVENESS

- Privacy, Human Rights, and Ethics
- Treaty of Waitangi & Cultural Responsiveness
- Questions around
 - Use of Māori personal data or datasets
 - Impacts on Māori communities
 - Consultation with Māori communities
 - Involvement in project design
 - Māori involvement in governance of data
 - Sensitivity of the personal data
 - 'Level of Comfort' with data use
 - Acknowledgement of Maori Data Sovereignty

FUTURE WORK



OPERATIONALISING MD SOV... SUPPORTING BETTER PRACTICE

	weak	min	med	strong
Maori Data Rights & Interests (Ownership)	No recognition of Maori data	Recognition of Maori interests in data	Maori governance of data	Maori ownership of data
Governance of Data (Control)	Consideration of risks for Maori	Maori participation in a data access committee	Maori protocols for data access	Maori data access committee
Data for Governance (access)	No specific access arrangements	Maori can access summary data about their collective	Maori can access raw data about their collective on request	Maori have full access to data about their collective (copies)
Jurisdiction (Possession) Security env, regulatory env, Sovereign env	Storage overseas – poor regulatory env	Storage overseas – strong regulatory env	Storage in NZ	Storage in Maori repository
Ethics	Consideration of risks for Maori	Integration of Maori principles (kaitiaki)	Use of Maori principles (guidelines)	Use of Maori principles and DM protocols
Consent	No consent	Individual consent – general use	Individual consent – specific use	Individual and collective consent
Capacity	No capacity building	Use of external expertise	Building organisational capacity	Building org & community capacity
Process, how addressed				

QUESTIONS

