

GOVERNANCE OF MAORI DATA



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Governance of Maori Data

***Ngā Pae o te Maramatanga Summer
Internship Report***

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*Ka taia te kawa,
Ka taia te kawa,
Ka whakamau te kawa,
Ka nanao te kawa,
Ka rurua te kawa
Ka reirei a te kawa
Ka turuturua te kawa*

Ko te kawa I whakahautia atu ra kia Tane.

*Ko Tane-nui-a-Rangi
Ko Tane te rangona
Ko tane te Pupuke
Ko Tane tuarea
Ko Tane terawea
Ko Tane whakapiripiri
Ko Tane-Mahuta e*

*Tenei te whakahau ake, Maia e te tipua, Maia e te tawhito, Maia e te kahui o nga Ariki,
Maia e tawhiwhi atu ki nga Atua.*

*Oi ka takina te mauri te mauri ahua noa ki runga ki tenei taura, ki runga ke teni tauira,
Kia ahua noa ki runga ki tenei, e tukuna te whaiororo o Tane-te-Waiora, tenei te matatau
kia eke whakatu tarewa kit e rangi.*

Whano

Whano

Haramai te mauri

Haumi e

Hua e

Taiki e

*Whakahonoretia te Kingi Maori a Kingi Tuheitia, noho mai ra e koro I rung ate ahurewa
tapu o o tupna o to whaea. Kia taura nga manakitanga ki runga ki koe, otira ki rung ate kahui
ariki whanui tonu rire, rire, hau Paimarire.*

*Kai aku tipare kua taka noa, kua kapohia atu ra kōutou e te ringa o aitua. Piki atu ra kōutou
ki te poho o Ranganui me he whetu maiangi. Hei aha, hei kawē I o kura whakaaro, kia noho piri
mai, kia noho tata mai ki te pae o mahara. Kai nga mate tini huhua o te wai, torengarenga
ana te puna roimata kia kōutou haere haere whakangaro atu ra. Waiho ma matou te kawē I o
kauwae ki apopo.*

Introduction

Data are the building blocks of information, the pieces which help to build stories and create insight. Data is stored in many forms, oral traditions, carved ornaments, written accounts, and increasing in electronic formats. The major difference that arises from the shift towards digital storage is the ease with which that data can be shared, aggregated, and commercialised. The aim of this project was to explore understandings of Maori data and Maori approaches to governance. Maori data relates to any information obtained by Maori, obtained from Maori, or obtained about Maori resources. In essence this could be collected with an explicit consent or without consent.

In our contemporary society it is challenging to determine who has possession of our information or data and how we are able to ensure it is not used and abused by others. With a cyber-network creating more and more interconnections and channels for sharing our data and information it is increasingly difficult to maintain privacy and protect our information. In this vulnerable situation, what precautions are being put in place to ensure the protection of data which is personal to us, our thoughts and information? The aim of this project was to explore perspectives on the governance of Maori data and how people in the current day are dealing with governance issues in existing systems.

We were interested in understanding what is going well and what is not going well. We used open ended research questions to allow participants to answer in any way they saw fit. A purposeful sampling strategy was used to select participants based on the work they do and involvement in the governance of Maori data. Six people were invited to participate in this project but due to unforeseen circumstances only two interviews were completed. Interviews were conducted with participants that use data in their own fields of work and have to consider the implications for the governance of data.

He Ao Maori, he kitenga Maori¹

What is Maori data?

Maori data includes information on specific areas of Te Ao Maori or Maori demographics that can be used to identify problems or make decisions. Examples range from owner's listings in Maori trusts, data on Maori poverty, and levels of home ownership, to crime rates and income per capita. What makes Maori data different from data, aside from the fact it is collected from Maori. Maori data comes with tikanga and kawa and these principles, which guide our interactions with people, should also guide our interactions with data. It is the relationship that Maori develop with their information that sets it aside from other information. There is a spiritual and inherited connection for Maori with the information that has been passed down from their tupuna. Participants also identified Maori data as relating to intellectual property.

Tikanga

Tikanga are protocols and structures that determine the way in which Maori carry out their lives manage resources. There are protocols around the sharing and distribution of information within Te Ao Maori from decisions about access to certain types of information to the ability to change or innovate stories. In the times of our tīpuna it was the tohunga who were the absolute and supreme arbiters of knowledge in their chosen field of expertise. Whether it was mau-rakau, karakia, or raranga, there was a tohunga who would be in charge of that area of expertise. If a person was wanting to learn a specific skill they would require approval from the tohunga of that field to enter that whare wananga

¹ A Maori world through a Maori lens

or school of learning. There were tikanga that determined whether you would be fit to uphold the mana of the information you would retrieve from these whare wananga. Once students were selected to a whare wananga there was an expectation that they had a responsibility to that knowledge for life and to ensure it was passed onto future generations.

In a video of Wetini Mitai-Ngatai² giving knowledge of how the old people used to learn. In his words they would go into their whare tipuna and sit along the back wall up against the pou of the back wall, and it is believed that knowledge would go along the back bone or roof of the whare, down through the pou and into the ipurangi of the men. Ipurangi is a part of the facial tamoko on the forehead. Its translation is 'ipu' as in a cut or bowl something of which would hold, and 'rangi' in reference to be the knowledge would come from. In translation 'ipurangi' – that which hold what come from the skies. Information such as this is not common knowledge, but what has made it that way.

Tapu and noa

“When you learn anything Maori, it has to be taken seriously. It involves the laws of tapu, genealogies, history, traditional knowledge, carving, preparing flax, in fact, nature itself. Tapu is something that teaches you how to respect the whole of nature because Maori things involve the whole of nature”³

The basic understanding of tapu and noa is a dividing of that which is sacred and that which is not. Understanding that matauranga Maori has divine origins and that it comes from 'nga atua' or the gods, heightens the tapu associated with this knowledge and therefore the protocols required to manage it in an appropriate manner. Generally knowledge was believed to be tapu but does that mean all knowledge tapu? Within traditional society tipuna had criteria for who could receive information and a clear and transparent process for distribution or sharing of knowledge. In our contemporary society there is much less clarity or transparency about who decides who gets where information is stored and collection much less who has governance over this data? In part this relates to the near unlimited use of cyber networks and digital device which create vast amounts of data, much more than we had to contend with in traditional society.

To what extent is it the tapu and noa status of the information which determines whether it can be distributed? How would you define what makes information tapu or noa? Is all data tapu? What defines and give authority to those who have the information to distribute to whom so ever they choos? It is clear that not all matauranga Maori is treated the same so what is it that defines what makes some form of matauranga more tapu than another?

One of the participants had been involved with collecting data from kaumātua. Reflecting on the process he said *“kaumatua were reluctant to give certain information as they believed that it was tapu and was given to them under certain circumstances and only under those circumstances will the give it on”*. The principle of tapu and now was strongly held with many of the kaumatua and kuia, and provided a justification for restricting the distribution of information or matauranga.

² Te Mana o Ngati Rangitihī, whakapapa wananga – Wetini Mitai-Ngatai

³ Ngoi Pewhairangi, Ngati Porou

Whakapapa

Whakapapa concerns itself with relationships and connections. Everything has a whakapapa, a point of creation as well as contributors to its creation. Te Ao Maori placed a premium on understanding the relationships between people and to the natural world. Understanding the value of information is crucial in its protection.

Maori are able to trace their bloodlines back to the genesis of man and yet this type of knowledge is available on websites such as www.ancestry.com. So what is the value of whakapapa in a modern context? What is our perspective on this tapu information being a part of a commercial entity and how value is attributed to it from both a cultural and commercial perspective? What restrictions are placed on the distribution of whakapapa in our community and how do these align with how commercial entities allow access?

An aspect of the value that was traditionally associated with whakapapa is the relative inaccessibility of the detailed knowledge. While people generally knew their own whakapapa and/or there is access to whakapapa listings online, most of these sources provide either a generic whakapapa that is usually limited to six to seven generations or a single line of whakapapa which some people call a whakaheke. For example I will use a whakapapa provided by Te Ara⁴

Hoturoa

Hotuope

Hotumatapu

Motai

Ue

Rakamamao

Kakati

Tawhao

Turongo

Raukawa

This is a strong base example that many descendants of Ngati Raukawa can relate to in the use of whakapapa, however it is the finer intricacies of whakapapa that is restricted. More detailed whakapapa that links people together through a myriad of connections or reinforces associations of people with whenua can only be accessed through certain kaumatua or tohunga. Not all whakapapa is available to all people.

Taonga

A taonga is something that is valued or considered precious. It may be a tangible item like a korowai or a taiaha or a non-tangible item such as whakapapa or a waiata. Taonga is highly prized by the individual and may have both extrinsic and intrinsic value. Te Tiriti o Waitangi refers to taonga katoa which Maori have taken to mean anything deemed precious to Maori including intellectual property

⁴ Te Ara – The Encyclopedia of New Zealand

and interests in Maori culture and identity as reflected in the Wai262 claim (Ko Aotearoa Tenei). Could this also mean that Maori data is considered a taonga? Maori own tangible objects whether that be whenua or property subject to the same legislative constraints as other New Zealanders. For example, the Government owns all crown minerals and oil. The situation is similar with regards to intangible objects like cultural icons and motifs.

Whitiki te ia o raraunga, moroki noa nei⁵

This statement refers to ensure the protection of data for future generations. What aspects ensure the protection and purity of data and manage the flow of data within a broader ecosystem?

Value

Value is a key aspect of the tension that exists around data in general. What gives data value? How can value be generated from data in innovative ways and how should that value be distributed to benefit others with relationships to that data.

Maori are engaged in a variety of trade relationship with overseas markets focused primarily on primary industries whether it is beef, dairy, or honey. With an increasing interest in moving into high value products there is a greater understanding of the value of data and intellectual property. The commercial sensitivities that arise around intellectual property also create challenges when considering the responsibilities of managing and governing Maori data. Understanding how value emerges from Maori data and how it is shaped by national and international forces is a key issue. The introduction of new trade agreements like the CPTPP between 11 countries around the Pacific have an impact on how rights and interests in data and intellectual property are enshrined. Often Maori expectations of their rights in relation to names such as Manuka for Manuka honey are at odds with how the system recognises them. With an increasing interest from external parties in the potential to create value from data, including Maori data, it is important that Maori have the opportunity to benefit in this area.

Data is valued differently by different customers or users. For example, a share listing of owners for one Trust may not be valuable to a non-owner of the Trust however, it would be very valuable to the owners of the block to ensure they are up to date on all payment rights. Another example would be government data on housing and income levels of Maori and its value to Iwi in analysing how its beneficiaries are doing and whether any of their funding policies are making a difference to this group. A key component of creating value from data is to package it in ways that are relevant to the potential users or customers. This means it might be reformatted or reorganised in some manner.

Governance of Maori data

Maori governance provides a mechanism to enhance Maori control, supporting tribal sovereignty and the realisation of iwi aspirations. The absence of Maori governance leads to digital colonialism where Maori data resources are appropriated by other groups and used as they see fit. As we

⁵ *Continue to bind the flow of data*

venture into a world of technology a key challenge is to maintain and uphold our traditional values. The quotes that follow illustrate the participants understanding of current governance systems.

Participant 1 is a deputy principal of a Wharekura with responsibility for managing NZQA results at the school. She collates the information and ensures it is correct before logging it into the NZQA's online database. Access to the NZQA data is limited to those people with approval and only to information from your specific school.

"In terms of access to the information from our school only I have the access to our school's data, similar to every other school not only just kura, but main stream as well".

"no one from other schools can access our data, only I can see it on our site, however if a student was to transfer and their information is on another schools site I would be given clearance to view that child's information only on their site until all information is transferred then I would not access the other schools site. The information is kept on my personal laptop so that no others from school may access, it is not kept on a school computer"

"From our site it then goes to NZQA from there they review our progress and based on the data suggest possible ways of improvement or point out areas that need improving".

"I think it is a functional form of keeping data, in a way that it protects our information and the information of our students. NZQA have access and use these to run graphs on progression of not only our school, but all schools".

Handling of Maori data in a current system

Participant 2 has a background in law and accounting and is used to handling information from iwi trusts and incorporations. The handling of Maori data in the current systems and the functions it has.

"Maori data is poorly managed by the government as aspects of Maori are deliberately left out of legislation. For example; when the government introduce new regulations or acts they make it out to be for the "benefit" of our people but in fact it is an excuse to further minimise or marginalise Maori rights by placing further restrictions of tikanga and how Maori can and should act within their own community.

"Currently we don't have a good system at present to cater to all Maori data and relay it in a meaningful way. A central system would work wonders going forward in collating all Maori data and presenting it to users based on their needs. For example, we have government data that shows the income per capita of Maori in regions but also doesn't show which of these people are able to speak or converse in te reo which is found on another system.

"Maori land court allows each Maori trust to administer their own share registries which has created issues with people trying to find out which accounting firms their Trusts are with to determine whom owes them money. This information is not shown on the Maori land court but back on the internet which a lot of our people don't use."

"No data on Marae and how many beneficiaries live in the same area or within a boundary of the Marae etc. Also, iwi are unable to comprehend fully the impacts that they are having on their beneficiaries as the data to do so is located in different areas and collating it back to something meaningful is difficult."

“Whakapapa is being lost with every generation as less and less are being taught it by their elders as only one or two keepers may be taught within each whanau”.

In the current system it appears that more can be done to ensure the protection and quality of Maori data.

“It will be very difficult to protect as hackers are able to breach almost all firewalls or protective measures that would be put in place to protect data if a hacker so wished to commit to doing this. I think the best way is to go for a preventative measure by not sharing any data online that anyone did not want falling into the wrong hands.”

“Enforcing law such as copyright and trade marking on the intellectual property of our people such as images, the haka etc. This would prevent global companies from using aspects of tikanga for their own marketing purposes and create an international aberrance of Maori being significant to NZ and how images have a different meaning for each individual/iwi and tribe. It would provide the stigma of how images paint a detailed story through interpretation and whanau heritage”

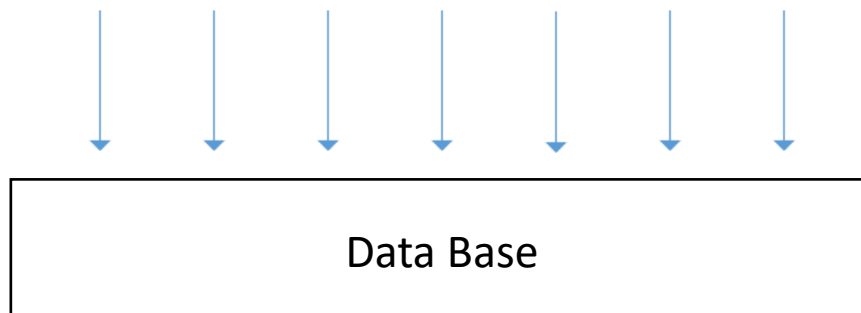
These comments suggest there needs to be a separate legal system that governs Maori data built around a foundation of tikanga albeit subject to iwi variation. There would need to be a collective input so that the expectations of governance and any legislation or regulation could reflect a mutual understanding. Any third party holders of sensitive Maori data, like share registers of Maori clients, need to be held responsible for ensuring no corruption or manipulation of data occurs. Access to less sensitive data should be promoted to assist Maori groups advance their development needs and aspirations.

He putanga ki te whai ao ki te ao marama⁶

Secondary use of Maori data-

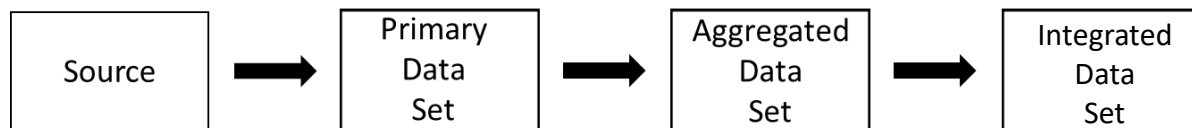
The secondary use of Maori data is like the flow of water. It has a pattern which you can see but appears difficult to change. With many of the examples the participants referenced, it would appear that data flows through the system from its initial point of collection to subsequent users. At each point of contact someone has responsibility for that data and the potential uses multiply.

Below is a series of diagrams that shows the flow of Maori data and the responsibilities at each point. Understanding that this is merely an observation of patterns given by the participants. There will always be change and not all situations will be similar to this, however this is trying to give a visual foundation to the patterns through which data is aggregated and then distributed.



⁶ Going forth in to the light

As seen in this diagram information or data can come from many places and is aggregated into larger and larger datasets. Aggregation and Integration of data create secondary use scenarios which often aren't contemplated at the time of collection.



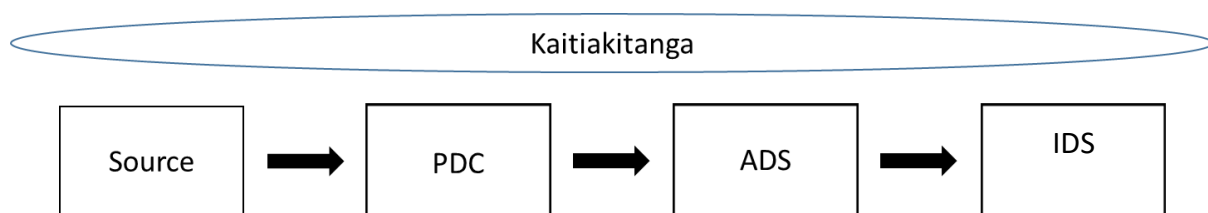
All data has a source, a starting point from which it is collected. Sometimes it is specifically collected (research data), other times it emerges as a result of direct engagement with services (administrative data), and at other times it is a by-product of participation in society (loyalty cards, facebook use). All data comes from a source and finds becomes part of a primary data set.

A primary data set can be identified as a sub level of data collection, this role is in communication with the source, at the very same level as the source data provider, for example the NZQA data collectors from schools that collect the data from the source which would be students. A source in many cases would not seek out to give their data, which is why a primary data set is used as a collecting base.

Data is often merged into aggregated data sets, larger and larger datasets which tend to consist of common types of data. For example researchers adding data from iwi based data collections to build a national picture.

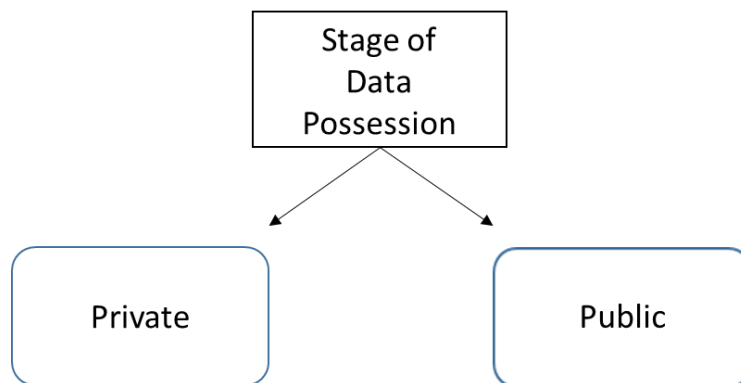
Data is increasingly becoming part of integrated datasets. This is where different types of data are brought together in ways that probably weren't considered at the time of collection. This can be seen at a government level where the Integrated Data Infrastructure has been created.

Most data, whether it be education, health, or economic data, seems to be subject to these new forms of data aggregation and data integration. The key question is how can Maori concepts of kaitiakitanga and tikanga support appropriate governance of Maori data across this spectrum?



Kaitiakitanga

Kaitiakitanga is a word used for guardianship and anyone associated with the distribution of data has in effect a role as a kaitiaki or guardian of that data. This role in particular is especially unique. The participants identified a number of contexts where data becomes the responsibility of a middle person who then has a role to determine where data will go and to whom. Different people will have this responsibility at different points on the spectrum however it is important that they can be identified and specific policies or process put in place to support the governance of Maori data.



Another consideration for the governance of Maori data at each stage of this continuum is how the use of the data might be applied for private or public purposes. Whether it is at the source or aggregated dataset, the person or entity responsible for the data can choose what they think are appropriate uses, subject to any legal constraints (e.g. privacy constraints). What responsibilities do people feel they have in relation to data and how do they maintain a social license to use this data? Deriving benefit from resources is a good thing when it has the potential to add value to the community. People often seek to benefit from the commercial use and application of data. Their intentions vary with some looking to benefit themselves and others trying to create value for a collective either as a company or a community.

How tikanga can handle data

How are we able to incorporate forms of tikanga into data governance? It would be challenging to apply tikanga on a case by case basis for every context or use of data. It might be more appropriate for the tikanga to inform the 'kaitiaki' who has responsibility for deciding who gets access to aggregated or integrated datasets. This would ensure that data is accessed and distributed in a manner consistent with the expectations of those that provided it in the first place. In a traditional environment it is up to the person who has the data to decide who they wish to hand it on to. In whare wananga tohunga would choose the students who would receive the knowledge and this tikanga might apply to the kaitiaki of these new data sources.

Participants were of the view that Maori data could be handled by trusted parties if they are competent in its use. Sharing should not be limited to certain individuals but spread to all that stand to benefit from the data including companies whom may wish to develop medicine for common medical issues. A monitoring process should be put in place to ensure Maori data is used appropriately and to identify data security risks. Maori may also want to establish their own data commons and create a separate community with their own rights, values and beliefs based on tikanga the principles of kaitiakitanga and manaakitanga.

When going to a marae there are a set of rules you follow at each stage of walking on to the marae, and those rules can change dependent on the iwi the marae is that you are walking on to. Each stage of the powhiri is laid out and there is a practical way of performing a powhiri, and that is how we understand the tikanga at the marae. What is required is a practical step by step guide that will allow us to better understand how data should be governed. While developing this kind of guide is beyond the scope of this project it would be a worthwhile outcome of future work.

Summary

Identifying who has responsibility for the governance of Maori data is often a challenge because of the myriad ways in which data is aggregated and integrated in contemporary society. Different forms of governance may be required as data is reorganised into different datasets and tikanga might inform the principles and processes used to ensure the data is used in a culturally appropriate manner. The participants recognised that Maori governance provides a mechanism to enhance Maori control and this supports tribal sovereignty and the realisation of iwi aspirations. Kaitiakitanga is the most relevant tikanga based principle that could be applied to the exercise of data governance. However it will be necessary to develop a practical step by step guide to show how this can be implemented and operationalised in organisational contexts.

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