

A LANDSCAPING REPORT UNDERTAKEN AS PART OF
THE TIKANGA IN TECHNOLOGY [TINT] PROJECT
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Executive Summary

Data ecosystems in Aotearoa New Zealand are being reshaped by a growing recognition of Māori rights, values, and aspirations in relation to data. The principles of Māori Data Sovereignty (MDSov) and the Māori Data Governance (MDGov) Model provide a framework for transforming current data practices and structures in ways that uphold mana motuhake, advance tikanga Māori, and promote collective benefit.

This report explores the concept of transforming data ecosystems through a kaupapa Māori lens. It begins with an overview of the international Indigenous Data Sovereignty (IDSov) movement, then situates this within the local context of Māori Data Sovereignty in Aotearoa. It considers how Māori scholars and communities have theorised transformation as a dynamic, relational process grounded in tikanga Māori.

The report defines a data ecosystem as a living system of interdependent actors, infrastructures, processes, and tools. It uses this framing to examine how Māori-led mechanisms, processes, and tools are contributing to ecosystem transformation. Examples include the Māori Data Privacy Framework, CARE Principles, Māori Algorithmic Sovereignty (MASov) Principles, Ngā Tikanga Paihere (NTP), Ngā Upoko Tukutuku, and the Nukutere Model, as well as key tools such as Te Whata, Te Pā Tūwatawata, and Local Contexts Traditional Knowledge (TK) and Biocultural (BC) Labels.

Throughout, the report aligns these examples with the eight pou of the MDGov Model, highlighting how each supports specific dimensions of Māori data governance. It demonstrates that transformation is already underway through the layered, relational, and tikanga-led embedding of Māori values across the ecosystem.

However, significant challenges remain. Key gaps include limited structural accountability, voluntary uptake of Māori governance frameworks, uneven capability and capacity, and the need for long-term investment in Māori-led data infrastructure. The report argues that transformation will require sustained commitment to power-sharing, tikanga-based process innovation, and the development of a fully Māori-led data stack.

By centring kaupapa Māori approaches, this report offers both a critical analysis of the current state of Aotearoa's data ecosystem and a forward-looking vision for how it can evolve to honour Te Tiriti o Waitangi and Māori aspirations for data sovereignty and governance.

Initialisms

Acronym	Full Term
AI	Artificial Intelligence
BC	Biocultural labels
CARE	Collective Benefit, Authority to Control, Responsibility, and Ethics
FAIR	Findable, Accessible, Interoperable, Reusable
GIDA	Global Indigenous Data Alliance
IDI	Integrated Data Infrastructure
IDGov	Indigenous Data Governance
IDSov	Indigenous Data Sovereignty
IP	Intellectual Property
IPLC	Indigenous Peoples and Local Communities
MASov	Māori Algorithmic Sovereignty
MBIE	Ministry of Business Innovation & Employment
MDGov	Māori Data Governance
MDSov	Māori Data Sovereignty
NTP	Ngā Tikanga Paihere
TKR	Te Kāhui Raraunga
TMR	Te Mana Raraunga (Māori Data Sovereignty Network)
TinT	Tikanga in Technology
TK	Traditional Knowledge
TKL	Traditional Knowledge Label
TTP	Te Tumu Paeroa
UN	United Nations
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
WIPO	World Intellectual Property Organization

Glossary

hapū	kinship group, clan, tribe, subtribe - section of a large kinship group and the primary political unit in traditional Māori society.
hau	vital essence, vitality - of a person, place or object.
iwi	extended kinship group, tribe, nation, people, nationality, race - often refers to a large group of people descended from a common ancestor and associated with a distinct territory.
Kāhui Kaumātua	Advisory group of elders
kaitiaki	trustee, minder, guard, custodian, guardian, caregiver, keeper, steward.
kaitiakitanga	guardianship, stewardship, trusteeship, trustee.
kaumātua	adult, elder, elderly man, elderly woman, old man - a person of status within the whānau.
kaupapa Māori	Māori approach, Māori topic, Māori customary practice, Māori institution, Māori agenda, Māori principles, Māori ideology - a philosophical doctrine, incorporating the knowledge, skills, attitudes and values of Māori society.
kawa	Protocol or customary practice
kotahitanga	unity, togetherness, solidarity, collective action.
kura	school, education, learning gathering.
mana	to be legal, effectual, binding, authoritative, valid.
manaakitanga	hospitality, kindness, generosity, support - the process of showing respect, generosity and care for others.
mana motuhake	separate identity, autonomy, self-government, self-determination, independence, sovereignty, authority
mātauranga Māori	Māori knowledge - the body of knowledge originating from Māori ancestors, including the Māori world view and perspectives, Māori creativity and cultural practices.
mauri	life principle, life force, vital essence, special nature, a material symbol of a life principle, source of emotions - the essential quality and vitality of a being or entity.
Ngā Poutama Whetu	Literally translates to “Stairway to the Stars” and uses the Poutama analogy to refer to the stepped pattern of tukutuku panels and woven mats - symbolising genealogies and also the various levels of learning and intellectual achievement. Some say they represent the steps which Tāne-o-te-wānanga ascended to the topmost realm in his quest for superior knowledge and religion.

pou	support, supporter, stalwart, mentor, symbol of support, metaphoric post
rangatiratanga	chieftainship, right to exercise authority, chiefly autonomy, chiefly authority, ownership, leadership of a social group, domain of the rangatira, noble birth, attributes of a chief.
taonga	treasure, anything prized - applied to anything considered to be of value including socially or culturally valuable objects, resources, phenomenon, ideas and techniques.
tāne	men
tapu	be sacred, prohibited, restricted, set apart, forbidden, under atua protection
te ao Māori	The Māori world, or worldview
te Tiriti o Waitangi	The Treaty of Waitangi
tikanga	correct procedure, custom, habit, lore, method, manner, rule, way, code, meaning, plan, practice, convention, protocol - the customary system of values and practices that have developed over time and are deeply embedded in the social context
tino rangatiratanga	self-determination, sovereignty, autonomy, self-government, domination, rule, control, power
wāhine	women
waiata	song, chant, psalm
wānanga	to meet and discuss, deliberate, consider
whakapapa	genealogy, genealogical table, lineage, descent
whanau	Family
whanaungatanga	relationship, kinship, sense of family connection - a relationship through shared experiences and working together which provides people with a sense of belonging

Unless otherwise specified, all definitions provided here have been sourced from the online Te Aka Māori Dictionary: <https://maoridictionary.co.nz/>

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Introduction

The rapid pace of data and technological advancement is reshaping Aotearoa New Zealand's society, bringing with it both unprecedented opportunities and complex challenges. As a member of the Digital Nations Charter, Aotearoa is internationally recognised as a leader in digital innovation, with initiatives such as the Integrated Data Infrastructure (IDI) celebrated for their potential to deliver data-driven insights and transformative outcomes. This drive is underpinned by a vision that investment in technology and data will support improved public services, better decision-making, economic growth, and more equitable outcomes.

The ambitions of Aotearoa's digital and data agenda are bold, however, the burdens and benefits of these innovations are not evenly distributed. Māori data is critical to these systems, yet Māori remain among the least likely to benefit. Disparities in access, representation, control, and participation leave Māori communities vulnerable to misrepresentation, and exclusion within the data ecosystem. The absence of enforceable mechanisms to uphold collective data rights reflect an emergent data ecosystem that lacks mature governance structures, clear institutional leadership, and robust protections for Indigenous rights (Sterling et al, 2023; Kukutai, Campbell-Kamariera, et al, 2023).

These concerns are not new. As highlighted in the 2016 publication *Indigenous Data Sovereignty: Toward an Agenda*, early questions were raised about the ownership, storage, access, consent, and intellectual property (IP) rights associated with Indigenous data (Kukutai and Taylor, 2016). Nearly a decade on, Māori continue to face barriers to enacting their rights over their own data, even as the importance of data to social, economic, and cultural outcomes increases.

Despite the growing presence of Māori-led frameworks (to be discussed in this report), there remains limited uptake and integration of these tools in mainstream data systems. As a result, commitments to Māori Data Sovereignty (MDSov) are treated as optional or aspirational rather than foundational. On the other hand, Māori innovators are designing alternative models of storage, access, and governance, from distributed infrastructures like Te Pā Tūwatawata (Te Kahui Raraunga, n.d) to ethical artificial intelligence (AI) development processes like the Nukutere Model (Hudson, 2024), which point toward a different, more equitable data future.

Structure of the report

This report begins by exploring the international context for Indigenous Data Sovereignty (IDSov), tracing how global movements have articulated the rights of Indigenous Peoples to govern their own data and knowledge systems. It then brings this conversation to the local context, examining how MDSov has developed in Aotearoa in response to both international influences and the unique cultural, legal, and political environment shaped by Te Tiriti o Waitangi. Building on this foundation, the report considers how Māori scholars and communities have theorised transformation, emphasising relational, tikanga-led approaches to change that centre mana motuhake and collective wellbeing. From there, the discussion turns to the concept of a data ecosystem, offering a definition and framing that reflects the dynamic, interconnected relationships that shape how data is created, governed, and used in Aotearoa today.

As New Zealand continues to develop its digital strategy, it is timely to look at *'What tools, processes and mechanisms create transformative ecosystems for Indigenous data that enable ethical use and generate equitable benefits?'*

This question can be organised into four overlapping objectives, which form the general structure of the report:

1. Transformative ecosystems: How is transformation understood from an Indigenous/Māori perspective? What is the ecosystem heuristic and why is this a useful framing in relation to data
2. Tools processes and mechanisms: What are the range of activities currently occurring which contribute to enhancing Māori control over Māori data?
3. Enabling ethical use and generating equitable benefits
4. Current gaps: what are the key gaps which may form the basis for future research proposals and/or the development of new initiatives for the advancement of Māori data sovereignty.

This report uses the Māori Data Governance (MDGov) Model as a guiding framework and touchstone throughout. The MDGov Model, published by Te Kāhui Raraunga (TKR) in 2023, presents a framework designed for use across the Aotearoa public service. This model was developed as part of the 2020 work programme under the Mana Ōrite Agreement between Te Kāhui Raraunga and Stats NZ, established in 2019.

The model responds to the purpose of the Mana Ōrite agreement to “...help create a future that benefits te oranga whanui o Aotearoa by realising the potential of data to make a sustainable positive difference to outcomes for iwi, hapū and whānau” (Stats NZ, 2021). It does so through offering guidance for the establishment of effective data governance. It recognises Māori data as taonga requiring culturally grounded protection and care. If utilised effectively, the model can support stakeholders and actors within Aotearoa’s data ecosystem to ensure data design, collection, and dissemination aligns with and responds to iwi and Māori needs and aspirations. The MDGov Model contributes to realising Māori data aspirations and ensuring meaningful participation in the official data system. It aligns with the government’s responsibilities under Te Tiriti o Waitangi and aims to enhance the well-being of iwi, hapū and whānau through improved data governance.



Figure 1 Māori Data Governance Model Vision and Values

The Model is designed to be values-led, research informed and centred on Māori needs and aspirations. To this end, it identifies six desired outcomes which form a bridge between the values underpinning the report (Fig 1) and the priority areas of action that form the eight data pou (Fig 2). Each of the data pou defines a critical area of data governance and includes clear directives for realising the desired outcomes. These directives are not prescriptive and are instead designed to offer guidance to the public service on how to move towards a ‘mana motuhake data system. A mana motuhake data system is articulated in the Model as one where Māori have authority over Māori data.

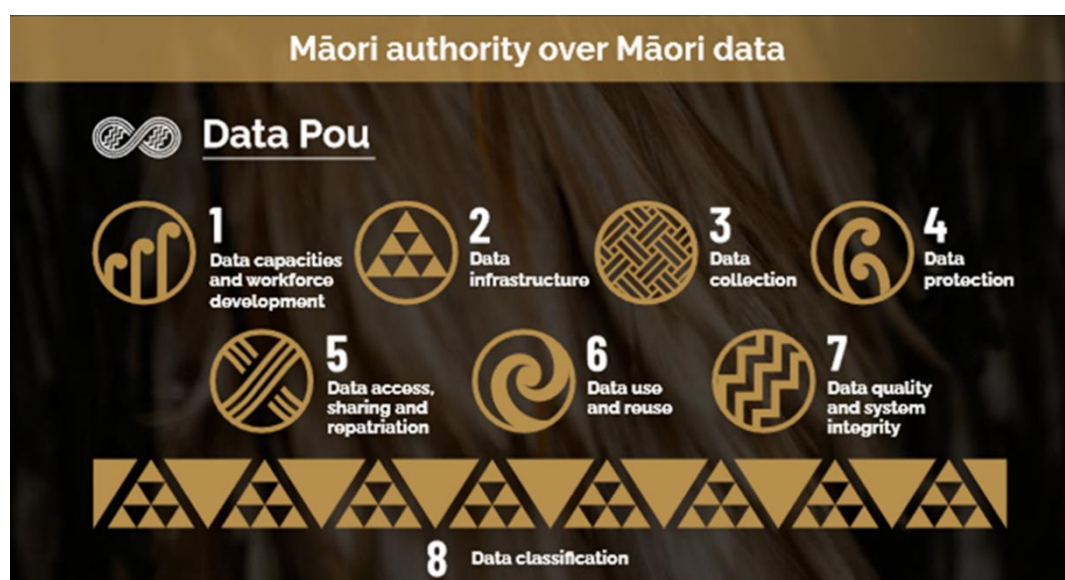


Figure 2 Māori Data Governance Model Data Pou

One of the model’s strengths lies in its practical utility. It can be used as a self-assessment tool by institutions to identify where their existing standards and processes fall short, and where

adjustments are needed to align with Māori data governance principles. For example, Sterling et al. (2024) applied the MDGov Model criteria to develop a Māori Data Audit Tool, which they used to assess how well the NZ COVID Tracer App aligned with Māori data governance standards. Their analysis found that of the 24 criteria in their model, 7 were met, 9 were not, with the remaining 8 being categorised as ‘partially met’ (Sterling, et al, 2024) highlighting significant gaps and indicating that further progress is needed to achieve alignment with Māori data governance expectations in practice. Such practical applications demonstrate how the model can serve as both a diagnostic and developmental tool, enabling institutions to move toward more equitable, ethical, and culturally informed data practices.

While the current report does not adopt the pou structure as its organising frame, it does draw on the MDGov Model to inform its analysis of the evolving data ecosystem in Aotearoa. Mechanisms, processes and tools are considered relative to the pou to show how the ecosystem is progressing (or not) towards a more tikanga and kaupapa Māori led future.

Context for the report

Indigenous Data Sovereignty (IDSov) refers to the inherent rights and responsibilities of Indigenous peoples, communities and nations to control data that derive from them, and which pertain to their communities, knowledge systems, lands and natural resources including waterways (Kukutai & Taylor, 2016; Lovett, et al, 2019; Rainie, et al, 2019; Russo Carroll, et al, 2024; Sterling et al, 2023). Central to IDSov is the assertion that Indigenous nations have the right to govern and control all aspects of the data eco-system from the collection, analysis, interpretation, management, dissemination, and re-use (Walter, et al., 2021b, p. 146) through to issues related to the access to, and possession of, data (Walter, et al., 2021a, p. 692).

IDSov has been described as a social movement (Russo Carroll, et al, 2024), emerging in response to “...poor data practices, from the conceptualisation of data items through to reporting of data about Indigenous peoples” (Lovett, et al, 2019). This includes misrepresentation, extractive data use, and the marginalisation of Indigenous perspectives in data governance. It is an emergent field of inquiry (Russo Carroll, et al, 2024), only being formalised within the last decade with the publication of *Indigenous Data Sovereignty: Toward an Agenda* in 2016. Despite its relative newness as a field and movement, IDSov is “...fed by many wellsprings” (Russo Carroll, et al, 2024, p. 221), building on the work of Indigenous scholars and allies across the fields of “...indigenous research ethics, cultural and intellectual property rights, nation-building, and indigenous governance, within a frame of tribal sovereignty and self-determination” (Hudson et al., 2017, p. 63).

Indigenous data has been said to include data produced by, for or about Indigenous peoples, our ways of life including customs and traditions as well as the environments in which we live or have ancestral ties to (Lovett et al., 2019, p.27). It also includes information and knowledge which may impact on the lives of Indigenous peoples as individuals and as collectives (Maiaimayri Wingara, 2017; Rainie et al, 2019). In defining data, Native scholars have maintained that data has been a constant in the lives of Indigenous peoples, communities and Nations and we have always been actively involved in the processes of collection, storage, transmission, and use of data (Lovett et al., 2019; Rodriguez-Lonebear, 2016; Yap & Yu, 2016). However, recent developments in Big Data and AI have steered the discourse in the direction of digital and digitised datasets and their implications for Indigenous rights and interests.

In 2023 the Global Indigenous Data Alliance (GIDA) identified 12 Indigenous Rights to data (Table 1). These Indigenous data rights are organised and described in two parts. The first, *Data*

for *Governance* refers to those rights which support and enable Indigenous communities to access and use data for themselves. In the second set of rights, *Governance of Data* are those rights which support “...Indigenous communities to internally steward and externally influence the use of data” (Hudson, et al, 2023). These rights form the foundation for understanding the types of protections and capabilities needed to build transformative Indigenous data ecosystems.

Table 1: Indigenous Peoples’ Rights in Data	
Source: Global Indigenous Data Alliance, 2023	
Data for Governance	
Right to self-determination	The ability to organise and control data in relation to a collective identity
Right to Reclaim	The right to reclaim, retain, and preserve data, data labels, and data outputs that reflect Indigenous Peoples’ identities, cultures and relationships
Right to possess	The ability to exercise jurisdictional control over the ways that data flow/ move/ are queried
Right to use	The ability of individuals and collectives to use data for their own purposes
Right to consent	The expression of digital autonomy and the ability to assess risks and accept potential harms
Right to refuse	The right to say “no” to certain uses of data
Governance of data	
Right to govern	The right to lead and collaborate in the development and implementation of protocols and decisions about access to data
Right to define	The right to define lifeways of knowing and being including how they are represented in data
Right to privacy	The protection of collective identities and interests from undue attention, also including the possibility of requesting omission and/or erasure
Right to know	The ability to track the storage, use and reuse of the data and who has had access to them
Right to association	The recognition of provenance and terms of attribution
Right to benefit	The opportunity to benefit from the use of data and equitable benefit sharing from derivatives of data

Table 1: Indigenous Peoples’ Rights in Data

The Indigenous Peoples’ Rights in Data are aligned with international standards, particularly the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which affirms Indigenous Peoples rights to maintain, control, protect, and develop their cultural heritage, traditional knowledge, and intellectual property (Hudson, et al, 2023). There is also a growing body of international legal and normative instruments that support the principles of IDSov. Including guidance from the United Nations (UN) Special Rapporteur on the Right to Privacy (Kukutai, et al, 2023b), as well as statements from the World Intellectual Property Organization (WIPO) recognising Indigenous rights in the context of data and traditional knowledge (WIPO, 2023). While not always legally enforceable in a local context, international instruments are

important because they establish minimum standards for the protection and recognition of Indigenous rights in data, and they provide a common language for advocacy across different legal and political systems.

Crucially, there is no universally applicable approach to IDSov. The movement is inherently place-based, rooted in the unique histories, legal systems, and governance structures of distinct Indigenous communities. Generalising IDSov principles “...without an anchor to their places runs counter to the spirit in which they were created” (Russo Carroll et al, 2024, p.221). With this in mind, IDSov is being operationalised through more localised and context-specific frameworks.

MDSov builds on IDSov and adds granularity for specific use in Aotearoa. MDSov reflects the unique cultural and legal landscape shaped by te Tiriti o Waitangi and is grounded in Māori tikanga, worldviews and aspirations. Over the past decade, the MDSov movement has influenced the data ecosystem in Aotearoa, with advocacy and leadership driven primarily by Te Mana Rarunga (TMR) and Te Kāhui Raraunga (Sporle et al, 2021). Both TMR and TKR continue to play central roles in asserting Māori data rights across policy, research, and the public sector.

The implementation of IDSov and Indigenous Data Governance (IDGov), through international frameworks and localised policy instruments, represent progress toward ensuring that Indigenous Peoples can equitably benefit from our data resources. They are however only part of the solution, as Russo Carroll et al (2024) caution, legislative and policy changes alone are not a panacea. It is equally important to recognise the less visible but deeply impactful ‘flaxroots’ actions led by Indigenous Peoples, communities and nations. These locally driven efforts are vital to shaping what a transformative data ecosystem looks like in practice, and to defining what meaningful participation in the digital sphere looks like for us.

Transformation

Kaupapa Māori arose in the 1970s amidst the broader rise in Māori political consciousness, as both a theoretical framework and a praxis rooted in Māori knowledge systems, aspirations, and resistance to colonial structures (Smith, 2017). Transformation, in this context, is connected to hope, dreaming, and potential. It demands more than technical change, it requires a commitment of minds, hearts, and souls to imagine new possibilities (Mutu et al., 2021). For data ecosystems to support this form of transformation, they must center tino rangatiratanga and mana motuhake. This means creating space for Māori to define our own aspirations and ensuring those aspirations can be recognised, resourced and realised within data systems. It is not about “fixing” Māori (Hoskins, 2017) or working from deficit-based assumptions. Rather, Māori knowledge systems offer innovative ways of knowing, doing, and evaluating data that can enrich Aotearoa’s broader data ecosystem.

There are already tangible examples of kaupapa Māori shaping transformative data practice, some of which will be discussed in subsequent sections of this report. These initiatives mark a shift from reactive responses to colonisation toward proactive, future-focused strategies grounded in mana motuhake and the reclamation of Māori data practices. But it is important not to flatten the diversity of Māori experiences. Transformation is not linear, and Māori communities engage with data from different starting points, shaped by their unique histories, capacities, and priorities (Smith, 2017). Western models often frame transformation as a fixed sequence of steps. In contrast, for Māori, transformation is dynamic and relational a process that unfolds across a spectrum. Within the context of data ecosystems, this may include

building capability, increasing access to data tools, adapting technologies to reflect Māori values, and ultimately designing Indigenous technologies that uphold tino rangatiratanga and enable self-determined data governance.

The rapid expansion of digital technologies and data infrastructures creates urgency, but Māori efforts toward data transformation often operate in isolation and are under-resourced. Kukutai et al. (2023) emphasise that realising transformative change will require sustained investment, long-term strategic collaboration, and the development of Māori-led capability in data science. Building this capacity involves growing Māori expertise, fostering partnerships between researchers and communities, and supporting whānau, hapū, and iwi to actively shape the data systems that impact them.

One example of this kind of investment is the Tikanga in Technology (TinT) project, supported by the Ministry of Business, Innovation and Employment's (MBIE) Endeavour Fund. TinT provides a model for how resourcing can be directed toward targeted and timely initiatives that embed Māori perspectives in the digital domain. This has led to the development of:

- the Māori Privacy Framework
- Biocultural Labels
- Principles for Māori Algorithmic Sovereignty.

These three outcomes demonstrate how transformative outcomes can be realised when Indigenous principles are given space, resourcing, and time to shape data innovation. This report is both a reflection and a continuation of these kaupapa Māori aspirations. It offers a snapshot of key efforts that are currently contributing to the transformation of Aotearoa's data ecosystem in ways that uphold tino rangatiratanga, equity, and Indigenous data futures.

What is a data ecosystem, and what does it look like in Aotearoa?

The metaphor on an ecosystem is drawn from nature and has become a popular way to conceptualise the complex relationships and behaviours at the intersection of social and technical systems (Howard & Hyland-Wood, 2024). A data ecosystem describes “a network of actors that create, manage, exchange, and use data as a core resource” (Oliveira & Lóscio, 2018, p. 1). These ecosystems emerge and evolve in response to changes in political, technological, and social environments (Howard & Hyland-Wood, 2024), making them useful for conceptualising both the messiness and the potential of contemporary data governance.

From a kaupapa Māori perspective, the appeal of the ecosystem model lies in its emphasis on relationality, interdependence, and adaptation. For example, Nardi and O'Day (1999) argue that information ecologies centre “people, values, and technologies in context,” and that these systems depend not on top-down control, but on the relationships between their parts. In this sense, a data ecosystems are not just about technical systems but social ones that are shaped by decisions about who gets to collect, define, interpret, and use data.

In data ecosystems, organisations, institutions, and in some cases, individuals can be classified as ‘actors.’ These actors are responsible for establishing mechanisms like laws, governance frameworks, and standards which can determine how data flows and who benefits. Stakeholders are those who are affected by these decisions. The relationship between actors and stakeholders is not clear cut or uni-directional though, as stakeholders maintain the power to feedback and affect change. In most cases, Indigenous peoples would be seen as stakeholders, however from an IDSov perspective, Indigenous peoples have distinct legal and

moral rights (Russo Carroll, et al, 2024) which position us as rights-holders within the data ecosystem.

MDSov and MDGov provide critical infrastructure for imagining a just and equitable data ecosystem in Aotearoa. If we think ecologically, these frameworks act as keystone species, those whose presence is essential for ecosystem health (Harrison et al., 2012). Without the integration of MDSov and MDGov, the data ecosystem becomes fragmented, untrustworthy, and prone to perpetuating harm. For example, we have seen how algorithmic tools used in social services fail to accommodate Māori realities, resulting in systemic bias and exclusion (Sterling et al., 2023).

In their description Howard and Hyland-Wood (2024) propose two core elements of a data ecosystem:

“First, ecosystems can emerge and adapt spontaneously, without external initiation or overarching management. Instead, they operate via mutual adjustment between constituent elements. Second ecosystems display heightened or radical interdependencies between their components, to the extent that the actions of each member influence all others, not simply those in direct interaction or close proximity.” (p.112-113)

The focus on relationality and radical interdependencies moves us away from seeing data governance as a top-down, linear or unidirectional decision-making process. Instead, we can consider the potential for actions, large and small, to have a cumulative or compounding effect in transforming our data ecosystems. In doing so, there are greater opportunities to think about what a decentred approach to the development of data policy and access to decision-making might look like (Medyckyj-Scott et al., 2016). Change, whether large-scale policy reform or community-led data initiatives, ripples through the system. In a healthy ecosystem, transformation is not only possible but inevitable.

Often ecosystems emerge in response to events occurring in the wider environment. This spontaneity can result in a ‘mature’ data ecosystem that is adaptive, open, scalable, sustainable and fit for purpose (Medyckyj-Scott, et al., 2016). It can also create the conditions for, more emergent data ecosystems which can be characterised by a lack of clear institutional leadership and norms, including ‘...uncoordinated data collection and representation, poor data governance, and inadequate compliance monitoring’ (Howard & Hyland-Wood, 2024, p.114). The data ecosystem environment in Aotearoa New Zealand has been described as emergent (Sterling et al, 2023) or as having ‘low maturity’ (Kukutai, et al, 2023a).

In this context, embedding MDSov and MDGov is not optional, it is a structural necessity for ecosystem health. Their presence strengthens the system by enhancing data quality, building trust with Māori communities, and ensuring that innovation serves collective Māori aspirations. Conversely, when these frameworks are absent, the entire ecosystem becomes more extractive, less ethical, and less resilient.

Figure 3 below attempts to represent what a Māori data ecosystem might look like with MDSov and MDGov at its core. This is not a static model but a dynamic, layered system. It reflects how actors, mechanisms, processes, tools, and environmental influences interact and co-evolve. Importantly, it foregrounds Māori rights and values as foundational to the health and legitimacy of the system as a whole.

Māori Data Ecosystem

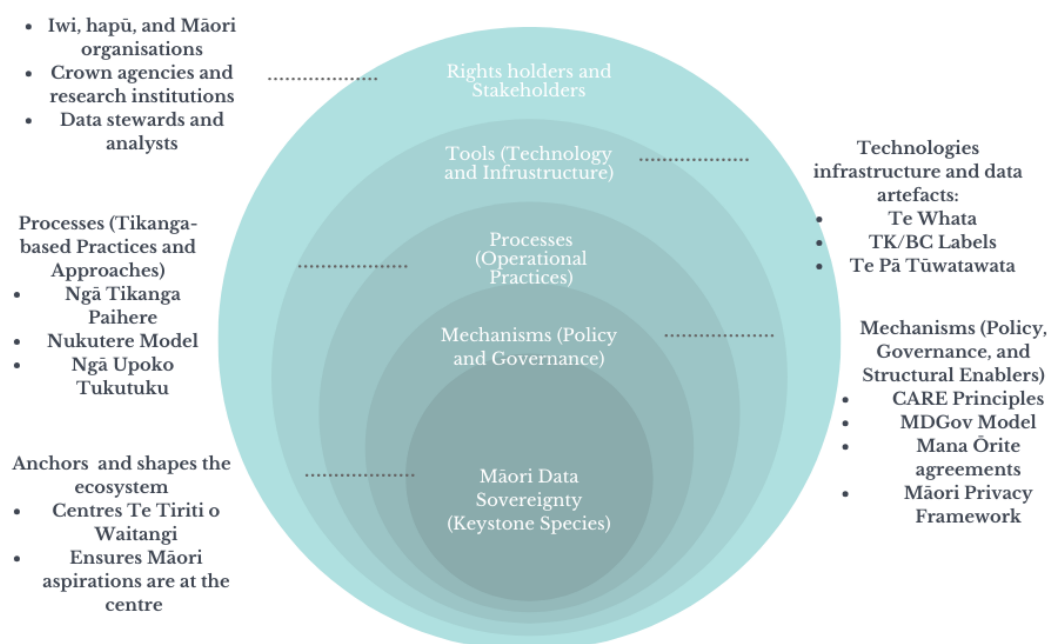


Figure 3: Potential Māori Data Ecosystem centering MDSov & MDPov

This report adopts the ecosystem metaphor to help make sense of the relational work required to transform data governance. The next three sections unpack how transformation is already being enacted through mechanisms, processes, and tools. These categories are used for clarity, but the initiatives described often span across multiple domains.

Mechanisms

Mechanisms provide high level governance for the maintenance of networks and relationships within the data ecosystem. These can include formal legal instruments, like nation-specific laws for privacy and cyber security. They can also include extra-legal levers like the Principles of MDSov, the MDPov model or the CARE principles for Indigenous data governance.

Principles of Māori Data Sovereignty

In the introductory section of this report, Te Mana Raraunga (the Māori Data Sovereignty Network) were discussed as being key drivers of the MDSov movement in Aotearoa. A cornerstone of their advocacy has been the development and promotion of the Principles of Māori Data Sovereignty, which guide the ethical collection, storage, and use of Māori data.

- Rangatiratanga
 - Control | Jurisdiction | Self-determination
- Whakapapa
 - Context | data disaggregation | future use
- Whanaungatanga

- Balancing rights | accountabilities
- Kotahitanga
 - Benefit | Build Capacity | Connect
- Manaakitanga
 - Respect | Consent
- Kaitiakitanga
 - Guardianship | ethics

Rooted in tikanga Māori, these principles reflect Māori rights, responsibilities, and aspirations in relation to data. While culturally specific to Aotearoa, they are conceptually aligned with broader Indigenous rights frameworks, such as the Global Indigenous Data Rights and the CARE Principles.

The Principles are enduring and have had far-reaching influence. For example, the Royal Society Te Apārangi (2023), has referenced these principles in their guidelines for data management and use. Similarly, the Health Research Council of New Zealand, the country's principal funder of health research, has incorporated these principles into their policies on Māori health research. This institutional recognition further cements the importance of the Principles of MDSov in shaping data governance practices in Aotearoa New Zealand, particularly in relation to Māori data.

The Principles of Māori Algorithmic Sovereignty (MASov) also provide an extension of the MDSov Principles, specifically applied to the domain of algorithmic systems. Developed through the Resource Area 3 (Algorithmic Sovereignty) workstream of the TinT project, MASov responds to the growing influence of algorithms in shaping decisions that affect Māori communities, data, and environments. MASov principles adapt the six core MDSov principles to address the unique risks and opportunities posed by algorithmic technologies (Brown et al., 2024). They offer both conceptual direction and practical frameworks for evaluating algorithmic bias, supporting Indigenous participation in algorithm design, and guiding the development of tikanga-based algorithms.

Māori Data Privacy Framework

Privacy protections are essential to a healthy data ecosystem, particularly given the growing presence of surveillance technologies and the commodification of personal and collective data (Kukutai, et al., 2023b). While the Privacy Act 2020 introduced stronger rules for handling personal information, it remains focused on individual rights and does not account for collective privacy, a critical gap in the context of Māori data (Kukutai, et al, 2023b).

Māori communities face increasing exposure to data extraction and surveillance, often without meaningful safeguards or consent (Kukutai et al., 2023a). To address this, the Māori Data Privacy Framework, developed through the TiNT programme with guidance from a kāhui kaumātua, provides a tikanga-based alternative grounded in mana, tapu, mauri, and hau (Clark et al., 2025). Rather than retrofitting Māori values into existing Western legal models, it reframes privacy as relational and collective, aligned with Māori aspirations for self-determination.

Recent application of the framework within the Ngāti Tiipa hapū has demonstrated its practical value in supporting hapū to maintain mana over collective data, navigate privacy concerns, and develop tikanga-led governance approaches in a rapidly evolving digital environment (Clark et al, 2025). While the framework offers a strong foundation, recent assessments suggest opportunities to enhance its practical utility, including integrating relational dimensions such

as whanaungatanga more explicitly, and providing additional resources to support hapū and whānau in applying the Framework to their own data contexts (Clark et al, 2025).

CARE Principles

While Indigenous nations assert the need for greater protections over Indigenous data, ‘mainstream’ data governance is largely shaped by the FAIR principles which promote data that is **F**indable, **A**ccessible, **I**nteroperable and **R**eusable. Designed primarily for the benefit of academic research communities, FAIR have a narrow focus on the data itself, and do not necessarily aim to regulate the conduct of end-users (Sterling, et al, 2023). The operationalisation of FAIR often overlooks Indigenous rights and interests, and may enable openness at the expense of Indigenous control and consent. It is therefore essential that the rights of Indigenous Peoples’, must be considered and integrated in the development of standards, protocols, and expectations (Hudson et al, 2024).

In response, the Global Indigenous Data Alliance (GIDA) introduced the CARE Principles for Indigenous Data Governance. CARE calls for **C**ollective Benefit, **A**uthority to Control, **R**esponsibility, and **E**thics (Carroll et al., 2020). Grounded in Indigenous rights frameworks, including the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), and aligned with Indigenous concepts of self-determination and governance, CARE reorients data governance to centre the rights and responsibilities of Indigenous Peoples across the entire data lifecycle (Taitingfong, et al, 2024). It responds to the risks of data colonialism, and the ongoing marginalisation of Indigenous knowledge and governance within global data ecosystems (Carroll et al., 2020).

CARE is intended to complement rather than compete with FAIR. Where FAIR is data-centric, CARE is people and purpose-oriented (Carroll et al., 2020). To be both FAIR and CARE is to recognise the potential value of open data environments while ensuring that openness does not override Indigenous rights and responsibilities (Taitingfong, et al, 2024). CARE has had far-reaching impacts, and has been referenced as essential by the Earth Science Information Partners (O’Brien et al, 2024) and in the UNESCO Recommendation on Open Science (UNESCO, 2021). The World Economic Forum’s Data Equity Framework similarly builds on CARE and Te Mana Raraunga’s MDSov principles, positioning them as critical pillars of ethical and equitable global data governance (World Economic Forum, 2024).

The influence of the CARE principle across these different spaces, marks a significant shift towards embedding Indigenous rights, responsibilities, and relational ethics within global data systems. They also demonstrate the potential of CARE to support both global and locally grounded data governance.

Mechanism Alignment with the MDGov Model

The principles of MDSov, the Māori Data Privacy Framework and the CARE Principles all seek to transform the current data governance landscape. Collectively, they prioritise Indigenous control, ethical use, cultural respect, and equitable benefit-sharing and align with the pou of the MDGov model.

Mechanism	Aligned Pou of the MDGov Model
Māori Data Sovereignty (MDSov) Principles	Leadership and Decision-making; Policy and Legal; Data Classification
Māori Data Privacy Framework	Data Protection; Data Security and Storage; Policy and Legal

Mechanism	Aligned Pou of the MDGov Model
CARE Principles for Indigenous Data Governance	Data Quality and System Integrity; Data Use and Reuse; Data Access, Sharing and Repatriation; Leadership and Decision-making
Māori Algorithmic Sovereignty (MASov) Principles	Leadership and Decision-making; Policy and Legal; Data Protection; Data Quality and System Integrity; Responsibility and Ethics

Table 2: Alignment between the MDGov Model & MDSov, Māori data privacy, CARE and MASov Principles and Frameworks

Despite their strength and reach, uptake of these frameworks remains voluntary, and largely dependent on the discretion of organisations and systems that currently exercise control over Māori data. While some institutions express interest in aligning with MDSov, such intentions often lack concrete strategies, resourcing, or accountability mechanisms. Without mandatory standards and Māori leadership embedded in governance structures, these aspirations risk remaining symbolic rather than substantive, limiting the potential for meaningful transformation.

Processes

Processes give practical effect to the mechanisms, they add granularity and specificity which enable the mechanisms to be meaningful in context. Included under the broader umbrella of processes are guidelines, frameworks, and institution or organisation specific policies or ‘best practice’ models. For example, procedures for ethics, data collection, and research data management. While many of these processes do not confer direct control or ownership, they help shift the culture of data work by embedding Māori worldviews, tikanga, and values into institutional and community-based data practices. In doing so, they enable incremental but powerful shifts towards more relational, ethical, and culturally grounded engagements with Māori data.

Ngā Tikanga Paihere

One example is Ngā Tikanga Paihere (NTP), (Fig 4) a framework developed to guide the safe and tikanga-aligned use of Māori data, particularly within the Integrated Data Infrastructure (IDI). Based on ten core tikanga concepts identified by Hudson et al. (2017) NTP was designed to build public trust in Stats NZ’s data access practices, especially amid concerns that the IDI had outgrown its original social licence (Sporle et al., 2021).

NTP does not by itself give Māori control over data access or increase access for Māori users, however, it does encourage all users to consider the implications of data use for Māori and to engage more consciously with kaupapa Māori ethics (Sporle et al., 2021). The collaborative development process that produced NTP, led jointly by Māori researchers and Stats NZ, also represents a relational achievement, demonstrating how tikanga Māori can be meaningfully integrated into government data practice.



Figure 4 Ngā Tikanga Paihere designed by KK&TW Kerekere Of KE Design© in 2020 for the Ngā Tikanga Paihere Frame-work. Figure sourced from Tātauranga Aotearoa (Stats NZ). No changes applied. <https://data.govt.nz/toolkit/data-ethics/nga-tikanga-paihere>

The values that underpin NTP align with the responsibility and ethics dimensions of the CARE Principles. There is also the potential, that if operationalised across the data government ecosystem, NTP could provide practical support for several pou within the MDGov Model, particularly data quality and system integrity, data protection, policy and legal, and leadership and decision-making. In this sense, NTP offers an example of how tikanga-based process frameworks can support the evolution of a more relational, kaupapa Māori-led data ecosystem.

Nga Upoko Tukutuku

A different kind of intervention is Ngā Upoko Tukutuku, a bilingual classification system developed to support the inclusion and discoverability of te reo Māori subject headings within library and archival collections (National Library, 2024). Ngā Upoko Tukutuku is grounded in Māori epistemology, offering a way to structure knowledge that aligns with whakapapa, mātauranga Māori, and the natural order of te ao Māori (Lilley, 2015). This system enhances accessibility for te reo Māori speakers by enabling them to navigate research environments in culturally resonant ways and contributes to the revitalisation of te reo Māori by embedding the language as a language of intellectual access (Lilley, 2024). Ngā Upoko Tukutuku also helps address the historical misrepresentation of Māori knowledge in Western classification systems, enabling greater Māori control over how their knowledge is described and accessed (Whaanga, et al, 2015)

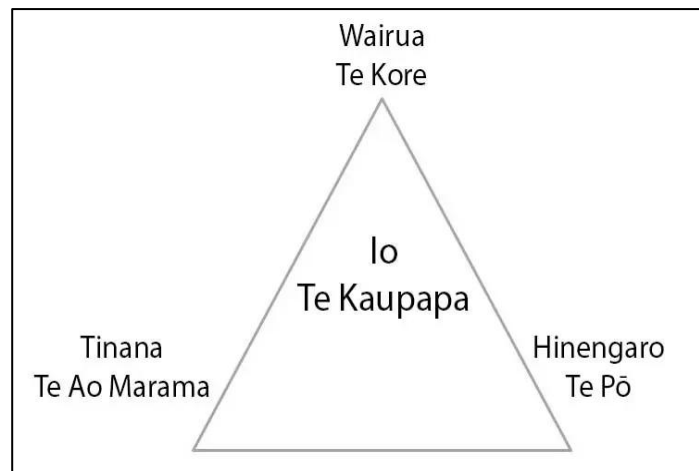


Figure 5 Ngā Upoko Tukutuku: Conceptual Framework. Sourced from <https://natlib.govt.nz/librarians/nga-upoko-tukutuku>

Like NTP mentioned above, Ngā Upoko Tukutuku (Fig 5) does not directly address ownership or decision-making over data, it reflects a process-level commitment to cultural accessibility, linguistic revitalisation, and the development of infrastructure that affirms Māori ways of knowing.

Nukutere Model

The Nukutere Model is a whānau-based, kaupapa Māori intervention model for developing Māori AI applications that promote cultural wellbeing for whānau now and into the future (Hudson, 2024). Designed by Petera Hudson alongside his whānau in Te Whakatōhea as part of a PhD project, the model responds to the need to realise the potential benefits of AI for Māori, while maintaining control of Māori data and keeping it safe. In this case, Māori data includes whānau stories shared by kuia and kaumātua about their lives and experiences. The model positions the listener/researcher as a kaitiaki responsible for protecting these taonga. If such stories are to be brought into institutional contexts (e.g. academic research), the Nukutere Model provides an intervention to ensure tikanga-based protections are in place.

The model is explicitly framed as a Kaupapa Māori transformative praxis model, grounded in Ngā Poutama Whetū and kaupapa Māori key principles, and developed through whānau wānanga (Hudson, 2024). It exemplifies how tikanga Māori can be embedded into AI innovation processes from the outset. Importantly, the Nukutere Model is situated within an Abundance Intelligence (<https://abundant-intelligences.net/>) paradigm and positions Māori AI innovation as strengths-based, relational, and grounded in whakapapa and whānau wellbeing. A key aim of the model is to enable transformative change that supports the decolonisation of imperial-dominated AI systems, offering an Indigenous-led vision for ethical and culturally affirming AI development (Hudson, 2024).

Processes Alignment with the MDGov Model

Together, these examples show that processes are crucial sites of transformation. They do not always offer full authority or resolve systemic issues of power imbalance, but they model new ways of working that make Māori values actionable. In their different ways, Ngā Tikanga Paihere, Ngā Upoko Tukutuku, and the Nukutere Model demonstrate how Māori values can safeguard the mana of matauranga Māori. They show that transformation can happen through the everyday choices embedded in process: how we classify, how we ask permission, how we store, how we code.

Process Example	Aligned Pou of the MDGov Model
Ngā Tikanga Paihere	Data Quality and System Integrity; Data Protection; Policy and Legal; Leadership and Decision-making
Ngā Upoko Tukutuku	Data Access, Sharing and Repatriation; Data Quality and System Integrity; Leadership and Decision-making
Nukutere Model	Leadership and Decision-making; Policy and Legal; Data Protection; Data Quality and System Integrity; Responsibility and Ethics

Table 3: Alignment between MDGov Model and NTP, NUT & Nukutere Model

Tools

In a data ecosystem, tools are the enablers of data practice. They facilitate the production, storage, analysis, sharing, and reuse of data. These tools range from hardware and software infrastructure, such as data storage platforms and visualisation systems, to metadata standards, digital tagging protocols, and platforms for data access. Tools often operate at the applied end of the data governance continuum. While mechanisms define high-level principles and processes shape practice, tools provide the means through which these values are enacted in real time. Included in this section, are tools which could be seen as ‘bottom-up tactics’ that ‘...enable individuals, whānau and communities to have a meaningful say in how their information is used’ (Kukutai, et al, 2023a, p.58)

Te Pā Tūwatawata

As discussed earlier in this report, MDSov is underpinned by a foundational logic that the authority to govern data is not determined by the laws of the nation-state in which the data is stored, and instead, the jurisdiction over data remains with the nation from which the data is collected (Kukutai & Taylor, 2016). In saying this, Māori must be able to assert control over Māori data and hold non-Māori actors and stakeholders within Aotearoa’s data ecosystems accountable. Data storage solutions which support both the physical and logical storage of Māori data within Aotearoa, are therefore fundamental features of a sovereign data infrastructure (Cormack, et al, 2020). To give practical effect to this, Māori need access to storage solutions that ensure both physical control and ethical guardianship over their data. Two significant developments in Aotearoa demonstrate emerging approaches to building a sovereign data infrastructure.

Te Tumu Paeroa’s (TTP) partnership with Microsoft marks could be seen as a step toward localised storage. Through this agreement, TTP became an anchor tenant in Microsoft’s New Zealand-based data centres (Gunson, 2024). The deal was described by TTP as a means to connect landowners more deeply with their whenua and the data derived from it. However, despite the benefits of data residency, concerns remain about true sovereignty when infrastructure remains under foreign corporate control. As Kukutai et al. (2022) argue, “a foreign-owned but locally situated provider is like an offshore provider in many ways” (p.7).

This highlights the need for solutions that go beyond residency toward Māori-owned, tikanga-led infrastructure.

This is the vision behind Te Pā Tūwatawata, a distributed data storage network developed by Te Kāhui Raraunga. Expected to launch in 2025, Te Pā Tūwatawata will enable data to be stored at the marae level, physically and spiritually placing it under the guardianship of those to whom it matters most.

With this kaupapa, we're housing the data where it belongs, under the safe protection of the people that it means the most to. Additionally, with Te Pā Tūwatawata being located on-shore and owned by us, it meets the principles of Iwi Māori Data Sovereignty at the highest levels (Kirikowhai Mikaere as cited by Radio Waatea, 2024)

As a tool rooted in Māori control and tikanga-based practice, it strengthens Māori authority over Māori data and enhances data safety, and alignment with kawa specific to different iwi and hapū.

Te Whata

Access to timely, relevant and meaningful data is important for ensuring Māori derive benefit from Māori data. The ability to retrieve, interpret, and apply data according to iwi and hapū needs is fundamental to realising data sovereignty.

Te Whata is a data storehouse platform designed and operated by TKR. Te Whata is part of the Mana Ōrite agreement between the Data Iwi Leaders Group and Stats NZ (Stats NZ, 2024b) and is an example of the Māori Data Governance model in practice. Most of the data housed in Te Whata comes from government agencies, including the 2013, 2018 and 2023 censuses and the Te Kupenga Māori social survey from Stats NZ (Kukutai, 2024), the Ministry of Education and other health and social data (Kukutai et al, 2023a).

Te Whata was developed to enable iwi Māori to tell their own narratives according to their own priorities and world views (Stats NZ, 2024a). Closed-access functionality means that iwi information managers are able to upload their own data to Te Whata to enrich analysis and that data will not be accessible by anyone else (Kukutai, 2024). Insights derived from analysis, forms the foundation for iwi and Māori to have data-informed conversations with, and within, their communities. (Stats NZ, 2024a).

The tool played a critical role during the COVID-19 response, when iwi "... were able to access aggregated data on Māori vaccination rates through Te Whata so that they could target their vaccination outreach efforts at the neighbourhood block level" (Kukutai, 2024, para9). Te Whata is an example of how digital tools can empower Māori to engage with data in ways that are meaningful, strategic, and culturally grounded.

Local Contexts

In the evolving landscape of intellectual property rights, open data, and Indigenous Data Sovereignty, Traditional Knowledge (TK) and Biocultural (BC) labels and notices have emerged as innovative tools for Indigenous Peoples and Local Communities (IPLCs) to exercise sovereignty over collectively held IP (Kukutai, 2024). The TK and BC labels are digital tags that can be attached to cultural materials held in public repositories (TK labels) as well as to Digital Sequence Information derived from genetic samples (BC labels). Labels are specifically for use by IPLCs; to support their use at an institutional level, Notices are used by researchers to disclose where there are Indigenous interest in data. IPLCs are then able to affirm the nature of their relationship to the data by populating and updating the labels with metadata (data about the data) including provenance information. They can also outline appropriate

protocols and permissions for the reuse of that data, including for example expectations relating to consent (Sterling, et al, 2023).



Figure 6 Stockbridge Munsee Band of the Mohican Nation use of BC labels

The Stockbridge Munsee Band of the Mohican Nation for example, have used the labels to affirm their relationship with plant medicines, and to make clear the expectation that no economic benefit should be derived from the traditional knowledge shared.

This process supports collaboration between IPLCs and researchers, and enables more equitable benefit sharing in relation to Indigenous data (Anderson, et al, 2024).

Each label is fully customisable according to the specific needs and interest of IPLCs (Anderson, et al, 2024). In some instances, there may be specific tikanga related to appropriate use of data

or traditional knowledge. These could include protocols around when information can be accessed (e.g. seasonally) or who information can be accessed by (e.g. information which is for wāhine or tāne specifically).

In the example to the right Te Whakatohea have utilised TK Labels in a waiata app, which includes important information about when a particular waiata might be used for a particular occasion. The ‘ownership’ of information and knowledge shared by IPLCs is retained by them and they also have the authority to make decisions around how much of the information will be shared with researchers and the public.

Attribution protocols, like the TK and BC labels and notices, give effect to both the FAIR and CARE principles and support Indigenous data for governance and the governance of Indigenous data (Anderson, et al, 2024). The fill a gap left by the lack of adequate and/or enforceable IP rights instruments. TK and BC labels serve as an extra-legal option for IPLCs to exercise rights to reclaim, benefit from and identify their association with data (Kukutai, 2024). They are not legally enforceable, but they do create ethical obligations in the (re)use and management of Indigenous data. Their adoption by international data repositories signals growing recognition of Indigenous rights in global data governance. (Anderson, et al, 2024, p.3). Moving forward, the continued success of the TK and BC labels and notices requires that they are interoperable and scalable across different platforms and in alignment with existing standards.

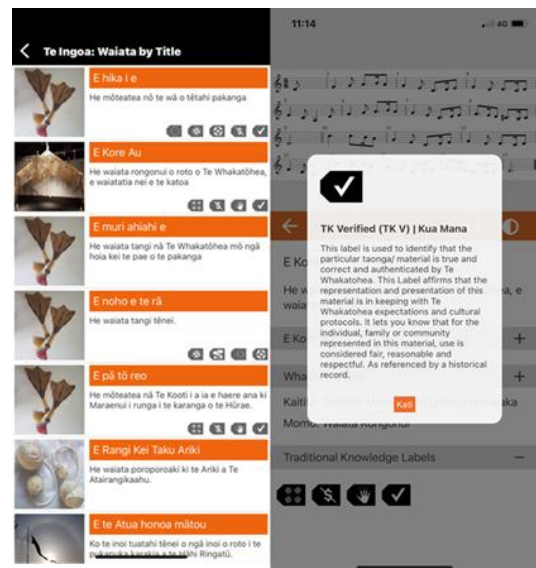


Figure 7: Te Whakatohea use of TKL in Waiata App

Tools Alignment with the MDGov Model

From infrastructure to access platforms to metadata systems, tools are not neutral. They carry embedded assumptions, and when designed without Indigenous input, can reinforce existing asymmetries in data power. The tools profiled here (Te Pā Tūwatawata, Te Whata, and Local Contexts TK/BC labels) demonstrate that tools can also be a site of resistance and innovation.

Whether used to store stories, share strategic data, or assert control over cultural materials, these tools make it possible to enact Māori values in real time. They support the transformation of Aotearoa's data ecosystem by giving Māori greater authority over how data is collected, held, used, and shared, not just by whom, but for what purposes, and on whose terms.

Tool Example	Aligned Pou of the MDGov Model
Te Whata	Data Access, Sharing and Repatriation; Data Quality and System Integrity; Leadership and Decision-making
Te Pā Tūwatawata	Data Protection; Data Security and Storage; Data Quality and System Integrity; Leadership and Decision-making
Local Contexts Traditional Knowledge (TK) / Biocultural (BC) Labels	Data Classification; Data Access, Sharing and Repatriation; Data Use and Reuse; Responsibility and Ethics

Table 4: Alignment between MDGov Model and Te Whata, Te Pā Tūwatawata & Local contexts TK and BC labels

Moving forward

The MDGov Model offers a values-led roadmap for reimagining data governance in Aotearoa. It challenges us to consider a system where Māori control the design, use, and benefit of Māori data. This report has explored a range of mechanisms (such as Māori data sovereignty principles and the CARE principles), processes (like Ngā Tikanga Paihere and the Nukutere Model), and tools (such as Te Whata, Local Contexts, and Te Pā Tūwatawata) that demonstrate promising shifts toward a more equitable, culturally grounded data ecosystem. Despite progress, several key challenges remain. These require deeper investment, innovative solutions, and sustained partnership with Māori if Aotearoa is to fully realise a just and equitable data future.

One of the most persistent barriers to Māori data sovereignty is the difficulty in identifying and locating Indigenous data in the first place. Across government datasets, research repositories, and public archives, Māori data is often uncategorised, embedded within broader populations, or untagged, making it invisible to those who have both the right and the need to access it. This issue persists, despite the increasing scale and sophistication of data infrastructures.

Emerging technologies such as Artificial Intelligence (AI) and machine learning may offer solutions. Tools that can detect Indigenous markers within large datasets based on whakapapa references, linguistic patterns, or cultural metadata, could assist iwi and Māori researchers in surfacing relevant data. Research is being done to explore the use of AI to recognise TK and BC labels and to automate culturally sensitive tagging protocols. However, the use of AI in this context also raises questions about bias, accuracy, and who trains and governs the algorithms. Investment in Māori-led AI research is critical to ensure these technologies are developed in ways that uphold tikanga and enhance Māori control over identification and classification processes.

Long-term transformation also requires investment in the full range of hardware, software, governance protocols, and community capability needed for iwi, hapū, and Māori organisations to manage data independently. This includes secure storage, trusted access pathways, and analytical tools that uphold tikanga Māori and support collective benefit. Building such an Indigenous data stack requires both technical expertise and Māori leadership. This requires long-term funding, training pathways, and equitable partnerships with technology providers.

Without this investment, the Māori data ecosystem will remain dependent on infrastructure that was not built with Māori in mind.

Finally, a core challenge remains: how to value Māori data in ways that go beyond extractive or transactional logics. There is little empirical research on what Māori communities consider fair compensation or reciprocal benefit for the use of their data. Some iwi and hapū may prioritise monetary returns, particularly where data contributes to commercial value. Others may see benefit in non-monetary forms, such as health outcomes, educational improvements, or enhanced whakapapa knowledge. Valuing Indigenous data must begin with valuing Indigenous people, their time, knowledge, and aspirations, not just the outputs they help produce.

The transformation of Aotearoa's data ecosystem is underway, driven by Māori leadership, innovation, and vision. Yet, the work is far from complete. Persistent issues of access, infrastructure, legal recognition, and valuation continue to limit the realisation of full Māori data sovereignty. As emerging technologies reshape the landscape, new risks, and new opportunities are surfacing. A truly mana motuhake data system must be led by Māori, reflect Māori values, and uphold the principles of Te Tiriti o Waitangi. The MDGov Model gives us a clear direction. If we are serious about our commitment to te Tiriti and mana motuhake, we must invest in scalable, tikanga-led solutions that build long-term capability and control.

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