



# Māori Data Sovereignty: Māori rights and interests in data

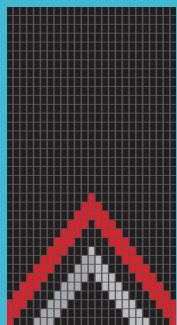
Associate Professor Maui Hudson

Science Coding Conference 2018

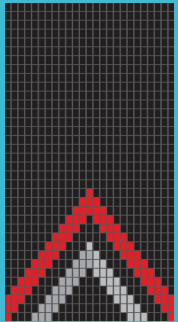


# Indigenous Data Sovereignty

International Context

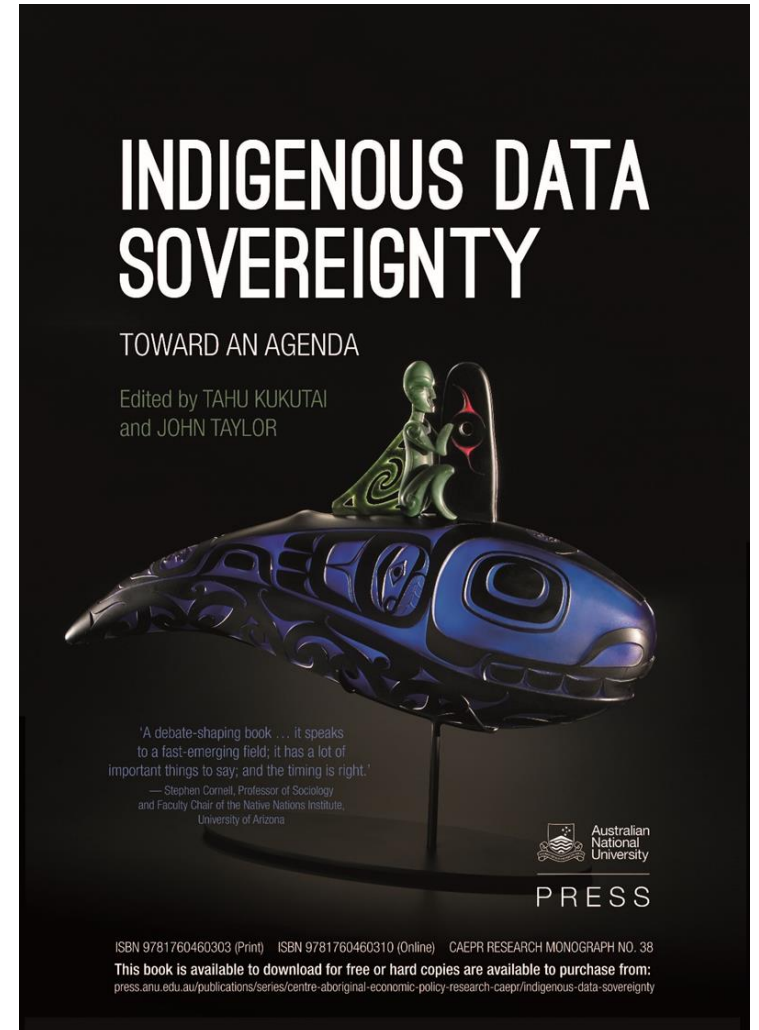


# Indigenous Data Sovereignty



**Data Sovereignty** states that data is subject to the laws of the nation **within which it is stored**

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



**Free to download  
From ANU press**

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

NATION-STATE BASED, INDIGENOUS LED COMMUNITIES OF PRACTICE

- TE MANA RARAUNGA MĀORI 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



- EMERGING NETWORKS:  
FIRST NATIONS, INUIT AND MÉTIS in Canada,  
SAMI/SÁPMI in Sweden

*Maiam nayri Wingara*





# International Indigenous Data Sovereignty IG

[Home](#) » [Working And Interest Groups](#) » [Interest Group](#) » [International Indigenous Data Sovereignty IG](#)

**IG**

## Group details

**Status:** [Under TAB review](#)

**Chair(s):** Stephanie Carroll Rainie, Tahu Kukutai, Maggie Walter, Per Axelsson

**Secretariat Liaison:** Lynn Yarmey

**TAB Liaison:** Paul Uhlir

[History](#)

The call for Indigenous data sovereignty (ID-Sov) —the right of a nation to govern the collection, ownership, and application of its own data—has grown in intensity and scope over the past five years. To date three national-level Indigenous data sovereignty networks exist: Te Mana Raraunga - Maori Data Sovereignty Network, the United States Indigenous Data Sovereignty Network (USIDSN), and the Maiamnyri Wingara Aboriginal and Torres Strait Islander Data Sovereignty Group in Australia. Similar

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Public - accessible to all site users

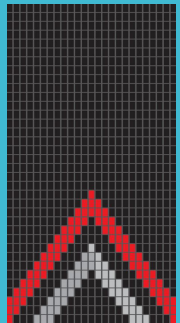
[Join Group](#)

<https://www.rd-alliance.org/groups/international-indigenous-data-sovereignty-ig>

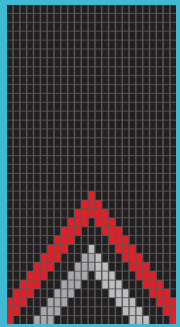


# Māori Data Sovereignty

Conceptual foundations



# Māori Data Sovereignty



**Is the right of Māori to access, to use, to have governance and control over Māori Data.**

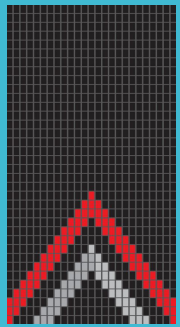
## **1. Data for Governance**

Access and Use to transform the lives of our people.

## **2. Governance of Data**

Governance and Control to ensure the data is relevant and responsive.

# Māori Data Sovereignty

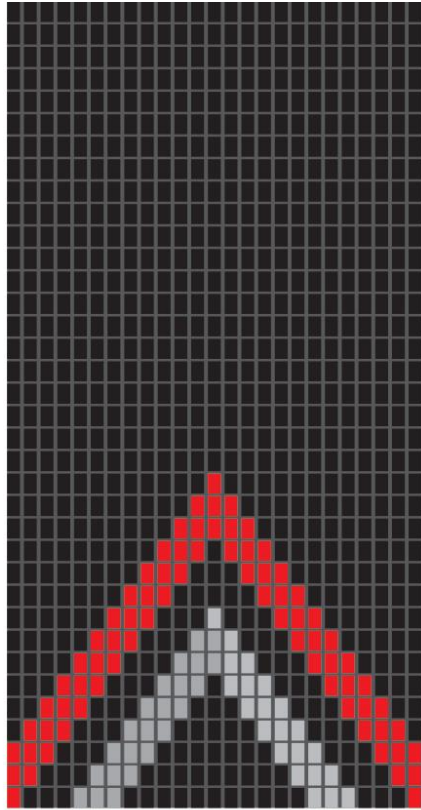


is a key mechanism for enabling **self-determination and innovation**.

is concerned with

- **protecting** Iwi/Māori rights of access to data,
  - **participation** in data integration activities
  - **partnership** in the governance and/or ownership of data.
- 
- supports the realisation of **Māori and Iwi aspirations**.
  - recognises that **Māori data should be subject to Māori governance**.





# TE MANA RARAUNGA

Māori Data Sovereignty Network

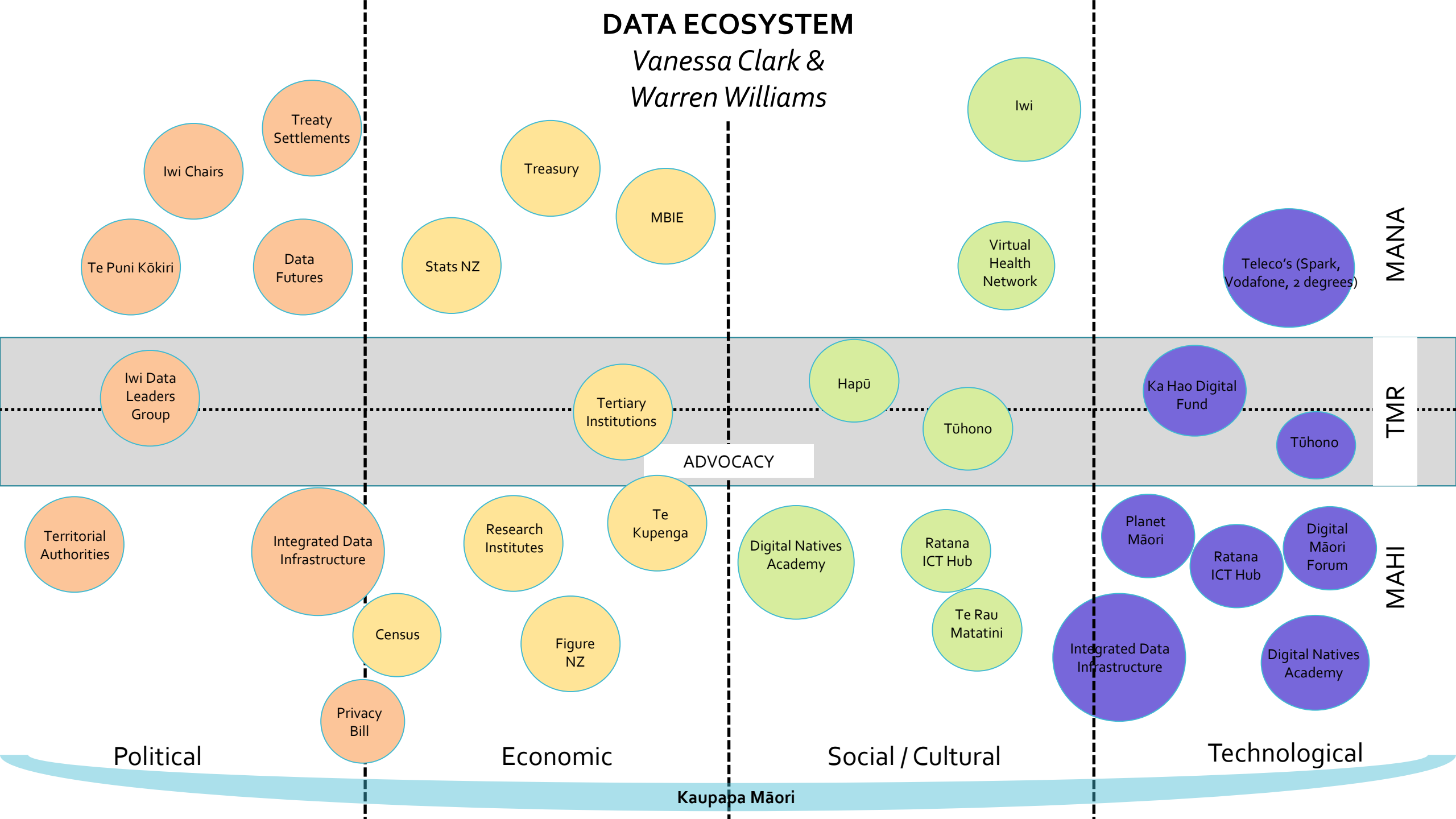
**Advocating for the development  
of capacity and capability across  
the Māori data ecosystem  
including:**

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

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

# DATA ECOSYSTEM

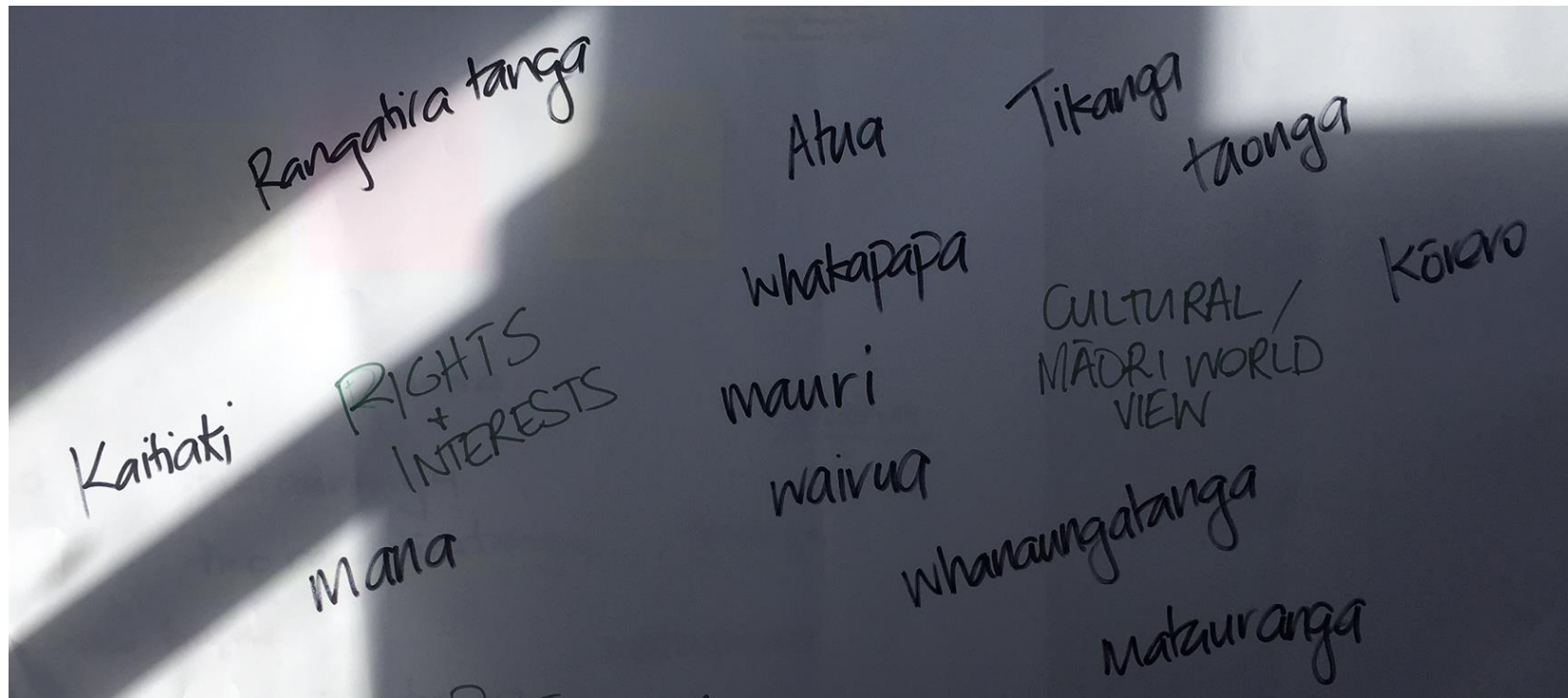
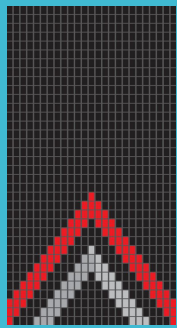
*Vanessa Clark & Warren Williams*



# Ahakoā he ITI he Pounamu (*Kirikowhai Mikaere*)

## DATA Iwi Leaders Group Strategy

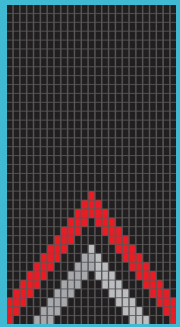
Kaupapa Matua (Purpose)	Ngā Whāinga (Goals)
<p><b>Our Shared Kaupapa</b> Focus and drive our strategy</p> <p><b>WHAT:</b> Full, free access and control over data about and for Iwi</p> <p><b>WHY:</b> For data to empower our development as Iwi</p> <p><b>Our Shared Values</b> Guide our execution</p> <p><b>RANGATIRATANGA:</b> Our right to self-determine what happens with our data.</p> <p><b>PUKENGATANGA:</b> Utilise expertise to help make smart, informed decisions.</p> <p><b>KOTAHITANGA:</b> He painga mo te katoa. Collaboration &amp; working together for the greater good of all Iwi.</p> <p><b>KAITIAKITANGA:</b> Our guardianship, protection &amp; the ability to improve outcomes for our people &amp; place, informed by data.</p>	<p><b>INFORMATION</b></p> <p>Access and governance over iwi data</p> <p><b>TRANSLATORS</b></p> <p>Enhance and build our capability to engage, use &amp; design data</p> <p><b>INFRASTRUCTURE</b></p> <p>Future-proof the information infrastructure for iwi data</p>



# Māori Rights & Interests in Data

How are these being conceptualised

# What are Māori Data?



## **Data from Māori (self-generated)**

- From Māori organisations and businesses

## **Data about Māori (generated by others)**

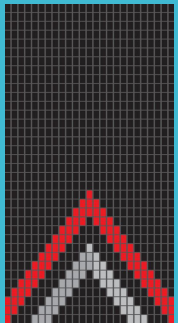
- Used to describe or compare Māori collectives

## **Data about Māori resources (generated by self and/or others)**

- Emerges from research on Māori resources



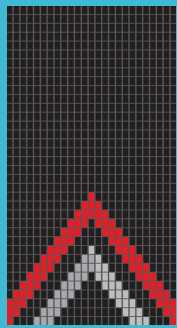
# Māori Interests in data



- Emerge from the **Treaty of Waitangi**  
"te tino rangatiratanga o ratou wenua o ratou kainga me o ratou taonga katoa..." or "chiefly authority over lands, villages and all things precious..."
- If **mātauranga Māori** or **taonga** are to be part of these new shared (open) data resources
  - Who will manage them?
  - How can they be used?

# Is Data a Taonga?

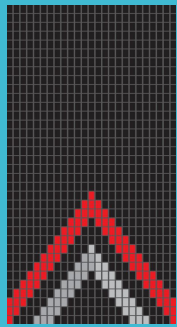
## Legal Opinion...



- Waitangi Tribunal has not specifically considered whether Māori data is a taonga
- Based on existing Tribunal reports, for something to be classified as taonga
  - it must be valued and treasured by Māori
  - it must be significant and important to Māori.
- In relation to data this is likely to be context specific
- Māori data held by the Crown could be classified on a spectrum with a sliding scale of Crown obligations and Māori rights and interests
- *Kahui Legal (2016). Māori Data Sovereignty – Rights, Interests & Obligations Analysis. Memorandum to the Independent Māori Statutory Board.*

# Is Data a 'Taonga'?

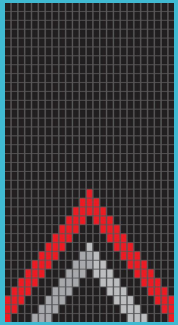
## Key informants..



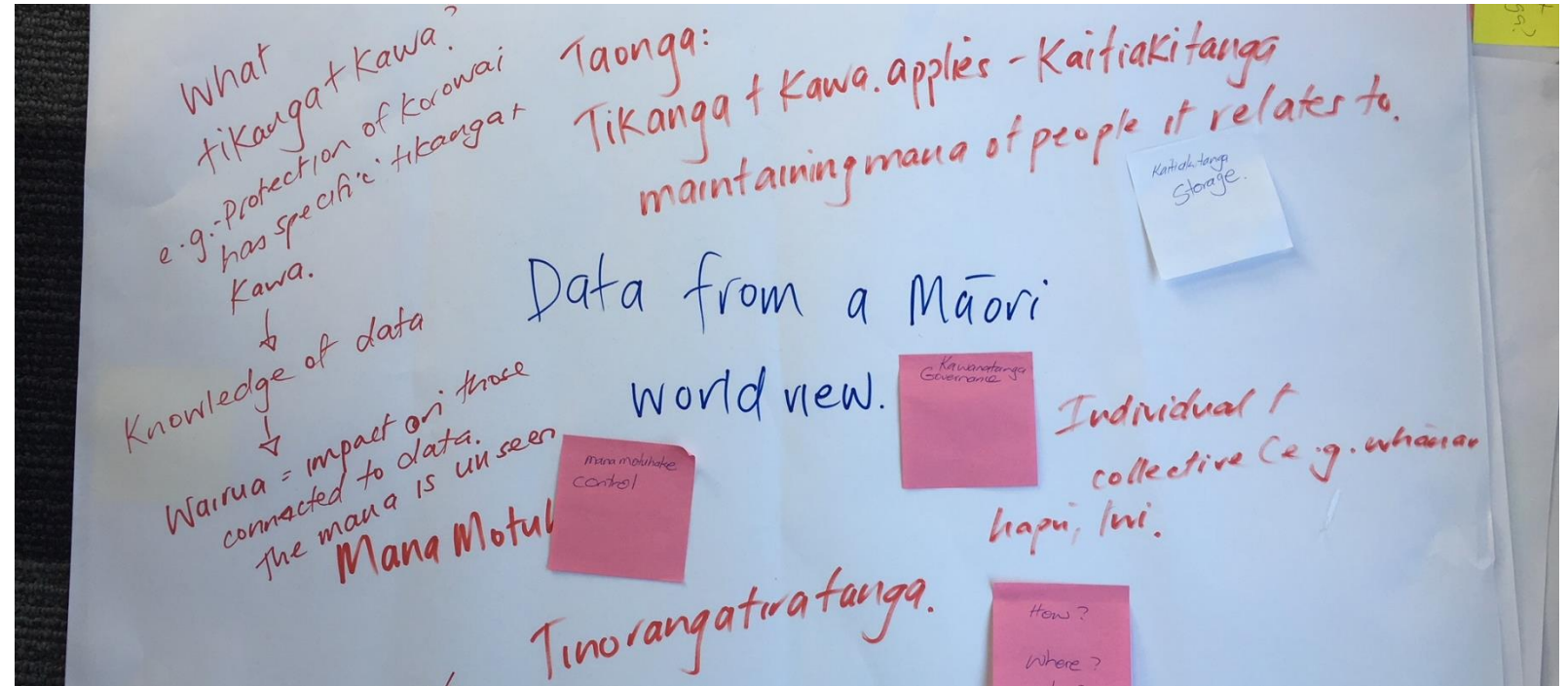
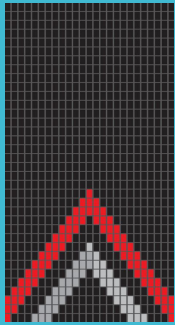
- Dewes (2017) identified from interviews with Māori key informants three key factors that relate to determining the taonga nature of any data set
- **Provenance** of the data
  - *Does the dataset come from a significant source?*
- **Opportunity** for the data
  - *Can the dataset support Māori aspirations for their people or their whenua?*
- **Utility** of the data
  - *Does the dataset have multiple uses?*

*\*Who are the most appropriate people to decide what a taonga is?*

# TMR Wananga 2018: Taonga



- All data are taonga
  - Intrinsic mana – inherent value of data (all data are taonga)
  - Extrinsic mana – valued for specific purposes (taonga is as taonga is used)
- Ensure the mana and mauri of the taonga are intact
  - Clear expectations around how the data should be treated
  - Separation of data from source (Concept of tūā cutting of umbilical cord)
- Taonga are tapu / data need to be managed
  - How do we define data that are tapu?
  - Kaitiakitanga through kawa/tikanga
  - Consistent with principles of manaakitanga, wairuatanga
  - Dedicate data for specific purposes (pure)

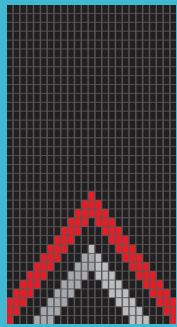


# Māori Data Governance: Control serves Rights



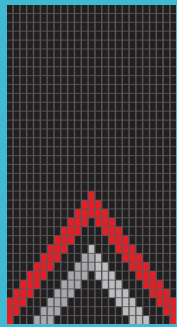
# 1. Maori Data Audit Tool

*(Atatoa-Carr & Hudson, 2017)*



1. Does the agreement recognise Māori Data?
  - a. Is the Māori data definition consistent with the Te Mana Raraunga charter
  - b. Is ethnicity data collected
  - c. Is Iwi affiliation collected
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?

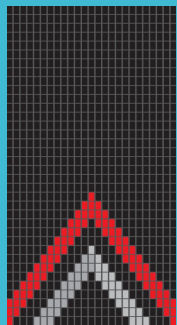
## 2. Taonga Assessment



- This needs to be done in conjunction with Iwi / Māori Treaty Partners
- **Provenance** of the data
  - *Does the dataset come from a significant source?*
- **Opportunity** for the data
  - *Can the dataset support Māori aspirations for their people or their whenua?*
- **Utility** of the data
  - *Does the dataset have multiple uses?*

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.

### 3. Te Mana o te Raraunga Model



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

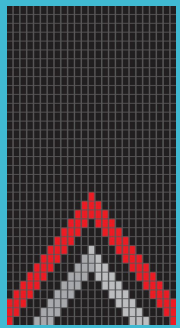
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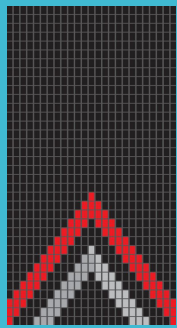
**INDIGENOUS**  
science | technology | society

# Future Activities

Research & Development



# Operationalising Maori Data Sovereignty in Aotearoa

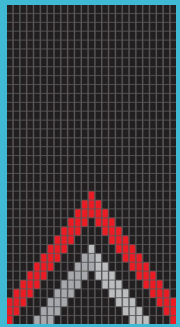


1. Influencing the wider data ecosystem
2. Building Māori/Iwi capacity and control
3. Engaging with opportunities in data and technology



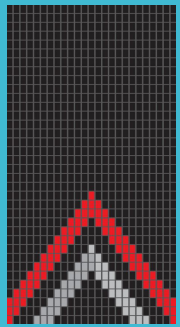


# SSIF Data Science: VM Platform



1. Establish enabling infrastructure  
(utilisation of data, Iwi data centres)
2. Establish enabling capability  
(Human, system, science)
3. Establish Data Science Research collaborations that deliver on the needs of Iwi/Māori  
(Processes to support community uptake and participation)
4. Collaborative projects for information, translation, and infrastructure outcomes (ITI)

# What we need from Data Scientists



1. Support to operationalise Māori Data Sovereignty & Māori Data Governance
  - a. Build data infrastructures
  - b. Enable individual or community consent for data use
  - c. Systems focusing on explicability
2. Develop analysis & visualisation tools that support Iwi/Māori decision-making
  - a. Improve access
  - b. Simplify use
3. Build Iwi/Māori Capacity
4. Partners for innovative projects
  - a. Machine learning with mātauranga Māori
  - b. Natural language processing with Te Reo Māori
  - c. Decolonising algorithms
  - d. Developing Māori artificial intelligence

