

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

Ipurangi: Māori, the internet and implications for tikanga Māori.

A thesis presented in partial fulfilment of the
requirements for the degree of

Doctor of Philosophy

at Massey University, Turitea, Manawatū, New Zealand.

Krystal (Te Rina) Fain Warren
Rangitāne, Maniapoto, Whitikaupeka (Ngā iwi o Mōkai Pātea, Te Iwi Roa)

2024

ABSTRACT

As the world incorporates technology and the internet, new developments provide challenges and opportunities for Māori engaging in these spaces. By developing and applying iWhakaaro (Kaupapa Māori Internet Theories) and iRangahau (Kaupapa Māori cyber ethnography) this research explores the overall question: *what are the implications of Māori engaging online for tikanga Māori?* And explores, *how are tikanga Māori (Māori values, customs and protocols) maintained or transgressed through the use of the internet by Māori?*

Ipurangi, this research thesis, is framed around the cosmo-genealogical narrative of Tāwhaki who ascends through the heavens to obtain new knowledge. Just like the journey of Tāwhaki, Māori engaging online are presented with opportunities for great potential as well as obstacles that pose a threat to tikanga Māori. A new theoretical approach, iWhakaaro and a new methodological approach iRangahau, was used to analyse literature and identify themes that emerged from interviews with expert Māori who lead the use of the internet and apply tikanga Māori. eColonialism and Kaupapa Māori theory are applied to analyse how colonisation takes place online, and to develop a new theoretical position - iTāmi.

This research makes three major contributions to research: first, a new lexicon for Māori engaging in the online space; second, new theoretical and methodological approaches for Kaupapa Māori research; and third, *ipuRangi* - a framework to guide Māori engagement with the internet.

ACKNOWLEDGEMENTS

This research is inspired by my daughter, and dedicated to her, her cousins, her aunts and uncles of the ‘digital native’ generation.

Ipurangi is the culmination of my thoughts and research based on the philosophies and works of my tupuna (ancestors) in a bid to provide some guidance for our tamariki (children) and mokopuna (grandchildren) who are growing up in world where the ipurangi (internet) is ever present. In essence this writing acknowledges the link across generations.

To all the ‘academics’ who have inspired me on this path, and to my many supervisors over the years Professor Huia Tomlins-Jahnke, Professor Bob Jahnke, Emeritus Professor Sir Mason Durie, Dr Spencer Lilley, Professor Meihana Durie, Distinguished Professor Graham Hingangaroa Smith, thank you for your patience and your critical input. I acknowledge Professor Nick Roskrige who pushed me back to academia and remains a constant supporter and teacher, and Charlotte Severne who organised study leave to complete my thesis – tēnā koutou. Thank you all for teaching me about mentorship. To our library staff Sheeanda and Ria for your tremendous tautoko for all students, and Cherie in learning support – tēnā koutou katoa.

Christel, Te Taka, Leonie, Rangi, Ngatai, Brenda, Tania, Karaitiana, Che - I am humbled by your generosity of spirit, your time to share your experiences, and the mahi you all do for te iwi Māori - tēnā koutou e ngā mātanga, e ngā ringa raupā.

To those who have influenced my education perspectives – Dame Georgina Kingi (Miss) and my teachers at St Joseph’s Māori Girls’ College, Te Rangakura, Te Wānanga o Raukawa, Toikura (Mari, Nods, Rahera, Hona, Tina), Te Uru Māraurau, Te Pūtahi a Toi, Te Mata Whānui, Mana Tamariki, Te Rūnanga Nui o Ngā Kura Kaupapa Māori – tēnei te mihi ki a koutou.

To all those who have supported me over the years, my sisters from 25 Osier Rd, my Te Atakura crew (especially our mentor Mereana for the aroha, compassion and genuine concern for us), and all my whānau/cousins/brothers/sisters – I am humbled by your aroha – ngā mihi nui. I also acknowledge all of those who came to visit me in hospital, who sent their well wishes, who came to visit at home, and who expressed their genuine concern for me after experiencing a terrible motor vehicle accident in 2019 that delayed

the completion of this thesis, and to all of those who continue to help me in the ongoing recovery journey (especially all my drivers) – nui te aroha ki a koutou. E taku taniwha, e Taina- he nui te aroha ki a koe.

To all the whānau at home, at the pā, working with our people and maintaining our culture at home (with no internet). My greatest learnings are based on my experiences at home, a place that you all keep warm with the literal home fires burning, for this I am forever thankful – kai raumati, kai makariri i te hinu o te whenua!

For all my kaumatua (elders) who encouraged me along the broader research journey, whom I have spent time with, and whom I have had the absolute honour of interviewing over the years - many of whom have since passed away, waiho mā te mōteatea me te aroha mō koutou kua ngaro nei.

I acknowledge my parents, for their ongoing support to my educational journey, and whānau members who pushed me, gave me responsibilities, encouraged me to ask questions and trusted my geeky approach to life – all the while looking after Kewa Tapairu, nui te aroha ki a koutou.

We continue to draw strength from the legacies of our tupuna and those we have lost in recent years... the messages embedded in this thesis is for them, for our tamariki-mokopuna, and for my uncle Walt who was an ‘early engager’ in the IT sector.

TABLE OF CONTENTS

Abstract	i
Acknowledgements	ii
Table of Contents	iv
List of Figures	vi
List of Tables.....	vii
List of Appendices	viii
Chapter 1: Introduction	1
1.1 Introduction: Ipurangi the thesis	1
1.2 Positionality	2
1.3 Māori and Technology	7
1.4 Ipurangi: The thesis.....	7
1.5 Ipurangi: The context	8
1.6 Ipurangi: The outline.....	10
1.7 Summary: Ipurangi the thesis.....	15
Chapter 2 Epistemology and Theory.....	17
2.1 Introduction: Research frame	17
2.2 Epistemology	18
2.3 Theoretical Research Perspective	26
2.4 Summary: Research Frame	43
Chapter 3 Methodology and Method	45
3.1 Introduction: Methodology and Method	45
3.2 Kaupapa Māori Methodology	47
3.3 Cyber Ethnography	50
3.4 ĩRangahau: Kaupapa Māori Cyber Ethnography	51
3.5 Method Data Collection	52
3.6 Ethics.....	62
Chapter 4 Literature Review	65
4.1 Māori and Internet: the literature on studies	65
4.2 An Overview of the Projects	67
4.3 Further Research	80
4.4 Summary of literature	82
Chapter 5 Discussing Māori and the Internet.....	87
5.1 Introduction: Māori And The Internet	87

5.2 The Context Of Māori And The Internet.....	87
5.3 Conclusion: Māori And The Internet	121
Chapter 6 Discussing Tikanga Māori and the Internet.....	123
6.1 Introduction: Tikanga Māori Online	123
6.2 The Internet, Evolution And Tikanga	124
6.3 Conclusion: Tikanga Māori.....	153
Chapter 7 Discussing Journeys to the Internet.....	155
7.1 Te Aka Matua: Elements of Support.....	157
7.2 Te Mate Urutā: COVID As The Catalyst.....	172
7.3 Conclusion: Te Aka Matua	173
Chapter 8 Discussing the Cautionary Tale.....	175
8.1 Te Aka Tāepa: Elements Of Caution	175
8.2 Te Aka Morearea (threads of hazard): Safety	177
8.3 Te Aka Whakaraerae: Security	192
8.4 Te Aka Raukoti: Proper Management.....	196
8.5 Conclusion: Te Aka Tāepa.....	200
Chapter 9 Discussing Challenges and Potential.....	201
9.1 Te Toi Huarewa: Challenges for Māori	203
9.2 Te Ara o Tāwhaki: Potential for Māori.....	221
9.3 Conclusion: Challenges and Potential.....	232
Chapter 10 Conclusion: Ipurangi, Māori and the Internet	234
10.1 Ipurangi: Māori, the internet, and implications for tikanga Māori.	234
10.2 The context of Māori online.....	236
10.3 Te Aka Matua, Te Ara o Tāwhaki and the potential of the internet	237
10.4 Te Ara o Tāwhaki: The pathways of potential.....	238
10.5 Te Aka Tāepa, Te Toi Huarewa: Challenges online for Māori.....	245
10.6 ipuRangi: A framework for assessing Māori engagement with the internet...	247
10.7 iTikanga Māori for Personal Implementation	250
10.8 Te Ara Rangahau: Recommendations for further research.....	251
10.9 Concluding Comments.....	253
Reference List	256
Appendices.....	308

LIST OF FIGURES

Figure 1: Personal Facebook post	7
Figure 2: Ipurangi, the research direction	18
Figure 3: Ipurangi, research approach.....	23
Figure 4: World Systems Theory	40
Figure 5: Kaupapa hāpai (positive attributes of the internet).....	238
Figure 6: Kaupapa kaupare (diminishing attributes of the internet)	247

LIST OF TABLES

Table 1: Kaupapa Māori Principles.....	47
Table 2: Mānuka kawe ake, research approach	63
Table 10.1: ipuRangi: A framework for assessing Māori engagement with the internet.	247
Table 10.2: Example of Ipurangi framework applied to te reo Māori revitalisation utilisng the internet.....	249
Table 10.3: iTikanga, A framework for personal implementation online.....	251
Table 10.4: Kaupapa Māori internet terminologies	253

LIST OF APPENDICES

Appendix 1: Information Sheet.....	308
Appendix 2: Consent Form.....	311
Appendix 3: Interview Questions	312
Appendix 4: Exemplar – ipuRangi: A framework for assessing Māori engagement with the internet.....	313

CHAPTER 1: INTRODUCTION

Pinepine te kura, hou te kura – he oriori mō Umu-rangi

Pinepine te kura, hou te kura,
whanake te kura i raro i Awarua
ko te kura nui, ko te kura roa
ko te kura o tawhiti nā Tu-hae-po.
Tēnei te tira hou, tēnei haramai nei.
Ko Te Umu-rangi nā Te Whatuiapiti.

Nau mai, e tama, ki te tai-ao nei,
Ki whaka-ngungua koe, ki te kahikātoa,
Ki te tūmatakuru, ki te tara ongaonga;
Ngā tairo rā nāhau e Kupe
I waiho i te ao nei

Piki ake, kake ake i te Toi Huarewa,
Te ara o Tāwhaki i piki ai ki runga;
I rokohina atu rā Maikuku-mākaka,
Hāpai-o-Māui. He waha i pā mai,
‘Taku wahine purotu!’
‘Taku tāne purotu!’
Kōrua ko te tau, e!

1.1 INTRODUCTION: IPURANGI THE THESIS

Te Ao Māori (the Māori world) begins within the vast landscape of time and space (Best, 1976; Marsden, 2003). Over time, Te Kore (pure potential) evolved, where everything is possible. Developing into Te Pō (the time of activation), Ranginui (sky father) and Papatūānuku (earth mother) emerged and from their embrace came the world of light, a domain created by the atua (gods) for humankind (Whatahoro, 1913). The *oriori* (lullaby) ‘pinepine te kura’ written above acknowledges our rich history (*ko te kura o tawhiti*), our ancestral caution to be prepared for the current environment (*kia whakangungua koe*), and our ability to ascend the heavens (*piki ake kake ake*) returning

to Ranginui via two ancestral pathways: Te Toi Huarewa the path the ancestor and atua Tāne takes to the heavens. Te Ara o Tāwhaki, the course of the ancestor and atua Tāwhaki, climbed to the upper realms (Mead, 1996). Dr Whatarangi Winiata referred to our 'kāinga', our homosapien dwelling and our place in the world, as being the space (spiritual construct) between sky and earth, Ranginui and Papatūānuku (The Waitangi Tribunal, 1999). The creation of the Māori world locates our culture as an integration between past, present and future, supernatural and mundane, metaphysical and physical, sky and earth. Māori know (and have always known) that multiple plains and dimensions of time and space exist (Marsden, 2003).

For Māori, these cosmo-genealogical narratives are revisited and often reaffirmed in our traditional practises such as karakia (prayer and incantation), waiata (song), as well as pōwhiri/pōhiri (rituals of engagement). Whakapapa (genealogy) forms a critical foundation for Māori, a genealogy that can be traced back to the beginning of time – beyond the separation of Ranginui and Papatūānuku (Best, 1976; Marsden, 2003; Whatahoro, 1913). Not only do we draw on ancestor connections to the world in which we live through time and space, but we can locate ourselves within historical relationships with the world and our whakapapa. Today these connections and relationships are communicated throughout many tikanga Māori or traditional and customary practises, such as the pōwhiri process, demonstrating the importance of the engagement ritual and our connection.

1.2 POSITIONALITY

In 2009 I had a discussion with Dr Roger Maaka where he posed a question about what the future of tangihanga (Māori funeral protocols) might look like if, for example, whānau (family) could attend a tangihanga, speak at the tangihanga, lay a koha (donation/contribution) and actively participate in the process via an online environment – effectively completing all formal protocols of the marae (ancestral home) without physically attending the tangihanga (personal communication, 13th December 2009, Oahu international airport, Hawaii). Considering this position alongside Dr Ranginui Walker's (1990) statement that marae are the bastions of the Māori culture, prompts the question, are marae no longer necessary as a cultural fortress? Or are our cultural spaces transforming?

Urbanisation and the power of the mass media are slowly altering some of the social customs of the Maori. Increasingly Maoris are losing touch... and are being influenced by the myth-makers of television, radio and cinema. The medium of the silver screen is all pervasive... The heroes portrayed by movies and television become the modern-day culture heroes who displace the legendary figures of the past. Thus, Maui becomes a legendary character who is studied at school and he bears little or no relation to the world the child sees about him. Tawhaki, an equally important figure... is not heard of at all.

(Walker, 1987, p. 168)

In 2009, I also had a conversation with Dr Merata Kawharu at the Philosophy of Education Society of Australasia (PESA) conference in Hawaii about a project that had stalled due to tikanga Māori issues around access to online repositories of iwi knowledge. Since this time, new developments have been spurred on by the 2020 COVID-19 pandemic. As a global crisis, it has caused much discussion and adaption of cultural protocols for various countries, including Māori. Coinciding with the pandemic was a global 'infodemic' with mass misinformation shared across online platforms (Volkmer, 2021). However, further exploration and analysis of the implications of online environments for tikanga Māori continue to be necessary in our ever-evolving world.

Cybermarae, cyberwaka [virtual vehicles], and cyberwānanga [virtual learning spaces] are all terms that are being applied to Māori moving into the Internet environment. Personally, I think that some of the notions that are portrayed are becoming a little too idealistic. The reality is that this type of environment had not previously existed in Māori culture. All cultures (and languages) are subject to change as environments are continually changing. To survive Māori must in cooperate [*sic*] the new environments while holding true to cultural values. If the values stay true in the new environment then I believe the culture survives (Keegan, 2000).

As a child with a privileged rural upbringing in my marae village, my perspective of the world has subsequently been shaped by the rich cultural environment of whānau and associated values, practices and social systems. The above idea brought into focus the role of the marae in my upbringing and, more importantly, the role of the marae as a

centre of preserving and actioning inter-generational knowledge and tikanga Māori. It is here where the thought that my inter-generational (and intra-generational) lived personal experiences associated with the marae could be replaced, continues to worry me.

The development of this thesis topic was given further impetus by the advent of the Miley Cyrus protruding tongue pose on social media and the duplication of this by Māori youth, including my daughter at Kura Kaupapa Māori (Māori language and Te Aho Matua immersion schooling). At my principal marae (Moawhango and Oruamauta), the act of protruding your tongue has a specific purpose that is culturally located – an act that is not encouraged. This prompted the question of how internet cultures intrude on tikanga Māori. Nevertheless, I am conflicted. As an aunty of ‘Mozzies’ (Māori living in Australia), I have benefitted immensely from our limited *kanohi ki te kanohi* (physically face-to-face) contact, which has been augmented by online technology. In my immediate whānau, I experience the advantages and disadvantages of the internet – singing waiata Māori to my nieces and nephews living abroad (even in Singapore), iwi (Māori nation) AGMs (Annual General Meetings) attended by whānau overseas, and proof of life posts to my father while travelling Europe with his mokopuna (grandchild) (as he needed to know *she* was ok). As well as the less positive aspects, such as widespread sharing of misinformation (Molina et al., 2021) and intimate whānau issues on public display. I appreciate the online obituaries for whānau, and at the same time, I lament for whānau who have found out about this sadness at the same time as the rest of the world (the internet has a broad reach). I also wondered if the internet was another space for colonisation and what we, as Māori, stood to lose in this space. Consequently, all these experiences give impetus to this thesis as an exploration of tikanga Māori and the internet where:

[m]ore and more of our overall cultural experiences are mediated by digital technologies, whether we’re ‘online’ in the classic sense or not. We carry the internet with us in our pockets. It can be woven into our clothing. Information from our voices, movements, and faces can be lifted into what we now call the ‘cloud,’ and combined with other data. Once analyzed through automated computational programs, the results are fed back to us, giving us useful information about our blood pressure, sleep patterns, geolocation, or the nearest retail location to purchase that item we were looking at yesterday on the web.

Other entities harvest this information to design personalized advertisements, suggest new friends, or just to keep tabs on us. The internet is so ubiquitous we don't think much about it at all, we just think through it (Markham, 2018, p. 650)

Since 2018, even the humble wristwatch has provided its wearers with an internet connection. The book jacket introduction and description for 'The tyranny of algorithms. Freedom, democracy, and the challenge of AI: a conversation with Miguel Benasayag', highlights many concerns about the advancement of technology. It states:

former resistance fighter Miguel Benasayag warns of the great danger posed by the growing role of big data and algorithms in deciding the contours of individual lives and the direction of the world. From mass surveillance to predictive law enforcement to data-driven social interactions, AI has already colonized most aspects of our lives and determines the decisions of companies, financial markets, and governments (Benasayag & Rendall, 2021).

In the preface of the same book, the anthropologist Régis Meyran comments:

With the development of new technologies (the internet, Big Data, the new generation of algorithms, social networks, applications for smartphones, etc.) this hybridization is becoming more and more apparent, and machines now threaten to colonize us if we use them badly (Benasayag & Rendall, 2021, p. 13).

These statements provide an impetus for exploration within this thesis and are red flags to Māori and other minority indigenous people. As we become avid consumers of multi-media internet platforms and applications, we must also be conscious of the assimilating and colonising processes found on the internet.

The mass media serve as a system for communicating messages in symbols to the general populace. It is their function to amuse, entertain, and inform, and to inculcate individuals with the values, beliefs, and codes of behavior that they all integrate them into the institutional structures of the larger society. In a world of concentrated wealth in major conflicts of class interest, to fulfill this role requires systematic propaganda. (Herman & Chomsky, 1994, p. 1)

Furthermore, this precise statement reflects the level of concern that was experienced both nationally and internationally in 2022 caused by disinformation and the Trump agenda, which promotes an alt-right and white supremacy movement (Molina et al., 2021) that has led many of our whānau down a 'rabbit hole'. This misinformation and

propaganda project was identified in the 2022 ‘anti-mandate’ protest (McCann, 2022), which caused the New Zealand Māori Council to undertake an independent review of the situation and include this in a current Treaty of Waitangi Tribunal Claim (The Waitangi Tribunal, 2021). Similarly, there is international concern about the Metaverse providing a virtual reality platform for physical, verbal, sexist and racist abuse, as well as paedophile activity (World Wide Web Foundation., 2022). Worldwide, a simultaneous pandemic occurred in the electronic/cyber/online/virtual/internet/digital domain; which is commonly known as the ‘infodemic’ (Loukas et al., 2022; Talbot & Alali, 2021). The primary issue underpinning the infodemic is what *Iñaki* Gabilondo refers to as a reflection of the ‘toxic rivers of information’ and how one can find drinkable information in a toxic flood (Carré, 2017).

While the internet provides a trove of positive contributions to everyday living, such as instant connection with whānau, and access to local and global information, it is important to maintain an awareness of the negative impacts that can stem from the internet so that we do not erode any of the precious ground we have gained through Māori development and Māori reclamation initiatives. Moreover, disinformation is not new for indigenous peoples, and most certainly not for Māori, where our histories have been concealed and misrepresented since at least the 1852 New Zealand Constitution Act (Ngata, 2021b).

I highlight these concerns to remind us that colonialism is ever present, even in the electronic (digital) space. Yes, the internet provides many potential benefits, which are still to be discovered, however, just like the binary code of computing – there are two sides to navigate – the good and the bad. Generally, research about the internet and Māori focuses on the potential contributions that it facilitates for Māori (for example, eLearning (Royal, 2005; Tiakiwai & Tiakiwai, 2010), connecting (O’Carroll, 2013d), and political engagement (Waitoa, 2013; Waitoa et al., 2015)¹. Therefore, **Ipurangi** (the name of this thesis) investigates the duality of the internet as tikanga Māori are both expressed and repressed.

¹ The 2015 publication is noted here as a subsequent publication stemming from Waitoa’s thesis

1.3 MĀORI AND TECHNOLOGY

Our oral histories demonstrate our connection to early technology use, as with the ancestor Māui harnessing the sun, the ancestor Tāwhaki's ascent to the heavens, and building whare (houses) and waka (single and double hulled canoes), fabrication (clothing and textiles), fire, and long-term food storage. European contact, which brought the utilisation of iron and clothing, significantly impacted the Māori economy (Warren, 2009), including the evolution of tikanga Māori (for example, whare whakairo (carved houses)). Whānau now broadcast their tangihanga online to allow friends and family from overseas (or in COVID-19 restrictions) to participate in the tangihanga (as illustrated in Figure 1). This is an example of a mere continuation of Māori use of technology (Cleave, 2009; Warren, 2009). Furthermore, the new online tangihanga process has prompted many informal discussions about the nature of tikanga Māori and its application in the modern world (Enari & Rangiwai, 2021; Gloyne et al., n.d.; Harawira, 2021; Winitana & Winitana, 2015).

Figure 1: Personal Facebook post



1.4 IPURANGI: THE THESIS

Māori have been acclimatising to Western technologies since the arrival of the iron nail in 1769 (Warren, 2009), so how do we as Māori navigate these contemporary spaces? This is a pertinent consideration as “threats for Māori are based around the struggle and control over cultural knowledge and representation within technological structures including the rapid distribution platforms that the world wide web provides” (Sheehan, 2011, p. 98). Therefore, is it possible that the colonial nature of the internet could consume us?

If the coloniser has control of information technology and is in a position to validate, discard or modify knowledge, then information technology becomes a tool for further colonisation.

Yet, the face of the coloniser is not so easily seen these days. The control of information technology is strewn amongst many groups, including companies, governments and others who have access to technology resources, skills and “gateways”. They are the international corporations, the Silicon Valley tycoons, the computer “whizzes” sitting in their networked bedrooms in countries far from here, hiding behind aliases... (Kamira, 2003, p. 467)

1.5 IPURANGI: THE CONTEXT

Ipurangi investigates the implications of the internet for tikanga Māori. Moreover, the genesis of **Ipurangi** as a PhD research topic aims to explore Māori thoughts about the advent of the internet as a ‘new space’ that has old understandings. The following description by Dyson et al. (2007) summarises this:

There is a growing interest in information technology (IT) by indigenous peoples around the world. Indigenous peoples see this as a means of preserving their traditional cultures for future generations as well as providing their communities with opportunities for economic and social renewal. There are many potential benefits that indigenous peoples can enjoy from information technology, including e-commerce and employment opportunities, better education and service delivery and enhanced communication.

However, in an age dominated by information technology, indigenous peoples have often found themselves separated by the digital divide. The cost of the new technologies, the geographic isolation of many communities, low levels of computer literacy and lack of awareness of how the technologies might serve indigenous goals and interests have led to this low adoption of the technology. There are also many cultural concerns, particularly related to the management of indigenous knowledge, language issues and questions of cultural appropriateness (p.x).

Dyson et al. (2007) continue to note it is critical to recognise such constraints “before indigenous peoples gain full access to the new technologies and all the benefits that they bring” (p.x). Furthermore, indigenous community leaders, governments, non-government organisations, and educational sectors will be searching for solutions to address issues that may arise or to gather information gathering to inform their policy making decisions (Dyson et al., 2007).

In a world where technology impacts people daily, from the extraction of resources in third-world countries (Osibanjo & Nnorom, 2008), to mobile technologies (Bhuie et al., 2004; Suckling & Lee, 2015), there are several strengths and opportunities to highlight as well as poor outcomes and threats. For example, in February 2022, Meta (previously Facebook) shut down all facial recognition software over security and privacy breaches under allegations of data mining the identities of Texan users (Sharma, 2022). Meanwhile in Aotearoa/New Zealand national and international security was called into question by the Greens political party (Tuiono, 2021) over the Wairoa based space company Rocket Lab and US Military contracts (Keall, 2021) – both of these highlight significant technological impacts and concerns for Māori and indigenous people.

Data Sovereignty is perhaps the most well-known technological impact on Māori populations (Hudson et al., 2017; Kukutai & Taylor, 2016a; Ruckstuhl, 2023; Taiuru, 2020), and as the NFT (non-fungible token) world takes off, Māori are again at the forefront; dealing with the effects of digital appropriation (Kukutai & Taylor, 2016a; Rainie et al., 2019; Taiuru, 2020; Walter et al., 2021). While these examples demonstrate the dual nature of the internet that face Māori populations. **Ipurangi** focuses on the implications of the internet on tikanga Māori and looks at how tikanga Māori is expressed or transgressed online. Essentially this thesis examines how Māori engage online and what aspects of colonialism pose challenges to that engagement. This thesis ‘takes for granted’ that Māori are engaging online from a Māori world view (Pihama, 1994; Smith, 1997; Tuhiwai-Smith, 2012). More specifically, **Ipurangi** identifies two factors (Te Aka Matua and Te Ara o Tāwhaki) that positively contribute to Māori engaging online and two concepts (Te Aka Tāepa and Te Toi Huarewa) that challenge Māori engagement online. The foremost academic writer on tikanga Māori, Sir Hirini Mead (2000), says:

Tikanga are tools of thought and understanding. They are packages of ideas which help to organise behaviour and provide some predictability in how certain

activities are carried out. They provide templates and frameworks to guide our actions and help steer us through some huge gatherings of people and some tense moments in our ceremonial life. They help us to differentiate between right and wrong and in this sense, have built-in ethical rules that must be observed. Sometimes tikanga help us survive. Tikanga differs in scale... There are thus great differences in the social, cultural and economic requirements of particular tikanga (pp. 3-4)

Due to our history of colonisation and colonialism, Māori might not be secure and knowledgeable in cultural understandings and expressions of tikanga Māori or whānau might be disconnected from the Māori world (Durie, 1997; Warren et al., 2017). Therefore, this thesis acknowledges that tikanga Māori might be expressed differently by individuals or groups. This is explored further in Chapters Five and Six.

1.6 IPURANGI: THE OUTLINE

Ipurangi is used in this thesis in two forms. First, **Ipurangi**, in bold, refers to the thesis itself. Second, ipurangi is used within the interview material to describe electronic/cyber/online/virtual/internet/digital (ECOVID) domains. It should also be noted that from a Māori philosophical perspective, ipurangi refers to more than these spaces alone. The domains described by ‘ipurangi’ in this thesis include books, print and digital newspapers, magazines, music, radio, film, video, television, the internet, smartphones and tablets, gaming and public relations (Straubhaar et al., 2018). Moreover, **Ipurangi** aims is to investigate the following questions:

How is the internet being utilised by Māori in ways that reflect tikanga Māori?

What adverse or unintended impact does internet use have on tikanga Māori?

How is tikanga Māori being adapted, adopted, and transgressed by Māori using the internet?

What do we have to gain in this space?

What have we got to lose?

These questions are essential due to the growing role of the internet in the everyday lives of Māori and the growing threats (including colonisation) associated with the internet

usage as societies adapt (Straubhaar et al., 2018). Overall, **Ipurangi** is structured to provide a research context to consider these questions and to analyse the findings of literature, media and interviews with early Kaupapa Māori adopters of the internet.

The *oriori* – **Pinepine te kura** is chosen to frame the chapters as perhaps a portend for the internet space and Māori engagement with it. Each chapter is premised with a line from the *oriori* to frame the nature of the chapter. Chapter One, ‘**pinepine te kura, hou te kura**’, alludes to the idea of a ‘new treasure’, which I use to reference the internet. This chapter introduces the breadth of issues facing Māori internet users and outlines multiple facets that contribute to or diminish Māori engagement online. The chapter begins with the Māori creation narrative to locate Māori activity and Māori epistemology within the thesis and my position within the study. The internet landscape is surveyed to provide a swift insight into the extensiveness of the challenges and the potential of the space for Māori, while also delineating the objective of each chapter.

Chapter Two, ‘**whanake te kura i raro i Awarua**’, poses the idea of whanake and growth, expressed through the epistemology and theory as a foundation for **Ipurangi**. In this chapter, the cosmo-genealogical narrative and the journey of Tāne Mahuta and Tāwhaki to the heavens are discussed to locate the nature of this thesis within a Māori framework for consideration. Kōrero Tuku Iho and Constructionism are discussed as a basis for **Ipurangi**, and the theoretical research perspectives are examined. Assessing Kaupapa Māori theory provides the lens to analyse the literature and the interview findings. In Chapter Two, eColonialism (Electronic Colonialism) is discussed as a theory where:

Today, with decolonisation taking place after World War 2, we have a new revolution. The cast is broad but names such as Bill Gates of Microsoft, Steve Jobs of Apple, Hewlett and Packard, IBM, Bell Labs, as well as the internet, Google, Yahoo, Amazon, Facebook, Twitter, and others, collectively have changed the ways we do things as well as how we think and act. This Information Revolution has created a new need for a theory which captures the new reality and helps explain what is taking place. To a large extent that is what eColonialism is about (McPhail, 2014).

The use of eColonialism along with Kaupapa Māori produces a theoretical understanding as “[t]he threats for Māori are based around the struggle and control over

cultural knowledge and representation within technological structures including the rapid distribution platforms that the world wide web provides” (Sheehan, 2011, p. 98). Combining these two theories produces a new theory - *īTāmi*, to maintain and apply a Māori lens to situations and circumstances occurring on the internet, which examines how Māori expressions are supported or thwarted by colonialism on the internet. This exploration in itself is a type of ‘whanake’ or growth and development.

Chapter Three, ‘**ko te kura nui, ko te kura roa, ko te kura o tawhiti**’, references the idea that the kura (the treasure) has an enduring and ancient history. This chapter investigates the methodology implemented within **Ipurangi**. It discusses Kaupapa Māori Methodology and cyber-ethnography to produce a new methodological approach – *īRangahau*- combining Kaupapa Māori methodologies (as critical) to electronic/cyber/online/virtual/internet/digital ethnographic approaches. Chapter Three also discusses the methods employed by this research and introduces the criteria for selecting the interview participants as critical, creative Māori thinkers and leaders who engage with the internet and express their experiences of being Māori in the internet space. In this way, the chapter reflects a Māori connection to the internet.

Chapter Four is framed by the line from the *oriori* ‘**tēnei te tira hou, tēnei haere mai nei**’, which infers the arrival of a new group. This chapter identifies the existing research about Māori and the internet and notes the six key themes that emerge from the research (networking, tikanga Māori, resourcing, access, typologies, and Māori pedagogy). Studies conducted since before 2021 are included as literature review findings, applying concise search terms described in Chapter Three, which aid in highlighting the research gap concerning tikanga Māori in the internet space. These literature review findings also help to distinguish new and emerging research regarding Māori and the internet.

Chapter Five, ‘**nau mai e tama ki te taiao nei**’, provides a literal introduction to the chapter – welcome child to the new world. This chapter presents the broad context of the relationship between Māori and the internet, as discussed by the interview participants. This chapter outlines the key insights as tikanga Māori (karakia, kawa (protocol), whare, marae), information sharing, whanaungatanga (relationships), COVID-19, practicality and cautions for Māori engaging online. Moreover, this section of the thesis expresses expert Māori perspectives of the internet and our early engagement online in the new environment – *te taiao nei*.

Chapter Six is framed by the words ‘**kia whakangungua koe ki te kahikātoa, ki te tūmatakuru**’, which describes the process of preparedness that involves different elements to be aware of. Similarly, this chapter summarises the explicit themes related to tikanga Māori identified by interview participants. The themes include technology and evolution, tikanga Māori as adaptive, safety, personal responsibility, guides for Māori behaviour, tikanga Māori considerations and the application of tikanga Māori online. In essence, this chapter begins to promote the critical way tikanga Māori can guide our ability as Māori to engage online—guides that serve to prepare us in the internet space.

Chapter Seven and Chapter Eight are premised on the line in the *oriori*, ‘**piki ake, kake ake**’ meaning to climb and ascend; as well as the whakataūākī (proverbial saying) ‘*kia mau ki te aka matua, kei mau ki te aka tāepa*’ meaning to hold fast to the main vine, do not grasp the loose vines. The whakataūākī was to guide Tāwhaki on his journey to the heavens. Chapter Seven applies this meaning as it scaffolds the journey of Māori to the internet with the line ‘**piki ake**’ which means ‘to climb’. Moreover, this chapter summarises the statements of interview participants, which outline the elements that support positive Māori engagement online with particular reference to Te Aka Matua (the main vine) as a noted strength of the internet. Te Aka Matua reaffirms the notions of whanaungatanga (relationships), sharing and COVID-19 as a catalyst for Māori to explore how the internet can benefit Māori development. Subsequently, Chapter Eight continues the discussion with the line ‘**kake ake**’ identifying Te Aka Tāepa (the loose vine) as cautions for Māori engaging online. Te Aka Tāepa describes several cautions for Māori engaging on the internet, including: the transgression of mana (prestige/authority/spiritual character) and tapu (sacred) influences wellbeing, safety, online behaviour, misinformation and hate, addiction and lack of internet resources for Māori. Overall, ‘**Piki ake**’ and ‘**kake ake**’ canvas the binary nature of Māori journeys to the internet.

The line ‘**Te Toi Huarewa, Te Ara o Tāwhaki i piki ai ki runga**’ mentions two pathways to the heavens – Te Toi Huarewa and Te Ara o Tāwhaki. With this in mind, Chapter Nine considers the findings of the interviews about Te Toi Huarewa, where broader challenges for Māori engaging online are distinguished as challenges to rangatiratanga (self-determination/independence) and mana motuhake (sovereignty). Consequently, Te Ara o Tāwhaki describes potential pathways for Māori online,

including rangatiratanga, resources, and connection. This chapter also describes the dual nature of the online space for Māori framed within Te Toi Huarewa and Te Ara o Tāwhaki.

Chapter Ten is outlined by the line ‘**taku wahine purotu, taku tāne purotu, kōrua ko te tau e**’, which exclaims the reuniting of two partners. This provides the framing for the concluding chapter of **Ipurangi**, which summarises the positive contributions and the challenges posed by the internet to Māori expression online that illustrate the dual and binary nature of the internet.

It is also important to note that an outcome of this research is the development of several terms to describe a nexus between research elements and te ao Māori:

- **īWhakaaro** (Kaupapa Māori Internet Theories),
- **īTāmi** (Kaupapa Māori eColonialism),
- **īRangahau** (Kaupapa Māori Cyber Ethnography Methodology),
- **īTikanga** (Kaupapa Māori Online ethics/behaviour), and
- **īWhanaungatanga** Māori relationships online (as previously discussed by Waitoa (2013) & O’Carrol (2013b)).

1.6.1 IPURANGI: NEW CONTRIBUTIONS

In addition to contributing to the lexicon of Kaupapa Māori research, **Ipurangi** concludes with the development of **ipuRangi: A framework** to guide Māori expression on the internet as Māori. With the rapid development of technologies and their uses of them, there is a myriad of sites that could be examined about Māori engagement. However, in the context of this thesis, **Ipurangi** investigates tikanga Māori and its expression online.

Honestly, it is easy to get lost in the myriad of spaces where Māori can now engage – TikTok, Instagram, gaming, app development, art, NFTs, eCommerce and this list will continue to grow. Currently, there are several documentaries and current affairs segments (such as TVNZ’s Sunday Current Affairs and Al Jeezra) about the internet that identify vital global issues such as the democratised internet (Knappenberger, 2014a, 2014b), online dating (Catfish (Joost & Schulman, 2010), The Tinder Swindler (Morris, 2022)), internet commerce (Hegedus & Noujaim, 2001; Mross, 2014), politics

(Knappenberger, 2012; Noujaim & Amer, 2019), social impacts (Dretzin & Maggio, 2008; Orłowski, 2020; *TikTok: Data Mining, Discrimination and Dangerous Content on the World's Most Popular App.*, 2021; Timoner, 2009) and military gaming (*Project Force: AI and the Military - Friend or Foe?*, 2021; *US Army Uses Video Games as Part of Recruitment Drive*, 2009); hence, it is crucial for Māori to critically ascertain from these documentaries what implications such issues will have on Māori communities. From identity development and personal branding in the age of the social media influencer (Geysler, 2022; Hendry et al., 2022) to political manipulation in the age of misinformation (Loukas et al., 2022; Talbot & Alali, 2021), it is more important than ever to conscientise Māori communities.

1.7 SUMMARY: IPURANGI THE THESIS

This PhD journey has been interrupted by three years of specific physical rehabilitation following a severe car accident; ironically, the accident occurred while returning home from an international conference where I attended one of the limited sessions on indigenous people in the IT space. When I began this journey, few people were writing about the idea of colonisation in this space, let alone its impacts on indigenous populations. Following the COVID-19 pandemic and the significant move to utilising technologies in everyday living (from schooling and working to tracing human movement for COVID-19 tracking purposes and maintaining contact with family and friends), 2021 has seen a growth in academic literature about the idea of colonisation and colonialism online (Cardenas, 2021; Cormack et al., 2020; Craig & Te Rangi, 2022; Elers & Jayan, 2020; Kizhner et al., 2021; Taiuru, 2020, 2022a). However, in a wider context, there are still minimal writings from indigenous populations including Māori. Also, in some respects, the advent of literature in this space helps to explain the years of developing the initial premise for this thesis. As I conclude my writing, during 2023, there are ongoing consultations and hui on the Māori spectrum (www.maorispectrum.com) for Māori presence and partnership with the government over airwave spectrum, including the 5G network, as well as national and international conferences² being held to address racism online, and the advent of Artificial Intelligence (AI).

² New ec(h)o systems: democracy in the age of social media & He whenua taurikura (counter terrorism)

Māori development, like all indigenous development projects, is a political endeavour. It is not good enough to view development as only possibilities and potential – being indigenous automatically disqualifies you from that privilege. Moreover, as we evolve and seek *tupu* (to grow, as described by Tawhai, 2020), we must always be aware of the hard-fought ground we have made over the last 180 years and work hard not to recolonise our spaces or push our development position into regression. The too often invisible and insidious hooks of colonisation and coloniality are ever present – even on the internet.

Indigenous peoples must adopt and adapt technology to our needs (Roy & Raitt, 2003) and we should not think or feel like we need to be Pākehā (European/non-Māori) online; we must be Māori and maintain our cultural identity online. We have much to gain by engaging online, but we also have much to lose. **Ipurangi** suggests that as we navigate our pathway to and on the internet, we remember the journey of Tāwhaki and remain conscious of the pathway that seeks to hinder and harm us whilst advancing our journey:

Kia mau ki te aka matua, kei mau ki te aka tāepa

In summary, this thesis begins with ‘**pinepine te kura, hou te kura**’, **Ipurangi** follows the *oriori* and frames the thesis around our journey to the internet as Māori that discusses the research: epistemology (**whanake te kura i raro i Awarua**), methodology for the thesis (**ko te kura nui, ko te kura roa, ko te kura o tawhiti**), review of existing literature regarding Māori and the internet (**tēnei te tira hou, tēnei haere mai nei**), context of Māori engagement online as experienced by expert Māori leaders engaging online (**nau mai e tama ki te taiao nei**), aspects of tikanga Māori as identified by interview participants in the online space (**kia whakangungua koe ki te kahikātoa, ki te tūmatakuru**), duality of the affirming and undermining aspects of the internet for Māori engagement online (**piki ake, kake ake**), binary pathways of challenge and potential for Māori engaging online (**Te Toi Huarewa, Te Ara o Tāwhaki i piki ai ki runga**), and finally offers a summary of findings and analysis along with the new contributions of the research (**taku wahine purotu, taku tāne purotu, korua ko te tau e**).

CHAPTER 2 EPISTEMOLOGY AND THEORY

Whanake te kura i raro i Awarua

The line from the *oriori* ‘*Whanake te kura i raro i Awarua*’ – (*a treasure from the ancient home Awarua*) signifies a parent's acknowledgement of their child as a precious treasure, deeply rooted in their ancient connections to the homeland - Awarua. Awarua holds great significance for many Māori as an ancient home and a major land block in Moawhango, where my primary marae are located. This chapter's framing of cosmo-genealogical narratives within the epistemology and theories for this thesis is rooted in this ancient connection.

2.1 INTRODUCTION: RESEARCH FRAME

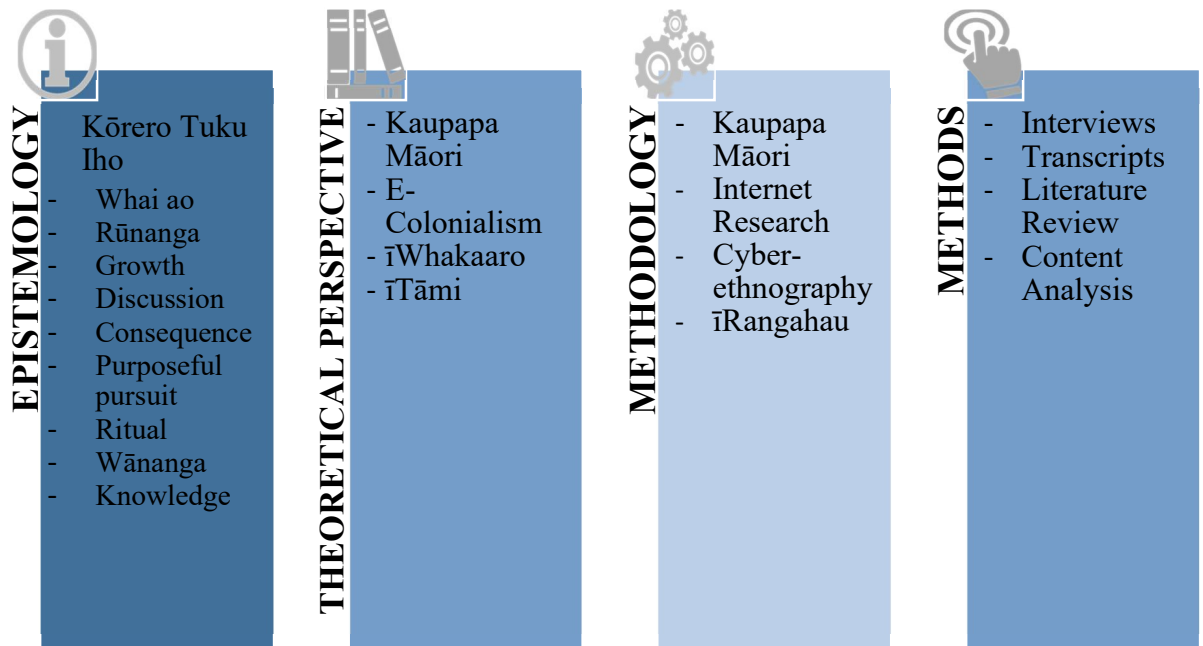
This study focuses on examining the impact of the internet on tikanga Māori. *How do Māori utilise the internet in ways that reflect tikanga Māori? What adverse or unintended effects does internet use have on tikanga Māori? How is tikanga Māori being adapted, adopted, and transgressed by Māori using the internet? What do we have to gain in this space? What have we got to lose?* This research aims to assess tikanga Māori the internet and its implications for tikanga Māori. The outcome of this study offers a foundation framework to consider how the internet and tikanga Māori engage in the new and ever-evolving space: the internet. This chapter identifies the epistemological foundation of the thesis as relevant to Māori research paradigms.

The four elements of Michael Crotty's (1998) social research are employed to formulate the processes of this study.

- *Methods*: techniques or procedures of research (i.e. If you find the hole, how are you going to plug this hole? What do you do here? For example: read the literature, find the holes, devise a plan to plug the holes)
- *Methodology*: strategy, plan, process, and design that link method to desired outcomes (the how - the implementation of the methods)
- *Theoretical perspective*: the philosophy that informs the methodology and gives context to the process (the why)
- *Epistemology*: the ‘theory of knowledge’ that informs the perspective (p.3)

Crotty identifies research elements where ‘different process elements are thrown together in grab-bag style as if they were all comparable terms’ (p.3). Therefore, this research approach systematically moves through methodology, with one research element informing the other.

Figure 2: *Ipurangi, the research direction*



2.2 EPISTEMOLOGY

Epistemology is the theory of knowledge (Crotty, 1998; Porta, 2016). There continue to be debates about the science of knowledge and empirical/positivist perspectives of knowing (Gergen, 2001). Māori researchers (and Māori communities) are well aware of the juxtaposition of these perspectives to the Māori world (Tuhiwai-Smith, 2012). However, this section outlines Māori cosmological and cosmo-genealogical narratives (Jahnke, 2006), what is referred to in this study as Kōrero Tuku Iho, an epistemological foundation for research that includes several principles derived from Kōrero Tuku Iho to frame the writing.

Understandings of Māori knowledge and knowing are described as:

Māori epistemology; the Māori way; the Māori worldview; the Māori style of thought; Māori ideology; Māori knowledge base; Māori perspective; to

understand or to be acquainted with the Māori world; to be knowledgeable in things Māori; to be a graduate of the Māori schools of learning; Māori tradition and history; Māori experience of history; Māori enlightenment; Māori scholarship; Māori intellectual tradition. (Wiri, 2011:25 cited by Pihama, 2015, p. 8)

Ipurangi deliberately refers to Māori epistemology regarding Kōrero Tuku Iho about our creation narratives and multiple systems of knowledge within the Māori world. I acknowledge the work of Māori scholars in the area of mātauranga Māori as Māori epistemology (Hikuroa, 2017; Royal, 2012; Stewart, 2020), but I defer to the work of Dr Ruakere Hond (2013) concerning the etymology of 'mātauranga Māori' and the reconstruction of Māori knowledge with the use of this term (Hond, 2013). Therefore, this research utilises Kōrero Tuku Iho as Māori epistemology and concedes that many epistemological/theoretical approaches are contained within it.

2.2.1 KŌRERO TUKU IHO

Kōrero Tuku Iho locates this thesis within Māori bodies and systems of knowledge. Kōrero Tuku Iho describes tenets of Māori epistemology as a basis for this research. Kōrero Tuku Iho depicts a Māori worldview with many knowledge systems that evolved from Māori cosmo-genealogical narratives. While each iwi /hapū (Māori nation/socio-political unit) might have their specific account of creation, this section provides a generic description of Te Ao Māori as identified in standard oral and written literature and recounted in tikanga Māori (Māori ritual and protocol). “For a people whose history is conveyed in formal speeches, proverbs, and songs, the repetition of sayings and stories is necessarily an integral part of the way many indigenous peoples theorize our worlds” (Mahuika, 2021, p. 145). The accounts of Rangī and Papa and the quest for knowledge are discussed here. It is from these narratives that are expressed in our tikanga that several principles can be drawn.

Rangi and Papa: Māori Creation

Māori creation is embedded within epochs of time and space (Whatahoro, 1913). In particular, three periods, each with multiple intervals, of time is commonly referred to in Māori ritual and formal oratory: te kore, te pō, te ao marama. Te Kore is the time of

pure potential, Te Pō is the activation phase, and Te Ao Marama is the evolution of consciousness. Each phase of Māori creation contains its own body of knowledge. However, the evolution of humankind is concerned with the partnership between Ranginui (sky father) and Papatūānuku (earth mother who found each other within the phase of Te Pō. Their union produced several children who existed within the lightless embrace of their parents. Longing for more space, the siblings discussed how they might achieve this, and several options were explored. Some siblings were content with their situation; others desired more freedom. To achieve more space required the separation of their parents. Some suggested that the parents should be killed, and many attempted to push their parents apart. After a heated debate, Tānemahuta broke the sacred embrace and achieved separation. Ranginui was pushed to the heavens, and light flooded Papatūānuku, creating Te Ao Mārama, the world of light and consciousness.

This narrative provides our link to Te Kore, Te Pō, and Te Ao Marama. It demonstrates that we, as humankind, have an innate urge to advance and seek enlightenment.³ A cultural character that is remembered in our saying ‘ki te whai ao, ki te ao marama’. It is one example of Māori narratives identifying the human condition to grow, explore, and learn (Warren et al., 2017). Furthermore, this narrative describes a process of discussion and debate on severe matters about collective well-being, innovation, and consequence.

Three principles are drawn from the creation narrative for this research:

- **Whai ao:** the principle of seeking enlightenment and new worlds for growth into the future
- **Rūnanga:** the principle of discussing matters about collective wellbeing
- **Tauutuutu:** the principle of acknowledging action and consequence

Te Whai Mātauranga: The Search For Knowledge

The most well-known account of obtaining knowledge is the narrative about *ngā kete o te wānanga* (the baskets of knowledge) is attributed to Tānemahuta (Tāne) (Whatahoro, 1913). The three baskets of knowledge are generally known as te kete tuauri (also

³ Tawhai refers to this urge as ‘tupu’. (Tawhai, 2020)

known as te uruuru rangi), te kete tuatea (uruuru tau), te kete aronui (uruuru matua), which contain all manner of knowledge – the sacred, the profane and ritualistic.

In a bid to attain knowledge for humankind, the children of Rangi and Papa were asked to identify who among them would undertake the task of obtaining ngā kete o te wānanga from the domain of their father in the uppermost heaven Te Toi-o-ngā-Rangi. After lengthy discussions and debates, Tāne was chosen by his siblings to ascend the heavens. Tāne waited for the summer months to start his journey and travelled by Te-Toi-Huarewa, the ancient pathway, through the twelve heavens to Te Toi-o-ngā-Rangi. His brother Whiro believed he should be chosen and set out to obstruct the journey. Whiro and his descendants attacked Tāne, so Tāne called on their brother Tāwhirimātea (atua of the winds and weather) to clear his pathway with the winds. As Tāne ascended through the heavens, he was required to participate in several ceremonies and rituals, sometimes to cleanse from the previous journey and sometimes to prepare for the next. At the uppermost heaven, Tāne entered the ancient house Rangiātea to retrieve ngā kete o te wānanga along with the whatukura (two sacred stones). Upon his return to Papatūānuku, Tāne deposited ngā kete within the Wharekura, the first earth-bound house, as a source of knowledge for his descendants - humankind.

In another account, as retold by Mead (1996) the ancestor Tāwhaki retrieved mātauranga (knowledge) and karakia. It was prophesied that Tāwhaki would undertake the task of ascending the heavens to retrieve this information for the benefit of humanity. Tāwhaki is renowned for his knowledge of ritual, karakia, warfare, and visionary leadership. Part human and part god Tāwhaki is also famed for his unusually luminous complexion and lightning emitted from his armpits. In one narrative, Tāwhaki journeys with his brother Karihi into the heavens to retrieve his daughter, who dwells with her mother in the heavens. Along the way, Tāwhaki and Karihi encounter their grandmother Whaitiri, goddess of thunder, who instructs her grandsons thus:

‘kei hōpu tou ringa ki te aka tāepa, engari kia mau ki te aka matua’

Do not grasp the loose vine, but hold fast to the principal vine

Karihi does not heed his grandmother's words and grasps a loose vine. Blown in the winds, his journey comes to an end. Tāwhaki continues his journey, holding onto the principal vine. Along his journey, Tāwhaki sought out his sister Maikuku-mākaka among the heavens and was overwhelmed by his enthusiasm to see her again; he forgot

to follow his grandmother's instructions, resulting in the abrupt departure of Maikuku-mākaka. Tāwhaki eventually arrives at the uppermost heaven, home to his daughter, and he seeks out the god Tama-i-Waho who possesses the higher order of mātauranga and karakia. Sometimes described as 'ngā kete o te mātauranga, o te karakia', these knowledges are sought after by Tāwhaki for the benefit of humankind. When Tama-i-Waho states that surely human beings already possess knowledge, Tāwhaki replies that most humans think they do but could learn more. Ultimately Tama-i-Waho agrees and gifts the knowledge to Tāwhaki, saying:

‘He koha ēnei nāku, ā, na ngā atua katoa ki ngā uri a Rangi rāua ko Papa i runga i te whakaaro kia tipu tonu, kia tipu tonu, te ira tangata, kia kaua rawa e ngaro... Māu Tāwhaki, e mau atu te aroha o ngā atua’ (Mead, 1996, p. 67)

[These are my gift and the gift of all gods to the descendants of Rangi and Papa on the understanding that humankind will flourish and grow... Yours Tāwhaki is to deliver this aroha of the gods.]

Both narratives describe the ascension into the heavens to attain worldly knowledge. Regardless of the protagonist, the cosmo-genealogical narratives describe a desire to know more, to attain more, and to undertake unknown journeys to seek knowledge for collective benefit. This journey also critically reflects the principles of whai ao (seek enlightenment), rūnanga (discussion), and tauutuutu (consequence); ultimately, this expedition results in the introduction of 'wānanga', a process of critical learning, for humankind. Protocols and rituals accompany the journey. Each action is considered the journey's mental, spiritual, and physical aspects. Some protocols involve clearing the pathway; others are about preparing to engage in the journey and gaining assistance, and some are about being unencumbered. At each stage, it is noted that there are definite consequences for improper approaches. Thus, there must be a deliberate and conscious approach to each task, especially regarding knowledge acquisition.

Three epistemic principles are derived from the cosmo-genealogical narrative of 'ngā kete o te wānanga'.

- **Piki ake:** the principle of purposeful pursuit and journey of attainment
- **Tikanga:** the principle of process, protocol, and ritual to guide, protect and prepare

- **Wānanga:** the principle of learning processes and acknowledging the journey taken to acquire that knowledge

A critical point of these narratives is the confirmation that Māori understand that vast knowledge is held within the heavens. Te Toi Huarewa and Te Ara o Tāwhaki are customary pathways Māori use to ascend into other realms, other spatial planes. This particular narrative gives a central epistemic frame for this thesis, **Ipurangi**, as acquiring information from other spaces is not new for Māori. The idea that information can be retrieved via the internet, digital spaces, or online directly correlates to the expressions of Te Toi Huarewa and Te Ara o Tāwhaki, as identified in these narratives. Māori have many accounts of traversing spaces in pūrākau (narratives), waiata (song), mōteatea (traditional song), kīwaha (sayings), and whakataukī (proverbs). This point, therefore, gives rise to another epistemic principle for this thesis:

- **Ipurangi:** the principle of knowledge existing in ethereal repositories

Figure 3: *Ipurangi, research approach*

	Epistem	Theory	Methodology	Method
KŌRERO TUKU IHO	Whai ao – seek enlightenment	Kaupapa Māori -Mānuka kawē ake -Māori notions of citizenship	Kaupapa Māori - Understanding colonisation and hegemony - Analysis - Approaches to information gathering - Expertise	Data Gathering Interviews Literature Review Content Analysis
	Rūnanga discussion	- E Colonialism	Cyber- Ethnography	
	Tauutuutu consequence	- īWhakaaro īTāmi	īRangahau	

Piki ake - the pursuit			
Tikanga - ritual			
Wānanga - learning			
Ipurangi - repositories			

2.2.2 CONSTRUCTIONISM

According to Crotty (1998) constructionism is the idea that human practice and experience define or construct knowledge. Our interaction with the world thus forms our interpretation of it. Knowledge is not discovered as one truth; instead, there is a context to that truth. It is this premise that supports Kōrero Tuku Iho as the epistemic frame. ‘What constructionism claims is that meanings are constructed by human beings as they engage with the world they are interpreting’ (Crotty, 1998, p. 43). Crotty's example is that ‘commonsense’ would identify a tree as a tree. However, humans have ascribed the name ‘tree’, whose meaning differs for those in logging towns, artists, or regions devoid of trees. Similarly, Māori would identify a tree perhaps by its Māori name – rākau, or its species (tōtara, kahikatea, kōwhai), or as a sibling since both humans and trees are descendants from the same Atua (god) Tāne. Therefore, these interpretations of trees and the meanings we ascribe to them are dependent on the construction of our worldviews and experiences. Constructionism evolved in opposition to positivist/empiricist science (Gergen, 2001). Much like decolonial scholars and the writings on decoloniality (Grosfoguel, 2007; Mignolo & Walsh, 2018), constructionism identifies that there is no single truth but multiple meanings ascribed to the world. Crotty further states, “[c]ulture is best seen as the source rather than the result of human thought and behavior” (Crotty, 1998, p. 53).

Constructionism is essential in this research as tikanga Māori is a set of protocols, rituals, and values stemming from Māori cultural knowledge and experience. **Ipurangi**, is about Māori experiences with the internet as analysed by a Māori researcher who is viewing (and experiencing) the subject matter with a Māori worldview. Gergen (2001)

describes a more specific epistemological foundation for research by stating, “social constructionism not only challenges empiricist accounts of knowledge but indeed stands as an impediment to all first philosophies of knowledge. For the constructionist, all claims to knowledge, truth, objectivity or insight are founded within communities of meaning-making” (Gergen, 2001, p. 10). Social constructionism acknowledges that societies assign meaning to their worlds. The ideas contained within social constructionism are also connected to tenets of Marxism that identify the interconnectedness of a society’s mode of production and economic base and the ideology of a society (Crotty, 1998). In this way, Karl Marx asserts that social being determines social consciousness ((Marx, 1963). Marx's perspective is that the ideology of a society is linked to the 'relations of production' (control, expropriation, exchange, distribution), which in turn is linked to the 'means of production' (land, technology, capital, labour) (Warren, 2004; Wolpe, 1980; Worsley, 1984). "Those who own the means of production in any society have the power to effect the kind of consciousness that obtains in that society" (Crotty, 1998, pp. 60–61). The ideological and political superstructure (law, education, ideology, religion) reinforce ‘relations of production’ and the ‘means of production’ (Warren, 2004; Wolpe, 1980; Worsley, 1984). These ideas validate multiple systems of knowing, including those of Māori origin, which have had to claim space within academic fora. This position confirms Te Ao Māori, Kōrero Tuku Iho, and Māori cultural paradigms of knowledge.

The position of constructionism endorses space for alternative approaches to knowledge. Māori, and arguably indigenous peoples, have always maintained that our knowledge systems are valid.⁴ Colonisation, however, has implanted a foreign system to relegate local knowledge as inferior to European empirical systems of knowing (Tuhiwai-Smith, 1999). Constructionism identifies a counter-epistemological base to those positivist assertions. Indigenous theories of knowledge have long been relegated to the margins of ‘real knowledge’ (Smith, 1997; Tuhiwai-Smith, 2012). **Ipurangi** is premised on Māori understanding the world and how we know what we know. More specifically, it is about a particular Māori worldview that cosmo-genealogical narratives and Māori cultural life circumstances have influenced. Te Ao Māori, the Māori world acknowledges Māori knowledge systems as legitimate.

⁴ See for example: (Buck, 1929; Tuhiwai-Smith, 2012; Walker, 1990, 1996)

In the context of this thesis, both Social Constructionism and Kōrero Tuku Iho establish a parallel structure of epistemology for this research. This thesis is conducted in a Western university following the conventions of academia. Therefore, I utilise the epistemological foundations of Constructionism to speak to the Western academic world. However, the topic of this thesis is about tikanga Māori and Māori experience. Hence, Kōrero Tuku Iho describes the researcher's cultural knowledge base or episteme. This duality is deliberately described to acknowledge the interface and intersections of episteme that Māori researchers must engage and encounter within Western universities. More importantly, Kōrero Tuku Iho recognises Māori knowledge as an independent epistemological foundation for research.

The identification of multiple knowledge systems within Kōrero Tuku Iho is reflected in the various Whare Wānanga and Whare Kura (Māori philosophical higher learning institutions) that are charged with the intergenerational transfer of customary Māori knowledge. Examples of Whare Wānanga include Te Whare Pora (fabrication), Te Whare Wānanga (learning), Te Whare Rūnanga (resolution), and Te Whare Kohanga (maternity). I cannot state explicitly that Kōrero Tuku Iho is limited to a single universal tradition, as I am not a tohunga (expert) of Whare Wānanga or Whare Kura. I suggest here that Kōrero Tuku Iho maintains plurality as demonstrated by the existence of the various Whare Wānanga. Furthermore, in Māori narratives, some iwi contribute the attainment of the baskets of knowledge to Tāne, while others attribute this feat to Tāwhaki. The beauty of the Māori narrative is the identification that there can be more than one truth, not a universal knowing but a decolonial pluriversal (Craun, 2013) knowing.

2.3 THEORETICAL RESEARCH PERSPECTIVE

A converging approach to theoretical research perspectives in **Ipurangi** extends from the epistemological foundations that offer “the philosophical stance informing the methodology and thus providing a context for the process and grounding its logic and criteria” (Crotty, 1998, p. 3). Two theoretical perspectives are drawn on for this research. The first is Kaupapa Māori theory that confirms and validates a Māori worldview and by which to assess and analyses research phenomena. The second, Electronic Colonialism (eColonialism) that identifies the

electronic/cyber/online/virtual/internet/digital space as a place of new and alternate forms of colonisation.

This research makes three significant assumptions that Kaupapa Māori Theory and eColonialism can support:

1. That being Māori and approaching all things Māori in a Māori way is normal;
2. that the internet and the digital space have advantages and disadvantages which both impact tikanga Māori; and
3. that the internet and digital space expose Māori to eColonialism.

2.3.1 KAUPAPA MĀORI

Kaupapa Māori, from a theoretical perspective, validates Māori research approaches. Māori scholars have created space for Māori perspectives on research as it relates to Māori and our communities, to develop (Durie et al., 1998; Pihama et al., 2015; Tuhiwai-Smith, 2012). Just as Constructionism is a response to positivist/empiricist science, Kaupapa Māori is a Māori alternative response to empiricist and imperial research regimes (Pihama et al., 2015; Smith, 1997; Tuhiwai-Smith, 2012). Kaupapa Māori research has progressed since the 1980s (see, for example Pihama et al., 2015; Durie et al., 1998). As Smith maintains, Kaupapa Māori can be broadly referred to as a theory of conscientisation, resistance, and praxis (Smith, 1997), a theory for transformation. First developed from within the Māori education space, Kaupapa Māori is now applied across multiple disciplines to address issues according to at least six critical principles of Kaupapa Māori philosophy, praxis, and theory:

- Tino rangatiratanga - the principle of self-determination: Māori control and decision-making that reflects Māori aspirations and preferences
- Taonga tuku iho - the principle of cultural aspiration: being Māori, te reo Māori, Māori knowledge, and Māori culture and values are given. Being Māori is the cultural base and therefore does not require validation
- Ako Māori - the principle of culturally preferred pedagogy: both customary and contemporary forms of preferred Māori teaching and learning are acknowledged
- Kia piki ake i ngā raruraru o te kāinga – the principle of socio-economic mediation: where mediating experiences that disadvantage Māori lead to positive outcomes for Māori and their communities

- Whānau – the principle of extended family management: that the researcher has a responsibility and an obligation to foster critical relationships and acknowledge Māori relationships with each other and the wider world
- Kaupapa – the principle of collective vision: where research contributes to the broad purpose of Māori communities (see: Smith, 1997).

In addition:

Kaupapa Māori theory is not so much a set of principles but a space where Māori can work in ways free of dominant cultural pressures and constraints. It is a space where Māori can grow their self-development and transform ideas and actions (Smith, 2017, p. 75)

To test the veracity of a Kaupapa Māori theory approach, five elements can be used to assess the research:

- **Positionality:** locating ourselves regarding the research and our experience and commitment to transformation - what is the intent of the research, and what are their contributions?
- **Criticality:** understanding the Māori political and historical context of colonisation, and analysis of the unequal power relationships formed,
- **Structural and cultural considerations:** challenge to structural impediments and encouraging agency for change, as struggle takes place in multiple sites,
- **Praxicality:** continuous practical and theoretical reflection and adjusting as necessary,
- **Transformability:** creating positive change from the research to transform our realities (Smith, 1997, 2017).

Over the years, additional principles have been developed within a Kaupapa Māori theoretical framework, including the principle of the Treaty of Waitangi (Pihama, 2001), and; Āta – the principle of growing respectful relationships (Pohatu, 2013). Moana Jackson has described some ethical considerations to frame Māori research that can be considered additional criteria for Kaupapa Māori research. In a research presentation to He Manawa Whenua in 2013, Moana Jackson (2013) stated:

if knowledge is power, and it is the coloniser's knowledge we are using, then in the words of Frantz Fanon, we should never forget that such knowledge may one day

devour us. However if it is our knowledge and if it gives us power to be who we are, then we can conduct ethical research (p. 62).

In light of this thesis, Jackson's statement provides some logic to the research in terms of undertaking a study that is consistent with te ao Māori and to critically analyse the internet and its impact on Māori. If knowledge is power, we must know whose knowledge we are defining. Ideas on ethicality give theoretical substance to this study when his position on ethics of research are applied:

- a. The ethic of prior thought: acknowledging predeveloped indigenous ideas, traditions, and understandings
- b. The ethic of moral choice: on what right do you decide to make that research happen, and upon whose authority is it deemed necessary
- c. The ethic of time: cultural understandings of time can be Western linear, circular, or different
- d. The ethic of power: acknowledging the inherent power of knowledge and research processes and outcomes. "Research that does not acknowledge power is dangerous for indigenous peoples"
- e. The ethic of change: research must bring change for indigenous people rather than perpetuate normative Western living
- f. The ethic of courage: indigenous people have always been courageous – the challenge for non-indigenous is if they can be courageous to allow indigenous decision making
- g. The ethic of honesty: be honest about the history of dangerous and flawed policies and influence on indigenous rights
- h. The ethic of imagination: to create a way of seeing the world in its complexity in a poetic way. To imagine a way through and be honest about the state of indigenous peoples, which is the effect of historical causative effects (colonisation and racism)
- i. The ethic of celebration: take the time to celebrate our resilience and survival. (This ethic comes with a post-note to allies that when indigenous peoples exercise their self-determination, this is not 'taking from them'.) (Jackson, 2013)

Ipurangi is a Kaupapa Māori study founded on Māori theoretical and ethical approaches. A cycle of conscientisation – resistance – transformation must therefore be central to the overall process of the research that leads to positive outcomes for Māori. The study applies these theoretical and ethical positions by utilising te reo Māori and mōteatea/waiata as taken-for-granted components which also contribute to the cultural, social, and political perspectives of te ao Māori.

TE REO MĀORI:

Ipurangi draws heavily on Māori concepts and values embodied in te reo Māori. For example, values such as aroha and mana can be described in the English language but the whole meaning of the words can only be captured within an understanding of te reo Māori me ngā tikanga Māori – the Māori language and tikanga Māori. Te reo Māori provides access to Māori understandings of the world:

He tātaitanga kōrero... The term also encompasses cosmo-genealogical oration and narrative, ritual incantations, and tribal narratives as lineage narratives. The prioritisation of the Māori language in this study is about grounding the thesis in a *tātaitanga kaupapa toi* that colludes with Kaupapa Māori as a research strategy, not only at the level of revitalisation but at the level of access to bodies of knowledge in the Māori language (Jahnke, 2006, p. 8).

This directly links to the epistemology of Kōrero Tuku Iho, where original narratives and knowledge are accessed through te reo Māori. The translation of such knowledge to English has only happened in the past two hundred years. Thus, **Ipurangi** utilises he tātaitanga kōrero within the theoretical approaches employed in this study. However, while this thesis is not a study of toi (art) and therefore does not apply tātaitanga kaupapa toi per se, but it does employ the sentiment of joining two paradigms. In addition to this, Jahnke (2006) describes tātaitanga reo as a method of linguistic analysis; **Ipurangi** connects tātaitanga reo to tātaitanga kōrero to prioritise both cosmo-genealogical narratives and Māori language bodies of knowledge. For example, the data generated by the qualitative method may contain a significant amount of te reo Māori. Although the statements are translated within this research, the depth and breadth of statements may only be fully comprehended by those who understand both te reo Māori and the context of what is being spoken about. **Ipurangi** seeks to privilege and acknowledge

the use of te reo Māori and to give expression to Māori understandings regarding the internet which is the focus of this study.

NGĀ KŌRERO: MĀORI NARRATIVES

Ipurangi takes for granted the truths contained in different forms of Māori narrative, including mōteatea, oriori, waiata, haka (type of cultural performance), pūrākau, and whakataukī. Each chapter of this thesis begins with a section of the well-known oriori – Pinepine te kura. Perhaps regarded within the broader grouping of mōteatea, this approach to generating theory from customary knowledge frames each chapter with a link to the past that is relevant to today. It is argued that:

Māori have used mōteatea and whakataukī for centuries as an art form to orally transmit emotions, stories, prophecies, and genealogy and constitutes a form of indigenous critical education in Aotearoa... As a source of theory, they are the language of emancipation and enculturation and include messages and lessons from a Māori worldview that reflect Te Kete Tuauri, Te Kete Tuatea, Te Kete Aronui, and Whatukura (Black, 2013, p. 39).

A position supported as pūrākau is described as a basis for Māori theoretical thought:

Pūrākau, a traditional form of Māori narrative, contains philosophical thought, epistemological constructs, cultural codes, and worldviews that are fundamental to our identity as Māori. Pūrākau is a collection of traditional oral narratives that should not only be protected but also understood as a pedagogical-based anthology of literature that is still relevant today. Furthermore, pūrākau can continue to be constructed in various forms, contexts, and media to better understand the experiences of our lives as Māori - including the research context. (Lee, 2015, p. 96).

The oriori as a 'traditional oral narrative' provides a genealogical and theoretical link to contemporary circumstances and Māori experience. In particular, narratives of an such as ancestor, Tāwhaki gives, as Jahnke (2006) states, a cosmo-genealogical guide to theorising for this research. Māori narratives show that many tupuna and atua were adept at traversing different spaces and realms to collect information or engage in discussion, including Tāwhaki an important tupuna in the context of this research.

Tāwhaki

There are many stories about Tāwhaki (Mead, 1996), the ancestor with super-human abilities, but only a few of his famous feats are revisited here. Tāwhaki is famed lightning emitting armpits and his good looks. He is renowned for being so beautiful that he caught the attention of a celestial maiden, Hāpai, who stole each night to be by his side and who eventually bore him a child. Upon the ceremonial baptism Tāwhaki commented disparagingly on child's odour – his wife took exception and returned to the heavens with their child leaving Tāwhaki earthbound. Eventually, pining for his wife and regretting his action, Tāwhaki sets out to climb through the many levels of heavens, in search of them. On his journey, he comes across his blind grandmother Whaitiri (goddess of thunder), who instructs him on how to correctly ascend the heavens. Holding onto 'te aka matua', Tāwhaki reaches the heaven where he reconnects with his wife and makes amends for his previous actions. While in this heavenly space, Tāwhaki is mentored by Tama-i-Waho, who bestows him with the gift of knowledge in order to return to humankind.

The theoretical perspective that these narratives provide is: that we have sought and retrieved information from planes other than the terrestrial plane, that the retrieval of such knowledge is concerned with particular tikanga (ritual and protocols) of protection for those who seek this knowledge, that there is an appropriate process and therefore consequence for careless behaviour. It is this philosophy and theory of knowledge acquisition that provide a foundation for **Ipurangi**. The customary narratives of Tāwhaki provide an insight into the transfer of knowledge and act as a reference point to structure our use of and behaviour in digital spaces.

Mānuka kawē ake: Mana and Whakapapa

Extending from my previous study on Māori aspirations (Warren, 2004) are key cultural concepts of mana and whakapapa through a theoretical perspective as they apply to Māori notions of citizenship (see: Tawhai, 2020; Warren et al., 2017)

Notions of Māori Belonging

Māori cosmo-genealogical narratives (Jahnke, 2006) provide three characteristics of *mana* for Māori, which are contextualised by: Mana Atua, Mana Whenua, and Mana Tangata (Warren et al., 2017). Mana is a complex term whose depth can only be

acquired through an intimate relationship with the Māori culture. *Mana* is often referred to as “authority and control” (Durie, 1998, p. 2) and described by Reverend Māori Marsden as “spiritual authority and power... a spiritual gift delegated by the gods” (Marsden & Henare, 1992, pp. 118–119) and by Tawhai as “spiritual integrity and prestige” (Tawhai, 2020, p. 34). The foundations of Māori notions of citizenship are essential to the epistemology of this research in the first and second instances as it investigates the conduct of Māori online.

Mana Atua (divine authority or godly connection) acknowledges the whakapapa relation between humankind, Ranginui, and Papatūānuku (Warren et al., 2017). After separating his parents, Tānemahuta set out to create the human form. He achieved this task at Kurawaka where he fashioned a female, Hineahuone, from the sacred red earth of his mother and breathed life into her where she sneezed into existence. Thus, humankind is born from the union of Tānemahuta and Hineahuone. This narrative is affirmed in tikanga Māori and is often acknowledged in formal oratory by reciting the words of those ancestors that were expressed at that moment ‘tihei mauri ora’ – behold, there is life! In this way, we acknowledge our divine connection to our atua that extends back to Te Kore, Te Pō, and Te Ao Marama. This sacred story locates us within the world– as a human manifestation of cosmology.

Mana atua acknowledges human connection with all things in the world, and within extensive spiritual, physical, and mental spaces. Mana Atua reminds us of our whakapapa connection to Ranginui and Papatūānuku, to time and space and the implicit sanctity of ourselves and others. Furthermore, mana atua is recalled in expressions such as ‘te ira atua’, that references the genetic connection to atua, and ‘te ira tangata’ that references the gene (Mataira, 2008; Mead, 2003; Rameka, 2015).

Mana Whenua, as a concept, recognises our intrinsic and traditional connections and relationships with the land and the environment. Mana whenua allows us to draw on the narratives and experiences of our tupuna embedded within the lands. Tikanga Māori applies customary narratives that administer our connection and identity to our natural environments. Narratives about Te Kore and Te Pō, Rangi and Papa, and ngā atua anchor Māori connection and identity to Aotearoa. Identity markers can also be found in the expression of pepeha (iwi proverb) that identify our ancestral lands:

Ko Moawhango Rahi te awa

The Grand Moawhango is the river

Ko Aorangi te maunga	<i>Aorangi is the mountain</i>
Ko Moawhango te marae	<i>Moawhango is the home</i>
Ko Whitikaupeka te wharepuni	<i>Whitikaupeka is the ancestral house</i>
Ko Ngāti Whitikaupeka te iwi	<i>Whitikaupeka is the nation</i>

Connection to lands also occurs through whakataukī and whakatauākī (ancestral sayings):

He piko, he taniwha	<i>Every bend is a chief</i>
	Refers to the environmental and political nature of the Waikato River

Moreover, all forms of waiata (including mōteatea, haka, and oriori) can locate people and the connection to lands:

Tini whetu ki te Rangi	<i>Like the many stars in the sky</i>
Ko Rangitāne ki te whenua	<i>So great is Rangitāne on the earth</i>
	Refers to the nature and population of Rangitāne

These proverbial sayings connect people to the land, the environment, and tupuna. They affirm one's identity, encourage a sense of belonging and pride, and, as Black (2021) states, give form to the theory that enculturates important ancestral lessons and messages. It is these ideas from which Māori draw mental and spiritual sustenance. In recent years the reaffirmation of mana moana has occurred (Rakena & Bridgman, n.d.), sustaining ancestral narratives and relationships with the moana – in particular, a reaffirmation of our connection to Pacific islands, associated waters, and peoples of the Pacific.

Mana whenua affirms our identities as relevant to particular spaces and gives critical insight into ancestral stories, philosophies, principles, and value systems to guide

contemporary thinking from a Māori worldview. However, more importantly, it connects us as Māori to our environment and reminds us of the legacies of our tupuna.

Mana Tangata is about personal endeavours and attributes. It is about the narratives and experiences we contribute to the world. Positive contributions enhance mana; negative contributions diminish it. Māori draw from ancestral narratives to provide connection, identity, and guidance where mana tangata reflects the choices concerning the expression of rights, responsibilities, and obligations as Māori.

Mana, tapu and tikanga

The previous section outlined mana as a cultural concept. Central to the concept of mana is the notion of tapu (sanctity and sacredness). All things have inherent mana and tapu, which exist in an ever-evolving, ever-responding state:

... tapu, the notion of esteem and potential restriction associated with certain entities, both tangible and intangible, based on their spiritual power. Tapu is closely associated with wairua and mauri, in that the spiritual character of all entities emanates from Te Pō... engaging with tapu may be to a person's benefit (if the entity feels it is respected accordingly, and has therefore achieved tupu [positive growth]) or to a person's demise (if disrespect has been shown, resulting in mate [regression]). Tapu can therefore be simply a matter of ensuring 'due respect' is shown, to the need to acknowledge something as sacred and requiring a certain level of care, to the more extreme end of a total ban or restriction on engagement. (Tawhai, 2020, p. 36)

Therefore, tapu brings an expectation of due process and conscious engagement with Māori cultural values. Māori cultural protocols and practises that guide behaviour and regulate Māori society are identified as tikanga as Mead (2003) describes:

...tikanga is the set of beliefs associated with practices and procedures to be followed in conducting the affairs of a group or an individual. These procedures are established by precedents through time, are held to be ritually correct, are validated by usually more than one generation and are always subject to what a group or an individual is able to do.

Tikanga differ in scale. Some are large, involve many participants and are very public. The tangihanga is an example of an intricate and public cultural event. It is a complex of several tikanga which are interrelated and underpinned by a

body of mātauranga Māori and a set of belief... Some may be carried out by individuals in isolation from the public, and at other times participation is limited to the immediate family (p. 12).

Tikanga are considered as tools to guide behaviour (Mead, 2003) which is consistent with this thesis, **Ipurangi**, that focuses on tikanga Māori and the internet, and involves the idea of Māori digital citizenship and the expression (and oftentimes lack) of tikanga Māori in the digital space. Thus, the concepts of mana, tapu, and tikanga provide parameters to consider rights, obligations, and responsibilities for Māori as digital citizens.

Kaupapa Māori provides a philosophical and theoretical base for researching Māori internet use. Cosmo-genealogical narratives offer an epistemological, philosophical, and theoretic frame that privilege both Māori narratives and te reo Māori. And in conjunction with eColonialism, **Ipurangi** utilises Kaupapa Māori to critically frame the research approach to Māori digital citizenship and tikanga Māori.

2.3.2 ELECTRONIC COLONIALISM (ECOLONIALISM)

eColonialism as a theory was first proposed in 1976 by Herbet Schiller, that described the dominant position of wealthier countries over poorer ones, centred around technology (Schiller, 1976). The rapid growth in information technology (IT) use, raised concerns about colonialism in the media which have now extended into the internet space (McPhail, 1987). The idea of eColonialism (McPhail, 2008a; Nilsen, & Solevåg, 2016) centers around developed, developing, and underdeveloped countries and their use and access to technologies. This includes information technologies, sometimes referred to as digital colonialism (Kwet, 2019; Mann & Daly, 2019; Young, 2019) or virtual colonialism (Hall, 1999). As the name suggests, eColonialism is the transfer and actioning of colonialism to electronic spaces.

Colonialism is described as a “form of imperialism that is state-driven and state-directed, which usually (but not always) employs a strategy of colonization to administer distant territories and conquered populations, for the explicit purpose of exploiting local populations’ labour or resources”; where imperialism is described as: “[t]he process through which a state expands its territory and political hegemony over another population, usually through force or the threat of force” (Beaule, 2018, p. 7). In

Aotearoa/New Zealand, British imperialism and settler colonies established the process of colonisation during the 1800s (Armstrong, 1978; The Waitangi Tribunal., 2014). Therefore, the Māori experience of colonisation is synonymous with colonial imposition (Durie, 1998; Pihama, 2001; Pihama et al., 2015; Smith, 2012; Tuhiwai-Smith, 2012; Walker, 1990)

International communication forms the basis of eColonialism; from early 19th century correspondence, journal articles and newspapers to the 20th century and the telegraph, radio and exportation of movies (McPhail, 1987). By the 1960s, there were global discussions about the impact of music genres like rock-and-roll, which triggered the UNESCO MacBride Report (MacBride, 1980) and further analysis of the impact of exported media and international communication (Chomsky, 2002; Herman & Chomsky, 1994; Nordenstreng & Varis, 1974; Tunstall, 1977). It is from these origins that eColonialism developed:

eColonialism theory explains how media are collectively influencing the minds, attitudes, values, and lifestyles of a global culture of MTV, Sponge-Bob, The Simpsons, Google, and the latest Hollywood blockbuster are spreading in unison with the global economy... Now culture is learned from mass mediated communications. It is an imported popular culture that in many cases displaces indigenous cultures around the world (McPhail, 2008b, p. 45)

Given the colonial history of Aotearoa/NZ and Māori experience as the colonised, McPhail's statement is relevant to this study. Furthermore, new technology allows ready access (literally in the palm of your hand) to the internet which in turn facilitates access to people (via social media), worldwide information (for example, Google), music (i.e. Youtube, Spotify), and television (i.e. Netflix, Disney+, Prime Video) like never before. In terms of relevance to this thesis focussed on Māori in the context of culture and the potential impact of new forms of colonisation:

While the Internet facilitates the sharing of information globally, it also threatens cultural diversity, the loss of local culture and the manipulation of the less developed. The impact of e-colonialism can potentially be just as devastating as that of mercantile colonialism in the nineteenth century. (Venkatesan & Nambiar, 2003, p. 779)

This theoretical stance informs the perspective of this research where culture and tikanga Māori are subject to ongoing colonialism via the internet. The rise of 'fake news' and 'alt-right news' on the internet is an example of Western supremacy seeking to colonise (and terrorise) minds across the globe. Added to the current 'infodemic' (Loukas et al., 2022; Talbot & Alali, 2021), it is critical to discern information that might challenge key values such as rangatiratanga and notions of Māori sovereignty. Acts of colonialism underpins the vast amount of daily hegemonic information filtered through the internet. There is an increased awareness of indigenous data sovereignty (Cormack et al., 2020; Craig & Te Rangi, 2022; Kukutai & Taylor, 2016b; Ruckstuhl, 2023; Taiuru, 2020, 2022a; Walter et al., 2021) with the establishment of Te Mana Raraunga (Māori Data Sovereignty Network) who:

Advance Māori aspirations for collective and individual well-being by:

1. Asserting Māori rights and interests in data,
2. ensuring data for and about Māori can be safeguarded and protected,
3. requiring the quality and integrity of Māori data and its collection,
4. advocating for Māori involvement in the governance of data repositories,
5. supporting the development of Māori data infrastructure and security systems, and
6. supporting the development of sustainable Māori digital businesses and innovations (Te Mana Raraunga - Māori Data Sovereignty Network, n.d., p. 2).

This is an important entity for Māori with the rise of Big Tech (large information technology companies such as Google, Amazon, Apple, Meta, Microsoft, etc.) and the ever-growing eEmpire:

as concept and as semantic construction, with “e” continuing to operate as the value-added, universal signifier of the brave new wired world... understood as a fluid and intersecting set of forces, practices, technologies, and events. It is not a singular entity, but comprises communicative networks, electronic commerce, modes of production, and global financial markets (Raley, 2004, p. 111).

For indigenous minorities, the internet poses many challenges of eColonialism reinforcing hegemonic ideals and imperialism (Adum et al., 2015) through industries established for the application of technology to commerce – otherwise referred to as

eEmpires (Raley, 2004). Thus, **Ipurangi** investigates Māori perceptions of the internet in a situation where Young considers “that digital engagement can erode the embodied and social practices that are critical to the transmission of some forms of Indigenous knowledge” (Young, 2019, p. 1425). This idea is important to this thesis in terms of how tikanga Māori (Māori social practice) is impacted by the internet. **Ipurangi** identifies eColonialism as influencing tikanga Māori and therefore explores Māori thoughts on and responses to eColonialism as a worldwide phenomenon:

Throughout history, colonialism has assumed different forms and imposed over a range of civilizations. The last phase and new form of colonialism is the Electronic Colonialism Theory (ECT). This theory was first started by Tom McPhail and is about the impact on the mind of repeated mass media messages, including commercials, on audiences around the world. Just as earlier colonial institutions, like Great Britain, sought out soil anywhere in the world for colonies, now multimedia giants seek to capture the eyeballs, ears, and minds of millions of viewers, readers, or listeners. Disney, MTV, Netflix, Comcast, Hollywood, CNN, BBC, Fox, Google, the Internet, and others all seek to influence, not by force of arms, but by packaging media to attract large audiences for advertisers around the globe. The mass media over time will impact more individuals - primarily using the English language- to become more similar as indigenous films and artefacts become marginalized by a cultural tsunami created by high-quality and mass-produced media messages and systems.

Just as mercantile colonialism focused on empires seeking the toil and soil of others, frequently as colonies, so now ECT looks at how to capture the minds and, the consumer habits of others. ECT focuses on how global media systems, including advertising, influence how people look, think, and act. The aim of ECT is to account for how the mass media influences the mind (Suja, 2015, pp. 1–2).

Suja’s ideas reflect the World Systems Theory, where the flow of resources and information from the ‘core’ to the ‘peripheries’ sets up a system of colonisation and exploitation of the peripheries. According to Andre Gunder Frank, the World System is described as a dual metropolis-satellite relationship (Frank, 1970) that is a:

World capitalist system... characterized by a *metropolis-satellite* structure, where the metropolis exploited the satellite... The monopoly structure [is] found

at all levels, i.e. the international, the national, and the local level, and created a situation of exploitation which, in turn, caused the 'chain-like' flow of the surplus from the remotest Latin American village to Wall Street in New York (Bomström & Hettne, 1984, p. 67)

A smaller metropolis may have its own satellites and indeed have set up itself as a satellite to a larger metropolis. Immanuel Wallerstein describes the same system with three components: the centre as the leading site exploiting its power, the semi-periphery as an intermediary (exploiter and exploited), and the periphery as the smaller exploited sites. The World System is "a single division of labour comprising multiple cultural systems, multiple political entities, and even different modes of surplus appropriation" (Wallerstein, 1980, p. 5).

Figure 4: World Systems Theory



Imperialism, the extraction of resources, and the exploitation of the satellite and the periphery require a critical analysis of impacts on indigenous and marginalised communities. The World System and the contemporary exploitation of information and electronic resources globally bring to the fore the concerns of emerging eEmpires and the situation of eColonialism. These issues of imperialism and colonisation impact and infiltrate even the remotest community as part of the World System. The dependency of the metropolis/satellite or centre/periphery identified in the World System also applies a neo-Marxist analysis that considers the economic and sociopolitical implications of resource extraction and exploitation (So, 1990). The World Systems Theory is an extension of Marxism (Chirot & Hall, 1982; Shannon, 2018; So, 1990). As Fuchs (2019) argues, a Marxist approach to digital capitalism allows an analysis of key operations related to Big Data. More specifically, questions need to be posed around the 'relations of production' (who controls, benefits, exchanges and distributes data), the 'means of production' (what are the economic and social implications for land, technology, capital

and labour), and the ‘ideological and political superstructure’ (what is the role of law, education, religion and ideology related to data) (Fuchs, 2019).

This type of analysis is critical for Big Data (and Big Tech) as stated:

Data colonialism combines the predatory extractive practices of historical colonialism with the abstract quantification methods of computing. Understanding Big Data from the Global South means understanding capitalism’s current dependence on this new type of appropriation that works at every point in space where people or things are attached to today’s infrastructures of connection. The scale of this transformation means that it is premature to map the forms of capitalism that will emerge from it on a global scale (Couldry & Mejias, 2019b, p. 337)

Ipurangi, considers Māori, the internet and the implications for tikanga Māori in terms of how colonisation and colonialism occurs in cyberspace. Digital capitalism (Craig & Te Rangi, 2022; Fuchs, 2019), data colonialism (Couldry & Mejias, 2019a, 2019b; Fraser, 2019; Mann & Daly, 2019), digital colonisation (Taiuru, 2020), the emergence of Big Data, Big Tech and eEmpires also promote ‘techno-oppression’ as “dominant nations sanction the implementation of large-scale technologies, like waste incinerators and uranium mines, on or near the lands of vulnerable communities or tribes, the result of which is that tribes are forced into techno-oppressive decision scenarios” (Whyte, 2017, p. 148). This broader context of the internet must be considered. Therefore, eColonialism provides a critical frame to analyse Māori engagement with the internet as:

Electronic colonialism is the dependency relationship established by the importation of communication... that vicariously establish a set of foreign norms, values, and expectations which, in varying degrees, may alter the domestic cultures and socialization process... Electronic colonialism seeks the mind; it is aimed at influencing attitudes, desires, beliefs, lifestyles, consumer opinions (McPhail, 1987, p. 18).

Applying a Kaupapa Māori theoretical approach in association with eColonialism allows a critical analysis of how the internet influences Māori online behaviour. In this respect, **Ipurangi**, frames this new theoretical approach as *īTāmi* – Kaupapa Māori eColonialism.

2.3.3 ĪWHAKAARO: KAUPAPA MĀORI THEORY, INTERNET THEORIES AND ECOLONIALISM

Ipurangi introduces a Kaupapa Māori theoretical approach to research about Māori and the internet. There are multiple theoretical approaches to research on (and about) the internet, as described where:

A parallel shift has occurred, from primary concerns with the technological, economic, and behavioural aspects, to cultural and critical studies, social theory, and social history of communication technologies. The theoretical orientations of this work range from the macro, to middle-range, to micro levels of analysis. Primary macro-level theories are concerned generally with the information society, and policy and regulation of news media systems and institutions. Primary middle-range theories include diffusion of innovations, critical mass theory, social presence/media richness, social influence, adaptive structuration, social informatics, self-organizing systems, and sociotechnical systems. Primary micro-level theories deal with social-psychological aspects, considering features of technology either as a source of communication or as a channel of communication. (Rice, 2005, p. 286)

I have argued that any theoretical approach to studies concerning Māori and the internet must apply a Kaupapa Māori perspective to the research. Studies of the internet apply a range of theoretical approaches that are not limited to one specific discipline and include media, psychology, science and social theories (Rice, 2005; Schroeder, 2018). For research concerning Māori, the integration of ‘internet theories’ and Kaupapa Māori generates a new theoretical approach for consideration – ĪWhakaaro, the application of Kaupapa Māori theoretical perspectives to the specific area of internet study.

Using a language hybridisation between developments in the technology space and the Māori language, a new Māori language lexicon has been created to name new technology. The prefix E describes electronic products like email, e-commerce, e-card, and eBay. Māori have also adopted this practice in a hybridised fashion between the English and Māori languages (Ferguson, 2012) to describe Māori engagement with new technologies (Ferguson, 2012). For example eAko (electronic learning) (Ministry of Education, n.d.), and e-whanaungatanga (electronic relationships/connectivity)

(O’Carroll, 2013b; Waitoa, 2013). This has been extended to complete te reo Māori phrases that hybridise concepts rather than languages and borrows from the Apple prefix ‘i’ as in iPhone, iPod, and iPad. Others include those used in translation/transliteration with Māori words like īPapa (iPad, tablet) (He Kupenga Hao i te Reo, n.d.-c), īPuka (e-book) (He Kupenga Hao i te Reo, n.d.-d), īmēra (email) (He Kupenga Hao i te Reo, n.d.-b) and īkōpaki (e-portfolio) (He Kupenga Hao i te Reo, n.d.-a). **Ipurangi** introduces hybridised conceptual terms for a Kaupapa Māori application in the technology space:

- īWhakaaro (*Kaupapa Māori Internet Theories*): theories about the online space from a critical Māori perspective
- īRangahau (*Kaupapa Māori Cyber Ethnography Methodology*): undertaking Māori research through the internet
- īTāmi (*Kaupapa Māori eColonialism*): Kaupapa Māori analysis of colonialism, imperialism and colonisation online
- īTikanga (*Kaupapa Māori Online ethics*): guidelines for Māori online behaviour
- īTuakiri, īAhurea: Māori identities and Māori culture online
- īWhanaungatanga: Māori relationships online (as previously discussed by O/Carrol (2013) & Waitoa (2013)).

īTāmi brings together Kaupapa Māori Theory and eColonialism to develop a Māori critical theory approach to cyber/online/virtual/internet/digital spaces that allows for a critical analysis of the power structures and forms of colonialism. These are present with new technology across the ‘relations of production’ (who controls, benefits, exchanges and distributes data/technology), the ‘means of production’ (what are the associated economic and social consequences for land, technology, capital and labour), and the ‘ideological and political superstructure’ (how are laws, education, religion and ideology implicated through technological use), and how these impact Māori.

2.4 SUMMARY: RESEARCH FRAME

Ipurangi, as a research project, is founded on Kōrero Tuku Iho. This epistemology acknowledges cosmo-genealogical origins and narratives of the creation of the world and the attainment of knowledge. This Māori perspective of Rangi and Papa and Te Whai Mātauranga informs the topic of the research investigating the internet and the

implications for tikanga Māori. Kōrero Tuku Iho provides several epistemological principles for the research:

- **Whai ao:** the principle of seeking enlightenment and new worlds for growth into the future,
- **Rūnanga:** the principle of discussing matters about collective wellbeing,
- **Tauutuutu:** the principle of acknowledging action and consequence,
- **Piki ake:** the principle of purposeful pursuit and journey of attainment,
- **Tikanga:** the principle of process, protocol, and ritual to guide, protect and prepare,
- **Wānanga:** the principle of learning processes and acknowledging the journey taken to acquire that knowledge,
- **Ipurangi:** the principle of knowledge existing in ethereal repositories.

Therefore, **Ipurangi** acknowledges a Māori epistemological worldview that includes growth, collective decision-making for collective wellbeing, consequences for actions, purpose in attainment, process and ritual, knowledge acquisition, and ethereal repositories.

The theoretical perspective of the research defines the broad pathways identifying why **Ipurangi** is a necessary research project and the general area of investigation in the research. Furthermore, this theoretical approach gives context to the research by considering *īTāmi* as the interface between Kaupapa Māori theories and eColonialism as an evolving space for Māori. When considering G.H. Smith's Kaupapa Māori veracity test, I argue that **Ipurangi**: identifies the internet as a colonising space for Māori (positionality), critically assesses internet use by Māori (criticality), encourages critical agency and awareness of eColonialism (structural and cultural consideration); encourages critical reflection of the internet and impacts on tikanga Māori (praxicality); aims to collect tikanga Māori based guidelines for application within the internet space (transformability).

In this chapter, a theoretical position called 'īWhakaaro' is developed to consider the broad field of internet studies. It further combines Kaupapa Māori Theory and eColonialism to establish *īTāmi* and the framework for the methodology and methods used in the subsequent chapter. The theoretical and methodological analysis focuses on the internet and the implications for tikanga Māori.

CHAPTER 3 METHODOLOGY AND METHOD

Ko te kura nui, ko te kura roa, ko te kura o tawhiti

Continuing with a line from the *oriori* ‘*Ko te kura nui, ko te kura roa, ko te kura o tawhiti*’ – (*a noble treasure, a famous treasure, an ancient treasure*) affirms the cosmo-genealogy of a child, and illustrates how Māori philosophy considers the child to be a treasure. In a similar way, this chapter frames the methodology and methods with reference to the epistemology and theory of Māori considerations of the world, and research.

3.1 INTRODUCTION: METHODOLOGY AND METHOD

This chapter explores the methodology and method utilised to examine the implications of the internet for tikanga Māori. Extending from the previous chapter on epistemology and theoretical perspective, the research design and procedures of the research are explored here where the following are identified:

- *Methodology*: strategy, plan, process, and design that link methods to desired outcomes
- *Methods*: techniques or procedures of research (Crotty, 1998, p. 3)

The research question for **Ipurangi** is:

What are the implications of the internet for tikanga Māori?

In order to investigate this overriding question, further questions are explored:

How is the internet being utilised by Māori in ways that reflect tikanga Māori?

What adverse or unintended impact does internet use have on tikanga Māori?

How is tikanga Māori being adapted, adopted, and transgressed by Māori using the internet?

What do we have to gain in this space?

What have we got to lose?

To investigate the research questions, a qualitative Kaupapa Māori Methodology is applied to collect and analyse information from a tikanga Māori perspective. That is, approaching this research with a Kōrero Tuku Iho epistemology and from a Kaupapa Māori theoretical position, which takes the Māori worldview (including knowledge and approaches) for granted. This research gathers information from various sources,

including documented research and articles, public social media posts (including video), articles, and information from crucial Māori proponents utilising the internet in diverse manners. Observation of Māori developed internet spaces is also used to guide interview questions and identify key interview participants. Secondary data, such as The World Internet Project (Díaz Andrade et al., 2018), research projects (see literature review chapter), and articles are used to give context to the research. A thematic discourse analysis of the gathered information is used to identify the implication of the internet on tikanga Māori.

Western research among indigenous communities has had harmful and colonising impacts (Fry, 1997; Said, 1978; Tuhiwai-Smith, 2012). Said (1978) states that the epistemological foundation of knowledge (its collection and interpretation) is critical as it can potentially subordinate entire knowledge systems. Western methodologies such as Cyber Ethnography are applied to this research, where the foundation of Kaupapa Māori underpins how this information is gathered and the lens through which it is analysed and framed in this research. Kaupapa Māori methodology anchors the research to Kōrero Tuku Iho epistemologies.

The research design and strategy use Kaupapa Māori methodology in collaboration with ethnography and cyber ethnography to form iRangahau, a methodological approach to investigating cyber/internet/online/digital/virtual interactions and behaviours from a Māori epistemological perspective.

Kaupapa Māori research is a social project; it weaves in and out of Māori cultural beliefs and values, western ways of knowing, histories and experiences under colonialism, western forms of education, Māori aspirations and socio-economic needs and Western economics and global politics. Kaupapa Māori is concerned with sites and terrains. Each of these is a site of struggle. Each of these sites has also been claimed by others as ‘their’ turf. They are selected or select themselves precisely because they are sites of struggle and because they have some strategic importance for Māori. (Tuhiwai-Smith, 2012, p. 309)

Ethnography is identified as:

the study of people in naturally occurring settings or ‘fields’ by methods of data collection which capture their social **meanings** and ordinary activities, involving the researcher participating directly in the setting, if not also the activities, in

order to collect data in a systematic manner but without the meaning being imposed on them externally (Brewer, 2000, p. 6).

Cyber ethnography has emerged from traditional ethnography to address technology developments along with methods of information sharing (Beaulieu, 2004). Of particular note is that the:

advent of newer digital technologies has created the opportunity for ethnographic enterprise. In particular, smartphones, digital cameras, and digital camcorders, together with the opportunity to scan visual and documentary sources into digital databased, have transformed the opportunities available to ethnographers (Hammersley & Atkinson, 2019, pp. 140–141).

In addition, the internet provides the opportunity for “talking back to the hegemonic Western(ized) Self, the internet performances and exchanges visible currently do not show evidence of this happening often enough to change the tendency for structural and discursive appropriation of the Other’s self-narratives” (Landzelius, 2006, p. 272).

The collaboration of these methodologies defines research methods that recognise Kaupapa Māori ways to collect and engage with data generated and collected with cyber ethnographic approaches to research.

3.2 KAUPAPA MĀORI METHODOLOGY

Tuhiwai-Smith presented the initial ideas for principles in early writing on Kaupapa Māori Research in 1985 and again in 1991 as follows:

Table 1: Kaupapa Māori Principles

Principle	Nature of the struggle	Implications for Research
Whakapapa	In Te Ao Māori: <ul style="list-style-type: none"> i. Related to identity ii. Whanau, hapu, iwi In Te Ao Pākehā <ul style="list-style-type: none"> i. Race classifications 	Classification Whanaungatanga Micro/macro Credibility of research

	ii. ethnicity	
Te Reo	In Te Ao Māori: i. identity ii. Education iii. knowledge In Te Ao Pākehā i. Rights ii. Protections iii. National identity	Kanohi ki te kanohi The researcher/s Research process Conceptual work
Tikanga	In Te Ao Māori: i. Authenticity ii. Mana iii. Marae iv. Representation v. accountability In Te Ao Pākehā i. authenticity ii. conformity iii. access	Research process Research design Place People Interpretation Representation Accountabilities Credibility
Rangatiratanga	In Te Ao Māori: i. Mana whenua ii. Mana tangata iii. Treaty of Waitangi	Research policy Research activity Research funding Definition/design priorities

Note. (Tuhiwai-Smith, 2015, p. 50)

In explaining the principles of Kaupapa Māori themselves, Tuhiwai-Smith describes the principle of whakapapa as affirming Māori knowledge and interactions as valid ways of being and acknowledging our diverse histories, both Māori and colonial, that impact on our current state; the principle of te reo, privileging the use of te reo Māori and acknowledging our intergenerational struggle for regeneration and the depth of

embedded within our language; the principle of tikanga Māori that acknowledges tikanga Māori as a complex system of thinking and behaving, and that Māori who may not be strongly connected to te ao Māori often find tikanga Māori challenging; the principle of rangatiratanga where Māori self-determination and autonomy are affirmed in the research and provides a critical aspect of research analysis (Tuhiwai-Smith, 2015). Later expressions of Kaupapa Māori then included the principle of mana wahine, mana tāne that ensures hetero-patriarchy and hetero-normativity are assessed during the research, so Māori gender roles in social relationships are not over-looked (Pihama, 2001; Smith, 2015).

When linked to the epistemology and theoretical perspective of **Ipurangi**, actions as Māori researchers should give value and contribution to people or be mana-enhancing. This, in turn, leads to outcomes that are, as Emeritus Professor Sir Mason Durie describes as ‘Mauri Ora’, states of flourishing. Linked to this, Māori development approaches to research should seek to enhance, for the better, whanau Māori and communities (Jackson, 2013; Pihama et al., 2015; Smith, 1997; Tuhiwai-Smith, 2012). It is an outcome that Smith (1997) defines as being transformative. Ultimately, the research process and outcomes should seek not to harm but to positively enhance Māori communities. Furthermore, Smith states that a Kaupapa Māori theory approach can be tested by the Kaupapa Māori veracity test identified in the previous chapter.

Ipurangi achieves a veracity test for Kaupapa Māori research by amalgamating the critical Māori methodological approaches with cyber-ethnography to investigate the research question. Moreover, **Ipurangi** has a Māori epistemological and theoretical frame that: a) firmly locates Māori experience within the research (particularly as a mother who has witnessed her daughter’s online engagement throughout schooling at Kura Kaupapa Māori and Wharekura), b) acknowledges the context of unequal power relationships with regard to Māori engagement with the internet space, c) analyses and provides pathways for critical engagement to influence online spaces, d) critically reflects on our ability to engage meaningfully in Māori ways online, and e) develops a framework to resist electronic (online) colonialism. This research approach positions **Ipurangi** beyond decolonising research and extends it into what Smith (2017) refers to as conscientisation, resistance and transformative action.

Ipurangi applies principles of Kaupapa Māori to conduct the research with a Māori approach and critically analyse the material as relevant to Māori, described by Smith

and Cram (1997) as - applying tikanga Māori to methods. These methodological principles guide the choice and implementation of the methods to adequately reflect a Māori worldview about the implications of the internet on tikanga Māori.

3.3 CYBER ETHNOGRAPHY

Cyber ethnographic research is a helpful tool for gaining knowledge about virtual communities... Since virtual communities form a specific culture and society, much more knowledge and interpretive insight can be gathered by cyber ethnographic research than any other research technique (Akturan, 1983, p. 2).

Ethnography is generally involved with local knowledge about a specific space (Hallett & Barber, 2014) to understand specific cultural behaviours, examining the perceptions of participants based on their worldview. Ethnography generally concerns the external observation of situations in a neutral, objective manner. However, research has found these approaches harmful to indigenous populations when non-indigenous ethnographers research indigenous populations (for example, Pihama, 2001; Said, 1978; Tuhiwai-Smith, 2012). These research outputs mostly lack indigenous understandings and behaviours from the indigenous worldview.

Cyber ethnography acknowledges multiple online spaces we engage with, including websites, streamed television, and social media. It is also known as digital ethnography (Pink et al., 2016), internet ethnography (Sade-Beck, 2004), virtual ethnography (Hine, 2000), and is most widely known as online ethnography (Tunçalp & Lê, 2014) and sometimes referred to as netnography (Kozinets, 2020). It is often named different things by different researchers - “[i]n a social world increasingly mediated by internet-based digital communication, researchers struggle to find or adapt terminology to label the technologies that impact social and cultural life... as well as the cultural processes and formations themselves” (Markham, 2018, p. 653).

Another facet which is sometimes confused with the above methodological approaches is cyberanthropology (Liben & Liben, 2005), where “two independent subjects of study – anthropological and technological – brought to life a new field of Cyberanthropology. Its dual nature is an adequate systematic method for studying this hybrid phenomenon – the cyber world” (Liben & Liben, 2005, p. 147). Cyberanthropology, is concerned with:

new ways of learning and interactions in the cyberspace where we construct worlds, new experiences in the discover of the science of complexity. The science of complexity shows a pluralistic vision of the physical world: networks instead of structures, connections instead of distinct borders isolating immaculate systems, differences instead of homogeneity (Deleuze, 1967; Derrida, 1967 Deleuze, Guattari, 1987; Escobar, 2001.). (Forte, 2003, p. 96)

Ipurangi is a study of Māori interaction with online communities and cultures; cyber ethnography is used as “[o]nline spaces have significant consequences for how people live, and thus how researchers should study social life” (Hallett & Barber, 2014, p. 309). What cyber ethnography fundamentally understands is that there is a connection between online and offline spaces and overlap of online and offline selves, where research objectives can be shared. “some researchers draw arbitrary lines between online and offline life, this divide does not exist in a postmodern world where individuals present and construct themselves in multiple, overlapping spaces” (Hallett & Barber, 2014, p. 423). Cyber ethnography acknowledges the connections between online and offline experiences as this “increases the depth in understanding complex issues in modern social life” (Hallett & Barber, 2014, p. 325).

A limitation, however, is that cyber ethnography investigates the online space (website, social media etc.), where the ethical considerations of the research are left for the researcher to determine (Akturan, 1983) and do not (or cannot) consider the role that real life physical circumstances might play out in online spaces or how socio-political historical circumstances are considered (Hallett & Barber, 2014). In other words, cyber ethnography is limited in its criticality. To this end, the ethics of this research are governed by Mānuka kawē ake and Kaupapa Māori to ensure an ethical approach to the research as a whole.

3.4 ĪRANGAHAU: KAUPAPA MĀORI CYBER ETHNOGRAPHY

īRangahau is a methodology that employs Kaupapa Māori (Pihama et al., 2015; Smith, 1997; Tuhiwai-Smith, 2012) and cyber ethnography (Ackermann & Ackermann, 2012; Hine, 2000; Ward, 1999) to deliberate Māori interactions at the interface of a Māori cultural world view with online spaces. Kaupapa Māori cyber ethnography joins the tenets of a critical, decolonising and indigenous methodology (Kaupapa Māori) to cyber

ethnography to redefine a particular methodology that best reflects the methodology of this thesis.

Ipurangi extends the ideas of ethnography and cyber ethnography, where “the critical ethnographer contributes to emancipatory knowledge and discourses of social justice” (Madison, 2005, p. 6). By joining cyber ethnographic research to a critical Māori methodology (Kaupapa Māori), **Ipurangi** frames this study with *īRangahau* (Kaupapa Māori Cyber Ethnography). This methodology operates at the interface of Kaupapa Māori and Cyber Ethnography and informs the choice of methods for the research. Dr Dee Sciascia confirmed this notion following the worldwide adjustment to COVID-19, who noted that Māori research involving social media requires consideration of *tikanga* Māori AND *tikanga rangahau* (Sciascia & Keegan, 2021). Furthermore, “Indigenous Knowledge online is an emergent phenomenon. A culturally appropriate methodological theory is required to analyze and comprehend the multifaceted features, circulation, and effects of Indigenous Knowledge online” (Wemigwans, 2018, p. 43).

Furthermore, privacy settings on different social media spaces govern social media posts' public status, which must be considered when sharing information. While cyber ethnography considers public posts and property for resharing and redistribution, Kaupapa Māori approaches critically reflect on the context, position and socio-political nature of internet information and any potential harmful outcomes for the original poster. In this way, Kaupapa Māori approaches acknowledge the colonising history of research (Tuhiwai-Smith, 1999) and aim to decolonise the nature of research by ensuring Māori epistemological principles are central in research.

3.5 METHOD DATA COLLECTION

This research examines the implications of internet/digital environments for *tikanga* Māori and Māori development and utilises an analysis of relevant data (online and offline) supplemented by interviews. The research project aims to collect data about the types of functions Māori utilise the internet for and to assess how *tikanga* Māori is enacted online and explore if there are any adverse effects of online engagement for *tikanga* Māori. The methods engaged in this thesis aim to analyse this interface to determine the implications for *tikanga* Māori and the Māori engagement with the internet. Three methods are incorporated into the study: internet observation, document

collection and analysis, and key informant interviews. Ethical considerations that underpin this study are also discussed here. The proposed methods for this study allow for the following:

- a) an examination of the evolution of Māori use of technology,
- b) the identification of enduring tikanga Māori (as translated to online environments),
- c) the benefits (or otherwise) of the internet for Māori, and
- d) the implications of the internet as a technological advance for tikanga Māori.

3.5.1 INTERNET OBSERVATION

According to Facebook, I have been a member since 2012, but I admit that I once had accounts with early internet sites Bebo, MySpace and Napster, and I cannot remember how long I have been using email. While I currently observe, consider and analyse online information related to this research, I also draw on my observations of online spaces before 2012. Internet observations occur through my networks via email group lists and social media, through observations via television or news articles, and via social media groups I have engaged in, for example, 'Buy Māori Made' on Facebook.

The internet in modern society offers a plethora of information. Traditional research utilised written material physically obtained in hard copy form. The advent of the internet means that many books, journals, newspapers and other hardcopy reserves have been digitised and, in some instances, replaced by online sources. In modern society, most theses will have some element of digital literature. **Ipurangi**, as a written source, contains a high level of online literature sourced from digitised libraries (including journals), but also via publicly shared information. This information comes through video platforms (Facebook, Instagram, Youtube, Clubhouse, TedX, website video repositories) or other online sources. In addition, examples of public online posting and public social media (including Facebook, Instagram, Youtube, and Twitter) posts will be examined. The selection of posts will consider the items' validity and their contribution to **Ipurangi**, and, in the case of social media posts, the source remains confidential unless it is a post released by a public figure (i.e. Business or Influencer). The internet contains a particular jargon (Stec, 2020). **Ipurangi** sometimes utilises the terms listed here.

@: a prefix used for social media usernames (handles) that indicate how to find users on social media platforms.

Big Data: The collection of mass data, most often for the purposes of commodification

Big Tech: Large multinational technology companies, including, Google, Samsung, Apple, Microsoft

Blogs: A shortened weblog version; ‘blogs’ contain updates, event information or opinion pieces. In Kaupapa Māori blogs are usually critical analyses of events or topics (for example, tewhareporahou.wordpress.com)

Cyber, online, virtual, internet, electronic and **digital** are used interchangeably.

Followers: This term describes people who have subscribed to the platform as a ‘follower’. Users are to receive immediate notification of new messages posted to their platforms.

Ipurangi: In this thesis, ipurangi refers to both the name of this PhD which will be expressed with a capital letter and in bold print as **Ipurangi**. When not presented in this manner, the use of the word ipurangi refers to the Māori perception and philosophy associated with electronic, cyber, online, virtual, internet, digital, and other spaces – remembering that from a Māori philosophical approach, ipurangi represents more than these references.

Likes: An indication on a platform that another ‘follower’ agrees with your post

Platforms: A ‘platform’ describes the internet space or applications used; for example, Facebook is a platform. People or platforms might be referenced by their internet platform handle name, usually prefaced by @ - for example, @maramatakamaori, when copied into an internet search engine, will display the different platforms (websites, social media) associated with this platform user.

Posts: A ‘post’ is a message a user enters onto an internet platform. It might contain comments from other users sharing their thoughts on the topic.

Scrolling: the act of filtering through or scrolling over online information.

3.5.2 DOCUMENT COLLECTION AND ANALYSIS

Existing documentation about Māori and the internet provides baseline information for this study. For example, research such as the World Internet Project New Zealand (Díaz Andrade et al., 2018; Díaz Andrade et al., 2021; Gibson et al., 2013) provides primary statistical data about Māori internet use. Relevant to this study is information about access to the internet and the use of the internet by Māori, which is in keeping with tikanga Māori or use contrary to tikanga Māori. **Ipurangi** analyses documents related to the study of Māori and the internet and from a Kaupapa Māori theoretical perspective via an electronic database. Search words in the online database included: online, virtual, digital, internet, cyber, and Māori. The searches rendered several articles and research projects where the initial literature review used actual research conducted on Māori and the internet. The search fundamentally collected documents for analysis about Māori content privileges Māori authors.

An online search using Massey University Library EBSCOhost databases was used. The **'keyword'** search identified books, ebooks, academic articles, periodicals, and theses under the search phrases: (Māori AND internet, OR, Māori AND cyber, OR, Māori AND digital, OR, Māori AND online, OR, Māori AND virtual). In October 2021, the database identified: 3,258 News articles; 1,102 Academic Journal Publications; 883 Magazine entries; 454 Books, 359 Electronic Resources; 313 eBooks; 246 Reports; 80 videos; 63 dissertations/thesis; 61 audio items; 34 Conference materials; 13 trade publications; 6 reviews; 3 maps; 1 biography. A subsequent search restricting the field search to **'subject terms'** resulted in 200 literature hits: 125 academic journals; 42 news; 40 magazines; 20 books; 17 electronic resources; 16 ebooks; 4 dissertations/theses; 2 reports; 2 maps; 1 review; and one non-print resource. A further search restricting the search field to **'titles'** resulted in 150 literature finds 45 magazines; 42 academic journals; 42 news; 37 electronic resources; 17 books; 17 ebooks; 6 audio; 5 non-print resources; 2 dissertations/theses; 2 reports; 1 review.

First, the material was read through to pre-select content specifically about Māori and the internet (cyberspace/online/virtual/internet/digital). This material is included throughout Chapter Three on research analysis. Second, literature that included participant research or literature reviews on Māori and the internet are included in the literature review in Chapter Four. Due to the clinical nature of the database search, it is

acknowledged that some technical research did not meet the search parameters for inclusion in Chapter Four (for example: (Mato, 2009, 2018; Mato et al., 2012, 2015)).

The second iteration of the literature review provided a broader context for this study's information analysis. The literature was gathered from both physical books and online sources and included scholarly work like journal articles and popular research material such as the book 'In the Plex: how Google thinks, works, and shapes our lives' (Levy, 2021).

Subsequent information about cyber-culture and internet culture was used to provide contextual thinking for this study. This information is pertinent to identify the nature of online domains in general and relevant implications for Māori. This literature is analysed concerning Kōrero Tuku Iho as an epistemic frame and the theories of Kaupapa Māori and eColonialism.

3.5.3 KEY INFORMANT INTERVIEWS

Semi-structured interviews are undertaken with key participants who engage with the internet to answer the research question: *What are the implications of the internet for tikanga Māori?* As discussed in a previous chapter, the impetus for the research evolved from personal observation of rangatahi engagement with online spaces and how this reflected or opposed tikanga Māori. Semi-structured interviews as a primary method of data collection employed a process to: identify critical informants who utilise the internet in a way that contributes to Māori development, recruit up to 10 identified informants to participate in the research, conduct in-depth qualitative interviews with the participants, and thematically analyse the data to create a framework for Māori engagement with the internet.

The interviews are intended to extract information about the uses of the internet, the purposes of the internet as a preferred medium of communication, and most importantly, what tikanga Māori underpin the utilisation of the internet in those different areas. The benefits and challenges of the internet are explored along with the broader implications for tikanga Māori.

Purposeful sampling (Suri, 2011) was used to identify research participants where the criteria for selecting participants included: Māori leaders engage with the internet in a way that maintains Māori cultural values. Others recognise leaders as leading and

developing specific projects (such as websites) that support Māori understandings of the world. In this way, participants' positionality (Smith, 1997) is an important consideration where I am personally aware of the chosen participants and have engaged with them via their online presence. Their online presence demonstrates a particular rejuvenation or protection of Māori material and relationships. The interview participants are Māori experts who engage online in Kaupapa Māori ways and thereby provide Kaupapa Māori and tikanga Māori responses and considerations for Māori engagement with the internet.

The identified participants were initially asked to participate via face-to-face conversations, email, phone calls, Messenger, Instagram or Club House. This was followed up by a face-to-face (sometimes via internet mediate means) discussion about the research project and an email or posting of the **Ipurangi** Research Information Sheet (Appendix 1) and Consent Form (Appendix 2). Participants gave oral or written permission to be interviewed for this study. The final research participants, all leaders in their respective fields of online engagement, were:

- Che Wilson, Ngāti Rangi – Che's Channel: Paepae Waho (website, Facebook, Instagram, Spotify, Youtube)
- Rangi Mātāmua (Professor), Tuhoe, Muaupoko – Living by the Stars (website, Facebook, Instagram, Youtube)
- Leonie Pihama (Dr.), Taranaki – KaupapaMaori.com (website)
- Karaitiana Taiuru, Mōkai Pātea – taiuru.maori.com (website)
- Brenda Soutar, Ngāti Porou, Ngāti Awa – Marae Mariko (online teaching Kura Kaupapa)
- Tania Riwai, Rangatahi Matakore – Kaitiakitanga (online teaching Wānanga)
- Ngatai Taepa (Professor), Te Ati Awa, Te Arawa – College Engagement (online institutional COVID response, and marae)
- Christel Broederlow, Ngāti Maniapoto – Founder Māori-in-Oz.com (website, Facebook), Māori Masterminds and Wahine Toa Aotearoa (Clubhouse)
- Te Taka Keegan (Associate Professor), Ngāti Maniapoto – previously working with Microsoft and Google

Interviews were conducted with each participant in person or online, and transcripts were sent for further input and amendment. This allowed participants to reflect on the nature of the interview questions and offer further insights into the research topic.

Ideally, Tina Ngata, activist and early adopter of blog sites with The Non-Plastic Māori in 2014, would have been approached to participate in this research. However, due to the demands on her time and her critical workload advancing Māori, indigenous and environmental rights, I consciously decided to leave her from this research project. Consequently, her written commentary on the state of Māori issues and the internet is utilised within **Ipurangi**.

INTERVIEW QUESTIONS:

The interview questions (Appendix 3) were developed around the research questions for **Ipurangi** and specific questions based on observation of participant online engagement.

- How do you utilise the internet, and why have you chosen to use the internet in the way you do?
- How does tikanga Māori factor into how you use the internet?
- What tikanga Māori behaviours have you observed online?
- Do you think our behaviour online has any impacts on tikanga Māori?
- What are some of the internet's strengths for Māori and our development?
 - o Does tikanga Māori play a role here?
- What, if any, are the weaknesses of the internet and its use for Māori and our development?
 - o Does tikanga Māori factor here?
- What opportunities are there for Māori online?
 - o What about opportunities for tikanga Māori online?
- What threats exist for Māori engagement online?
 - o What about threats for tikanga Māori online?
- Do you perceive any adverse effects of the online space for tikanga Māori?
- What kōrero tuku iho, Māori narratives about the internet do you know of?
- What lessons do you think we can draw from those narratives?
- Do you have any other comments to make?

To further clarify information, sometimes further questions were used to understand the answer better. Interviews took approximately one hour and were held online (given the timing of COVID-19 restrictions), in the interviewee's home or my home.

Digital copies of the interviews were held on personal password-protected sites. Participants received a digital copy of the interview and a digital transcript of their own interviews via email or digital link for their own personal use. Final copies of **Ipurangi** will also be sent via email and physical copy.

TRANSCRIPTS

Ethics were also considered in handling transcript material, with participants indicating what might not be appropriate information to be shared widely. In these cases, I confirmed whether the information should be entirely deleted from the recording. I followed the participants' wishes and transferred the digital copies of the information back to them. Interview transcripts were edited to ensure flow by omitting verbal repetition such as 'and, and' or 'I think, I think that', verbal ticks such as 'you know', 'cause', 'I mean', and in-complete sentences that did not add clarity. Final transcripts were sent to participants for amendments. Thematic coding and noding of the transcripts were undertaken to identify key themes that emerged. Themes are outlined in Chapters Five, Six, Seven, Eight and Nine.

iRangahau - Kaupapa Māori Cyber Ethnography formed the basis for analysing the interview information, essentially privileging a Māori perspective of the interview questions.

Te reo Māori was used throughout the interviews by participants. In such cases, I have provided my translation of the words or phrases in either [square brackets], italicised, or as a footnote – whichever maintains the wairua (spirit) of the information appropriately.

ANALYSIS

Te Ara o Tāwhaki - The Tāwhaki narrative gives a Māori perspective to describe four elements for investigation. When Tāwhaki ascended to the heavens in search of his partner and child, he was advised by his grandmother Whaitiri 'kia mau ki te aka matua, kei mau ki te aka taepa', hold fast to the principle/main vine, not to the loose hanging vine. As Tāwhaki climbed into the heavens, he followed the advice he was given, and his ascent was successful; his brother Karihi on the other hand, did not heed the words and was flung from the vines in the whirling winds – Karihi did not complete the climb. The pathway to the heavens is named Te Toi Huarewa, a potentially perilous pathway.

To ensure a successful climb, Tāwhaki climbed the parent vine and recited karakia to support his journey, completing the upward climb. Within the *oriori* ‘Pinepine te kura’, this is stated by the line ‘piki ake, kake ake’ describing the ascent. The pathway of Tāwhaki to the heavens is remembered in narrative and waiata as ‘te ara o Tāwhaki’. Four elements are essential for the framing of interview discussions and further analysis of the information:

- Te Aka Matua gives focus to the strengths of a journey and allows the investigation of critical threads that are supportive of Māori interactions on the internet,
- Te Aka Taepa refers to weaknesses and behaviours that are not supportive of Māori actions online, those actions which also may detract from Māori engagement on the internet,
- Toi Huarewa describes the pathway to the heavens where the nature of the whirling winds threatens the climb to the heavens, the perilous path which Karihi failed to endure. This refers to external factors impinging on Māori internet use,
- Te Ara o Tāwhaki represents the words of karakia recited by Tāwhaki to support his ascent to the heavens, thereby reconnecting Tāwhaki to atua, to tupuna and the environment, drawing on their strength to support his upward journey.

Therefore the analysis of the information gathered reflects the SWOT instrument, which is derived from a business management tool, “SWOT stands for Strengths, Weaknesses, Opportunities and Threats and can be analysed as a process in which the management team identifies the internal and external factors that affect the company and business performances” (Namugenyi et al., 2019, p. 1146). Over time this tool has been applied across disciplines (Khoshbakht et al., 2017; Namugenyi et al., 2019) to identify internal strengths and weaknesses as well as external opportunities and threats to development (Bright Hub PM, 2010) and aligns with Te Ara o Tāwhaki – Tāwhaki’s journey. The interview questions were framed around contributing factors and hindering aspects of the internet for Māori which reflected Tāwhaki’s narrative. The analysis applies a Kaupapa Māori assessment to the research findings that focus on the impacts of the internet on tikanga Māori (and Māori development), where the duality is also noted as:

Similar to Tāwhaki’s ascent to collect the baskets of knowledge, the development of digitisation processes is a process of trial and error. At times there will be successes in terms of the ethical and technical challenges, and at

other times a reformulation of the task is required in order to advance . . . The consolidation of that knowledge base is an essential part of the journey. (Whaanga et al., 2015, pp. 535–536)

Application of the tool notes “[s]trengths in the SWOT analysis are internal capabilities and positive factors of business establishments, which are relevant for firms to achieve their objectives” (Namugenyi et al., 2019, p. 1146). **Ipurangi** is not concerned with the discipline of business but reframes this theme to consider how the internet positively contributes to Māori social and cultural values – in other words, how the internet might be used to strengthen Māori participation in global societies just as Te Aka Matua supported Tāwhaki. In the business world, the SWOT tool is used to identify weaknesses that “are internal factors or constraints which might impede or hinder the performance of an organisation” (Namugenyi et al., 2019, p. 1146). By applying Kaupapa Māori considerations to this theme, weaknesses are considered to be aspects of the internet that place Māori social and cultural values in a vulnerable or de-centred position, much like Te Aka Taepa, where Karihi was tossed and challenged by the winds. The context of such points is discussed within the core literature (Muhamad-Brandner, 2010; O’Carroll, 2013b; Waitoa, 2013). A business approach to the SWOT opportunities notes them as “factors or features which can favour or facilitate the business establishments with links outside organizations. They are external factors through which companies can exploit their advantages” (Namugenyi et al., 2019, p. 1146). However, this thesis views opportunities as the potential of the internet to contribute to positive Māori development and Māori lives, that is, to see what advantages Māori can garner from internet use, much like Piki Ake that reflects Tāwhaki’s successful journey completion. “Threats deal with negative factors external to the company, which can hinder or delay the achievable goals. As such, opportunities and threats are considered environmental factors” (Namugenyi et al., 2019, p. 1146). This thesis examines the threats or Toi Huarewa that the internet poses that negatively impact Māori development and Māori lives. The notion of opportunities and threats have also been identified within the literature (for example: (Keegan & Cunningham, 2003; Muhamad-Brandner, 2010; Tiakiwai & Tiakiwai, 2010; Waitoa, 2013). A Kaupapa Māori analysis of these findings considers the socio-cultural impacts of colonisation on Māori and our utilisation of the internet.

3.6 ETHICS

Ethics applied to **Ipurangi** are guided by *mānuka kawē ake*, the epistemological frame described in the previous chapter. The acknowledgement that research and research participants have whakapapa and mana that guides the research to be ethical and mana enhancing.

Mana Atua, as an ethical consideration, acknowledges our cosmo-genealogical connection to atua. Mana Atua also guides the collection of narratives and information regarding cosmo-genealogical narratives for ancestral engagement with multiple rangi. These customary relationships are explored within this study and through interview discussions. The outcomes of the research seek to affirm and guide Māori cosmo-genealogical relationships. Mana Atua guides the personal interaction with the interviewees and information gathered from online sites.

Mana Whenua is applied within the ethics of this study to locate it as a Kaupapa Māori research that acknowledges the deep histories of Aotearoa/New Zealand. Our colonial history and the process of colonisation are recognised to analyse if and how colonisation extends into online spaces to impact Māori. One of the criteria for selecting key research informants is the extent to which they understand and engage with our colonising history within their chosen online spaces. **Ipurangi** uses Mana Whenua to explore Māori relationships with the internet and our narratives embedded within this ever-evolving space.

Mana Tangata further acknowledges informants' contributions to maintaining tikanga Māori and navigating the internet. Exploring social media posts and different internet information identifies how Māori engage online. An analysis of this information provides a guide to assess how engagement is conducted in a mana-enhancing way. In this way, the research acknowledges the deep and diverse histories and connections of Aotearoa/New Zealand and how we engage with each other and our locations.

Mānuka kawē ake is supported by Kaupapa Māori ethical approaches: *Aroha ki te tangata* - respect for people and data; *He kanohi kitea* - being engaged and familiar to communities; *Titiro, whakarongo...kōrero* - Look, listen and then, later, speak; *Manaaki ki te tangata* - looking after people and relationships; *Kia tūpato* - be cautious, politically aware, culturally safe, and reflective; *Kaua e takahia te mana o te tangata* - do not trample on the *mana* (dignity) of people; *Kia mahaki* - be humble (Tuhiwai-Smith,

2012). In addition, guidance for **Ipurangi** applies the ethics for research by Jackson as described as the ethic of *prior thought, moral choice, time, power, change, courage, honesty, imagination, and celebration* (Jackson, 2013).

Massey University Code of Ethical Conduct for Research, Teaching and Evaluations Involving Human Participants (Code of Conduct) (Massey University., 2017) identifies that research must consider: *autonomy* (participants' free and educated choice to participate), *avoidance of harm, benefit, justice* (fair distribution of gains), *unique relationships* (acknowledging relationship to institutions, groups and individuals). The Code of Conduct includes Treaty of Waitangi obligations and principles as *whakapapa* (relationships – with Māori communities), *tika* (purposefulness – impacts on Maori), *manākitanga* (cultural and social responsibility), and *mana* (justice and equity – protection for Māori culture). Massey University requires all research to undergo an application to a university Ethics Committee to review and ensure that research proposals adhere to the above principles and values. **Ipurangi** has been granted Ethic Committee approval with the Massey Human Ethics Notification Number 4000022994.

Ipurangi applies the ethics outlined in Mānuka kawē ake, Kaupapa Māori ethical approach (Smith, 2012), Jackson’s (2016) description of research ethics, and the Massey University research ethics.

Table 2: Mānuka kawē ake, research approach

Mānuka kawē ake	Mana Atua	Aroha ki te tangata	Prior thought	Whakapapa
		Manaaki ki te tangata	Time	
		Kaua e takahia te mana o te tangata		
	Mana Whenua		Power	Manākitanga
			Honesty	
			Imagination	
		He kanohi kitea	Celebration	Special relationships
			Moral choice	Autonomy

	Mana Tangata	Titiro, whakarongo...	Change	Avoidance of harm
		Kia tūpato	Courage	Benefit
		Kia mahaki		Justice
				Tika
				Mana

CHAPTER 4 LITERATURE REVIEW

Tēnei te tira hou, tēnei haere mai nei

The *oriori* guides this research and frames this chapter with the line '*tēnei te tira hou, tēnei haere mai nei*', which refers to the arrival of a new visitor. Māori engagement with the internet signals the 'arrival' of a new study area. This chapter reviews the studies of Māori arriving at the online space.

4.1 MĀORI AND INTERNET: THE LITERATURE ON STUDIES

Internet

(the Internet) A global computer network providing a variety of information and communication facilities, consisting of interconnected networks using standardized communication protocols. (Oxford University Press, 2014)

The internet was introduced to Aotearoa in 1989 (Heyday!, 2010). For Māori, this was not the first technological introduction that would impact Māori ways of living or communicating (Kamira, 2003); for example, 'the pen' had a significant impact, as highlighted by the Māori adoption of reading and writing with several Māori newspapers in production since 1842 (see: (Paterson, 2004). The internet is just another technological advancement. It will offer benefits and challenges for Māori, the culture, and Māori development.

It is essential to acknowledge that as software and technological developments occur, the jargon associated with those fields also increases. For example, the 'internet' is often referred to in interchangeable ways for Māori, including online (Muhamad-Brandner, 2009), cyber (Muhamad-Brandner, 2010), e-environment (Royal, 2005), virtual (Tiakiwai & Tiakiwai, 2010) (spaces), information technology (IT) (Parker, 2003), CMC (computer-mediated communication) (Hofmann, 2011) or information communication technology (ICT) (Parker, 2003) among others. Furthermore, instances of actual computer genres, programs/applications or even functions can be directly

referred to: Social Networking⁵, Facebook⁶, and Tweeting⁷. Therefore, with such a broad scope of terminology, it required focused search terms (described in Chapter Three) to capture the broad literature relevant to Māori and the internet.

The literature review reveals a burgeoning number of studies relative to Māori and internet environments that cover at least eight broad themes: access and ownership, aspects of tikanga Māori, e-learning, statistical overviews, contact and networking, issues of information technology, te reo Māori, and miscellaneous information. However, this review focuses on research projects that include human participants or statistical collections. One thesis was omitted from inclusion as they did not discuss or analyse the information collected. The projects included here relate to: identity as described by Muhamad-Brandner (2010), O'Carroll's (2013a, 2013e, 2013b) examinations of youth identity and social networking sites and political participation as examined by Waitoa (2013) and CMC (Computer-mediated communication) for internal iwi communication by Hofmann (2011). Issues of access were also reviewed in a study by Reti, Feldman and Safran (2011) (internet access and diabetes), two surveys on te reo Māori online by Keegan and Cunningham (2003) as well as Keegan, Cunningham and Benton (2004), and issues of privacy as investigated by Edwards (2004). One study involved an analysis of tikanga Māori about digital leadership by Walker (2017). Population data generated by three studies on the World Internet Project New Zealand are included in this review. They include the data from Smith, Smith, Sherman, Kripalani, Goodwin and Bell (2008), a subsequent study by Smith, Gibson, Crothers, Billot, and Bell (2011) and recent information from Gibson, Miller, Smith, Bell, and Crothers (2013). Finally, the topic of Māori and e-learning is broached by Tamati (2008) and Tiakiwai and Tiakiwai (2010), Lee (2018), McKenzie (2014) and Dunn (2018), with one study on Te Ao Hikohiko (Māori online learning) (Royal, 2005). Only abstracts and citations of this research could be obtained; its content was not analysed further here.

As **Ipurangi** is a Kaupapa Māori research project, the researcher's positionality in this literature review is considered. Muhamad-Brandner and Hofmann are non-Māori

⁵ 'Noun: the use of dedicated websites and applications to interact with other users, or to find people with similar interests to one's own' from: Oxford University Press (2014). 'social networking'. *Oxford Dictionaries*. Retrieved from: <http://www.oxforddictionaries.com/definition/english/social-networking?q=social+networking>

⁶ A social networking website

⁷ A verb derived from the microblogging/social networking application 'Twitter'. To 'tweet' is to microblog via the internet onto the social networking site 'Twitter'.

researchers investigating Māori interactions with the online space. Even though the researchers do not claim to be conducting Kaupapa Māori research, there are concerns about the validity of their analysis – for example, Hofmann references a known non-Māori researcher who consistently makes anti-Māori statements, and Hofmann discloses (albeit anonymously), private conversations about internal office politics concerning a Māori organisation. For this reason, Hofmann’s work has been excluded from this review.

4.2 AN OVERVIEW OF THE PROJECTS

Overall, the studies can be assembled into several themes: networking, tikanga Māori, te reo Māori, resourcing, access, Māori typologies and pedagogy. The first theme examined in this literature review is networking which can be viewed as a generic implication of the internet, as the internet is about accessing different networks of information and communication channels. However, three further sub-domains of networking are also apparent in the literature. Relationships are identified as critical aspects of internet use, and the notion of whanaungatanga emerges within this. According to the literature, access to information forms another vital part of internet use, as does ‘identity’, where internet users seek to find out more and affirm their Māori identity online. The second theme is tikanga Māori which examines different tikanga explicitly and implicitly identified within the studies. Te reo Māori forms a significant component of tikanga Māori examined within the research. The third theme is resourcing, addressing resources, funding and capacity issues. Access to the internet describes the fourth theme, and analysis of Māori typologies is the fifth theme. The final theme discusses the literature findings for Māori pedagogy.

4.2.1 NETWORKING

The purpose of the internet is to provide a flow of information and communication (Heyday!, 2010). Today technology provides the ability for communication and social networking on an unprecedented level. The connections occur across multiple platforms, such as mobile phones, tablets, and computers. These platforms allow access to an ever-increasing pool of information and unlimited knowledge.

Networking with other people and linking to information networks are discussed within the literature. Muhamad-Brandner (2010) explores how the internet is used to network with other people and with different sets of information that inform and affirm Māori identity, much like Ngāi Tahu's use of multiple forms of communication, including the internet by Hofmann (2011). Lee (2018) explores a similar case with Māori post-graduate scholars supporting each other through a Facebook page. Similarly, O'Carroll (2013a, 2013b, 2013c) looks at how Māori youth affirm their identity through social media as sites to network with other people. Waitoa (2013), however, investigates how social media facilitate political participation through regional networks.

The internet as a tool for access to information is discussed within the research. Reti et al. (2011) identify the internet use to access networks of people with diabetes. They employ an online intervention to deliver relevant information and assist with the management of diabetes, Edwards (2004) investigates the New Zealand government logon services⁸ and the possible implications for Māori users of the networking service. Smith, Smith, Sherman, Kripalani, Goodwin and Bell (2008) undertook a study of the social and demographic impacts of the internet as part of the World Internet Project. This collected a range of information about internet use habits and how and what New Zealanders access the internet. Subsequently, Smith, Gibson, Crothers, Billot and Bell (2011) collected an extended range of data as part of the next phase of the World Internet Project. Further information was then gathered again by Gibson, Miller, Smith, Bell and Crothers (2013). Lee (2018) also identifies that the post-graduate Facebook group allows Māori students to access support and relevant information about their studies through this online site. Walker (2017) notes that the online space presents opportunities for connection and access to the broader world, including people and economies.

The presence of te reo Māori online is examined by Keegan et al. (2003) through an extensive survey of online webpages and websites to ascertain the quantity of te reo Māori online. Consequently, Keegan, et al. (2004) carried out a further survey that identified a growth in the number of te reo Māori webpages and websites;

Māori education is also featured within the literature reviewed here. The development requirements of e-learning professionals are studied by Tamati (2008). E-learning is an emerging field of study for use within Māori educational environments. In a similar

⁸ Government websites that allow internet users to access their personal government based information. For example: www.passports.govt.nz that allow you to renew your New Zealand passport online.

vein, Tiakiwai and Tiakiwai (2008) investigated all relevant literature about Kaupapa Māori education as linked to e-learning, while Te Ao Hikohiko (Royal, 2005; Te Ao Hikohiko & Te Tauihu o ngā Wānanga, 2005) was a government-funded initiative to investigate e-learning and te reo Māori.

RELATIONSHIPS

The internet plays a vital role in access to people. The internet facilitates relationships in a myriad of ways. Smith et al. (2011) identify that people utilise the internet for: online communication, contacting people, making new friends online, and socialising. Furthermore, they found that 64% of internet users utilise social networking sites, confirming that relationships are essential to internet use. Similarly, Muhamad-Brandner (2010) show that contact with others via the internet was an essential contribution to a Māori identity. O'Carroll (2013a, 2013b, 2013c) affirms that Maori youth use social networking sites to create and maintain relationships. Waitoa's study (2013) supports the idea of the internet facilitating relationships around shared kaupapa, as found in Māori political participation through social media, which facilitates relationships around shared kaupapa. Tamati (2008) further identified that the relationships between teachers and learners are an essential component of e-learning for Māori. This is supported by Tiakiwai and Tiakiwai (2010), who found that quality learning relationships are an essential element facilitated by the internet. At the same time, Walker (2017) identified that tikanga Māori must also govern relationships online.

Relationships can be created and maintained online and often develop further as offline relationships. As O'Carroll (2013a) has identified, social networking sites facilitate aspects of whanaungatanga online and offline regardless of geographic distances. Lee's (2018) research identified that an online space was deliberately established to maintain relationships to support students through their PhD journey. However, Muhamad-Brandner (2010) notes that maintaining live/offline relationships can be an issue. This point is also noted by Waitoa (2013), who states that online activity must be accompanied by offline activity, such as political participation. Regardless of online and offline relationships, Gibson et al. (2013) state that Māori prefer to retrieve information directly from others (kanohi ki te kanohi) instead of the internet, which suggests that offline relationships are essential.

Ultimately human contact is changing where the internet facilitates different types of relationships that sometimes move from online contact to ‘real world’ or offline relationships. This is exemplified as stated about the internet:

Contact with people in one’s community is relatively unchanged. Most users say the Internet has increased their amount of contact overall with friends (64%) and family (60%), few say it has decreased. On the other hand, 22% report that since they connected to the Internet, they spend less time face-to-face with the family with whom they live... This finding is particularly strong for Pasifika people (Smith et al., 2008, p. 316).

The mention of Pasifika people is included in the quote above as the findings for Māori within the World Internet Project (Smith et al., 2008) are similar to those for Pasifika. This finding is significant for Māori internet users, as although contact with the community is unchanged, the Smith et al. (2008) study indicates that the internet impacts household relationships.

Whanaungatanga

Four literature projects specifically identify a new form of ‘whanaungatanga’ online, where Māori can connect and interact with each other via the internet.

O’Carroll (2013b) looks at how social networking sites (SNS) facilitate aspects of whanaungatanga online, offline and to facilitate relationships locally, nationally and internationally. In this respect, O’Carroll examines the state of the Māori diaspora and the role that social networking plays in maintaining whanaungatanga. However, in contrast to Kaupapa Māori theory, this study incorporates six values of whanaungatanga from a Pākehā psychology student McNatty (2001):

1. *take/kaupapa* (principles associated with the dependent issue);
2. *whakapapa* (principles associated with descent);
3. *wairuatanga* (principles associated with a spiritual embodiment);
4. *manaakitanga* (principles associated with duties and expectations of care and reciprocity);
5. *kotahitanga* (principles associated with a collective unity); and

6. *rangatiratanga* (principles associated with governance, leadership and the hierarchal nature of traditional (cited in O’Carroll, 2013b, p.233)

O’Carroll uses this framework in conjunction with three additional values that she cites from Edwards (2009): *aroha* (love), *manaakitanga* (nurturing), and *kaitiakitanga* (guardianship) to assess how Māori youth facilitate *whanaungatanga* through SNS (Edwards, 2009 cited in O’Carroll, 2013b, p.233). Based on these values, O’Carroll found that Māori youth utilise SNS to establish and maintain relationships, leading to the emergence of ‘virtual *whanaungatanga*’.

Waitoa (2013) observed that Māori use the internet to connect for specific purposes, such as politics, where social media can facilitate ‘*whanaungatanga*’. She discusses the notion of ‘e-*whanaungatanga*’, which describes online or virtual spaces facilitating relationships, which may be centred on a shared *Kaupapa* (topic). A model for ‘Empowered Indigenous Social Media Spaces’ is proposed to enhance: *mana tangata* (psychological empowerment), *whanaungatanga* (social empowerment), and *tino rangatiratanga* (political empowerment). E-*whanaungatanga* can then be promoted through social media by consultation with communities, reconnecting people to each other and their native homes, engaging with *kaumatua*, cultural literacy, transformation to offline action, collaboration with indigenous people and the protection of their knowledge, along with intellectual property law to protect that knowledge.

Whanaungatanga is also discussed by Austrian scholar Muhamad-Brandner (2010), who cites Tomlins-Jahnke to identify that *whanaungatanga* must be maintained through ‘physical’ and ‘metaphysical’ links. However, Māori are now using the internet for social interaction where a ‘virtual link’ is established between people, which can facilitate ‘*whanaungatanga*’ but cannot replace protocols such as ‘face-to-face’ connections. This is also apparent within e-learning, where Tiakiwai and Tiakiwai (2010) state that *whanaungatanga* is an important aspect which must be catered for within e-learning contexts. Dunn (2018) states that digital technologies can facilitate better relationships between schools, learners and *whānau* – however, access to digital communication remains an issue for many households.

Lee (2018) examines aspects of *whanaungatanga* within her research and also states that virtual connection was supported by *kanohi ki te kanohi* interaction as a critical aspect.

Similarly, Walker (2017) identified whanaungatanga as essential to connecting to rangatahi and wider iwi members through their project.

Muhamad-Brandner (2010) and Waitoa (2013) also found that the internet facilitated negative social characteristics that contradict the above-mentioned whanaungatanga principle. Muhamad-Brandner identifies online cyberbullying and scams, whereas Waitoa discusses disempowering behaviours.

Access | To Information

Access to information is the essence of the internet and is a significant theme found throughout the literature.

The World Internet Project (Smith et al., 2008; Smith et al., 2011; Gibson et al., 2013) identifies the internet as the most essential tool for information seeking. O'Carroll (2013a, 2013b) confirms this is the case for Māori youth accessing information online. Muhamad-Brandner (2010) also found that affirming Māori identity online involves accessing Māori cultural information, Māori language, information about hui, and tribal digital collections. Gibson et al. (2013) note the high use of search engines and translation sites for Māori. This further supports the notion that access to information via the internet is essential for Māori.

Smith et al. (2011, p. 6) have found that in the general New Zealand population, the internet is an information resource that is more important than television, radio, newspapers, other people, and community services (such as libraries). Access to educational information is also highlighted by Tamati (2008) and Tiakiwai and Tiakiwai (2010) through the evolution of online learning. 'E-learning' is an example of a new form of access to information for Māori. Contrary to this notion of accessing information online, however, the Gibson et al. study (2013) shows that Māori identify retrieving information from other people as more critical than sources on the internet.

The Māori scholar Facebook page (Lee, 2018) also facilitated access to various senior Māori academics who supported the scholars. In this way, students could access academics beyond their institutions. Walker (2017) also identifies the internet as providing access to broader information and noted concerns about how cultural appropriation was occurring.

Muhamad-Brander (2010) found that the internet could be more beneficial for Māori by incorporating Māori language content (including mainstream content such as ‘how to’ videos and international news); by involving kaumatua in uploading Māori content (including Māori resources such as digitised books with Māori content); and identifying Māori role models online.

Identity

The internet contributes to Māori identity by providing access to information that can affirm Māori identity.

Muhamad-Brandner (2010) states that the internet is appropriate “to function as a starting point for individuals discovering or asserting their identity as Māori” (p. i). Supporting this, the Smith et al. study (2008, p. 316) of the New Zealand population shows that the internet ‘increased their sense of identification’ with New Zealand (34%) and with their ethnic group (19%). This is consistent with what O’Carroll (2013a, 2013b, 2013c) found regarding how Māori youth utilise social networking sites as a form of self-representation. About e-learning, Tamati (2008) and Tiakiwai and Tiakiwai (2010) found that Māori identity must be affirmed within the online environments if they are conducive to e-learning for Māori students. The Māori scholar Facebook page (Lee, 2018) and 2NuiCode (Walker, 2017) were explicitly established to affirm Māori identity and privileged te reo Māori and other tikanga Māori. Therefore, creating online environments that reflect the cultural identity of its users is essential. Walker’s research participants (2017) raised concerns about the cultural appropriation of Māori images, art and the haka but also stated that Māori engagement in the digital arena must maintain a unique Māori identity.

Muhamad-Brandner (2010) distinguishes three categories of Māori identity where participant responses reflect the ‘strength’ of their identity as Māori. Māori with solid identity and ready access to Māori knowledge; Māori with strong identity but limited access to Māori knowledge; and Māori who are insecure or marginalised with less knowledge about the Māori world but who are interested in learning more. The categories may provide a point of analysis for determining Māori engagement with the internet and have some similarities to the ‘Māori identity measures’ identified by the longitudinal study Te Hoe Nuku Roa (Durie, 1995).

4.2.2 TIKANGA MĀORI

Tikanga Māori is the focus of several studies from varying perspectives. The notions of explicit and implicit references to tikanga Māori are discussed here, and a separate discussion is on te reo Māori. Explicit references to tikanga Māori are identified around e-learning. For example, McKenzie (2014) and Tamati (2008) stated that e-learning for Māori must include a culturally responsive environment, values and principles of tikanga Māori and interaction that includes face-to-face contact. This is supported by Tiakiwai and Taikiwai, who maintain:

Te reo Māori and tikanga Māori are found to be critical to engaging Māori students. Examples include: face to face learning, and whakawhanaungatanga. These must be incorporated into virtual learning. (Tiakiwai & Tiakiwai, 2010, p. 5)

Edwards' (2008) examination of internet government log-on services mentions tikanga Māori within the internet environment. This study references an undisclosed grey 'tikanga paper' and calls for a cultural and social impact assessment that includes an investigation of the impact of 'e-government' on Māori cultural practice. This would include the impacts on tikanga, such as kanohi ki te kanohi or face-to-face contact.

Lee (2018) discusses three explicit tikanga Māori principles: tino rangatiratanga, the principle of self-determination; taonga tuku iho, the principle of cultural aspiration; and whānau, the principle of extended family structure. This work examined the specific cultural premises for bringing Māori scholars together online and found that:

it is critical to create a space where being Māori is 'normalized', and where principles, such as whanaungatanga, manaakitanga, and aroha contribute to this. Additionally, a strong sense of reciprocity amongst the group is expected, ensuring that there is a responsibility to the collective by all members. (Lee, 2018, p. 86)

Walker (2017) identified several important tikanga in his research: whanaungatanga (connection and relationships), kotahitanga (unity), rangatiratanga (sovereignty), kaitiakitanga (protection and looking after what we have inherited), puawaitanga

(achievement and growth), whakapapa (identity), taumatatanga (excellence), wairuatanga (spirituality) and manaakitanga (care of people). These tikanga are related to the digital space and expected conduct in those spaces.

O’Carroll (2013a, 2013b, 2013c), Waitoa (2013), and Muhamad-Brandner (2010) make implicit references to tikanga Māori. That is to say that they do not use the term ‘tikanga’ but rather make references to cultural practices such as whanaungatanga. There is a presumption therefore that the use of Māori terms such as ‘kanohi ki te kanohi’, ‘tapu’, ‘whakapapa’, and ‘tino rangatiratanga’ is understood as a reference to tikanga Māori. Both O’Carroll (2013a, 2012b, 2013c) and Waitoa (2013) note that kanohi ki te kanohi can be facilitated online through the social media forum of Skype. Muhamad-Brandner (2010) mentions that information can be tapu in nature and that whakapapa plays a role in the formation of Māori identity. Tino rangatiratanga is discussed by Waitoa within social media spaces. The notions of kanohi ki te kanohi, tapu, whakapapa and tino rangatiratanga are all grounded within tikanga Māori and are therefore implicit references to tikanga within the literature.

Several issues are raised regarding the nature of tikanga Māori in online environments. Edwards (2008) raises concerns about collective and communal privacy of information in government log-on services, the protection of whakapapa on these government sites, and whether Māori stakeholders are involved in designing and implementing these websites. Waitoa (2013) considers online issues around cultural misappropriation of knowledge and information, lack of respect for each other, and the role of tapu information such as whakapapa and images such as photographs of the deceased. O’Carroll (2013b) also sees complications for customary practices online.

Further analysis of tikanga Māori within online environments is required as the examination of Māori identity by Muhamad-Brandner (2010, p. 289-290) found “[t]he internet is a practical tool which could allow the limitations of everyday life to be overcome”. Lee’s (2018) examination found that there was an unstated expectation that participants in the Facebook group would engage in ways that were consistent with tikanga Māori and that “social media sites, if managed by and for Māori, can become culturally safe places for learning in ways that reflects their cultural practices and values” (Lee, 2018, p. 87).

Te Reo Māori

Te reo Māori was referenced in most studies. However, Keegan and Cunningham. (2003) and Keegan et al. (2004) carried out two particular projects on “the usage of the Māori language on the world wide web” (p. 1). The two surveys assess the quantity of te reo Māori websites and webpages. They are referenced extensively by Muhamad-Brandner (2010) in the literature review of her study as two of the few specific studies regarding Māori and the internet.

The two surveys found that the presence of te reo Māori online doubled between 1998 (Keegan & Cunningham, 2003) and 2002 (Keegan et al., 2004). Keegan and Cunningham (2003) note that a significant contribution to this increase was the Māori Newspaper Collection called Niupepa, which supplies nearly 18,000 webpages in te reo Māori. They also note that access to information sources written in te reo Māori is undoubtedly assisted through the use of te reo Māori by New Zealand government sites and educational organisations. Keegan et al. (2004) then states that the online increase was also assisted by the growing amount of te reo Māori audio and video available online (Keegan et al., 2004).

Access to te reo Māori sites is cited in other studies. Participants in Muhamad-Brandner’s (2010) study identify how they use the internet to gain access to the Māori language, particularly for access to Māori dictionaries and translation sites. However, their views on te reo Māori online also reflected their level of competence in te reo. For example, fluent speakers of te reo Māori identified many positive aspects of te reo online and their use of Māori language sites. Beginner speakers in the Muhamad-Brandner study identified resources that would benefit their language development and their inability to use Māori language sites because of their limited language ability. However, O’Carroll (2013b) notes that social networking sites such as Facebook add to the number of online te reo Māori fora, whereas Lee (2018) stated that the online research site consciously privileged te reo Māori.

Several areas for further research on te reo Māori online are suggested. Keegan et al. (2004) recommend investigating how te reo Māori is used online and how users interact with te reo Māori websites. They also suggest examining how te reo Māori resources are utilised online is required. Waitoa (2013) expresses that an exploration of how te reo Māori (me ōna tikanga) is empowered in social media is necessary, and Tiakiwai

and Tiakiwai (2010) request further study of the appropriate application of te reo Māori within e-learning. In addition, Muhamad-Brandner (2010) asked for more simple Māori language content (including mainstream content such as 'how to' videos and international news) and more Māori resources (including digitised books with Māori content) to be available online.

Overall, Keegan and Cunningham (2003) express that indigenous people should be encouraged to participate online and in their languages being represented online.

4.2.3 RESOURCING

Many studies often refer to resourcing as an issue for Māori content online. The issues range from technical issues to funding issues, all impacting how Māori interact with the internet and how they perceive their 'internet experience'. Tiakiwai and Tiakiwai express their concern for technical resources in e-learning:

For the learning environment to be conducive to learning it must include access to resources (internet, data, technical support), adequate professional development (access to expertise, e-learning pedagogy), and an appropriate physical environment. (Tiakiwai & Tiakiwai, 2010, p. 5)

Regarding technical issues Keegan and Cunningham (2003) also a sight that te reo Māori poses some challenges regarding the technical ability of software (i.e. macrons), navigation via hyperlinks and buttons, and multimedia information. Ultimately, they infer that this funding issue restricts the establishment and maintenance of te reo Māori websites and web pages. Keegan and Cunningham also state that if government funding is sought to maintain te reo Māori sites, this might have adverse effects if compliance is not in keeping with the spirit of the Māori language material.

Human capacity is another challenge for Māori online environments. Keegan and Cunningham (2003) identify a lack of human capacity to develop Māori language sites and pages. Similarly, Tiakiwai and Tiakiwai (2010) state that teachers engaging in Kaupapa Māori e-learning often have to develop their resources. This is somewhat highlighted by Keegan et al. (2004), who express their disappointment that Māori organisations (including Māori Immersion Schools) do not have a larger quantity of te reo Māori represented online. However, they also note that this could be symptomatic of limited human capacity.

In addition, Muhamad-Brandner (2010) requests more resources for Māori. Tamati (2008) and Tiakiwai and Tiakiwai (2010) see that more professional development within e-learning is required. Tiakiwai and Tiakiwai also call for a further examination of Māori and e-learning.

4.2.4 ACCESS | TO THE INTERNET

The use of the internet relies on having access to the internet. However, several issues are raised around the ability to access the internet.

Smith et al. (2008) note that generally, a higher income means that there is better access to the internet. Statistics New Zealand (2013) show that Maori income is lower than the national average. Considering this with Smith et al.'s findings, Maori are less likely to have access to the internet. This is also reflected in Gibson et al.'s study (2013, p. 33), where Māori and Pasifika New Zealanders have higher rates of internet non-use, both at 14%, than NZ Europeans (7%) and Asians (3%). Smith et al. (2011, p. 33) also found that Maori (and Pasifika) access to the internet was significantly less than other ethnicities, 70% of Maori in 2007 (approximately 80% for NZ European and 95% for Asian people) and increased to 86% in 2011 (around 95% for Asian people and 87% for NZ European). Muhamad-Brandner (2010) states that access for Māori to the internet cannot be taken for granted. On a similar note, Reti et al. (2011) found in their diabetes study that internet interventions rely on one's ability to access the internet, as affirmed by Tiakiwai and Tiakiwai (2010), who state that access to the internet is critical to e-learning.

Contradictory to this O'Carroll (2013b) found that Māori youth engage with internet social networking sites because it is inexpensive. Smith et al. (2011) found that the difference in access to the internet decreases with age. That is to say; the younger demographics show less difference in access regarding ethnicity. Therefore, while Māori may have less access to the internet, youth demographics do not show the same issue arising about access to the internet. The situation is perhaps further demonstrated by the following:

The position of Maori and/or Pasifika respondents is... complex. Generally, they tend to have less access to the Internet but if users, they tend to be more frequent users than Pakeha [European] across most types of online activity. This is

particularly evident for online socialising where Pakeha are less active (Smith et al., 2008, p. 323)

Overall, Gibson et al. (2013) find that Māori are more likely than others to access the internet in communal areas and less likely to check their emails. The Gibson et al. study states, “Māori and Pasifika appear to be more digitally disadvantaged than New Zealand Europeans” (p. 32). This global issue is often described as ‘the digital divide’, or the gap between those with access to the internet and Information Communication Technology (ICT) and those without (Oxford University Press, 2014).

4.2.5 TYPOLOGY | AS APPLIED TO MĀORI AND THE INTERNET

Three particular typologies of Māori are discussed in the literature. While these typologies are not evident in their link to Māori and the internet, they have been used in studies to describe the characteristics of Māori engaging with the internet.

O’Carroll (2013b, p. 233) cites Granovetter’s work using the typology of ‘strong links’ and ‘weak links’ to describe the nature of reciprocity in intimate relationships. O’Carroll says these links are currently being facilitated online via social networking sites.

Tamati’s (2008, p. 13) study (incorrectly) cites Maharey (who used a Te Puni Kōkiri framework) for a ‘Māori typology’ that described Māori under four categories:

the cultural inheritor, who is conversant in Te Reo and tikanga Māori, and one who embraces Māori culture; a cultural seeker continues to search for their identity and links; a culture dissenter feels the influence of negative cultural pressures; and a cultural rejector, reject the negative and stereotypical images of being Māori (Maharey, 2002).

Tamati (2008) then identifies that “[a]s Māori differ in belief and attitude, then so too must their learning preferences and styles differ” (p.13). This is an essential statement as this research investigated e-learning for Māori and suggests that the online environment must suit different learning styles.

Another study by Muhamad-Brandner (2010, p. 289) recognises three distinctions for Māori identity: Māori with strong identity and ready access to Māori knowledge; Māori with strong identity but limited access to Māori knowledge; and Māori who are insecure

or marginalised, with less knowledge about the Māori world, but who are interested in learning more.

These typologies could be considered controversial, with one description offered by Austrian Muhamad-Brandner (2010) and Tamati (2008) suggesting a description from Maharey. Nonetheless, they offer a basis for analysing participants' responses across other studies and can be linked to Durie's (1995) description of Ngā Matatini Māori. This is particularly relevant as Muhamad-Brandner stated, "the internet's potential as a site of identity construction is... ambivalent and is strongly linked to each person's life circumstances" (p.i).

4.2.6 MĀORI PEDAGOGY

Three particular research projects by McKenzie (2014), Tamati (2008) and Tiakiwai and Tiakiwai (2010) centred on e-learning and discussed the notion of pedagogy. What is found in the literature in the area is that Māori pedagogical practice is essential for e-learning environments for Māori. Tenets such as an affirmation of Māori identity, the incorporation of te reo Māori and Māori cultural practice, and professional development are identified as being critical to producing pedagogy that is conducive to Māori e-learning. While Lee (2018) noted that Māori approaches to education were embedded in the development of their Facebook page.

4.3 FURTHER RESEARCH

This literature review demonstrates that research about Māori and the internet is limited. From the current studies that focus specifically on Māori and the internet, further research covered four general areas: the function of the internet, the impacts and benefits of the internet, and e-learning.

The function of the internet produces questions about Māori use of the internet. Smith et al. (2008) show that Māori perception of the internet has not been explored, and research in this area is necessary. In addition, O'Carroll (2013b) requests an inspection of how Māori youth utilise the internet to connect with whānau overseas. Waitoa (2013) suggests a further examination of how social media facilitates whanaungatanga. According to Muhamad-Brandner (2010), social media continues to require additional

research for Māori with a particular focus on blogs, forums, tribal websites and the use of social networking by Māori organisations. Technological issues are identified for exploration. Specifically outlined by Tamati (2008) are the needs of Māori IT professionals and Māori website providers, and Edwards (2004) requests an assessment of the speed of technological change.

The impacts of the internet are highlighted in the literature as requiring further investigation. Smith et al. (2008) identify the social impacts of the internet in different sectors. In addition, Edwards (2004) notes the risk of re-colonisation via the internet and the impacts of the internet on Māori cultural practice (i.e., *kanohi ki te kanohi*). O'Carroll (2013b) states that an examination of the detrimental aspects of the internet is required, with Waitoa (2013) noting that the impact of empowering social media on te reo Māori is necessary. Keegan et al. (2004) state that exploring the actual use of Māori language resources is necessary. The outcomes for Māori regarding the internet are relatively un-researched. Edwards noted that future benefits for Māori should be assessed; Walker (2017) identifies that a broad longitudinal and comparative study on *tikanga* Māori and digital leadership across *iwi* that considers the impact of dominant cultures on *iwi* initiatives is required, and Tiakiwai and Tiakiwai (2010) stated the Māori student outcomes about e-learning require extra examination.

Studies on e-learning note several areas for further investigation. Tamati (2008) notes issues such as Māori pedagogy, technology for engaging Māori learners, and design and delivery for further observation. While Tiakiwai and Tiakiwai (2010) acknowledge the lack of research around *Kaupapa* Māori e-learning, which intimates that further focus in this area is required.

These findings for further research are not extensive. They express suggested research based on the 14 studies about Māori and the internet. For example, a literature review not included by Sheehan (2011) is based on developing 'internet protocol television' that suggests Māori and indigenous peoples should develop their internet protocols to protect Māori cultural knowledge and the representation of Māori in broadcasting platforms. This type of literature is included throughout other chapters of this thesis.

4.4 SUMMARY OF LITERATURE

The literature contained in this review is specific to studies conducted on Māori and the internet. Sixteen specific research projects were utilised (with two inaccessible documents). The themes apparent within the research reviewed are networking (whanaungatanga, relationships, access to information, and identity), tikanga Māori, te reo Māori, resourcing, access to the internet, typologies and pedagogy. These themes have been identified as significant in Māori engagement with the internet.

Networking is identified as an essential aspect of the internet for Māori. The ability of the internet to connect to whānau, to others, and information is highlighted within the studies. Such networking is also found to play an essential role in the identity of Māori internet users. Whanaungatanga is facilitated through the internet, with authors stating the emergence of ‘e-whanaungatanga’, ‘virtual whanaungatanga’, and ‘virtual links’ to whānau. The internet is a tool that Māori utilise to connect and reconnect with whānau and iwi origins. Furthermore, it assists relationships with friends, family/whānau, shared kaupapa, and teaching and learning. Access to information is a vital function of the internet. Māori utilise the internet to access a range of information which often contributes to the identity of Māori. Māori identities are diverse, and the internet is perceived as contributing in different ways to that diversity of identity. The emergence of the notion of identity is assisted in this review by Muhamad-Brandner (2010) and O’Carroll (2013a, 2013b, 2013c), which focus on Māori identity and the internet.

Tikanga Māori is mentioned within the literature. Generally, there are references to tikanga Māori within the research methodologies. However, explicit mention of tikanga Māori about the findings of the research occurs within the studies for e-learning by Tamati (2008), Dunn (2018) and Tiakiwai and Tiakiwai (2010); the government logon project by Edwards (2004); Waitoa (2013) and Lee’s (2018) work on social media; and Walker’s (2017) digital leadership. However, there are several implicit references to cultural practice as well which include whanaungatanga, kanohi ki te kanohi, tino rangatiratanga, whakapapa and tapu.

Te reo Māori is identified throughout the research. A substantial amount of information is provided by the two surveys on te reo Māori written about by Keegan and Cunningham (2003) and Keegan et al. (2004). However, other studies, such as Muhamad-Brandner (2010), discuss access to te reo Māori information, and Waitoa

(2013) looks at how te reo Māori is utilised in social media. Tiakiwai and Tiakiwai (2010) also look at te reo Māori. However, within the e-learning arena, both Lee (2018) and Walker (2017) identify te reo as a fundamental inclusion in their research projects.

Resourcing is discussed in the research covering what resources are available and what resources support Māori content online. Participants in the Muhamad-Brandner (2010) study outline what resources would further benefit their engagement with the internet, and Keegan et al. (2004) sight that technical resources along with funding are noted as requiring particular attention.

Access to the internet is noted in several of the studies. Any study about Māori and the internet assumes that Māori have internet access. While youth access to the internet is noted in a reasonably positive manner by O'Carroll (2013a, 2013b, 2013c) and Gibson et al. (2013), the other reports from Smith et al. (2008), Smith et al. (2011), and Gibson et al. (2013) show that in general, Māori have less access to the internet.

Three particular typologies are found in the research from Tamati (2008), Muhamad-Brandner (2010) and O'Carroll (2013b). Each description provides a point of analysis to decipher diverse Māori realities and how Māori interact with the internet.

Māori pedagogy is prominent in two research projects by Tamati (2008) and Tiakiwai and Tiakiwai (2010) that outline Māori e-learning. Pedagogy that enhances the student's culture and language is critical to positive outcomes for Māori e-learners.

Finally, this literature review identifies several areas for further research: the internet's function, the impacts and benefits of the internet, and e-learning.

4.4.1 IPURANGI AS A RESEARCH PROJECT

Ipurangi: tikanga Māori and the internet is an investigation of tikanga Māori as translated into online environments and the subsequent impacts that the internet conversely has on tikanga Māori. The section on tikanga Māori, and also on te reo Māori are of particular importance to this study where notions of tikanga Māori such as whanaungatanga and kanohi ki te kanohi provide a sound starting point for exploring tikanga Māori on the internet. Lee (2018) and Walker (2017) provide the most comprehensive inclusion of tikanga Māori in their studies.

The study for the government logon service by Edwards (2004) makes suggestions for “a preliminary Māori Cultural and Social Impact Assessment” (p. 29) to be undertaken to consider “re-colonisation through the imposition of technology-based solutions” (p. 29). About ‘e-government’, Edwards (2004) also suggested an investigation of the impacts on Māori processes such as *kanohi ki te kanohi* and its benefits for future generations. The recommended enquiries were not actioned, as the scope was outside the desired e-government focus. **Ipurangi** examines the imposition of technology, the impact on Māori processes and the benefits for Māori. In addition, Waitoa (2013) and O’Carroll (2013b) intimate that aspects of *tikanga* Māori, or specifically *whanaungatanga*, as facilitated by social media, should be further investigated, with O’Carroll also noting that negative impacts of the internet require more analysis.

The literature explored in this review highlights several gaps, including those outlined for future research. **Ipurangi** contributes to developing research in this area by:

- a) examining the evolution of Māori use of technology,
- b) identifying enduring *tikanga* Māori (as translated to online environments),
- c) identifying the benefits of the internet for Māori development, and
- d) determining how the internet, as a technological advance, impacts *tikanga* Māori.

The Evolution of Technology

The literature in this review does not provide a clear discussion about the evolution of Māori use of technology. It is acknowledged that other studies yet to be incorporated into a literature review have explored this to some extent, for example, Kamira (2003), Lilley (2011) and Warren (2009). **Ipurangi** explores a brief history of technology on *tikanga*. Māori are highlighted in history but are relatively unacknowledged in academic writing. Impacts are exemplified, for example, by the introduction of clothing (as a technology) and the social and customary impacts on traditional weaving, the introduction of writing implements and impacts on communication, the introduction of building tools, and the social and customary impact on traditional carving. These situations have led to a resurgence in contemporary classes (and courses) to preserve and restore that traditional knowledge. This research proposes examining technology in the history of Māori development to provide some context for Māori uptake of

technology as Castells (2004) states that “technology cannot be considered independently of its social context” (p. xvii).

Tikanga Māori

This review identifies several tikanga Māori, or Māori cultural values and processes, as translated onto the internet. An introductory examination of tikanga Māori is explained here as applied to online environments. In particular, the literature's implicit uses of notions such as whanaungatanga are apparent. However, such notions are not broad or framed within any historical context. Investigating tikanga Māori within an evolutionary setting proposes that a set of ‘enduring customary values’ might emerge to supplement the work of Lee (2018) and Walker (2017). These values, or tikanga, might then be used to inform the parameters of engagement for Māori with the internet, henceforth contributing to future Māori development. While O’Carroll (2013b) utilised a ‘whanaungatanga’ framework to assess social networking with rangatahi, the use of the tikanga Māori based framework developed by a pākehā student is not in keeping with the aspirations of Kaupapa Māori approaches. Consequently, examining tikanga Māori about the internet is recognised by the literature as an area for further exploration. This includes the recommendation by Walker (2017) to advance the work he conducted in his research. Lee (2018) and Walker (2017) provide a platform to extend this analysis.

The Internet and Māori Development

The reviewed literature identifies several contributions the internet makes to social impacts (identity, political participation), te reo Māori, and e-learning. However, there is no vigorous analysis of the potential contribution the internet can make to Māori development. Suggestions for future research identify several areas, such as how Māori are using social media, have the potential to contribute to Māori development, but require further study. Of importance to this doctoral study is the exploration of the general potential of the internet in concurrence with enduring tikanga Māori (as outlined by Lee (2018) and Walker (2017)).

Impact Of The Internet

As seen within the literature, the internet has impacted Māori. Muhamad-Brandner (2010, p. 295) states, “this western technology has, contrary to early concerns, not eroded Māori culture, traditions and practices; in some respects, it has been to the contrary”. In contrast, only Edwards (2004) identifies that the impact of the internet as a site of re-colonisation requires investigation. All studies identify some positive aspects of the internet for Māori, with O’Carroll (2013b) and Waitoa (2013) identifying areas of contention regarding impacts on Māori, such as detrimental behaviour online. Of relevance to this doctoral study is the idea that the internet can be a site of re-colonisation. This statement is consistent with the theory of eColonialism (McPhail, 2008), which is discussed in the following chapter, where media, including the internet, convey hegemony. O’Carroll (2013a) also hints at this idea about the impacts of social networking on female body image. Furthermore, the literature shows the translation of tikanga Māori onto the internet, and some of the literature explores offline/real-time activity. The critical research gap identified here is that the literature does not explore the adverse effects (intended or not) of the internet on tikanga Māori. The necessity for more research is supported by Edwards (2004) (who calls for an examination of the impact of the internet on Māori cultural practice (i.e., kanohi ki te kanohi)) and Walker (2017). **Ipurangi** approaches this idea with two specific theoretical foundations discussed in the following chapter.

CHAPTER 5 DISCUSSING MĀORI AND THE INTERNET

Nau mai e tama ki te taiao nei

'Nau mai e tama ki te taiao nei' – (*Welcome, O son/child, to this world of life*) is a line from the guiding *oriori*. The words were sung to the child Umurangi as he was introduced to learning about herbal medicine. This line parallels the nature of Māori exploration and learning in online environments.

5.1 INTRODUCTION: MĀORI AND THE INTERNET

This chapter provides the context of Māori engagement online. It is one of five chapters that analyses the critical evidence from the standpoint of various leaders and their internet utilisation. How Māori engage online is discussed, and insights caution against utilising online engagement without considering several factors. This gives a context for tikanga Māori as experienced online.

The first part of this chapter discusses the broader literature and ethnographic accounts of current public online postings (either website material, blogs or social media posts) to provide context to the current online conditions. The second part examines the qualitative evidence that provides an informed perspective of Māori and the internet from some grass-roots leaders in online utilisation.

5.2 THE CONTEXT OF MĀORI AND THE INTERNET

Māori and technology take many forms. From pre-European technologies such as clothing (made from natural fibre such as harakeke (native flax), building implements (like *toki* (adze)), *waka* (canoe/double-hulled vessels), gardening (wood and stone implements such as *kō*), Māori use of those technologies changed through European contact. The introduction of Western technologies included: clothing (cotton, wool), implements (iron pots, iron tools), travel (boats) and media; Māori have continued to adopt and adapt to new technologies (Keegan & Sciascia, 2018; Warren, 2009). Māori adopted many new technologies for economic and industry purposes – iron implements for building and agriculture (flour mills), European clothing, schooners and boats (Petrie, 2006) and media (Paterson, 2016).

Investigating the foundation of Māori internet use, it is vital to consider Māori access and use of the internet and the Digital Divide (limited access to technology due to demographics and regions). For Māori, socio-economics is a significant digital divide for whānau Māori (Díaz Andrade et al., 2018; Digital Inclusion Research Group, 2017). For example, as of June 2021, there were 125, 700 children (11%) living with material hardship (lacking six or more of 17 deprivation items) in Aotearoa, 60,300 of those children were Māori (20.2%) (Statistics New Zealand., 2022). Meanwhile, in 2018 the median income for Māori was \$24,300 (Statistics New Zealand., 2018). Therefore, Māori are disadvantaged by the lack of access to the internet, and Māori internet accessibility and use increases with income levels (Díaz Andrade et al., 2021), both of which the current status for Māori in Aotearoa indicates that internet Access for Māori is not the same.

the groups at most risk of digital exclusion in Aotearoa New Zealand have been identified as: families with children in low socio economic communities, people living in rural communities, people with disabilities, migrants and refugees with English as a second language, Māori & Pasifika youth, offenders and ex-offenders, seniors (Elliott, 2018, p. 8)

Therefore, any consideration of Māori access to the internet must be mindful that Māori generally have less access to online spaces than non-Māori and that this is a socio-economic inequity (Smith et al., 2008).

Statistics about Māori Access to the internet remain unclear and provide unusual, unhelpful and sometimes conflicting information. This could be attributed to the fact that statistics and survey information often do not identify Māori participants and sometimes cannot analyse the data in Kaupapa Māori ways that are meaningful for Māori lives. For example, the latest factsheet from Netsafe (Aotearoa, New Zealand independent organisation for online safety) was published in 2018 with 2013 data - the only references to Māori are about 'low confidence' using the internet and 'unawareness' about safety procedures and protocols (Netsafe, 2018). Similarly, the World Internet Project New Zealand 2021 only refers to 'Māori' as a subset twice in its 45-page report to describe the percentage of internet use among Māori. Rather than, for example, providing an analysis of the impacts of COVID-19 on Māori families or their internet use, how people use the internet (connection with family or entertainment etc.), and what type of devices are available to them. Instead, generic statistics are provided,

which subsumes the Māori element within the research project aimed at everyone. This baseline information is essential as:

ICT not only has the power to make changes in Māori communities, it also has the power to reinforce social disparities as Māori continue to be overly represented in the ‘digital divide’. Māori continue to suffer from a lack of internet access in their homes, make-up less than 2.5% of the ICT workforce, are more likely to be employed in the lower skilled ICT occupations, and are underrepresented in training for computer-related subjects (less than 1% of Māori are studying towards an ICT qualification) (Figuracion & MBIE, 2015; Sylvester, Toland & Parore, 2017; Whaanga & Wehi, 2015). The ongoing challenges of representation of Indigenous peoples through new ICT platforms remain as they are still operating within ongoing colonial contexts (Whaanga et al., 2017, p. 61).

In 2008 Smith et al. (2008) said that the nature of contact within cultural spaces remained relatively unchanged by the internet. While contact with friends increased (including new friends), 22% reported they spent less face-to-face time with family in their home use (Smith et al., 2008). Within the same study, 19% of participants stated that it had increased their sense of ethnic identity. From a Māori perspective, the idea that we can connect more widely with friends and whānau and increase a sense of identity is a particular strength. In contrast, disconnection with immediate whānau is a contradiction of Māori philosophies. This exemplifies the complex impacts that the internet has on Māori communities, whānau Māori and tikanga Māori.

Hond (2004) reminds us that “it should not be assumed that Māori want widely to utilise the digital environment to the same extent as non-Māori” (Hond, 2004, p. 63). She identifies the incompatibility between online/digital environments and traditional Māori knowledge and philosophy. A broad overview of Māori internet use is provided here, highlighting the comments made throughout the qualitative material. As noted about e-Learning:

Another essential element is to merge Māori epistemology and tikanga with technology. Instead of viewing this with incredulity and scepticism, we need to look at this as a challenge that is attainable and exciting. Kaupapa Māori has both unchangeable and changeable elements that allow us to remain authentic to

āhuatanga [Māori characteristics] and tikanga Māori as well as participate in the modern world (Ohia, 2005, p. 3)

Ipurangi assesses ways Māori have participated in the online environment and identifies the strengths and challenges presented for Māori in these spaces.

5.2.1 MĀORI ENGAGING ONLINE

Chapter Four's review of research studies identified six themes relating to Māori and the internet: 1). networking (relationships/whanaungatanga, identity affirmation); 2). tikanga Māori (including te reo Māori); 3). resourcing (including funding and capacity), 4). internet access; 5). Māori typologies; 6). Māori pedagogy. Participants sometimes raised these themes. However, the focus of their conversations tended to explore the nature of tikanga Māori online in terms of *how Māori engage online* and what the online landscape looks like for Māori.

Māori access to the internet

Māori are disadvantaged with regard to access to the internet. Māori populations are generally a low socio-economic population (Ministry of Health, 2015, 2018) and access to the internet is impeded by income (Díaz Andrade et al., 2018; Digital Inclusion Research Group, 2017; Smith, 1997). Low-income populations are more likely to be disadvantaged by the digital divide. Disabled people, elderly, gender diverse, retired, people with lower educational achievements, non-voters (in general or local elections), social housing residents and large rural populations also have limited access to the internet (Grimes & White, 2019). Māori have less access to the internet and a greater rate of computer infection (malware/viruses), which is a further disadvantage to the Māori internet experience (Grimes & White, 2019).

However, according to Grimes and White (2019), 85% of Māori school-aged children have access to the internet at home but only access school internet at a rate of 75%. Overall, Māori have the highest level of non-access to the internet (12%). Contrary to this, it was also found that the highest prolonged internet use was among Māori respondents where:

27% of Māori students report using the internet outside of school on weekdays for over six hours per day, with this rate rising to 32% on weekends. We have no

information on what types of material are being accessed by these prolonged internet users, and further research on the internet use of prolonged users is warranted (Grimes & White, 2019, p. 21)

In the Grimes and White (2019) findings, prolonged internet use correlated to decreased well-being. In comparison, 91% of Pākehā have home access, and 85% maintain school access with much less prolonged internet use (Grimes & White, 2019). Therefore, Māori have less access to the internet, but for Māori who can access the internet, they are high users.

Early Māori engagement online

Māori adoption of the internet included access to: databases, electronic journals, cultural objects (virtual museums), commercial initiatives (pay for view), and internet use as a means of communication. Challenges with the exploitation of Māori content online and no real Māori presence online led to the development of Māori websites (Taira, 2006) and a growing iwi and Māori organisational presence online (Smith, 1997). Early Māori engagement with the internet included 'The Māori Internet Society', formed in 1997 to address Māori concerns with the internet (Brown & Mané-Wheoki, 2001; Taiuru, 2016). The society was succeeded by AMIO (Aotearoa Māori Internet Organisation) (Aotearoa Māori Internet Organisation, 2003). One of the earliest websites was 'Aotearoa Cafe', which hosted online discussions on colonisation and tino rangatiratanga ('Aotearoa Cafe', n.d.). Māori involvement in the internet grew with websites based on areas of interest such as te reo Māori, whakapapa, art and craft, health, Treaty of Waitangi, and education (Pewhairangi, 2002), Māori art (Brown & Mané-Wheoki, 2001), government services (Edwards, 2004), cultural heritage (Brown, 2007) managing illness (Reti et al., 2011), and overseas connection ('Maori in Oz', 2008).

In 2005, online content accessed by Māori showed preferences for first - music, second – online games, third - radio and television, fourth - movies, and then text-based content (Himona, 2005). However, the considerable cost of data services impeded access to content requiring high data use (for example, music) (Himona, 2005). As an alternative path to internet access, Cullen states that free library internet access has the potential to contribute to bridging the digital divide (Cullen, 2001), and it is assumed (Hageman, 2022) that a growing number of free 'wifi' sites also help to bridge the divide.

Māori who first used the internet accessed online information like libraries (Cullen, 2001), e-learning (New Zealand Council for Educational Research, 2004), cultural information and connection (Suckling, 2009), and museum artefacts (Brocklehurst, 2014). By the mid-2000s, e-learning became a site of Māori development (Hond, 2004; Institutes of Technology and Polytechnics of New Zealand., 2005; Laws et al., 2008; Neal & Collier, 2006; Selby, 2006; Tamati, 2008; Te Ao Hikohiko & Te Tauihu o ngā Wānanga, 2005), and the analysis of te reo Māori online began (Keegan et al., 2011; Keegan et al., 2004; Keegan & Cunningham, 2003). As social media progressed into the 2010s, Māori exploration and use of new sites evolved, and social media gained favour among Māori (O'Carroll, 2013c, 2013d; Waitoa, 2013). Within this space, 'digital marae' emerged as a place to connect (Greenwood et al., 2011; Regenbrecht et al., 2022).

Since early social media sites like Bebo, social media online sites have evolved to provide many Māori the space to connect and the world, giving rise to platforms where Māori can actively engage with and support kaupapa. Current examples include: activism (Protect Ihumātao @protectihumatao, Save Shelly Bay @mauwhenuasaveshellybay), cultural reclamation (for example: Māori horticulture @tahuriwhenua; Rongoa Māori (numerous groups), wairua @mahiaatua; Maramataka (Māori moon calendar) @maramataka, @maramatakainaction; and Te Reo Māori @Māorieveryday @temanaotereo; identity @Māoriworldwide; @MIO-MāoriInOz). Subsequently, many Māori have also been able to achieve celebrity status as social media influencers (people who amass an audience in online platforms (Geysler, 2022)), such as Leighton Clarke (Uncle Tics @uncletics), Sonny Ngatai (@sonny_ngatai), Hemi Kelly (@everydayMāori), Nicola Adams (@cwknix), Sarah Chase (@sarahchasenz), Miria Flavell (@miriaflavell); Māori meme creators (@ngati_half_caste, @specific_memes); and several Māori businesses such as Maimoa Creative (@maimoa.creative), Hine Collection (@hinecollection) and Mr G (@mrghoete.art) who have taken to advertising (and encouraging/inspiring whānau) and e-commerce on social media platforms. It should be noted, however, that there is a difference between Māori celebrity on social media (a celebrity who is Māori) and Māori celebrating Māori on social media, just as there is a difference between Māori owned businesses and Māori businesses (which provide Kaupapa Māori service or products). The examples here are a mix of these types. In addition, the creation of technology function has also given rise

to the ‘hash tag’ where social media allows you to directly engage all social media posts around a specific ‘hashtag’, for example, #Māori, #aotearoa, #Māoribusiness, or #Ihumatao. Political, social and commercial interests utilise the ‘hash tag’ to quickly advance key messages (Dadas, 2017; Stache, 2015; Yang, 2016).

A rising Māori presence online, particularly when enabled to access the internet includes connecting more with the range of online video conferencing abilities (i.e. Zoom (zui, hūmi), Facetime, Messenger, Teams) to engage in hui, conferences, weddings, birthdays and even tangihanga. Online streaming services allow national events such as Kapa Haka (Māori performing arts) to be live-streamed worldwide, giving mass global audiences immediate access and synchronised experience. Nevertheless, there are also many concerns for the general public who are utilising the internet (Orlowski, 2020; ‘Precious Tilly’, 2022), indigenous (Roy & Raitt, 2003), and Māori populations (Cullen, 2001; Edwards, 2004; Himona, 2005).

Throughout the development of the use of the internet, Māori have had limited access to these spaces (Cullen, 2001; Grimes & White, 2019; Himona, 2005), however services such as libraries have a role in bridging the digital divide (Cullen, 2001), offering free internet access:

New technology may offer new opportunities for social connectivity and the development of cultural identity but also raises questions about equality of access to and ethical standards within these virtual communities (Goode, 2010, p. 528).

Ipurangi poses several questions about the internet to key Kaupapa Māori leaders who use the internet in different ways to connect, share information and educate. Interestingly, participants often premised their online engagement with a narrative about how they came to use the internet in the way that they do. This expresses the notion of whakapapa and mana whenua in terms of the narratives embedded in the current use of the internet. Goode (2010) suggests that this is an intersection of ‘cultural citizenship’ (Māori and online) where:

debates around ‘cultural citizenship’ focus attention on issues of cultural membership, belonging and expression that shape and are shaped by the opportunities citizens enjoy for participating in society at various levels (local, national and global) (Goode, 2010, p. 527).

From a Māori perspective, this expresses what Hamelink (2000) states as the ‘ethics of cyberspace’, where “old moral issues do, however, acquire a new dimension in a digital context. The specific features of ICTs, like anonymity, speed, outreach and ease of manipulation, give extra urgency to conventional problems” (Hamelink, 2000, p. 34). This research aims to identify critical aspects to guide the Māori experience on the internet with tikanga Māori at heart. The interview process provides critical insights from Māori users of the internet who have experience with internet forums and how they utilise them in Māori ways.

5.2.2 INSIGHTS OF MĀORI AND THE INTERNET

Interview participants each gave a background or whakapapa to their involvement in the online space. Five critical considerations for tikanga Māori are identified by interview participants: distinct identification of tikanga Māori and means in which tikanga Māori perspectives are expressed on the internet; Kaupapa Māori methods and reasons for sharing via the internet; whanaungatanga as expressed through the internet; COVID-19 as a catalyst for advancing Māori use on the internet; and practical application of the internet for Māori. A further prelude for analysis of the interview information is broad statements outlining five tikanga Māori considerations (karakia, Te Kawa o Rangi, Whare, Marae, Whare atua) for using internet and some cautionary notes about internet use. The final section of this chapter explores specific notions of tikanga Māori identified by interview participants.

The Internet and Tikanga Māori

This section analyses tikanga Māori that were specifically discussed by expert participants. This includes karakia, Te Kawa o Rangi, whare, marae and whare atua.

Karakia

Taepa begins our interview with a karakia gifted by koroua (elder) and tohunga (expert) Dr Huirangi Waikerepuru during 2020 COVID-19 national lockdown and begins our kōrero by locating us within the pantheon of time, beginning with the intent for bringing harmony, the evolution of human thought that stemmed from Te Kore and reminding us that we are children of Rangiātea with the ability to access ancestral knowledge through

coming together on the airwaves and on land to seek wellbeing. I have identified and translated key reference points from that karakia:

Kia aio te ao marama... wānanga nui a Te Kore...

E kore e ngaro te kakano i ruia mai i Rangiātea...

ki te whakaipurangi... kia huirangi... kia huipapa... E tū te pou whitiwhiti ora!

That the world may be calm and at peace... the great gathering of knowledge from the void of potential... The seed sown in ancient Rangiātea will never be lost... held in sacred repositories... in celestial form... in terrestrial forms... Be established, the pillar of well-being! [writer's translation]

When we start the interview, Taepa humbly recites this karakia and then says: “*ka tīmata i reira pea*” [perhaps we should start there]. This statement of Māori cultural value and tikanga Māori provides a clear marker for how the internet is thought of and reminds us how the ipurangi/internet space is regarded by our tupuna. Karakia is a cornerstone of te ao Māori and tikanga Māori that affirms Mana Atua; this action sets the scene and the tone for how the internet is regarded. Interview participants make four primary references regarding tikanga Māori; karakia, te Kawa o Rangi, whare, marae and Te Whare Atua.

Te Kawa o Rangi

Riwai developed Te Kawa o Rangi with her tertiary students for teaching and learning during the 2020 COVID-10 lockdown. As the world moved from intimate personal connections based on Papatūānuku to distance internet relationships mediated by Ranginui, perceptions of connections also had to transform.

... we are used to Te Kawa o Papatūānuku – you are in the same room, we are close, we are intimate, we are personal, we are sitting here together. Moreover, we are simply going to change to the sky; we are going to do everything now in the sky. It is just going to be different.

So we are going to move from Te Kawa o Papatūānuku, where everybody is close and together, and we are just going to go to Te Kawa o Ranginui. – Riwai

For teaching and learning, protocols are developed by teachers and students to facilitate their classes, complete with basic guidelines for timing and behaviours that the collective group agreed to. The group also referenced sacred ancestral lore Kauwae Raro that “deals with the history, properly so called, of the people, their genealogies, migrations, the *tapu*, and all knowledge pertaining to terrestrial matters” (Whatahoro, 1913, p. 79). One of the intentions of instilling Te Kawa o Rangi was to guide student perceptions toward affirming and maintaining celestial connections to keep aligned to the kauwae runga of “the gods, the heavens, the origin of all things, the creation of man, the science of astronomy, and the record of time, etc.” (Whatahoro, 1913, p. 79). While the consideration of Kauwae-Runga and Kauwae-Raro is concerned with higher-level thinking, Riwai states that they had to develop something simple to reference the new space in which teaching had to take place:

It really is about working out how you want to frame the whole thing. It is not just the online stuff. This is the whole behaviour. We have got to go back to baseline simple things... there is nothing wrong with Kauae Raro. But when you move the engagement, it has to shift the energy of how you engage... you elevate them to the Rangi, and now they have got to meet you there. – Riwai

Developing a straightforward protocol for engagement was about keeping processes simple and embedded in Māori views and value systems but also acknowledging the colonial trauma of our people that presents itself in the form of kauwae-raro. For Riwai and her students, the development of Te Kawa o Rangi represents a simple way to describe and adhere to a deeper body of knowledge and to preserve mana in a way that reconnected internet users to traditional (and customary) Māori knowledge through the reconceptualisation of te kauwae-raro and te kauwae-runga in terms of the relationships between Papatūānuku and Ranginui. By reframing our relationships that moved from terrestrial relationships (Papatūānuku) to celestial relationships (Ranginui) mediated by the internet, Riwai recentered tikanga Māori and etiquette to guide Māori behaviour online.

Whare

Another reference to traditional notions translated to the online space is the concept of whare as a knowledge repository. The allusion to whare is embedded in all forms of

cultural statements, from physical locations (whare nui, whare puni, whare rūnanga) to hybrid physical/conceptual locations (whare wānanga, whare kura), to metaphorical mentions like ‘taku whare kōrero’ (my house of narratives)—each space denoting a repository of traditional and customary Māori knowledge.

Tracing further the origins of Kaupapa Māori knowledge Tuakana Nepe (1991) places its origins in Rangiātea, which she states makes it exclusively Māori. Rangiātea is the first known Whare Wānanga (Higher house of learning) located in Te Toi-o-ngā-Rangi (this refers to the upper level of the spiritual realm), the home of Io-Matua-Kore (the creator). What is clear in her writing is that Kaupapa Māori is grounded in Māori knowledge. Knowledge has always had a central place within Māori society and the complexities of knowledge and knowledge transmission are recognised in the structures of the Whare Wānanga. (Pihama, 2015, p. 7)

This ancient connection between knowledge and the houses that store such knowledge is also referenced in the interviews by an early adopter of the internet space Pihama who described the origins of two Kaupapa Māori websites: www.kaupapamaori.com and www.rangahau.co.nz. She says both sites evolved from team discussions with Te Aratiatia (the Māori Education Group at Auckland University), who were formulating methods of information dissemination around Kaupapa Māori Theory and Kaupapa Māori Research (practice and methodology). The early group included theorists and practitioners such as Linda Tuhiwai-Smith, Graham Hingangaroa Smith, Maggie Hohepa, Trish Johnson, Kuni Jenkins, Cheryl Smith, Jenny Lee-Morgan, and Maryann Lee, who brought together information about tikanga and discussed how information might be translated to online spaces. The Māori Education Group preceded IRI (the International Research Institute on Māori and Indigenous Education) and Nga Pae o te Māramatanga, who have contributed considerably to the Māori education/research landscape. The early group considered:

How do you utilise internet sites in ways that align with tikanga and mātauranga as a whare kōrero, as a whare nui, as a whare mātauranga - how do we do it? So we had people that we knew would give critical insights into that, and that would help us reflect on the site development and help us to change things and add things. So we talked about things like - because at that point, everything

was 'E', right? 'E'-Whatever, eBook or whatever. So we looked at what we called our 'e-kawa' and our 'e-tikanga' - Pihama.

For the development of Kaupapa Māori websites, the connection between cultural structures and function of the whare, and the adaptation of those concepts for online purposes. These discussions not only centred Kaupapa Māori ideas but also looked to apply appropriate tikanga to the spaces, which they referred to as e-kawa and e-tikanga. Writings about iwi adaption of digital spaces, also references whare as a concept in the digital space:

Short of all being resident in the one place or molecular transportation of Star Trek fame, it is as close as we can get to rebuilding and reconnecting our cultural stronghold, the essential whakapapa or genealogy of our whare kōrero, the house of stories, which contain our body of knowledge. (Ngata, 2017, p. 178)

Marae

Within the Māori world, marae are a critical social and ritual engagement space. Evolving from traditional living quarters that housed whānau, hapū and iwi, the marae as a physical complex often includes a wharenuī (ancestral house), a wharekai (dining room and kitchen) and wharepaku (ablution block) (Walters et al., 2021). However, the 'marae' itself is an open space, often hosting pōhiri where the ceremony of engagement with visitors takes place.

Interviews reference the marae in different forms, whether about the transfer of tikanga Māori from the marae onto the internet or reflections of activities on the marae that might inform Māori action online. Enacting tikanga marae online, Mātāmua talks about the notion of marae as a reference point for navigating the internet for Māori:

I think we need to consider what a marae is because I think he marae tēnei, te ipurangi. He marae tēnei [the internet is a marae]. A marae, for me, is a place where our events, cultural practices, and gatherings can take place. But Māori are not restricted just to the marae; those things can take place anywhere. And with the evolution of the internet, it has become a marae in many spaces, in many places it is a marae.

But like any marae, at times, there is friction between tikanga and kawa. There is tension on all marae – Mātāmua.

Mātāmua identifies a number of critical considerations that occur at all marae, for example, who will carry out protocols such as karanga (ceremonial call) and whaikōrero (formal speech), who decides what waiata is appropriate, what protocol should be undertaken, where and when are they undertaken etc. He summarises:

every single hui has issues about tikanga... tikanga clashes, and tikanga can be very flexible and applicable to a particular area or situation. I think they are mostly situation driven, and you will have those people who know how to apply tikanga, and you will have people who know how to bend tikanga and how to adjust tikanga and then those people that do not. And that is on every marae, and I think those issues spill over into this new marae, which is the internet.

I have always been of the opinion when it comes to having tikanga on the internet that the person in charge of the hui sets the hui [tikanga], like in our situation here, it is you [who set the hui]; you followed a particular tikanga. We started - i tētahi āhua i te whakatau i a tāua i roto i te kaupapa nei [with a set cultural process]. So just through that, it set a certain ambience or, in my Māori mind, a certain bond and a certain responsibility that I have back to the kaupapa, so there is already a tikanga in my mind that is set. There are spaces, though we are not in charge of those marae. Right? They are not our marae. And our tamariki and sometimes ourselves, we find ourselves going to those marae, and what really worries us is tikanga kore [devoid of protocol].

And for me, as an individual, I think to myself, 'Oh, that is not my marae'. I don't have mana at that marae, so, ko te tangata nōnā tērā marae, kei a ia te tikanga, engari mēnā ko au i runga i taku ipurangi i taku kaupapa ko au kei te whakatakoto i te kawa me te tikanga o taku marae [if it is your space, it is your rules, but in my space online, it is my rules] And I think, for me, that is how I approach it. But I regulate that because that is my marae. As soon as people come in, and I have had it every now and again, someone will attack someone else or someone or say something that's quite, you know - I just delete it... because I am maintaining other people's mana on my marae. I want to manaaki [look after] the people that come in and listen and be involved. And it is a very non-Māori thing - This whole keyboard warrior thing. Kaore o tātou tipuna i

pērā. Ka kōrero kanohi ki te kanohi [our ancestors did not behave like that – they told you to your face] – Mātāmua.

In this response, Mātāmua sets a foundational thought process which evolves from engagement upon the marae and applies the same tikanga to the online spaces that he is involved in. Te Kura Kaupapa Māori o Mana Tamariki also employed the marae as a reference point for the transition to online learning after staff discussions regarding behaviours for online teaching and learning. Mana Tamariki engaged media expertise from a graduate who offered:

The analogy of marae, that it is a virtual marae - How do you behave at the marae? What is all the tikanga there to manaaki? How do you carry yourself? And I think it was easy after that to think, “Oh OK, yeah, this is how we do it” - Soutar.

For Kura Kaupapa Māori and communities familiar with tikanga Māori and the cultural activities that occur in Māori cultural situations, referencing the marae to guide behaviour, just as Mātāmua described, is a recognisable practice. Broederlow takes a similar approach with her website ‘Māori in Oz’:

Māori-In-Oz, to me, was built on the foundation of our tikanga. You know, take your shoes off at the door virtually and be welcoming to everybody that comes in and be nice, be polite and none of this agro [aggravation] - being bullies. I was very determined to make sure that the way we would enter our Marae or our whare or visit our whānau, that those tikanga, that those principles that I was raised on were going to be raised in this virtual whare nui. We would continue that, and that was really important to me. I had zero tolerance for bullies. Zero tolerance for people being whakahihi [boastful] and talking down on people. And I was like, ‘Man, you walk on your marae, and you talk like that you would be thrown out on your backside’, you know, by our kaumatua or even our aunties and uncles - you would not get away with talking to our whānau like that, and it is our duty to be courteous and respectful. So I still run like that today. – Broederlow.

Other processes have been set with clear guidelines for members participating in online spaces. Pihama recollects the discussions that their group participated in while establishing the online Kaupapa Māori repositories. Marae processes such as talking in the whare were used to help establish appropriate guidelines while developing their websites. This is seen as essential to maintain a Kaupapa Māori philosophical approach and to ensure that the foundation, 'tūāpapa', is always the basis for engagement.

We looked at what we called our e-kawa and our e-tikanga – what was our tikanga online? If we were going to have discussion groups, how would they work? What kind of tikanga would we put in place? Were we going to treat it like any other whare [ancestral house]? What is said in the whare stays in the whare. That once you have had your time to stand and speak in that whare, you sit and wait for others to stand and speak, you do not keep jumping in. So that happens a lot now in terms of people commenting. A lot of people comment and then comment and then comment. What we decided to do with the group, with the people we had online in that discussion group, was that you comment once, sit back, and wait for others as you would in a wharenui. And anything that we said in that wharenui stayed in that wharenui - unless you had permission to take it outside... So we were talking about e-kawa and e-tikanga, and all of that tikanga, I think, way before many people talked about it.

But that is only because it aligned with Kaupapa Māori because we took a Kaupapa Māori approach to it. A Kaupapa Māori approach meant that we had to think about those things. – Pihama.

Referencing the marae as a structure for considering our behaviour and tikanga online makes sense for people with the lived experience of marae activity. Many Māori do not have this lived experience to draw from and, therefore, will need assistance reconnecting to tikanga marae and tikanga Māori. In facilitating an online learning space, Riwai further elaborates on the tikanga setting process for their environment:

Wānanga Māori, if you have had access to or been privileged enough to have access to that stuff, you will be familiar with it, but for many of the people and some of our people who have not had access to that at all... So we make sure there is this upfront stuff. First of all, there is a disclaimer, well a kōrero, so that

people are aware and one of the things that we talk about before we engage in any other methodology, including the online... 'we are going to ask you unapologetically, that you are here for us. You are not here for you, just you, right?' ... A collective way and a wānanga way of understanding means that you have to be vested in all of our success and all of our excellence, not just your own. You are not vying for an A here. We are all vying for the most excellent that we can be, and we expect that of you... We are asking everybody to be 'here'. Here is the tikanga; this is the space for it. ... It is not dealing with personality, and you know, clashes or whakaaro are going to deal with it together. So that is one of the things that we have led up to, and we have done this before we start doing the online stuff. – Riwai.

By engaging in frank discussions to ensure that everyone is invested in each other, a collective vision for success set a foundation that guided behaviour that would enhance one another.

So it was quite easy to transition because they were already brought in and they already understood the tikanga. – Riwai.

Whare atua

This insight critically analyses ancestral aspirations for our undertakings in any environment. Similarly, Mātāmua references a natural order of connection found in Beech forests and Tāwai forests:

a Whare Atua is this white fungus that grows from the roots of one tree to the roots of the next three to the roots of the next tree. And actually, when one of the trees gets cut down or damaged, they can actually sense what is going on. So a tree might get a particular disease, and what the other trees in a healthy forest will do will send nutrients their way. – Mātāmua.

A downside is noted where mass illness among trees may lead to sharing the illness. The Whare Atua shows how there is an:

information sharing hive that exists in the natural environment – Mātāmua.

Considering this feature, Mātāmua wonders whether Te Whare Atua appropriately represents the internet sharing information across a “wider worldwide forest”. This sentiment is also shared by Taiuru, who says that while the *ipurangi* (internet) can be viewed as a vessel, “via an Indigenous view could be described as a forest with the labyrinth of underground roots, waterways, ecosystems and species who live in the forest whom each rely on each other to co-exist” (Taiuru, 2021c).

References to real-world Māori cultural contexts such as karakia, kawa, whare, marae and whare atua have been described in parallel to the internet and to guide expected Māori behaviour and function online. Interview participants identify clearly that tikanga Māori can guide our engagement in online spaces. These indicators are left to us as embedded in karakia, tikanga marae, kawa and protocols of engaging with each other. Interview participants discuss key areas: kōrero and information sharing, whanaungatanga and connecting; COVID-19; and practicality – discussed in the next section.

The Internet and information sharing

Information sharing online, is a significant component of use for Māori leading kaupapa online. Pihama reflects on the whakapapa of her involvement in establishing Kaupapa Māori research online repositories starting in the 1990s of the online sites – www.kaupapaMāori.com and www.rangahau.co.nz. Focused on information sharing, the sites evolved from several university papers being taught around Kaupapa Māori policy, methodology, media, racism, pūrākau (customary Māori narrative) and Māori education history, and the need for information dissemination. Pihama identifies that modes of publication are essential whether it is print, film or video but analysis of that information is also critical. As part of the continuum, Pihama notes:

Social media use is not separate from all of that – Pihama.

Customary and traditional information exists in several forms, held in kōrero tuku iho within whare wānanga, whare kōrero, waiata, mōteatea and all manner of oral transmission. From the introduction of writing into Māori lives, kōrero tuku iho was translated (Keegan & Sciascia, 2018) to early books and manuscripts (see, for example:

(Best, 1934; Grey, 1853; Whatahoro, 1913), with new forms of communication evolving into letters (Head, 2006) and newspapers (Keegan et al., 2008; Paterson, 2004). Eventually, the series Ngā Moteatea (Ngata & Jones, 1972) gave prominence to Māori scholarly works setting the scene for Te Aratiatia to advance Māori literary collections and to progress from the publication of Tuhiwai-Smith's book *Decolonising Methodologies* in 1999. Pihama says that Graham Hingangaroa Smith and Margie Hohepa had begun to self-publish Kaupapa Māori theses as a means of building Kaupapa Māori literature:

I know this is not about the Internet, but this is the background of why we went there. So building that literature meant creating a base by which we could begin as Māori working in Kaupapa Māori, to speak to each other, to reference each other, to have a literature that was grounded, to speak back to this idea that there is no Māori literature; which is not new, it is not a new thing - because Nga Mōteatea was published for exactly that purpose in Māori Studies

... And then later in the piece, we came along, and now this whole internet thing is really exploding, and websites and stuff like that. How do we lift us up into that platform to get another platform? So every time a new platform came - we would go there – Pihama.

Pihama provides the context of her engagement by situating her current online involvement by providing the whakapapa or background genesis of two research websites. She demonstrates how kaupapa evolves through emerging platforms to maintain the overall objective of a kaupapa—in this case, disseminating information about Kaupapa Māori research which included a range of proponents, including Taina and Hariata Pohatu, Paparangi Reid, Helen Moewaka-Barnes, Linda Tuhiwai-Smith and whoever was available to contribute.

What we try to do with ours is actually have opinions that were informed by marae and formed by Kaupapa Māori, informed by research.

So we did not just blog for blog's sake, we did not just write for writing sake - like Māori academics, we do not research for research sake type of Māori, we research for our collective wellbeing. We do not theorise for theory's sake; we theorise because our way of understanding the world needs to be there and be

validated and legitimated by ourselves first and foremost. But out in the space that we are theorising, so those things, for me, are all the same thing, just the only difference is the vehicle by which we do it and whether we apply the same principles to what we are doing. So there is a number of examples, but I mean, I think those two sites were very well used, combined with the KaupapaMaori site with the rangahau [site]. – Pihama

In conjunction with developing research workshops, the need for research information dissemination was a catalyst for moving into the online space in a bid to ‘speak back.’

We are also aware of this growing reaction to Kaupapa Māori. Like an attempt to keep putting us back in the box all the time, an attempt to keep putting us somewhere where it was not considered theory or was not considered methodology - that is what dominant discourse does. So the more we saw that the more we knew we had to get it out on multiple platforms. And the need to speak back to some literature which continues today, to be used, in my view, fundamentally wrong in their discussion of what Kaupapa Māori theory or Kaupapa Māori methodology is. And speaking back to some of those things.

So some of our people call Kaupapa Māori theory a constructivist theory. We do not have to fit a Pākehā, Western theory box ... we are as legitimate as that. We do have all those contesting power relationships and all that, but it is not grounded on that; it is grounded on these principles: tino rangatiratanga, whānau etc... That is, it is grounding, and a part of that is the structuralist culturalist approach that we take, so we are answering and speaking back to some of that stuff as well. – Pihama.

Each participant identified a clear purpose or kaupapa for engaging online and are driven by a desire to achieve something within the online space. Whether it is connecting with each other through hui and wānanga online as Riwai, Taepa, Wilson and Soutar have identified, or sharing information or kōrero tahi through platforms such as Pihama, Wilson, Mātāmua, Taiuru, Keegan and Broederlow – each of these actions is underpinned by ‘kaupapa’ and are purpose-driven.

The Internet: Whanaungatanga, Connecting and Diaspora

Our innate desire to connect to our whānau and each other is discussed with participants. Wilson describes his involvement in the online space through his social media site Te Paepae Waho but provides some historical context starting with visits to a computer lab while at university in order to send electronic mail, which he carried on into his overseas excursion to Europe in the early 2000s:

So back in the day when social media did not exist - on every trip, I would send those long emails... which was all about what modern-day blogging is... By going over there [overseas] and seeing all of these different things, I just wanted to share the experiences... so I think the reason why I have done it is I remember as a child when people needed karakia - they would ring. Either mum would do karakia on the phone for my siblings that were living in Australia in the '80s, or the aunts and uncles would be doing karakia for somebody wherever they lived by phone.

And once you are comfortable with the technology, you just use it, and it becomes second nature, and you don't think too much about it... And I think the thing is, is that it's whether you are open. And when you are not open, sometimes there is an experience that then changes that. – Wilson.

Wilson discussed daily karakia within his whānau and the māramatanga (spiritual movement) who notes that while there is some resistance to moving online in general, it is well received by whānau who cannot make it physically to karakia:

And the fact that it's been championed by Aunty Bidy, who is 90 in June, You know she loves it. And she loves the fact that she can see everybody - That she can talk to Auntie Mere in Perth, who is 81. And you know all of those things. If the 90-year-old can do it, well, why don't we get over ourselves?

And so I think it is a tool. No different to all of the manuscripts that our tupuna started writing in the 1800s... – Wilson.

The general use of the internet was highlighted within the interviews, but a critical moment for the Māori diaspora is discussed by Māori internet pioneer Broederlow.

Broederlow had high-school experience with computers and moved to Queensland, Australia, in 1997, where she developed her computing skills. During this time, very few people had internet access:

we were home living at our house on the Gold Coast, and we [her and her husband] were also both feeling very mamae [homesick] for home. So the internet really became our source of having more regular contact with our whānau back in Aotearoa... And we have sort of called ourselves the early Māori Internet pioneers because it was only a handful of us online. Not many of our whānau had a computer, let alone had access to the Internet – Broederlow.

Broederlow speaks about the Aotearoa café, an early internet message website, where she would meet up with other Māori internet pioneers such as Te Rangikaiwhiria (@Te_Taipo), who led Aotearoa Café and Mark Kopua (www.mahiaatua.com):

I was homesick because when I lived in Aotearoa, I grew up there, so 30 odd years before we moved here, I always went with my mum to our hui-a-iwi throughout the Hauraki and Maniapoto. So I was very comfortable in our marae space with all my whanaunga around me. And moving here in 1997, it really was a case of 'spot the Māori'. Queensland was slow to pick up... So when we would go out shopping, you'd very rarely see Māori, and when you did, we were getting really excited, and I loved that, but it was not enough for me. So the internet became my home away from home, and I looked forward to our weekly chats. We would discuss everything - we would discuss te reo Māori, we would discuss our culture, history - almost every topic we would discuss...

... That was 24 years ago, but it was just a beautiful space to meet, connect and really feel that my culture was here in my whare, herein in the Gold Coast, and I just lived for it, thrived for it. – Broederlow.

The importance of connecting and identity is recognised by O'Carroll (2013c, 2013d) and Castells (2004, 2013). Progressing on from early interaction with the internet, Broederlow developed a space for Māori to engage with each other online. The need to connect with others was the fundamental driver for Broederlow to develop a means of staying in touch with whānau, hapū, iwi, marae and friends, as well as sustaining her

whakapapa and identity as Maniapoto/Tainui and Ngāti Paoa. This critical driver led to Broederlow developing an early website via Geo Cities in the 1990s, a site she describes as ‘rudimentary’ during Yahoo and MSN leadership in the internet space. Her mother’s influence as an avid reader provided a foundation of research for Broederlow, contributing to the information searching and collation she shared via the website she created and named ‘Māori-In-Oz’.

I started to compile a collection of Māori waiata and Māori legends. I was creating my little drop-down menus and search functions, and then I found that as I was getting involved, our Māori community here started to grow... I found very quickly that Māori were different here in Australia, and I believe that was because we were no longer on our whenua. There was this hunger to connect.

In my lifetime growing up, that if you were Tainui - you stuck with Tainui, you know if you were, If you were Nga Puhi you stuck with your iwi, but over here there was this unusual movement of iwi coming together so everywhere they started to create their own like a group ... we were supporting one another regardless of what your iwi was because we were away from our whenua, there was just this deep desire to want to connect... I put it out there [that] I am happy to put your details up on my website, and I also had a chat group in there. A lot of whānau were joining from all across Australia in different States and asking, “Oh Christel can we promote our fundraiser for our iwi over here” and I was like, “Of course, put your details up”. So I actually created a directory where different iwi, different non-profit organisations or Māori-led initiatives could actually list their details. – Broederlow.

The sharing of information is what underpins the development of library collections and the like, but has been an area that Māori continue to develop in the case of Kiwa Digital⁹, Tupuora¹⁰, app development like Te Ringa Kaha a Taruke¹¹ or Māori GIS mapping¹².

⁹ www.kiwadigital.com

¹⁰ www.tupuora.co.nz

¹¹ <https://apps.apple.com/nz/app/te-ringa-kaha-a-turake/id1541733497>

¹² <https://www.linz.govt.nz/our-work/location-information/geospatial-capability/nga-poutama-matawhenua-practical-maori-gis-mapping-wananga>

Broederlow explains that the website became a means of promoting music concerts and other events for Māori on her website Māori-in-Oz.

I ended up getting Māori organisations across every state [in Australia] asking, “Look, we’ve got an event coming up” or, “We’ve got a community programme that we would like to release. Can we promote it on Māori in Oz?” – Broederlow.

She happily promoted events for Māori on the website to her large audience. From her work in this space, she developed websites for other organisations and groups which funded the Māori-in-Oz website.

I ended up creating MIO, which is the abbreviation of Māori in Oz within graphics... I was receiving 40,000 visitors every week. Not hits to the website because there's a difference between hits and visitors, but actual visitors, and the majority were coming from Australia and second was Aotearoa, and then around the world because I had so much resource, I ended up building the largest database of Māori legends, of waiata, of Māori kai [food] recipes ... and I really built it around what I had been raised with. Māori-in-Oz, to me, was built on the foundation of our tikanga... –Broederlow.

Broederlow’s desire to enhance cultural identity and maintain a connection with home while living in Australia is her driving purpose for creating the website Māori-In-Oz where she maintains tikanga Māori approaches. While living abroad, the internet became her access to whānau, marae, iwi and Māori culture. Internet use by the Māori diaspora is noted in the following chapter as a particular strength of the internet.

The internet and COVID-19

The COVID-19 pandemic made some significant shifts towards online use to meet practical objectives, and the internet became a more acceptable means of connecting and communicating. Soutar was part of developing the online teaching and learning hub Marae Mariko for Kura Kaupapa Māori. In terms of the online space, she says:

COVID has really forced us into that space. I think previous to that, probably like in the days at Mana Tamariki when we had KAWM¹³ - The video conferencing, that was probably the closest thing we had besides email to working online.

But in this COVID climate, we just all knew that maintaining connection was a really important part of being able to carry on the Kaupapa, and I would say that is how we use it, mostly is to keep connected, ensure that we can carry on our mahi that would have had to otherwise be put to the side. I think it has been really challenging for some of our people, particularly some of the leaders in Mana Tamariki and the Rūnanga¹⁴– Soutar.

Mana Tamariki is a small Kura Kaupapa Māori in Palmerston North, a Māori schooling option delivered in te reo Māori with Māori philosophy and pedagogy. Due to the small number of te reo Māori teachers nationally, particularly at secondary school level, an early method of teaching and learning was via the KAWM program, where students often video-conferenced their classes in order to access te reo Māori teachers across the country. Mana Tamariki accessed some subjects via KAWM, such as pāngarau (mathematics) and pūtaiao (science), by video linking to other kura for classes. The rise of online teaching during the COVID-19 pandemic (Education Review Office, 2021b; Hunia et al., 2020; Ministry of Education., 2021) is an extension of distance teaching and learning from the days of KAWM (Waiti, 2005).

After sharing the karakia to begin our interview, Taepa explains the transition of face-to-face learning that he was involved in with Dr Huirangi Waikerepuru. He states that the learning:

was designed to have a whole lot of hui and wānanga with the students. And of course, because of COVID, we had to shift, and in our wānanga, and in our discussions, we found, I think, Huirangi's attention to our cosmology and our

¹³ “The Kaupapa Ara Whakawhiti Mātauranga or KAWM project was a satellite TV learning project to provide teaching remotely to students who may not have had access to subject teachers in their school. This often occurred for Kura Kaupapa Māori, and I provided teaching support to Wharekura” (High School) (Ferguson, 2012, p. 16)

¹⁴ Rūnanga in this case refers to Te Rūnanga Nui o Ngā Kura Kaupapa Māori - the governing body for Kura Kaupapa Māori Te Aho Matua

Atua, and that we are present in all spaces. And as you know, he led the claim around the Māori relationship with the airwaves, but he was also very interested in energy and different types of energy and where it comes from. So in that karakia, it sort of describes being in the space of being able to receive, and then it starts going through where things might come from and in terms of those things that you can receive; but there is a last bit that refers to the ipurangi. We use ipurangi, like a lot of our words now, we apply them to what we think are new spaces, but they, actually, all words, they are old spaces that our tupuna understood... - and then the last line:

Ka heke kia huipapa, ka heke kia huirangi, kia tina

It is the relationship between the physical and the metaphysical. For me, just in recent, learning about the space through Huirangi and doing the marae¹⁵ and then having to engage with kawa, tikanga, and also wānanga through the ipurangi and online - having to just think about those spaces. But one thing I really like is the connections to all living things in the metaphysical and the physical... it could be described in the relationship between Rangi and Papa in its simplest form. But those relationships that go hand in hand and allow us to understand spaces. – Taepa.

In regard to the impacts of COVID-19 and internet use becoming more acceptable, Keegan says:

We can work collaboratively based on the Internet, and I guess there were a lot of people that were not too interested in meeting like we are meeting right now [video chat], but then COVID came along. And so it was the only way to meet, so we had to meet. It forced a change on those who were unwilling or shy, or anxious to meet online. But now it has become such a necessity. It is easy for us to meet.

Perhaps before COVID, we would not have been meeting like this. We would be sitting down with a cup of tea, but now we are more comfortable - I am in

¹⁵ This statement refers to the building of the marae Te Rau Karamu in Wellington

Hamilton, you are in Palmerston North, it is much more convenient to meet like this. – Keegan.

This statement highlights the practicality of meeting online but notes a shift in the preferred cultural paradigm, perhaps a significant point of evolution for our application of technology. As Taepa and Soutar stated, the online learning space evolved rapidly due to COVID-19. Te Wānanga o Aotearoa kaiako Riwai expressed a similar situation with her teaching and talked about how an apparent premise for engagement was set for students:

So we already had an online component ... So our method, always we said, we preferred the wānanga method and our definition of what wānanga is because there are so many different understandings, is that it is a collective space - that everyone has a say here, everyone has to be seen and heard here. What you come with is valid, and it is valued here. So some special things have to happen before we come into a wānanga space because it is not generally a space that tertiary institutions have generally followed.

So we talk about that, and we wānanga that before they come in, And so they are well aware as they sign up what they are signing up to. That is the first stage. The second stage is that we hold them to that by a whakatau mauri. A ceremony where they come in the very first day in, and for me, it is the most important part of the process... pōhiri, everyone comes in as strangers; they might have met at an online interview... Here is the tikanga; this is the space for it. ... It is not dealing with personality; you know, clashes of whakaaro, we are going to deal with it together. So that is one of the things that we have led up to, and we have done this before we start doing the online stuff. So it was quite easy to transition [to the online space] because they were already brought in, and they already understood what the tikanga was. – Riwai.

Wilson provides a context for his online engagement to share information. He notes that he worked every day throughout the first 2020 nationwide COVID-19 lockdown to provide national messaging for Māori and the nation in order to promote staying safe during the pandemic:

Those messages every day on 'Protect Our Whakapapa'. I was part of creating a whakataukī each day almost, and sometimes we used common ones, but most times, I created a whakataukī each day to inspire and to guide during a pretty scary time.... we would assess all of the information that the government was sending. I would come up with the whakataukī; then collectively, we would come up with what was the key messaging on the page to break things down so it was digestible. – Wilson.

These messages state processes that contribute to the collective value and enhance cultural outcomes. Riwai was conscious of the potential pitfalls of teaching online, particularly with adults, and set appropriate boundaries for conduct among her students. During the national pandemic lockdowns, Wilson used the internet to convey national messaging relevant to Māori communities. Both actions are founded on collective well-being.

The internet and Practical Application

Ease of access and connection are a foundation for Māori internet use. The previous examples of Māori utilising the internet demonstrate this point in various forms. Overall, the internet provides a practical way to connect. Identifying the practical and expedient nature of online interaction, Mātāmua notes:

I choose to use the Internet because of the practicality of it; that is really what it comes down to. It is the practical nature of and the ability of the Internet to reach out and connect people instantly and bring them together in a forum or a platform, and it is not bound by space, It is not bound by time, it is not bound by location. It is not bound by geographical restrictions and, in many ways, is not bound by finance either, like the cost of getting back to a kaupapa or the cost of getting somewhere. It is instant, and it is convenient, and it is pragmatic. And then that is why I apply it to the stuff I do because it can do a lot of things.

And one other thing is, or perhaps in the world that we live in, particularly busy Māori. There is a difference between Māori and busy Māori, and you know what that is like. You know, not all of our relations, not all of our people have the same expectations placed upon them or the same desire to really work in spaces they

believe that they can make a positive change and for all of us - what comes with that are restrictions on time. It makes you time-poor, and one of the things that the Internet does in many ways, like this, is a way of us being able to do this kaupapa without having to travel... Otherwise, it is a whole day. Here we are, and we are going to be through this kaupapa within an hour which leaves us the rest of the day to do other things, so it is convenient, it is time, but it also has the ability to connect masses of people, or lots of people without some of the normal restrictions – Mātāmua.

This straightforward view of the internet is one definite strength of the internet for Māori. Keegan also reinforces the practicality of the internet for work, for staying connected to whānau and for research by saying:

I am a computer scientist... I am a lecturer at a university. I use the Internet and terms of conversations. The internet is the way we connect, right? So, email is part of the internet.

Email is an important part of my communications. Probably the most important part of my work is communication, so I use the Internet to communicate through e-mail; I use the Internet for research, I use the library a little bit, but now everything is so easily on your hands, I use the internet. It used to be that when you searched on the Internet for Māori topics or Māori subjects, or Māori traditional stories, there was nothing. But that is not the case anymore. There's a lot of really good information placed online by Māori that can give you good heads-up. From- I am writing a letter or a document or something and I need a whakataukī. Traditionally, I would go and talk to one of my kaumatua... But now you can just search the internet, and you can get a few [whakataukī], so information retrieval is what I use the internet for.

And that is a little bit of a concern as well - like I do it because I know it is there, but if it is anything really important, especially if it is related to tikanga Māori and even te reo Māori, I will go and check with somebody that I trust, and when I am getting information from the Internet I am always looking at who is supplying that information is it authentic. Because, you know, there are a lot of

clowns out there. So I use the Internet for communication, for information retrieval...

I try not to use Facebook, but some of my family are on different groups. There's some really important information that they talk about that I want to know about - Like if somebody gets sick or somebody dies, they put it on their Facebook groups, and if I am not checking them, then I don't get to hear about that.

So communications, information retrieval, the other thing I use it a little bit for as well as research, which is kind of information retrieval. The research I like to do the most is looking at avenues for te reo Māori language to be communicated through technology - what are the Welsh doing? There is a group in Basque that is doing good with their language technology work, and what are other people in New Zealand doing, and what are the things we need most right now in terms of technologies? And how can we work collaboratively to do that?

I use the Internet for communications for information, for information retrieval for research, those are kind of some of the key things. – Keegan.

Overall, interview participants identify keyways they utilise the internet, one of the motivations being practicality and expediency. The ease of connecting to others, sharing information and retrieving information are quintessential grounds for Māori leading in the internet space to engage online.

For many of the Kaupapa Māori exponents utilising the internet comes with its historical narrative of development and inquiry, the whakapapa of their use is referred to here to give insight into the breadth of early Māori online engagement. At each point of discussion, reflections on tikanga Māori are present, both in terms of extensions of tikanga Māori (identity affirmation, connecting with whānau, early telephone calls, wānanga) and cautions reminding us where we must be mindful of cultural approaches (access to tapu (sacred) knowledge, the importance of meeting in person, authenticity of information, what cultural custom and guidelines can we draw on and maintain in this space). Three examples of early engagement are explored here that show the evolution from intimate engagement to public community benefit, all founded on the desire to connect, inform and share. The COVID-19 pandemic gave rise to radical shifts in Māori cultural approaches to teaching and methods of connecting (Aiko Consultants Limited,

2020; Hunia et al., 2020; Ministry of Education., 2021). Similarly, developments in technology provide a new space of caution. Discussions reveal five key ideas that contribute to Māori aspiration and operation online:

1. There are existing tikanga Māori concepts and practices to guide our navigation online, for example, karakia and marae processes
2. The evolution of information dissemination and the need to promote critical Māori development information to conscientise large audiences
3. Connecting to others for well-being and in order to share information and reaffirm cultural identity
4. As a response to COVID-19, the internet has become a significant mitigating factor to continue methods of connecting and learning
5. As a practical means of connecting, working and engaging with others

These reasons are the founding constitution for leading exponents utilising and analysing the internet. In essence, the internet extends Māori practice and collective engagement, making the internet an ideal platform for expressing fundamental cultural conduct. The following section discusses situations that require vigilance.

5.2.3 INITIAL CAUTIONS FOR INTERNET USE

Most people generally use the internet for standard applications such as email, online shopping, banking and social connections, and work application as required. One exciting statement was given by Dr Taiuru, avid writer and commentator for Māori and technology, (Taiuru, 2023) who stated

In terms of te ao Māori, I generally do not use the Internet for that. I still drive out to the marae, and I will refuse to attend a tangihanga on the internet. So, cultural stuff I do not - everything else, yes... I also do not use it for catching up with, say, my children. I just use the telephone. So that is a little bit strange, but that is what I do. – Taiuru.

Similarly, Keegan says that in terms of his use of the internet:

I try not to use it for specific Māori, deep Māori topics because I think deep Māori topics should be kanoahi ki te kanoahi, and I think by placing some of those

topics on the Internet; we are kind of watering them down a little bit. I am a big believer of kanohi ki te kanohi even though I am a Computer Scientist. – Keegan.

This idea is highlighted by Taepa, who notes that we must be hyper-conscious of our participation in the online metaphysical world and differentiate behaviour and actions in that space from our pursuits in the physical world. Our ability to measure our interactions between and across spaces is essential for maintaining tikanga Māori and appropriate Māori responses – for example, participating in kai following an online pōwhiri. A few initial concerns were raised – the authenticity of information, appropriate boundaries for interaction, and challenges with technology. Mātāmua also notes that as a parallel information system to the Whare Atua, the network has the potential for positive reinforcement and sharing illness:

So it is this kind of information-sharing hive that exists in the natural environment. I always thought, why couldn't we adapt Te Whare Atua, that kind of fungus, to represent the Ipurangi, because what we are is we are all little fruits on these community trees that are connected to this much wider worldwide forest. That is connected to each other by this unseen fungus that joins us, and it shares information, but the problem with it too, though, is if enough of the trees get ill, they will sort of share illness as well. So it is a two-way thing, and I think it is very relative to what we are talking about. – Mātāmua.

Initial discussions identify the nature of people online who act adjacent to collective benefit and tikanga Māori; these points are examined in the following chapter. Concerns are around accessing authentic and valid information online, aggressive behaviour and changing cultural conduct online, such as means of hui and meetings and whānau notifications for events. A general consideration for kaitiakitanga, Māori guardianship in the online space is where:

There is a strong emphasis on safeguarding or overseeing the accuracy and appropriateness of cultural transmission of knowledge. There is also the need to be responsible for sharing our information. The power to overcome misunderstandings and have some control over ensuring that the transmission of

knowledge is based on accurate and appropriate information (Lemon, 2001, p. 8)

5.2.4 CONSIDERING TIKANGA MĀORI ONLINE

In different ways, the interview participants explained how tikanga Māori is considered in their online engagement. As expressed already, some participants premised online engagement through various means of setting clear tikanga guidelines, whether through karakia or setting expectations via wānanga, discussions or monitoring. In contrast, others expressed tikanga Māori from a more inherent and nuanced perspective.

Taepa starts our kōrero with the karakia referenced earlier and lays the platform for our interview. He reflects on an online pōwhiri undertaken for a new staff member still physically located in Fiji during the COVID-19 travel restrictions:

I am very clear that when we enter those spaces, it is not this space. And so just being conscious of that. And know that it is no less powerful or no less connected - It's just different. And going back to that pōwhiri, I mean one of the tikanga I set, I did karakia and then I said I am asking all of us in their own spaces to now go and have a kai. I apologised to our family in Fiji and our whānau here that we are unable to feed you, but we will do that when you get here. So it was acknowledging that here we are in this metaphysical space, but the process is to come back into the physical, through the consumption of something, and it is a returning back to the physical space - Because you have delved into kawa and you have delved into acknowledging the very depths of that metaphysical space.

And I do wonder what the relationship was with that and the processes that we have of going there and coming back and closing the door. And like I said if our kids are living in that space. You know we've got tūpato in our own culture, and I do worry for them that they might get lost from the physical world; if this is the right way of saying it, to the metaphysical world, and find it hard to come back.
– Taepa.

Taepa was conscious about metaphysical and physical spaces and re-engaging people with customary tikanga Māori that are carried out in pōwhiri in a face-to-face

environment. Even though people were carrying out tikanga marae online, it was necessary to fulfil the kai (eating) practice after the ceremony to reground participants in the physical world. This comment is supported by Pere Wihongi, who notes the need to ‘whakanoa’ with kai after a pōwhiri, even if the pōwhiri is viewed in a virtual space (Pihama, 2022). Taepa’s comment ends with his concern for new generations engaging online.

The decoding and understanding of ancestral wisdom, such as this, is something that Western science is still catching up to - in this case, western research and the impacts of screentime on the wellbeing of children (Domingues-Montanari, 2017; Lissack, 2018; Oswald et al., 2020), this is similar to the concerns of prolonged internet use impacting on wellness – a statistic that impacts on Māori youth at a higher rate than other ethnicities (Grimes & White, 2019). However, whether participants are referencing Whare Atua, pōwhiri, mana, whare kōrero, karakia or marae, what they all have in common is to find a Māori centred reference point by which to analyse and adjust their online behaviour and the expectations of behaviour online.

The Internet: Setting restrictions and expectations online

Wilson also references the marae and talks about the tikanga Māori concepts around sharing Māori knowledge which is considered in naming his online engagement platform and thereby setting expectations for his mode of sharing:

... I didn’t really know what to call my site. I was thinking of Te Paepae Waho because all you are doing is showing them the front of the house. And a lot of people think that I am giving too much away, whereas, in my opinion, I am only showing them the front of the house. Because you have to go through a range of processes to get through the door. And I’m not interested in going too far past the door online. There are definitely some things you can do, and if I do go past the door, it will be with a discrete group rather than to everyone – Wilson.

Taepa reflects on one of the observations made about Wilson’s position:

I could see a lot of people thinking that what he was doing, maybe inappropriate because of some of the kōrero, and he knows this more than me, and even just

now in our kōrero, there is kōrero that I alluded to, but I am not saying here because it's not the right time and place for the mahi.

And so there are things that you know just as a Kaitiaki – ka pupuri i tēnei, engari ka hoatu i tēnei [reserve this, but share this]. Because it's a safety thing, it's nothing to do with Mana or power. It is to do with tiakitanga [guardianship] of that taonga [gift/treasure], so he is very deliberate – Taepa.

Broederlow shares restrictions from the Aotearoa Café online chat in early discussions with people like mātanga Mark Kopua¹⁶:

I looked forward to our weekly chats, and we would discuss everything; we would discuss te reo Māori, we would discuss our culture, history, almost every topic we would discuss. Now I am a very spiritual wahine, and that was the one topic I just couldn't not bring up in the chat room and get somebody to sort of guide me. I was hungry to learn, hungry to just absorb like a sponge anything about our culture, but I would ask, "Can we talk about our wairua [spirituality]," you know? And they were like "no". I was like, "Why not?" And they would be like, "Oh, you have to do that kanohi ki te kanohi". And I was like, "But I am in Australia, and you are in New Zealand" I was like, "I want to talk about this topic that's important to me", but it was like, "No because, if you want to talk about that, you have got to come home". That particular topic which really used to frustrate me. – Broederlow.

In terms of teaching and learning online, Wilson notes that he lays a foundation of tikanga Māori for the hui or wānanga and considers the period expected of participants and the maramataka:

Suppose I am going into a long hui, and I am facilitating it. In that case, I will set the tone of the hui deliberately, and the karakia will be at least 15 minutes where it, includes a karakia and includes whakataumaha or meditation. And it includes setting of intention... And so it's understanding the energy of the

¹⁶ Mātanga - Expert leaders. Mark Kopua is renowned for his knowledge and leadership in the revival of tā moko (traditional Māori tattoo) and kōrero tuku iho (inter-generational knowledge transmission) pertaining to atua (Māori gods)

different periods of the day, as well as the energy of the moon. So that you use that to help you. And so if you are going to be doing something in the Korekore or Tamatea, Atua¹⁷, or anything like that, you've just got to be mindful of the challenges that may confront you. – Wilson.

Taiuru has personal expectations around what he prefers to engage in kanohi ki te kanohi instead of online engagement, for example, tangihanga. Keegan states his expectations about the types of information retrieval that require kanohi ki te kanohi engagement. Soutar identifies appropriate marae behaviours to guide online behaviour, as well as Broederlow and Pihama. Both Taepa and Wilson also reference karakia as a guide. This highlights that there are tikanga Māori employed by individuals and tikanga Māori that individuals set for collective operation. This tikanga Māori approach is identified by Ahorangi Sir Hirini Mead who reminds us that “[t]ikanga are tools of thought and understanding” and that “[t]here is a right and proper way to conduct one’s self” (Mead, 2003, p. 12). The sentiment of ‘kaitiaki’ or guardianship is also important in the online space (Williams, 2020).

5.3 CONCLUSION: MĀORI AND THE INTERNET

Māori experience with technology is a site of evolution. From technological advances in fire making, cooking, navigation, clothing, and even star gazing – methods of communication have advanced rapidly, including newspapers, television and now the internet. This chapter has explored unique Māori insights into online use and outlined areas that Kaupapa Māori exponents using the internet have identified as being important to Māori online use. These considerations include how Māori customary practices such as karakia and kawa can guide online thinking and behaviour. Specific Māori contexts such as whare and marae also give a basis for guiding online behaviour. In contrast, natural phenomena such as Whare Atua provide parallels to the new space in which we now engage (and live). Five key areas are identified for considering how Māori engage with the internet: information sharing, connecting with others, COVID-19 as a catalyst and enhancer, practical benefits of the internet and cautions about the internet space.

¹⁷¹⁷ Korekore, Tamatea, Atua are all maramataka moon phases

This provides a basis to consider - *what are the implications of the internet for tikanga Māori?*

The transition to first, a written, then a technological system for transference of knowledge has not been without problems, but Māori are now in a transitional state and ready to participate in the global “knowledge economy”, to utilise this new media in a culturally safe and supportive way. (Lemon, 2001, p. 2)

The following chapter reflects precisely on the notion of tikanga Māori as expressed online to investigate cultural safety, cultural appropriateness, and cultural perspectives of Māori engagement with the internet.

CHAPTER 6 DISCUSSING TIKANGA MĀORI AND THE INTERNET

Kia whakangungua koe, ki te kahikātoa, ki te tūmatakuru

‘Kia whakangungua koe, ki te kahikātoa, ki te tūmatakuru’ – (You are to be ritually strengthened with the kahikātoa, with the tūmatakuru) is a continuing line from the guiding oriori. The words reference flora which could be used as in customary defence systems and corresponds to our need to be cautious when engaging online.

6.1 INTRODUCTION: TIKANGA MĀORI ONLINE

This section extracts key conversation points with interview participants regarding tikanga Māori. Tikanga is most apparent in public Māori cultural ceremonies and rituals such as pōhiri and tangihanga (for example (Mead, 2003)). As previously stated, Mead says that “[t]ikanga are tools of thought and understanding... They help us to differentiate between right and wrong and in this sense have built-in ethical rules that must be observed” (Mead, 2000, pp. 3–4). Right and proper conduct online proves to be difficult for many, not just Māori (Goode, 2010; Hamelink, 2000; Hartsell, 2008; Mintu-Wimsatt et al., 2010; Plaut, 1997; Shea, 1994; Soler-Costa et al., 2021) and given our history of colonisation it is an unfair expectation that Māori can easily approach online use underpinned by tikanga Māori.

Tikanga, kawa, manaakitanga, whaikōrero, Te reo Māori and waiata tawhito can be heard and felt on marae throughout the country. In that respect marae remain the most authentic site for accessing te ao Māori and increasingly programmes such as Marae Mapping are committed to helping individuals find, and then make contact with a marae known to be part of a whānau tradition. Over time marae associations may have been lost, but a new generation is now searching for lost connections so they can experience first-hand marae encounters. While the great virtue of marae hui has hinged on face-to-face meetings, personal contacts, and time to reflect, increasingly digital connections are opening up other avenues for participation. There have already been examples of live ‘on-line’ attendance at tangihanga and other hui so that whānau in other countries can be involved in the formalities. Further, many marae have websites that keep

whānau informed and involved in the day-to-day operations and business of marae (Durie, 2017, p. 3)

Tikanga Māori has many expressions and is applied in all functions, from birthing and death, navigation and agriculture, to hospitality and law (The Law Commission., 2001). However, drawing on Māori reference points, interview participants give examples from concepts such as karakia and marae to guide Māori conceptualisation, engagement and behaviour online. This chapter examines explicit references to tikanga Māori as experienced on the internet by interview participants who discuss the evolution of online use, safety, the adaption of tikanga Māori, online behaviour and the application of tikanga Māori in the online space.

6.2 THE INTERNET, EVOLUTION AND TIKANGA

Interview participants outlined different ways in which the internet is used. They made comments on historical adaption and adoptions of technology over time where: “Māori have a long, but mostly unrecognised, history of ingenious innovation and adaption of new technologies” (Keegan & Sciascia, 2018, p. 359). As our environment changed over time, so has technology related to all aspects of Māori lifeways – from waka building construction and design, the use of nails, incorporating Western fibres in Māori clothing, printing narratives in books and newspapers, building with new materials such as iron, and using agricultural tools - Māori have continued to utilise technology with an aim to contributing to collective welfare (Warren, 2009).

When asked about the implications of the internet for tikanga Māori, Keegan described the idea of Māori adoption and adaption of technology:

I think it's interesting to look at because technology changes. Technology has always changed, right? And Māori, as adopters of technology have always adopted technology. Right from the very beginning, before the arrival of the Pākehā, Māori were strong in adopting, creating, and adapting using new technology.

So as the internet becomes so prevalent, well, it's not really the 'internet' but as social media tools become so prevalent - of course, Māori are going to adopt it. It's just a natural thing to happen. But it's even more amplified because technology is something that young children have grown up with, so it's more

their natural world than being on a marae is an older person's natural world, so because it's more their natural world, of course, they are going to adopt it more easily, it was always going to happen. – Keegan.

Keegan identified two specific issues: the long history of Māori adoption of technology and the fact that young people are adopting these technologies in a 'natural manner'. By 'natural manner' he is referencing the idea of the digital native, someone who is confident with digital devices and, for the most part, has grown up using devices as a standard part of their everyday life (Díaz Andrade et al., 2021), and therefore young people are more likely to assume digital devices as part of their lives naturally. The internet provides a duality of challenges and benefits for Māori. Something that Mātāmua sums up:

It is a space that we cannot deny; its impact on our culture and our society is undeniable, and I think that it would be wrong to try and think that we can stop it or hold it back. I think we need to embrace it... but that embracing of it, I think we need to incorporate it within the culture and make it part of the culture, not sit outside of the culture, and I mean incorporate it in every way possible: Reo mai, tikanga mai, whakapono mai, atua mai, kaupapa mai [from language, tikanga, belief systems, atua, and subject matter] – Mātāmua.

He stated that our approach to the internet as Māori doesn't mean we act without tikanga or consideration for Māori core values such as tapu. However, instead, we need to incorporate and accept internet use into our culture and use it as a tool to benefit our people. He stated this type of experience through online pōhiri. This sentiment is shared by others who have written about Māori and technology (Durie, 2017; Keegan & Sciascia, 2018; Ngata, 2017; Whaanga et al., 2017). Consequently, Mātāmua says that the adoption of the internet needs to happen in a manner that does not weaponise the internet within our culture.

Taepa comments that it is quite amazing how much our tikanga and authentic life protocols and ceremony can be translated to the online space, and that could facilitate a sense of real connection that then translated into a face-to-face relationship:

I often think about Rangiātea and its deeper teachings. But the karanga, karakia, whaikorero, to reply – waiata... It was absolutely mind-blowing to me because I did not realise just how much of that stuff could translate into that space - Taepa.

Pihama talks about the evolution of tā moko (customary tattoo) and the adoption of technologies into the cultural practice of tā moko. She considers how Māori might apply tikanga to technology with acknowledgement of colonial disruption to cultural practice:

Tā moko was done with our implements, with our tools and our way with our own karakia with our own design; all of those things are Māori - until colonisation. Which initially did not remove the tools; initially, it removed the tikanga. It disrupted the tikanga, not the tools. The tools were always there. And so, in the disruption of the tikanga comes the destruction of the practice. Then we get this new technology coming, and our people went to metal quite quickly, right? Because it was easily sterilised. So there is a practical reason why we, our tupuna, took on other tools, very practical reasons. But we took on those tools, and we surrounded them with our own tikanga and our own mātauranga, so we could use metal tools as long as we still have the tikanga in place.

It is when the tikanga gets disrupted that the tools just become a mechanism of colonisation, and you start tattooing yourself - rather than doing tā moko. ... And so having our own decolonise, to understand the revitalisation. We did a film, “Moko Kauae”, around wahine retaking kauae, and that is online, and talking about what that meant in terms of their whānau and some of their whānau saying, “You cannot do that because only gangs do that”, or “you cannot do that because”...

So those kinds of things, that are part of that kind of colonial disruption of the mātauranga and the tikanga. So really, when the tools began to be reused in a way that started to bring the tikanga back... Now we also have karakia come back; we have hui coming back we have collective engagement in the kaupapa.

So I guess what I am saying is that what counts as the tikanga and the mātauranga around the tools? And if we do not have that, then I think we have negative impacts when we use a tool that doesn't have anything grounded around

it. So online, the capacity for racism, sexism, homophobia, transphobia, hatred to run riot in cyberspace is a reflection of that. Of not having what they used to call E-etiquette, or any form of tikanga around how we engage with each other... – Pihama.

Pihama affirms that Kaupapa Māori principles drive her work across different areas. Her research, theory and methodology work contains a critical level of thought and engagement of Kaupapa Māori, and she notes that the platform by which her material is transferred evolves:

The only thing that differs is the vehicle that we use because we went from print and we included video analysis, and then we went to websites and then moved as blogs became more prevalent, moved into utilising blogs as opinion pieces because that is what they are; and opinion pieces are not new, right? They have been in print media mai ra ano, and they are like letters to the editor. To some degree, they are opinions. – Pihama.

Affirming critical points made by participants about tikanga Māori, it is identified:

With as many as one in five Māori now living abroad, Māori are faced with rethinking and refining how cultural practices are acted on and maintained. In the context of new technologies, such as social networking sites, these spaces are providing Māori with opportunities to play out some of these practices (Keegan & Sciascia, 2018, p. 366).

Wilson remembers going to the computer room while at university in the 1990s to access email. He reinforces the idea that we should view the internet as a tool to share and connect whānau online.

It is a tool, and how do you embrace those tools, and how do you behave when using those tools? And so the strength will come from that, will come from how you view it, how you use it, and how you behave.

You know you notice that most of my answers, I have been focusing on us rather than the tool because our behaviour shouldn't change. Yep, there are addictive tendencies, but our behaviour shouldn't change because we have had iterations

of the Internet for some time now... we just have to make sure that, as humanity, we are keeping ourselves in check so that we don't let tools take us to silly places. – Wilson.

Similarly, Pihama identifies that we should be deliberate in our use of technology, regardless of its form:

I guess in terms of the technology - and that is why I am saying I think if we do the things we do for the right reasons, then the vehicle - the technology is merely a vehicle of transmission; It should not control the content that we transmit, except for being very careful about its co-option, its misrepresentation, its commodification - so those things. It's a fine line. I think it is a fine line; you've got to think about those things... – Pihama.

In the context of Pihama's statements around the idea of 'right reasons' is connected to the notion of the customary tikanga of 'welfare of the collective' (see: Warren, 2007) that evolves. Nevertheless, we should always progress with caution and critical reflection.

Communication media technologies show that “[m]any ethical decisions are based on peoples underlying religions, philosophical, and cultural ideals... Socrates, Thomas Hobbes, and John Locke believed in a social contract theory – that people in society have an unwritten agreement with one another” (Straubhaar et al., 2018, p. 474). Western approaches to 'ethics' such as these consider principles guiding behaviour and morals to determine right or wrong (Merriam-Webster, n.d.). However, tikanga Māori are Māori thoughts that “help us to differentiate between right and wrong and in this sense have built-in ethical rules that must be observed” (Mead, 2000, pp. 3–4) to organise our behaviour. The ethical social contract for collective welfare and tikanga Māori are critical in online activity. However, colonisation has impacted Māori connection and identity (see, for example: (Durie, 1995, 1998; Pihama, 1994; Tawhai, 2020; Tuhiwai-Smith, 2012; Walker, 1990, 1996; Warren, 2017)) and therefore our understanding of tikanga Māori and our sense of Māori ethical social contracts (Mead, 2016). In the broader sense, Straubhaar et al. (2018) suggest that ethics exist across the media landscape, including corporate ethics, journalism ethics, ethical entertainment,

social media, public relations, advertising, research, and consumer ethics. Ethical internet behaviour that internet users should consider “should avoid harassment of other users, not misrepresent themselves or others, not violate others’ privacy, not use Web sources for plagiarism, and should obtain permission for material they copy onto their websites” (Straubhaar et al., 2018, p. 499). For Māori consideration, Sciascia (nee O’Carroll) suggests that there are six particular values to be considered by Māori when engaging online: mana tangata (understanding risks), whanaungatanga (maintaining relationships), whakamiha (showing respect), te reo (support of te reo Māori and caution around the nature of English language use, i.e. Swearing), kaitiakitanga (privacy and safety online), and manaakitanga (nurturing behaviours) (O’Carroll, 2013b, pp. 288–289). Research supports revisiting our existing tikanga to inform how we engage with the internet. Muhamad-Brandner (2010) inappropriately (as a non-Māori) comments on tikanga Māori by stating that further analysis of tikanga Māori within online environments is required as an examination of Māori identity:

Tikanga, while acknowledged to be of importance, restricts this potential because traditional practices are not adapted to the circumstances Māori find themselves in today. The internet is a practical tool which could allow the limitations of everyday life to be overcome. The access to a wide range of information – including mātauranga Māori, tapu information and tikanga, but also matters of global relevance from a Māori perspective – is paramount for all Māori and should not be denied to those who are not embedded within Māoridom due to their current circumstances. (Muhamad-Brandner, 2010, pp. 289–290)

This comment illustrates two challenges facing Māori who engage online. First, the internet has great potential to influence Māori lives positively. Therefore, better access to the internet should be facilitated. Second, all Māori should have access to all information (including tapu information), which implies cultural imperialism (Said, 1978), eColonialism (McPhail, 1987, 2008) and iTāmi.

Consequently, this position is most aptly summarised here:

Ironically, ‘living as Māori’ in Aotearoa may be equally challenging as ‘living as Māori’ in other parts of the world. Predictably, if only to survive in a competitive society, many Māori may not always aspire to ‘live as Māori’ and may be more inclined to pursue futures that are aligned to global values,

languages, and lifestyles. Predictably also, whānau in the future will reflect a wider array of nationalities and ethnicities. On balance, probably all whānau and all Māori will come to know some aspects of both worlds - being Māori and being worldly-wise citizens. But if the urbanisation experience is any guide, globalisation will threaten Māori participation in te ao Māori in favour of being participants in a global society where values, norms and protocols – often introduced through world-wide marketing campaigns and social media - reflect a more or less homogenous collection of on-line enthusiasts. Just as a shift from rural to urban communities in the past led to alienation from whānau at home, so living abroad or being totally immersed in digital worlds while in New Zealand, could similarly foster alienation. Moreover, for many whānau urbanisation did not actually deliver the major gains that living in cities had promised. The result was a double disadvantage; disconnection from te ao Māori and marginalisation within urban environments. In the new era of globalisation, the same double disadvantage would not be dissimilar though the results could be even more devastating. (Durie, 2017, p. 2)

6.2.1 TIKANGA MĀORI IS ADAPTIVE

Māori are inherently adaptive (Durie, 1995; O’Carroll, 2013b; Petrie, 2006; Walker, 1996; Warren, 2009). As stated:

Māori culture in many of its manifestations has changed and developed to encompass te ao hurihuri and the speed and pressure of change can at times be overwhelming. In a 21st Century society, there is an increasing need to hold on to and preserve culture and language as many pressures force Māori further away from their cultural heritage and roots (O’Carroll, 2013b, p. 301)

The idea of whether or not the online space impacts tikanga Māori, a range of responses were offered by participants reflecting the dynamic nature of tikanga Māori and the need to be malleable in its application. Wilson says our need to embrace change can be reflected in language change and colloquialisms like our use of the word ‘chur’, but in terms of assessing tikanga Māori online, he says:

I think it's contextual. I don't think a binary answer is helpful. It all depends on what the context is... And I am not sure that it is 'online' because even when we

were growing up, whatever was shown on TV became popular as well. And prior to that, whatever was shown in print became popular too, so it is a human behaviour thing. And how we respond. Which is why I went back to psychology earlier, how we respond to being liked, and these tools affect and change our behaviour. – Wilson.

Our civilisation and our tikanga evolve and adapt as necessary. Wilson identifies many positive contributions that the internet makes for enhancing the Māori experience, but that we are to be mindful of our underlying purpose to ensure our quest is always to advance rather than diminish our capacities. Similarly, Keegan had this to say about tikanga Māori:

The thing with tikanga - so we say that the internet and technology changes tikanga; well, the thing with tikanga is it is there to keep us safe. But when we are moving into an environment where there are no tikanga, no Māori tikanga, then there are no safety nets to keep us safe, and that's the concern... There is a worry that we are losing our tikanga, but there is also a safety concern - are our children safe?

... But I think for your thesis, there is going to be no - 'this is right, and this is wrong'. What you are going to have to say or have to portray is - in this situation, this is what is being used, and in this situation, this is what is being used. We adapt to what is best in different situations. As long as we are doing it our way, with our eyes wide open and then as long as we recognise the mistake, we realise it was a mistake. – Keegan.

Taepa also supports the idea of safety guidelines that are flexible rather than rigid:

I learnt a bit of this from Manos [Nathan] and Sandy [Adsett] and them, but if you have key core understandings towards tikanga and part of the processes, then it allows you to - one, apply them to things like the ipurangi. So if you know what it is in, teaching us at every stage of the way it is core principle and intention, then it becomes quite easy to translate it into other spaces, but then also; it also allows you to shift because of what comes. And Che and them would talk about this, but we have been on the marae enough to know we have this sort

of template, but if you were to actually tick it off, you, more often than not, probably did not go to that template because you cannot pre-empt everything, that is going to emerge. But as long as you have the principles in place, then it allows the decisions to be made on the fly because they have to be, - good decisions, but also allows the people to entrust in those who are making decisions. – Taepa.

Supporting the idea that being rigid is not helpful, Wilson says explicit ‘dos’ and ‘don’ts’ cannot be the guideline for incorporating tikanga Māori and Māori engagement in the online space, as no two situations will be exactly the same – just like hui. The general suggestion is that core values systems and principles can be the foundation for engagement:

Some people, I think, view tikanga from a Eurocentric view - where it is ‘do’s’ and ‘don’ts’. Whereas I am of the opinion that: kawa are our principles, tikanga as the implementation of those principles, and ritenga are habitual practises. As a result of the principles and the implementation of those principles... And so to give people a list of do's and don'ts - is to strangle them. But to give them guides where they then implement it as they see it, based on context. That helps you to live and thrive rather than suffocate. And I know that some people are just made where they have to have “dos and don'ts”. But I really want to stress that it is actually not healthy because we have to look at each situation – Wilson.

Further supporting this idea about rules and regulations, Riwai comments that setting expectations that are simple and applicable for people help people to apply basic tikanga Māori to their online behaviour:

We use lots of things, but that is mainly how we use the internet; we had done a bit of the groundwork, and we kept it simple. We kept it simple and held them to some things because he pakeke tatou [we are all adults]. We tend to give them lots of rules, and people just love breaking rules. When you talk about values, and we hold them to, you know, simple things like mana, and this is who you are dealing with. Because what happens with Kaitiakitanga, what we have learned over the last five years, is that it is trauma, speaking to trauma, right? – Riwai

As the electronic space evolves with Māori engagement online, Māori cultural application to the internet also evolves. This aspect of Māori development gives relevance to eColonialism and iWhakaaro to ensure that cultural imposition of media culture is mitigated and, more importantly, that Māori cultural paradigms are maintained. The idea of tikanga Māori facing complications online is discussed by others (Edwards, 2004; Lemon, 2001; Muhamad-Brandner, 2010; O’Carroll, 2013b; Ohia, 2005; Tamati, 2008; Tiakiwai & Tiakiwai, 2010). However, there is a need for more research in this area which must include recognition of the impacts of colonisation on Māori.

In describing ways in which tikanga Māori evolves, Wilson expressed his thoughts about karakia that he considers necessary to describe our new world as we adopt new technologies to enhance our living:

Tēnei te ara kei runga, tēnei te ara o tēnei tipua, te ara o tēnei ariki

I did that as a karakia. But when I think about online, the karakia is:

kūkara kūkara te rangi e tū nei, kūkara kūkara te papa e takoto nei.

*Kūkara kia whiwhia, kūkara kia rawea*¹⁸

...This is why I embraced technology. It is simply because when you understand karakia, tauparapara, waiata [prayer, incantation, song] in its different forms, technology is now enabling us to see what our tupuna already saw... And so, as a result of technological advances, we are now able to haro [soar] like the kaahu [hawke], to topa [swoop] like the kaahu. And doing that, we can then see things that our tupuna encoded in tauparapara and karakia, and waiata. And so, you know “ō mai te taumata o Ruahine” [be accommodated from the summit of the Ruahine Mountain Range] - Technology can help us do that. – Wilson.

Wilson’s discussion here not only alludes to the idea of mana atua by reconnecting to kōrero tuku iho and ancestral protocols through karakia but also reminds us of mana

¹⁸ Kūkara is a transliteration of the word ‘google’. In this context Che is interfacing new technologies with traditional karakia and frames the karakia for positive wellbeing outcomes

whenua and our ancestor narratives associated with esoteric spaces through karakia. The poetic references that Wilson alludes to in the form of a bird soaring across ancestor landscapes which can now be experienced online, are supported where “the Internet as a medium that, in some ways, has finally caught up to aspects of Indigenous notions of oral story-telling” (Wemigwans, 2018, p. 23).

Overall, a hard and fast application of tikanga Māori in *any* situation, including the online space, is not plausible; we must allow for tikanga Māori to express our cultural values broadly. As Wilson points out, technological advances benefit Māori, allowing us to experience cultural metaphors embedded in karakia and waiata through digital platforms. There is a need to investigate our perceptions of the internet and adjust our behaviour accordingly as Taepa notes that the ipurangi (internet) provides a ‘powerful’ vehicle to connect as he describes his experience with hosting an online pōhiri:

We had to call on the metaphysical space to connect to transcend through a physical space and into a metaphysical space so that they felt we were there because we could not be there physically. I think it was quite powerful... if your intention is there that you can traverse that pathway and get to somebody without necessarily having to be there physically.

... So many of our practises call upon that space, especially in our kawa. We often decide to collapse time and recall either events or people through that meta-physical space. You know it is no longer bound by the physical space ... Maybe in our time, we have placed so much emphasis and focus on the physical that this is a resurgence of another space that our ancestors paid particular attention to – Taepa.

The idea of transitioning from the physical land space to another space is discussed later with ‘te kawa o Rangi’. There are many ways that Māori have incorporated the internet and new technologies into diverse Māori life. Binary, black-and-white approaches to what tikanga Māori looks like online must be adaptable and malleable but underpinned by positive intention, safety, and Māori cultural value. Such expressions can be tempered and guided by reflecting on karakia, waiata and the customary understanding of our metaphor. The utilisation of the internet also acknowledges that, as Māori, there are tenets of traditional and customary application of tikanga Māori and kawa that our

tupuna have always been aware of. Our challenge then becomes one of remembering our cultural position and then applying tikanga in context-specific ways.

6.2.2 TIKANGA MĀORI AND SAFETY

Safety online is a concern described as ‘cowboy’ behaviour, lawlessness, aggression, addiction behaviour, ‘craycray’ness (being crazy) etc.... The participants highlighted this aspect of concern for well-being and agreed that the focus should be on safety, balance and wellness. Participants also raised safety concerns. In terms of setting guidelines for technology and our online behaviour, Keegan expressed his concerns in material previously quoted:

... the thing with tikanga is [that] it is there to keep us safe. But when we are moving into an environment where there are no tikanga, no Māori tikanga, then there are no safety nets to keep us safe, and that's the concern ... There's a worry that we are losing our tikanga, but there is also a safety concern - are our children safe? – Keegan.

A significant issue for Māori is the lack of resources to approach online safety in a Māori-centered manner. While some of the current resources might be translated into te reo Māori or developed by Māori organisations, they continue to be centred on Pākehā approaches to safety (these issues are identified in a subsequent chapter). Expanding on the idea of safety for children, Taepa says:

I think in our culture, we talk about.. the way you think about people. Be careful, you know, and have good thoughts about people because it's accumulative, and that's that metaphysical space that we are engaging in now because of COVID were not able to necessarily physically connect as much as what we did, and it is different...

And then there are others. It is like it is a completely new space that's no hold barred, and so it is really quite an interesting time I think we live in, especially for our kids. But yeah, I'm not too sure. I just worry about that for my kids. I want them to be really conscious of the power of the metaphysical space and use or engage that space towards the things in the karakia, you know – whitiwhiti

ora [wellbeing], like the absolute wellbeing that comes from energy, through light, through current, through airways

... And there's another side to it. There is actually removing your hinengaro from the things that now, in the ipurangi space, especially when you are scrolling, you don't know what's coming next. Like I said, there's a real power, and media capitalise on this pull of people, like disaster, trauma, and things that are absolutely horrific for us, but it's a powerful draw. – Taepa.

As a method to recenter Māori philosophical approaches to online safety, the use of atua, karakia, marae and other key institutions of Māori society provide possible learning pathways to help develop Māori narratives around online safety.

You mentioned the higher spirit levels, or heavens, or whatever terminology you want to use. So I consider whether it is 10 or 12, as all the different layers of radio frequencies. So down here [the south island], we learn that Tāne Mahuta went up to Rehua and got the three baskets of knowledge. And then his brother Whiro tried stealing it from him. So I use that as the epistemology of data and then hacking and trying to make a narrative out of that to try and teach children about 'the internet is not safe'; there's stuff out there. – Taiuru.

In terms of a safety process, Pihama considers the processes of talking in the whareniui and applying a cultural process of moderating what you say:

We couldn't just have it a free for all. This is what you have now, I think. A lot of free-for-alls where anyone can say or do anything with very little moderation... Because it used to be that sites were moderated. People would moderate, and you wouldn't get the kind of insults you get now and the demeaning and trampling of people, people you don't even know. So we had things like: 'You only write in here what you would say to someone's face, kanohi ki te kanohi'. If you would not say that, you do not write it in this space.

So that made people think about what they wrote and think about to whom they wrote. That you would stick to the kaupapa and not attack the person. Those fundamental things, and we had people who did that anyway on the whole, but

they reinforce that in their own way of thinking about how will the kaupapaMāori.com site be online. So it was very collective and very Kaupapa Māori driven – Pihama.

Perhaps the colonisation process has disconnected Māori from the notion of public speech in real-time, in person. For example, reflecting on our capacity for oratory and public speaking, Māori experienced within Māori community domains understand the pressure and responsibility of delivering public messages. From the initial karanga on the marae, the whaikorero, the waiata and pao, Māori public expressions carry the personal responsibility to appropriately represent the collective – actions that are mana enhancing for both the host and the visitor where “legitimate representation of people and opportunities to address their concerns become more important” (Durie, 1999, p. 354). In my experience, those people who carry out these responsibilities are identified by the group/collective or marae as someone capable and experienced to act as a ‘māngai’ [representative spokesperson] for them. In this way, the ‘māngai’ are collectively supported, assessed, critiqued and, when required, publicly admonished when their behaviour is inappropriate or not mana-enhancing.

Riwai makes a point of discussing the impacts that the online space has directly on the individual. She relates the potential influence of television as part of her conversations with students. Subsequently, Wilson also references television:

when there is something sad on TV - Ka rongō tonu koe i te mamae, ka rongō tonu koe i te aroha, i te pōuri. Ka tangi tonu koe. [you still feel the sorrow and cry] But there is some real fundamental stuff, I guess, that we discuss first, and I guess that this is what translated to a really safe space online for us – Riwai.

And I hear other people talking about it and how they feel good after watching something; that is why people cry in movies, that is why people get a fright in movies because the energy is still being sent. – Wilson.

Taepa also speaks about the ability of the internet to convey information and messages that invoke emotional responses. Ensuring that whānau understand how their online

behaviour can affect other people was a foundation element for Riwai as her face-to-face teaching and learning moved online due to COVID19 lockdowns. She also acknowledges that there are times when intention can be carried through the online space:

*Because now that engagement transcends the spaces, if it is online or in person...
I felt it; I cried – Riwai.*

Similarly, Wilson acknowledges such challenges and says that there is a need to focus our behaviour on well-being:

it is all on how we use it and where we want to frame ourselves. Because if you're going to frame yourself in kino, ko te hua he kino [bad trees bear bad fruit]. Simple, and that's not the internet's fault. It's not online's fault; it's how you choose to frame yourself, and granted, there are always challenges that put people into predicaments. – Wilson.

Wilson's point is about personal responsibility, an expression of mana tangata. The statements made here around karakia to guide us are supported by other participants who discussed internet safety in sections three and four of this chapter. However, perhaps the caution regarding the internet as a new technology can also be associated with other introduced technologies that, while providing benefits for Māori, have also provided significant challenges and colonial repressions, such as the camera, where photographs portrayed colonial stereotypes (Graham-Stewart & Gow, 2006) and the gun which enforced myths about savages (Crosby, 2017). These are the critical considerations that Māori must make to ensure that action and outcomes maintain a positive trajectory.

6.2.3 PERSONAL RESPONSIBILITY FOR TIKANGA MĀORI ONLINE

The concept of Mana tangata, the idea that our mana is enhanced or diminished by our personal choices, is also reflected in interview discussions.

As part of a conversation around appropriate behaviour online, Riwai gave a simple explanation for online impacts as well as the notions of mana and tapu. She acknowledges that the mana and tapu have huge connotations around power and

authority. However, fundamentally they express a connection to tupuna and the dominion you occupy in time and space. These are some of the fundamental understandings that are required in order to provide a safe space for the collective. She explains that mana identifies where individual space begins and ends – including your ancestral connections, which she calls ‘dominion’:

This is where I begin and where I end, and I come from a long line, and they come with me. Then my question to you is, how do you greet Mana? ... There is something different that you engage when you stand in a space for someone, and you acknowledge that you're in the room with Mana ... This is my Dominion - Mana; you get one person, there's a space, and one person and a space, and in that space we can feel our Mana. We don't get melded into others as we know where we will begin and end. Tapu is just simply that I have reverence for yours. It's a simple thing. I respect that you have it. And that something has to happen before I enter that dominion.

There has to be a tikanga that's in place for me to come near it or transgress this. Because now I'm into somebody else's dominion. And so, to go past it, there needs to be a Mana conversation. A conversation with Mana. So those are the things that we talk about. – Riwai.

Riwai goes back to some fundamental ideas to address our colonised state to ensure everyone is on the same page regarding appropriate online and in-person behaviours. By identifying and explaining the notion of mana and tapu, the collective has a shared base point to engage with each other. Riwai speaks about the need to have reverence for others when sharing space. Taepa also identifies this and the need to be conscious when in the online space:

I am very clear that when we enter those spaces, it's not this space. And so just being conscious of that. And know that it is no less powerful or no less connected - It's just different. – Taepa.

All of the participants speak to the idea of personal responsibility in different ways, but the two fundamental ideas are summarised by: the idea of acknowledging that the online

space connects us and the need to be conscious of the influence that the space has on each other.

6.2.4 TIKANGA MĀORI TO GUIDE ONLINE BEHAVIOUR

Our colonial history has impacted our ability to ‘live as Māori’. That is that as Māori, we have access to the Māori world, including the Māori language, Māori culture, and Māori institutions like marae. To ‘live as Māori’ also infers that we are equipped to interact in both the Māori world and the world at large, including pathways for Māori who are alienated from Māori culture (Durie, 2003). Expressions from participants offer key considerations to assess tikanga Māori that guide appropriate behaviour online, all of which infer that we must understand our role in the particular space and take personal responsibility for our actions online.

Pihama reminds us that any engagement's objective (whether in physical space or online) must be centred on Māori philosophical values. For the work that she has been (and continues to be) involved in, there must always be a reflection on the main aim of the work, and people must focus on:

getting that right or returning it back to the foundation or the tūāpapa of what it was about – Pihama.

The idea of returning to some baseline position for engaging online is affirmed as Wilson identifies how we can be guided by customary practices such as karakia. Like Riwai and Taepa, he also acknowledges that energies and emotions are translated via digital platforms, so we need to be conscious of how we frame our intent. As he has been quoted previously:

energy is a vibration, and you can send vibrations along these waves. I've seen it myself. I felt it myself – Wilson.

The idea of karakia as guiding is also spoken about by Soutar, who reflects on critical understandings embedded into the lives of those engaged in te reo Māori education spaces:

[kura] has always done Nau Mai e Tama [a particular karakia] for the whakaputanga [graduation], and in there, it goes through Tāne, Piki i ngā Rangi Tūhāhā [Tāne's ascend to the heavens] and it is referred to as 'te hiringa i te mahara'. I heard that Uncle Tamati [Reedy] once translated that, or interpreted that, as the power of the mind. So I totally get that you transport yourself to that place by closing your eyes. And I just think that tamariki, who have been raised in Kohanga and Kura - It is just natural for them – Soutar.

Subsequently, Taiuru refers to how Māori children who have been educated through Māori schooling options are better equipped to find parallels between Māori narratives and the internet. Mātāmua references the marae to guide his perception of the online space and behaves accordingly. He suggests that we could reconceptualise the online space as that of a marae:

For me as an individual, I think to myself, "Oh, that's not my marae". I don't have mana at that marae, so, ko te tangata nōnā tērā marae, kei a ia te tikanga, engari mēnā ko au i runga i taku ipurangi i taku kaupapa ko au kei te whakatakoto i te kawa me te tikanga o taku marae [if it is your marae you set the protocols, but for me online, for my purposes, I set the protocols for my marae]. And I think, for me, that is how I approach it – Mātāmua.

Taking personal responsibility for behaviour online is a reflection of mana tangata. Riwai discusses these ideas with students referring to mana and the need to make relatable reference points for people to align their behaviour more quickly to a known experience and value. She acknowledges the history of colonisation and trauma within the conversation by referencing whare wānanga (customary houses of learning) ideas of te kauae runga (celestial knowledge)¹⁹ and te kauae raro (terrestrial knowledge)²⁰:

We talk about it in our wānanga – 'he mana tō te kupu' [the sanctity of words]... and words change the molecular structure of things... Be impeccable with your

¹⁹ In this respect sacred knowledge of a 'higher' positive frequency

²⁰ Profane, 'lower' frequency knowledge - potential negative

word. That is what we hold people to. Master your words. Be impeccable with your word.

It is a challenge because the words we were fed were kauae raro words; our ancestral words have a different vibration; they are kauae runga words. Obviously, the system of colonisation has fed us a vibration of words that are more frequent... and they are kauae raro - those words we have to be able to manage and transcend from those words into another space, and that's when engagement changes, we talk about 'he mana tō te kupu'...

... just giving people a guideline and a boundary... People don't necessarily respect the boundaries until it relates to something more meaningful to them - and when you talk about mana, or you talk about "how would you talk to your grandmother?" – Riwai.

Notions of mana atua (including karakia) and the potential to create positive, energetic engagements online are discussed by participants. The references to celestial knowledge are made through mentions of karakia, mana, tapu and marae protocol. Taepa says that our behaviour should:

Engage that space towards the things in the karakia, you know – whitiwhiti ora, like the absolute wellbeing that comes from energy, through light, through current, through airways, you know, because that's the whānau that I believe we are talking about when we are talking about the ipurangi.

You know it is the vessel – hei ipu rangi – it is that vessel of Ranginui and all of the things that are contained in that vessel. It's really interesting, whoever applied that word to the Internet, you know, not the puwerewere [web] ... it makes so much sense when you've got the ipurangi, and you've got the ipuwhenua. – Taepa.

In this way, Taepa acknowledged the celestial space – ipurangi as a vessel holding heavenly space; and the terrestrial space through the ipuwhenua as a vessel holding a newborn's placenta. He goes on to say:

There's this duality that we are the embodiment of. I think that it's the trickery, really, of seeing images when people start thinking I am in a physical space - the computer is physical, but actually, the image you see is the makeup of a metaphysical translation, it's like a projection... some brilliant people were able to enhance this energy and capture it and then all of a sudden, here are our faces - speaking as we are speaking now [face-to-face], but that it's being translated, and then projected. It's unreal; it really is. – Taepa.

In this discussion, Taepa locates our epistemology and sense of mana atua within the online space. Mātāmua relates the ceremony and karakia for establishing customary whare and marae spaces and discusses our relationship with our atua:

Our marae are underpinned by our atua, so when we 'tā i te kawa' [ceremonial protocol to establish a space],

- ka takina te kawa, ko te kawa tuatahi, ko te kawa tuarua, ko Rongomaraeroa.

Rongomaraeroa is instilled.

- ko te kawa tuatoru, ko te kawa tuawhā, kei te paepae kai awaha ko te kawa tuarima ko te kawa tuaono kei ngā maihi kei ngā amo.

So you are calling out the different parts of the house, and in those karakia, you karakia to Rongo, to Tū, to Tangaroa, to Tāwhiri, all of those atua have a place within our marae, and so that kawa, tā i te kawa, you instil that kawa and what's underpinned as our religious beliefs and ideals, that are underpinned by our atua. – Mātāmua.

This idea to construct a relatable framework to guide our actions and behaviour online is supported by Riwai, who established Te Kawa o Rangi(nui) with her students to guide behaviours online:

We called it Te Kawa o Rangi.

And I explained it in the video - we're used to Te Kawa o Papatūānuku. You're in the same room; we are close, we are intimate, we are personal, we are sitting here together. And we are just simply going to change to the sky; we are going

to do everything now in the sky. It's just going to be different. So we're going to move from Te Kawa o Papatūānuku, where everybody is close and together, and we are just going to now go to Te Kawa o Ranginui ... the retention rate was amazing because this actually was their comfort. You know they came into the place, and you set it, as calm as you are, and we start to demonstrate that online – then they are going to understand - OK, it is OK to do this.

So that is really how we did it, and we called it Te Kawa o Rangi, and we framed it up as that, and then we said that's simply what we are going to do. – Riwai.

Extending this idea, Mātāmua proposes that an atua for the ipurangi/internet is created, just as atua are created to identify and acknowledge spiritual and natural phenomena like taniwha (spiritual creature):

I think that perhaps, and it is not new to Māori society that, we need to create an atua for our Ipurangi ... what is wrong with us establishing an Atua to rule over the Ipurangi domain? Therefore the principles of that atua come through the way that we interact in this domain. It's what happens on my marae; there is an atua there – Mātāmua.

Mātāmua acknowledges that Māori lives interact with atua across domains such as bushland, oceans and wetlands.

All of these spaces have all manner of Atua: of turehu, of kaitiaki, of taniwha, of marakihau, all of them - except the Internet, and I think that is its problem is that we do not have one of those spiritual overarching Atua from which we can suspend our tikanga upon, and therefore it's the bloody Wild West. – Mātāmua.

Pondering the evolution of the internet and the presence of atua online, Taepa says:

I am really interested in how that evolves for our kids. Because those Atua that are associated with those spaces, I think, will emerge even more so, and our kids will understand them in a different way but also develop their own tikanga around that. The next generation, I am hoping, are very conscious of spaces and

what they are engaging with. I look forward to being old, looking back and going, “Oh, what are they going to teach us about space?”

Because I definitely feel it has evolved really quickly. It has come upon us really quickly – Taepa.

The critical aspects presented throughout the interviews identified that engagement online must first be centred on a Māori understanding of our world. Engaging online ‘as Māori’ expresses our ability to ‘live as Māori’ and reflects aspects of our language, culture and institutions such as marae and karakia. Our online purpose should reflect our foundation guided by mana atua and the aspiration for positive outcomes. As participants identify, guiding principles and values are found in karakia (whitiwhiti ora) and marae protocols guided by kawa. Like the marae, kawa provides ancestral connections and parameters to acknowledge mana and tapu.

6.2.5 CONSIDERING TIKANGA MĀORI ONLINE

The previous section examined tikanga Māori that could guide Māori engagement and behaviour online. Taiuru talks about how some basic tikanga can be instituted online to provide cultural safety and ensure that mana mauri and tapu are protected and that we should be cognisant of those tikanga and the challenges posed by ‘Big Tech’ and the like. At the same time, though, he suggests that we need to be creative with decoding our customary narratives to apply to new technologies:

Growing up, there's all this tikanga we had to abide by at marae... It is hard to try and explain it to some people, but I think there is old tikanga that this generation or society has grown up so that with adaptive technology so quickly, we have forgotten our tikanga, our old stories, and everything is all about Internet... there is all these tikanga I was brought up with are just not applied or considered anymore – Taiuru.

Similar concerns were identified in 1999 by Robert Sullivan, who identifies similar concerns in the following poem:

I heard it at Awataha Marae

in te reo – waka rorohiko –
'computer waka', about a database
containing whakapapa. About tapu
information, not for publication.

A dilemma for library culture
of access for all, no matter who, how,
why. A big Western principle stressing
egalitarianism. My respects.

However, Māori knowledge brings many
together to share their passed down wisdom
in person to verify their inheritance;
without this unity our collective knowledge
dissipates into cults of personality (Sullivan, 1999, p. 59)

Wilson's reflection about upholding tikanga involves finding the best balance based on the context and the skill set you have available to operate as best as possible. He cites that being unable to respond appropriately because "*you don't have much in your kete*" and "*not choosing to act appropriately with what you have in your kete*" are two different scenarios:

I think tikanga is finding the best balance for the situation at hand... But when you can't do it because all you can do is what you know - I would debate that potentially they are still holding up the tikanga.

And that balance, when it comes to technology is all about, I suppose that what you have in your kete, and if you are going online and promoting yourself with not too much in your kete; number one, most onto it people will spot that a mile away, but number two, it then gets into the realm of: are they sharing, or are they bolstering ego? And those are two completely different things – Wilson.

Conversely, there are many ways in which tikanga Māori is expressed online. For some people, a tikanga Māori approach is embedded and normalised in their everyday actions.

However, there are times when they are challenged by developments online and must consider Māori reference points for behaviour deeply.

In Māori immersion forums... when it is in Māori – Te Reo Māori, the tikanga more easily goes along with that. You do not see the behaviours that you might read about. You know, people joke, or I've seen things with jokes of people in their pyjamas, or eating or whatever or that stuff that most Māori would think is impolite; you don't really see that because people already know how to behave when they are actively involved in Kaupapa Māori, particularly Reo Māori.

... and actually, for us, that is just so embedded in our approach to everything ... Māori who are actively engaged in te reo and tikanga and who are thinking and living as Māori, as you can say it is in this contemporary context – Soutar.

Soutar then describes engaging in non-Māori hui online where tikanga Māori, including general introductions, are absent.

I take for granted all that tikanga because, in all other forums, I am involved - you wouldn't start without a karakia, or if you start without a karakia, it is because someone says, "We just had karakia at kura" - everyone has just come in at 9:30 am, and we all know people join their kura karakia or whatever, but there was nothing, and it was just straight into it ... and that sort of was a reminder to me - Oh, that's right, this isn't every other ropu's way of doing this stuff.

... the underlying values that lay the foundation for the people in that gathering online are those values of manaakitanga, you are a kaitiaki for your marae, and all of that stuff, so I think it is not just about those physical things that you do – Soutar.

These two scenarios identify critical differences between the notion of 'to live as Māori' secure in Māori philosophical understandings of the world and generic non-Māori protocols of engaging in the online space.

Underlying Māori approaches to engaging online Pihama describes specific tikanga Māori processes to underpin engagement and development around the Kaupapa Māori

websites, like basic etiquette and not saying things you would not say to someone directly *kanohi ki te kanohi*. Pihama also describes the internet as a natural evolution of Māori and technology from the early manuscripts of our *tupuna*. However, she says that *tikanga* Māori has a place in online interaction:

Just basic things around that type of etiquette around talking to people. Don't fire things off when you could have actually waited, and then you might have framed it slightly differently. And I think that is a Māori way of thinking - I think anyway...

*Cyberspace is cyberspace, and... there is this whole other thing too... In the early discussions around the Internet, people would say, "Well, cyberspace is global; it has no territory". And we used to say in different presentations around that, "Well, whose land are you sitting on with your computer?". The Internet is not this de-territorialised space. It's not a globalised space. There is a person sitting on someone's *whenua* with their computer. So you are in a territory; you are in someone's territory. So how do you operate in that person's territory? You don't get a free for all because you say you are in cyberspace. And anyway, we know that the airspace above *Papatūanuku* is ours. *Ranginui* and *Papa*, they are in a relationship. Cyberspace does not operate outside of that. It operates between those *Atua*. So there are a whole lot of things around how people think about the Internet where they don't have to have any obligation to the people whose *whenua* that they are on. And actually, they do have an obligation.*

*So those are the kind of things that we grappled with at the beginning - What does that mean? How do we talk about that? How do we think about that? And when you enter into any form of *whare kōrero*, whether it be a physical or online *whare kōrero*, what *tikanga* or *kawa* do you apply to that? And how do you think about that? I think that some of the most adverse effects are the things like the misrepresentation, the commodification, the co-option, the misuse, the oppressive ways in which people utilise the vehicle – Pihama.*

These critical considerations identify that Māori internet users have a cultural responsibility online, which includes affirmation of local indigenous communities. As Whyte (2017) identifies that indigenous peoples have to deal with 'techno-oppression'

on indigenous lands. Pihama encourages internet users to acknowledge local territories and underpin internet use with cultural approaches that recognise cultural obligations and responsibilities.

One of our most sacred rituals that is imbued with tikanga Māori is that of the tangihanga. “Death is the most tapu of states, and many restrictions are placed on institutionally archived images of deceased Māori - a consequence likely to be transferred to digital replicants” (Brown, 2007, p. 85). However, Keegan and Sciascia discuss how aspects of tangihanga are undertaken on Facebook and the concerns of kaumatua about tikanga and real-life implications, including whether “applications of tapu to virtual spaces merely be an extension of cultural practices and articulations of identity?” (Keegan & Sciascia, 2018, p. 367). Pihama refers to the first live-streamed tangihanga facilitated by the Ngata whānau in 2009 that allowed esteemed colleagues worldwide to connect and pay their respects to Dr Paratene (Pat) Ngata. She comments:

I think that thing around filming tangi is something a lot of people have a lot of views on. And I know with Pat Ngata’s tangi going live online opened something really big. Well, I think the other thing is that most whānau keep it to their whānau, and most whānau do it because their whānau members cannot come home, cannot get home, from wherever they are. And so as a way of connecting as best as we can, which we might have done before on a landline telephone. Or a letter. I mean, look at the letters that our tupuna sent to each other as a way of communicating these things, but we have something that’s more direct and more visual and more immediate now than writing a letter from overseas or writing a letter to someone describing the tangi - Pihama.

Continuing her questions about how it is that Māori react to the synchronous nature of the online space, Soutar reflects on the potential impacts for tikanga Māori by referencing online tangihanga:

I totally get it, some of our whānau cannot be there, and this is a way that they can be connected and join, and I get that, and I do not begrudge people who decide to do that. But, in my heart, my feeling is - if you cannot get there, you cannot get there; you are not there. Ka aroha. Just like 100 years ago, some tipuna could not make it to other tangi. What did they do? - Composed mōteatea

or did whatever they did, did their poroporoaki in certain ways. And I get it, yes, we can take on board the new technology in new ways, but I just think it is coming at us so fast we cannot adapt quickly enough to protect our kōrero tuku iho and our tikanga – and probably the reo too in that space. I don't have that answer for that, but I just think - I know that a good place to start is with our tamariki, to start having these conversations and teaching them – Soutar.

A key idea expressed by Soutar in this statement is the need to have critical conversations with our tamariki about maintaining kōrero tuku iho and tikanga in the face of a rapidly evolving online world, where:

The negotiation, management, and exchange of knowledge is an extremely complex process. Moreover, it is unclear how digital technology can adequately distinguish or replace the importance of place in the worldview—belief and practice paradigm that lies at the heart of many cultures (Whaanga & Wehi, 2015, p. 243)

6.2.6 APPLICATION OF TIKANGA

The application of tikanga Māori are expressed in different ways. The main space that tikanga Māori is overtly expressed is at the marae within the customs and protocols of pōwhiri and tangihanga. There are many times and spaces where Māori, apply tikanga to guide process, protocol and behaviour within particular environments both at and beyond the marae.

In order to maintain a critical purpose for the Māori research sites, Pihama was part of a team that instituted their tikanga to establish the sites and maintain the safety and authenticity of those sites as Kaupapa Māori sites:

Behind the scenes with the kaupapaMāori.com, we had a group ... we set up a Moodle conversation with them. That conversation was around - How do you utilise Internet sites in ways that align with tikanga and `mātauranga as a whare kōrero, as a whare nui, as a whare `mātauranga - how do we do it? – Pihama.

Pihama also identifies applying marae tikanga to underpin the development of Māori research sites which were:

... informed by marae and informed by Kaupapa Māori, informed by research. So we didn't just blog for blog's sake, we didn't just write for writing sake - like Māori academics, we don't research for research's sake... we research for our collective wellbeing.

We don't theorise for theory's sake; we theorise because our way of understanding the world needs to be there and be validated and legitimated by ourselves first and foremost. But out in the space - that we are theorising. So those things are for me, they are all the same thing, just the only difference is the vehicle by which we do it and whether we apply the same principles to what we are doing – Pihama.

Reflecting on her grief after losing her partner, Soutar notes that she applied a self-restriction for internet use during that period. She references broader applications of tikanga Māori and the need to apply a critical analysis of our engagement online to counteract Pākehā hegemony and individualistic approaches online:

My Māori heart was saying, 'No, it is not up to each individual' ... it is about us being good kaitiaki of our tikanga and our kōrero tuku iho.

And that is not if we are at the marae, we will not go. 'it is up to each individual how you want to play this out' or whatever. I remember thinking, 'There is no tikanga here in this space [online]', I think that is sort of how I felt, 'this is just free for all. Everyone is an expert, and there is nothing guiding our people'. It made me start thinking then - our tamariki desperately need good Kaupapa Māori and te reo Māori, because you know my field is Kohanga and Kura Kaupapa Māori mahi to be facilitated through the thinking of 'what do I do here?'

Because what is missing is the critical analysis, people just jump into it. Because online, it is like the whole world is coming at you. So you see something and think, 'That is awesome, so I'll just do it too'. And there is not that "stop. Breathe. Is this how we behave? How do we do this?" – Soutar.

The need for pause, reflection and critical analysis is an important suggestion for the state of the internet and the speed of technological advances. The exploration of what tikanga Māori is needed to guide our development and use of posthumous avatars – and how does tikanga Māori around death play out in the future where we leave an extensive digital footprint? (Cone & Lewis, 2022b). The idea that we need to self-regulate our behaviour and acknowledge when situations become a ‘free for all’ or when we become inundated by information from the world are vital concerns that reflections of marae processes and ancestral responses can mitigate. Riwai examines how the application of tikanga Māori can reframe our online engagement from a fundamental perspective:

... in my practice, when I go into a room, I will immediately greet the Mana in the room. The Mana is the highest expression of you. And when I come into that and greet that first, it reminds me that I am just little old me. I am not the be-all and end-all or guest speaker star of the show... I am a Mokopuna here in the room.

There are people in this room that are great. Even if the physical manifestation does not show that, I am going to first go to the most generous assumption that that is where we came from because I know that is where we came from.

... I am a mokopuna here, then the question begs - OK, so the same thing where we go, where we engage, whether it is online - I am speaking to Mana. How would I engage with your grandmother here? What would I be in the engagement? If I was to greet that [Mana], it would be a different engagement
– Riwai.

Repositioning your understanding of time and space in a Māori way that acknowledges your ancestry and the ancestry of others, as mokopuna, provides a guide to general behaviour, including online engagement. Similarly, Wilson discusses this idea in the development of ‘Protect Our Whakapapa’ online. He says that during the pandemic lockdown, the ‘Protect Our Whakapapa’ project was about sharing, guiding whānau and connecting with whānau - where the focus was on decolonisation and deconstructing mainstream myths about Māori to acknowledge the brilliance of tupuna:

and sharing the brilliance of our tupuna, too, because we have to continually work on the stereotyping and share the brilliance of our tupuna. And in ensuring brilliance, the hope is that it then creates magic. And once magic exists in your life, you have got a hook to connect people to a journey. – Wilson.

Wilson refers to the early writings of Māori as an early adoption of technology. He reflects on the tangihanga process and tikanga Māori in the online space:

I think it's a tool. No different to all of the manuscripts that our tupuna started writing in the 1800s. You just have to have rules around it—no difference in taking adults into a whare mate [house of grieving]. You know you just got to have rules.

There will be times when you need to do it formally. There are times when they are just walking in with whoever is there. And so long as there are not rules, but guidelines -because guidelines are tikanga, because if we look at tikanga being 'tika' - being, that which provides balance.

You know - Kia u ki te tika, i roto i te horopaki, ka tutuki pai ngā ahuatanga [when balance is maintained, all will be well] – Wilson.

Participants discussed several forums in which they apply tikanga Māori in online spaces. Ultimately, they all expressed the idea of maintaining balance, truth and positive intentions to guide our online behaviour.

6.3 CONCLUSION: TIKANGA MĀORI

During early Pākehā contact with Māori, it was noted that “[t]ikanga surrounding the acquisition and use of technologies was generic – if the acquisition of goods enhanced mana and the welfare of the people, then it was undertaken” (Warren, 2009, p. 27). This sentiment, ‘the welfare of the people’, is central to this chapter's discussions. In reflecting on Māori uptake of the internet and Māori use of new technologies, participants identified an evolution of technological tools, citing the positive outcomes of early 1800s manuscripts, print and the telephone. These ideas have been translated to digital platforms considering how Māori have adopted and adapted new technologies.

Tikanga Māori is flexible to maintain mana atua, mana whenua and mana tangata. Our sense of adopting new technologies for positive outcomes also acknowledges the challenges of the online space.

Issues of online safety and behaviours are identified within the context of wellbeing and welfare, affirming that positive aspects of development underpin Kaupapa Māori aspirations for Māori to 'live as Māori'. Interview participants draw on customary and traditional notions like pūrakau, karakia, mana and tapu to guide Māori engagement online, again re-centering and reaffirming tikanga Māori. We all hold personal responsibility as Māori citizens and digital citizens to act in mana-enhancing ways. However, we face challenges as we continue our decolonisation process. Re-centring tikanga Māori approaches to engaging online can be guided by karakia and marae processes, all underpinned by mana and tapu. In this way we can give expression to mana atua, mana whenua and mana tangata.

People will have different understandings and knowledge of appropriate tikanga Māori to guide our online engagement and behaviour. What is suggested here is that although there are challenges, there are some key considerations to guide Māori online.

Today, we as Māori, we as Indigenous peoples now have a chance to occupy these spaces, moreover, the digital space is becoming the arena of globalisation, through interaction, a Māori digital identity is emerging. Digital spaces are created every day and Māori are able to contribute to the development of this emerging identity (Mahuta, 2012, p. 127)

Our contributions, however, must consider iWhakaaro and iTāmi to ensure that our contributions express Māori epistemologies and centre the Māori world to maintain our cultural identity in the face of globalisation. Ultimately, Māori must continue to act in mana-enhancing ways for collective well-being, underpinned by tika. These are all starting points to consider how tikanga Māori is expressed online and how tikanga Māori is maintained online.

CHAPTER 7 DISCUSSING JOURNEYS TO THE INTERNET

Piki ake

Tāwhaki ascended through the heavens with advice from his tupuna kuia ‘kia mau ki te aka matua, kei mau ki te aka tāepa’ – hold fast to the main vine, not to the loose hanging vine. Her words of encouragement were a guide to a successful journey. This chapter analyses the idea/concept of Te Aka Matua as identified by expert Māori internet users. These concepts may be described as aspects of the internet experience that can support Māori engagement in the online space. This journey is referenced in the oriori with the line *piki ake - to climb*.

Piki Ake: journeys to the internet

The internet provides many benefits for diasporic groups, migrants, social movements and political movements (Castells, 2004, 2012, 2013). From early on, the internet has been a connector of people and provided a means to transverse time and space, to meet with family, friends and like-minded people. For indigenous peoples, such interconnecting relationship affords many benefits for them and their cultures (Carlson, Bronwyn & Frazer, Ryan, 2021; Castells, 2004, 2012; Kennedy, 2010; Wemigwans, 2018). For example, indigenous artist Cheryl L’Hirondelle curated an art exhibition where she said:

As we move as quickly as bytes of information, catapulted through time and space and by the imperative of our continued survival, it is important to hit the pause button, reflect on our history and pay homage to the agency and ingenuity of Indigenous pathfinders.

Codetalkers of the Digital Divide highlights a range of media, web projects and digital artwork that reinforce and pay homage to the eloquence and adaptability of these particular Aboriginal artists, and of all Indigenous languages and worldviews. By virtue of this ingenuity, we can all be modern day code talkers bridging and championing the chasm that, at one point in recent history, was thought by some to be an unconquerable digital divide (L’Hirondelle, 2011)

Chapter Six described particular Aka Matua with explicit reference to tikanga Māori that underpin Kaupapa Māori guidelines for Māori use online. By drawing on existing tenets

of te ao Māori, there are clear guidelines to ensure a mana-enhancing online service experience. These types of policies are summarised by Soutar, who reflects on morning karakia sessions established online for the whānau of Mana Tamariki during the 2020 COVID-19 lockdown period:

I think, too, Mana Tamariki has always done Nau Mai e Tama [a specific karakia] for the whakaputanga [graduation], and in there, it talks about or goes through Tāne, Piki i ngā Rangi Tūhāhā. It's referred to as 'te hiringa i te mahara', and I heard that Uncle Tamati [Reedy] once translated that, or interpreted that, as the power of the mind. So I totally get that you transport yourself to that place by closing your eyes... And I just think that tamariki, who have been raised in Kohanga and Kura - It's just natural for them. That's the only tikanga they know. It's the only way of being, they know. So when they engage online, it's just like that. They don't have to be taught what's the tikanga here or the protocol that we're taking over here [to the online space]. I'm not saying that they're always on time or always have got their space ready, but generally, most tamariki Māori would know, who are educated in that way, would know someone is leading this show, there is going to be a karakia, we're going to do this... - Soutar.

The idea of tikanga Māori approaches to online hui and carrying out important cultural processes such as whakahaere (facilitation) and whakawhanaungatanga are critical aspects of translating Māori culture to online spaces that can be carried out in appropriate ways (Keegan, 2000).

During the COVID-19 lockdown period in 2020 Soutar described how each whānau of Mana Tamariki was assigned a day to lead the morning karakia online from their homes. She acknowledges that colonisation and the denial of te reo Māori to whānau is a situation that we as a collective still address; where in some cases, it was the children who provided leadership in their homes by leading karakia – a process that the children encounter every day at Kura:

And I thought that was amazing, and I remember thinking and some of those sessions, I wish someone was documenting this or following it. – Soutar.

These moments where we see our tikanga Māori flourishing across spaces, including the internet, exemplify the beauty and the power of maintaining our tupuna knowledge and kōrero tuku iho. In addition to tikanga Māori guidelines expressed online, interview participants discuss notions of Te Aka Matua.

7.1 TE AKA MATUA: ELEMENTS OF SUPPORT

For a culture based on and based within whakapapa drawn from the beginning of time and familial solid connections, the internet and its ability to connect people is an incredible asset for Māori. Our tikanga around engagement and methods of communication are exemplified in traditions such as pōwhiri. As such, the internet provides a technology that is both relatable to Māori and affirms Māori cultural traditions of engaging and connecting with one another. One of the key strengths identified and spoken about by participants is how Māori utilise the internet for different reasons: communication and engaging, learning, sharing information, and coming together to participate in cultural protocols and processes (such as karakia). Aspects of how the internet strengthens and supports Māori participation (as Māori) within global societies is the focus of the next section of this chapter.

Many of the strengths of the internet and its use for and by Māori are identified within the literature: O’Carroll identifies the positive impacts of connecting and networking for Māori (O’Carroll, 2013d), where online engagement can lead to offline engagement (Bargh & McKenna, 2004), however, Māori positionality requires more investigation as online meetings may not lead to offline engagement (Waitoa, 2013). Smith et al. (2008) maintain that one strength of the internet indicates “a realisation by many New Zealanders that the Internet can assist the maintenance of minority languages, cultures and identities” (p. 325). The maintenance of Māori culture online is evident in the array of uses that Māori engage (Cleave, 2009; Gloyne & Snowden, n.d.; Muru-Lanning, 2020; Regenbrecht et al., 2022; Shepherd et al., 2015; Switalla-Byers, 2015; Tamati, 2008; Whaanga et al., 2017) in which has the potential, in a global context, for native peoples to take control over physical and intellectual access to information (Roy & Raitt, 2003). Sharing information occurs across multiple platforms: email, websites, social media and message thread applications. The rise of some Māori ‘influencers’ via social media has gained huge audiences as they share particular information (i.e. te reo Māori @everydaymaori) or entertain (for example, @cwknix). Uncle Tics (@uncletics)

provides a serious and sometimes humorous insight into the daily challenges of living with turrets syndrome, where he educates, inspires and entertains his five million followers on social media. This ability and wide reach have never been possible for the everyday person direct from their living room in human history. This aspect of the internet provides a major benefit for Māori engaging online. What stands out as a significant strength for Māori is the networking and connecting aspect, where a major contributing purpose is the ability to communicate and share via the internet. Sharing information (including histories), connection and providing an alternative narrative to mainstream media (Suckling, 2009) are additional strengths of internet use. Social media has become a popular means of achieving this across platforms, providing ‘infotainment’ – where information is portrayed seductively to ‘sell’ itself as entertaining where the size of the audience holds particular value (Thompson, 2020).

The COVID-19 pandemic has been a significant catalyst for moving to online learning which has led some people to extend their distance learning online or encouraged others to reassess how learning for Māori online might look. Consequently, the growth of eCommerce and the ease of online marketing and sales (Martínez-López & Martinez, 2022) also offer a significant advantage for the Māori economy as reflected in the development of sites such as Buy Māori Made (Facebook), and national programs such as Ka Hao: Māori Digital Technology Development Fund (The Expert Advisory Group, 2016).

Founded by the idea of connection with others, participants identify four key areas that support Māori online interaction: communication, sharing information, learning and eCommerce.

7.1.1 TE AKA KŌTUI (A BINDING THREAD): WHANAUNGATANGA AND CONNECTION

As discussed in Chapter Six, several existing tikanga Māori guide our online engagement. A consistent theme, is that of whanaungatanga - connection. Discussed in Chapter Four, the literature identifies this as a critical aspect of Māori engagement online. Sometimes referred to as whanaungatanga (O’Carroll, 2013d) or e-Whanaungatanga (Waitoa, 2013), the objectives of the internet is to connect spaces and people, which appeals to all people and, Māori in particular. However, the cultural

expression for many Māori within this space amplifies the vital role that the internet plays in their lives. The ability to connect through the internet is also critical for other Pasifika (Pacific Island) whānau (Lopesi, 2018).

As Mātāmua states, communication and connecting people is a time-old tradition in our customary practices and tikanga, such as in the pōhiri process. He comments that our grandparents and those before them were perhaps not as mobile as we are today and not as up-to-date with global events that impact us. Mātāmua maintains that the internet extends the Māori ability to communicate in new ways:

The information sharing and the ability to be connected, I think, is vital – communications. And then it's always been a part of or a cornerstone of Māori society is communication. You can see it right: whaikōrero, karanga - so straight away, even our most sacred ceremonies are built around communications, and we take time to articulate messages – full messages and then we go into the house, and they are less formal, but they are still formal and then in the wharekai, the poroporoaki – very less formal, but they're still important bits of information that are communicated to the masses, and that's a cornerstone of Māori society.
–Mātāmua.

Taepa also identifies the role of the internet in providing a means of connecting and the idea of maintaining and establishing metaphysical connections, which are different to physical connections. This is a growing concern as the development of the metaverse and related technologies continue (Cone & Lewis, 2022a). He notes that the means to connect immediately online is a gift and a strength when we live separated from our kin:

In a tupuna way of thinking - a spiritual connection is as strong as a physical one; you know they are different, but there is a real opportunity... But I don't underestimate the difference between that discussion and this discussion we're having right here [face-to-face]. Because it is different – Taepa.

Furthermore, as Taepa suggests, whakapapa naturally guides us back to Ranginui and Papatūānuku, and the fact that Māori could engage in further wānanga about our whakapapa and the relationships embedded within them. He refers to the brilliance of Huirangi Waikerepuru, who would immerse learners in space by critically examining

whakapapa and the metaphysical space to locate the learners within the continuum of Māori evolution and being:

And so unpacking whakapapa. And it's what I love about each different iwi. It's that you've got your different whakapapa... but I guess for me, in any origin whakapapa or whakapapa that starts around more [metaphor for taproot used in karakia] or sequence, you'll find a connection between that and the ipurangi and all the metaphysical space. –Taepa.

According to O'Carroll, internet use provides a means of adapting to the Māori diaspora (O'Carroll, 2013c). For Karim, “‘Diaspora’ is derived from the Greek *diaspeirein*, which suggests the scattering of seeds. The term traditionally refers to the Jewish dispersal outside Israel but is now applied to a growing list of migratory groups” (Karim, 2003, p. 1). Many Māori now live overseas and away from their traditional homelands (Hamer, 2008; Kukutai, 2011; Kukutai & Pawar, 2013). Therefore, the internet provides a critical means of reconnecting to whānau and to the home-place in Aotearoa, as Broederlow has identified with Māori-In-Oz. Mātāmua acknowledges that in contemporary times many Māori do not live on their iwi homelands but still maintain a strong desire to connect to home and each other:

I think for those Māori that have been caught up in the diaspora and the urbanisation and 3-4-5 generations outside their homelands. It is an incredible tool for reconnecting and maintaining connections. – Mātāmua.

Taiuru agrees that the internet provides an opportunity for Māori who live away to connect to their home:

Probably access to land information is a big one. Finding out for people who are disconnected from their iwi, it's quite easy to find out iwi, hapū, marae information - sometimes pepeha information. Not that I use it, but those [sites like] ancestry.com people finding out their lost relatives. But of course, there are flip sides to all the stuff as well. - Taiuru.

Another significant contribution of the internet to Māori lives is the immediate sharing of information pertinent to whānau, hapū and iwi circumstances. As Keegan identified there are times that whānau messages (whānau death or sickness) are only communicated through spaces like Facebook.

Communication connecting diaspora

The facilitation of hui (meeting) is a Māori cultural institution (O’Sullivan & Mills, 2009; Salmond, 1975). Annual General Meetings (AGMs), collectively owned land meetings, marae committee meetings are important for collective Māori decision making, they are examples of Māori cultural methods of communication (D. Robinson & Robinson, 2005; Stephens, 2022). AGMs and marae hui is a focus for many attempting to connect with and inform whānau about important events or information. Taiuru also speaks about the advantage of utilising internet tools for connecting online:

Connecting, as we mentioned earlier on, whānau being reconnected back to their marae through video linking and email is definitely a big one. I guess participating in things like annual general meetings of marae or iwi. Our annual AGM normally attracts several thousand people. In person, it’s been cancelled last two years because of COVID. So now it’s all online – Taiuru.

Taiuru highlights two issues here, the internet provides a method of connecting but also that COVID-19 was a catalyst to move hui from face-to-face engagement to one that is offered online. Broederlow describes how the internet offers a fundamental means of connection for Māori living in Australia. Something she learned through her personal experiences developing the website Māori-in-Oz and encouraging her iwi and marae to facilitate online hui:

I’ve flown home [to Aotearoa] to attend AGMs specifically for our marae and our iwi, and so many of our whānau can’t, and they want to know what’s going on. You know, they want to feel like they’re still a part of our marae; they want to feel like they’re still connected to our iwi.

I’m not just talking about our whānau over here in Australia, but our whānau, living up north, down in Wellington, Christchurch or Invercargill spread out all

over the motu [country], and they can't get that ability to go up to our marae and attend at AGM or a marae committee hui – Broederlow.

The idea of being able to connect is a critical element of Māori engaging online, and the internet (along with social media) provides an excellent form of technology to facilitate the cultural value of whanaungatanga (Sciascia, 2016a, 2016b; Waitoa, 2013)

Connecting for business e-commerce

An extension of the idea of connecting is the development of Māori e-commerce. During the COVID-19 period, @BuyMaoriMade established a Facebook site to promote Māori business online. In the first week of operation, the site gained 18 000 followers (Holland, 2021) and currently has over 147 000 buyers and traders. eCommerce is a current focus for Māori entrepreneurial endeavours as the New Zealand government invests in growing Māori business online with their trans-Tasman collaboration and the development of Ka Hao i te Ao – a training program to assist Māori in online business development (The Expert Advisory Group, 2016). In 2020 Māori businesses generated \$1.7 billion (Nicholson Consulting., 2020); however the eCommerce portion of this income is not identified. Taiuru considers the area of eCommerce via the internet is a specific advantage because it offers new business opportunities.

A lot of e-commerce businesses for Māori, who would never have normally had the opportunity, get that opportunity now. I think there's a lot of crafts, Māori crafts etc., tourism. I think there's definitely a big amount of economic development. – Taiuru.

Many Māori businesses have adapted to eCommerce (Peszynski, 2003) and have acquired 'followers' and consumers through social media, for example @Tuhi (stationery), @maimoa.creative (te reo Māori products and resources), @hinecollection (clothing). These businesses signal how internet platforms contribute to growing Māori business, and how Māori approaches are expressed through their online marketing strategies.

International connection

Being able to connect across lands and oceans is a significant and positive contribution that the internet makes. While many utilise the internet to connect with whānau and friends for example, Keegan describes the benefit of the internet in expanding knowledge through technology:

The research that I like to do the most is looking at avenues for te reo Māori language to be communicated through technology - what are the Welsh doing? There's a group in Basque that are doing good with their language technology work, and what are other people in New Zealand doing, and what are the things we need most right now in terms of technologies? And how can we work collaboratively to do that? – Keegan.

In addition to connecting whānau with their marae and iwi, the internet also benefits other international connections. In the academic world, indigenous peoples have utilised international literature in journals, books, and engaging in conferences (for example, World Indigenous Peoples Conference on Education (WIPCE)) to facilitate relationships that address common problems and share successful pathways for advancing indigenous aspirations. The internet provides a means of alternate connection via emails, online meetings, online journals, e-books and the hybridisation of conferences. The demand for electronic resources is identified by libraries (Mato, 2009; Sill et al., 2022). In addition to the availability of information online, there are benefits in monitoring and protecting our cultural information abroad:

Being able to reach out internationally. When there is cultural abuse or cultural theft, say, a common example is in Europe, now it is very easy to reach out to the media in those countries. And the media, they take our side, they run our stories, and all those things were never possible. Before then, we have maybe heard about it in the newspaper or when someone came back a few months later from that country. – Taiuru.

Information Access

Initially, the internet offered a venue for connecting and sharing information (Dyson et al., 2007). All the participants in this study engage with the internet, whether for sharing, connecting or information retrieval; the propensity to grow and learn reflects Māori epistemologies and the need to pursue knowledge just as Tāwhaki and Tāne sought knowledge. Keegan succinctly states:

I use the Internet for communications for information, for information retrieval for research, those are some of the key things – Keegan.

Discussions around the advent of Kaupapa Māori research websites which Pihama describes as an evolution of information sharing, from early 19th-century tupuna letters. She maintains that to share information on Kaupapa Māori research, Māori have adopted whatever media has been available, including print, video, blogs, and websites, as a natural evolution of Māori sharing platforms.

The only thing that differs is the vehicle ... what we try to do with ours is actually have opinions that were informed by Māori, informed by Kaupapa Māori, informed by research ... But out in the space that we're theorising... for me, they are all the same thing, the only difference is the vehicle by which we do it and whether we apply the same principles to what we're doing. – Pihama.

In terms of the 'reach' achieved in information sharing, Pihama discusses the importance of using the internet to bring awareness to key issues impacting Māori. This includes the ability to immediately respond, such as the 'Roast Busters' scandal in 2013 when a social media sex ring assaulting underaged girls (see: (Weekes, 2021) was discovered. The response came via the network Te Wharepora Hou (Davidson, 2013) and highlighted the oppressive nature of some Māori men in the radio media. Pihama maintains Te Wharepora Hou is about creating space to discuss critical issues impacting Māori women. In addition, the internet platform provides space to raise consciousness and discussion around Kaupapa that can impact negatively on Māori lives, from racism, bigotry, sexism and homophobia to funding restrictions for the national Māori research institute Ngā Pae o te Māramatanga:

The biggest one that I ever blogged about was around Metiria Turei and what happened to her. It took a long time to write that and to really think about that one in terms of what happened to her and her removal from Parliament... That blog got something like 38,000 hits in a week because it was an important issue, and very few Māori women had the opportunity to write about it and say anything about it²¹.

So for me, Blogs are opinion pieces, but what we are trying to do is put research into it so they're not just opinion, but they have some evidence backing, some grounding, and they have something else for you to think about. They point you to other people's articles, and they get you to think about these numbers so you think a little bit more deeply of it than just as an opinion. And I know they can be useful. – Pihama.

Waitoa expresses this social and political impact as e-whanaungatanga that “defines virtual spaces and networks where indigenous like minds can interact, and the seed of a kaupapa can be planted, nurtured and realised” (Waitoa, 2013, p. 2). Similarly, Taiuru identifies this type of connection as a valuable factor of the internet:

Probably access to land information is a big one. Finding out for people who are disconnected from the from their iwi. It's quite easy to find out iwi, hapū, marae information - sometimes pepeha information. Not that I use it, but those [sites like] ancestry.com people finding out their lost relatives – Taiuru.

Expedience

The internet offers pragmatic and expedient opportunities connecting via email, for communication and research that is a major strength. Keegan highlights the ease of connecting online, coupled with the growing volume of retrievable information about Māori topics, that are also beneficial:

I used to use the library a little bit, but now everything is so easily in your hands, I use the internet. It used to be that when you searched on the Internet for Māori topics or Māori subjects, or Māori traditional stories, there was nothing. But

²¹ This issue is also highlighted by (Martin, 2020)

that's not the case anymore. There's a lot of really good information placed online by Māori that can give you good heads-up.

If I'm writing a letter or a document or something and I need a whakataukī, traditionally, I would go and talk to one of my kaumatua... But now you can just search the internet, and then you can get a few. So, information retrieval is what I use the Internet for – Keegan.

The use of the internet as a way of connecting is supported by Mātāmua who says that the internet is a practical tool that can alleviate time restrictions and resource costs:

It's the practical nature of and the ability of the Internet to reach out and connect people instantly and bring them together in a forum or a platform, and it's not bound by space, It's not bound by time, it's not bound by location. It's not bound by geographical restrictions, in many ways, is not bound by finance either, like the cost of getting back to a kaupapa or the cost of getting somewhere. It's instant, and it's convenient, and it's pragmatic. And then that's why I apply it to the stuff I do because it can do a whole lot of things – Mātāmua.

A similar comment was made by Broederlow, who noted that attending online could also alleviate a financial barrier to attendance and Keegan who suggested that the internet was a convenient method of connecting such as for this interview process for example. For many people, as Mātāmua identified, the internet can mitigate the time factor for Māori who are engaged in multiple activities. Keegan has already identified how COVID has facilitated a level of convenience through internet use.

The internet's ability to respond rapidly to issues impacting Māori is another benefit. Pihama talks about instances where concerns can be both publicised and corrected quickly:

The rapidity to which we can respond to some of those things, particularly racism, and using the same medium gives the capacity to respond very quickly to those things and to make some quite transformative things happen in those spaces. I know when the Hurricanes did their thing, utilising Taranaki as the

notion of going to war and that we responded very quickly to them, and they changed it very quickly. So that racism underpinned their media. – Pihama.

The internet allows the quick sharing of information and just as important, a rapid response when needed. Previously, we may have had to rely on newspaper prints or international news items to filter through. Today, the internet provides a means of rapid information exchange.

7.1.2 TE AKA PĀ (THREADS OF COMMUNICATION): KŌRERO TAHI, SHARING

Māori pursuits of knowledge are sometimes facilitated online. Soutar expresses the benefits of sharing online with the development of the online website Marae Mariko. As a pioneer of online repositories, Broederlow has been sharing information online since the establishment of Māori-In-Oz.

I had so much resource, I ended up building the largest database of Māori legends, of waiata of Māori kai recipes. I even had aunties from all over the place sharing their tips on how to make the perfect rewana bread – Broederlow.

During the 2020 COVID-19 lockdown period, many Māori organisations and individuals took to online platforms to share their knowledge and information in culturally meaningful ways, inspire each other, and perhaps calm uncertainties such as experienced at Te Korimako o Taranaki radio:

They're just going over karakia, and it's just like you're in wānanga, and you can just listen, and it has this view positive effect on you, and it's like, 'oh, that's beautiful. I've learnt something there' – Taepa.

Wilson discusses his role in developing material for 'Protect Our Whakapapa' online during the 2020 pandemic. He states that the work was to promote positivity among those engaging on the platforms:

And in ensuring brilliance, the hope is that it then creates magic. And once magic exists in your life, you have a hook to connect people to a journey. – Wilson.

Taepa identifies several individuals who also added to the positive messages for whānau, including Che Wilson (@paepaewaho), Rangi Mātāmua (@livingbythestars) and Heeni Hoterene (@maramatakamaori) and Kura Moehau. Taepa describes the COVID-19 lockdown period:

Te wā o te tupuhi, te wā o te uaua, te wā o te taumaha, a, ka puta mai ngā huarahi ki te ora. [from chaos comes order and wellbeing]

And so when this ngārara absolutely dispersed itself throughout the world, and people were passing away - and then we had all of these processes to protect them, was so foreign to everyone - it was a massive destabilisation throughout the world, and you talked about the kāinga, under the sky and above the earth - if we're part of that kāinga, for those of us who think that way, then those things are felt. Then they manifest themselves in people around you. So people like Che [Wilson], their teaching and their gifts are to establish things that reset stability and create well-being for people, and the Ipurangi was the vehicle to be able to do that in a way they reach so many people...

And they've been taught what to share and what not to, not for mana, not for power but for safety because it's it all comes back to safety ... and that's the resilience that people who decide to use that as a vehicle to share will develop, and they won't have the discussion; they will share and leave it there – Taepa.

The analysis of critical leaders by Taepa of sharing online during the pandemic was that they had the grounded expertise and understanding of what to share in the online space and what is appropriate to be publicly consumed online. Wilson discussed this point in naming his online sharing platform 'Te Paepae Waho':

... Te Paepae Waho because all you are doing is showing them the front of the house. A lot of people think that I am giving too much away... I'm not interested in going too far past the door online. There are definitely some things you can

do [online], and if I do go past the door, it will be with a discrete group rather than with everyone –Wilson.

In sharing information online, Mātāmua said he is transparent about the knowledge he shares and aims to encourage other people to participate in open conversations to grow our understanding of the world:

when I share as astronomical kōrero kōkōrangi [astronomy knowledge] on my Facebook page and on the internet, I do so with this whole idea of sharing knowledge, and for it to be a platform for other people to share knowledge. So I do so in an open way, and I'm quite frank about that - 'This is what I know, and this is how I know it, and here it is, and this is the kōrero I have', and for the most part, I do so because it helps to generate discussion and people feed in an, and they say 'we have this' and that's wonderful – Mātāmua.

Karakia and Sharing

The focus by participants on karakia during the 2020 COVID-19 pandemic was a cultural response to a world trauma that sought to provide some sense of stability in individual homes, in a bid to contributing to mental and spiritual sustenance. For example, Taepa established and hosted online cultural events within his workspace, such as karakia, pōhiri and poroporoaki:

To act with aroha; to hold onto it when you want to act is stifling. As long as your intentions are right, the metaphysical will take care of that, and everyone will know, and you'll be fine – Taepa.

Wilson developed a karakia “Māia Maranga: a karakia to invoke wellness during challenging times” (Wilson, 2020) as part of movement to uplift wairua (spirit) during the pandemic peak, which he shared it with over 13 000 followers via his platforms. The focus on collective well-being can be an inherent part of Kaupapa Māori activities, including in the online space. The role of karakia during this time was in pursuit of wellbeing or ‘whitiwhiti ora’, as identified by Māori secondary school students (Education Review Office, 2021b).

Connected and Learning:

Kanohi ki te kanohi, or meeting face-to-face, is a cultural preference, “[k]anohi ki te kanohi or face-to-face communication is a facet of human behaviour. It is indeed a key principle of being and doing as Māori” (Ngata, 2017, p. 178). Kanohi ki te kanohi is essential for establishing and maintaining relationships ((Ngata, 2017; O’Carroll, 2013b; Waitoa, 2013):

[E]very social setting, from welcoming, to meetings, to fighting, to political alliances, a face-to-face encounter is considered supremely important. The relationship of kanohi ki te kanohi, meeting the other person face to face, is the basis of human relationships. To face one another is to enter into an engagement– or intersubjectivity. (Hoskins, 2010, p. 9)

Throughout the 2020 COVID-19 lockdown period, schools across Aotearoa/New Zealand shifted to schooling online. During this time, kanohi ki te kanohi remained an essential aspect of teaching and learning (Education Gazette editors, 2020), whānau faced many challenges, but the necessity to connect superseded the apparent obstacles such as social and economic disparities (Education Gazette editors, 2020). Even though the preference is always kanohi ki te kanohi, Soutar maintains the need to stay connected:

particularly in the COVID climate, the ability to stay connected and keep learning... I think we've done an amazing job given we weren't skilled at online provision... and Te Aho Tātairangi²²- even there, students prefer to come to the wānanga and sit face-to-face – Soutar.

As discussed in Chapter Four, e-learning and the tenets of pedagogy and praxis are present in literature for Māori (including (Dunn, 2018; Education Gazette editors, 2020; Ka’ai et al., 2006; Ka’ai-Mahuta, 2012; Kaka, 2014; Keiha, 2008; Neal & Collier, 2006; Royal, 2005; Te Ao Hikohiko & Te Tauihu o ngā Wānanga, 2005). However, throughout 2020 when schooling reverted to online delivery, teachers and students were

²² A Kaupapa Māori initial teacher education degree from Massey University which is taught online supplemented by three week long wānanga throughout the year. These wānanga were also interrupted during COVID-19

plummeted into a steep learning curve. The ERO (New Zealand Education Review Office) reported that during the pandemic student engagement for Kura Kaupapa Māori had a higher rate than in mainstream schools. Māori students, in general, said that aspects of Māori culture implemented into schooling practices and curriculum during the lockdown significantly contributed to their overall sense of well-being (Education Review Office, 2021b). Furthermore, the role of kura kaimahi (school employees) in supporting whānau was a defining factor in successfully maintaining connections during the COVID-19 period (Education Review Office, 2021a). Raukura (graduates of Kura Kaupapa Māori Te Aho Matua) provided leadership for kura to guide national directions in strengthening the relationships with students and whānau as well as leading online teaching and learning, all based within Māori understandings of the world:

our Raukura have been able to give some direction with it, because they were already au fait with all the tools, so it's been nothing to them and they actually are quite actively connected... I feel like in Māori immersion forums... it is in Māori – Te Reo Māori; the tikanga more easily goes along with that. You don't see the behaviours that you might read about... that stuff that most Māori would think is impolite; you don't really see that because people already know how to behave when they're actively involved in Kaupapa Māori, particularly Reo Māori – Soutar.

Riwai highlighted the idea that tikanga Māori provide unspoken protocols and processes. She undertook a process of re-establishing guidelines in her course. She acknowledges that colonisation has impacted our ability to be actively engaged with tikanga Māori and describes a system of co-creating the set of guidelines for their class behaviour online and parameters for engaging with each other. Once tikanga had been set for online wānanga, Riwai identified that through her teaching, she found one of the internet's strengths was learning at home in a familiar space. Even though many people are comfortable in the marae space, some people are not, so the process of online learning alleviated this. In addition, online learning meant that the classes were recorded so students could review them, but online learning during COVID-19 brought another gift:

For us, another huge benefit as everyone else was on lockdown, so we got amazing guest speakers because I knew they weren't busy ... they had access to

amazing people that we wouldn't normally have access to, to come in and do wānanga - again, videoed, they can go back. They can watch; they can hear it from the horse's mouth. Generally, what we do as teachers, is we will regurgitate some of this amazing stuff from all these amazing people, but to hear it from their mouths - that's another thing, to have them sit there and be in the presence of these people was just simply magic, right? So that was a massive benefit... Mātauranga Māori and how awesome it is that people have access to things that they've never had access to before – Riwai.

This type of access to information, as well as leaders is another advantage that the internet provides:

The other thing that I think that we've been able to do well is create resources that can be used across a lot of contexts. So eventually, Marae Mariko can be used by Te Aho Tātaurangi and Te Aho Paerewa, so the work can be used for a whole range of things, and I think that's good²³ – Soutar.

The advent of the internet and the online space also brings opportunities to reaffirm Māori cultural values and beliefs. There are particular strengths that we can draw on from Māori narratives and pūrakau and Māori understandings of the world:

I think that our children who have been brought up with those pūrakau, this is a really good opportunity for them to learn online safety and how the Internet works. Like use some of our histories, like the computer - you could consider it a pā, a fortified pā, and with the firewalls - trying to teach computer security like that. There are lots of opportunities – Taiuru.

7.2 TE MATE URUTĀ: COVID AS THE CATALYST

The 2020 COVID-19 pandemic brought disruption to the world, and with it came new and inventive ways of remaining connected via the internet particularly at a time when

²³ Te Aho Tataurangi and Te Aho Paerewa are Initial Teacher Education qualifications preparing teachers to teach in Kura Kaupapa Māori, at Massey University. The programs are delivered through a blended face-to-face and online approach.

people where in isolation. Keegan affirms one key result is that working collaboratively online became the new norm.

Cultural preference for interviews would be held face-to-face (Rangiwai, 2020), complete with appropriate tikanga and protocols of sitting together, sharing conversations and kai. During the COVID-19 period, when these interviews for this project were undertaken, online discussions and hui became necessary to ensure COVID-19 safety. According to Keegan COVID-19 also brought a level of acceptability to meet online, prioritising safety and acknowledging that we could meet without, for example a nine-hour drive to do so. Several participants said that COVID-19 provided a catalyst to utilise the internet in various aspects of life; such as maintaining connections with whānau, engaging in education and schooling, undertaking their working and business all of which became amalgamated into the daily lives. The internet provided an opportunity to continue many everyday activities that had been impacted by COVID-19 lockdowns, for example working from home, and schooling.

7.3 CONCLUSION: TE AKA MATUA

The interviews identified two specific areas of Te Aka Matua: Te Aka Kōtui, whanaungatanga and the ability to connect, and Te Aka Pā, information access and sharing (including schooling). In discussions, COVID-19 was seen as a catalyst for increased Māori internet use. This chapter has established key threads (Aka Matua) that support Māori interactions on the internet.

However, with our positive engagements and benefits accrued from the internet, there are also counterproductive aspects that we need to be aware of to navigate the space as Māori. For example, while the internet provides a pivotal platform to connect with others, it can also be a catalyst for disconnecting as described by Pihama:

In a workplace, you're in the office next door, and we're emailing each other rather than standing up and walking to the office next door and having a kanohi ki te kanohi conversation... a lot of it is around expediency... it's expedient, and it's easy – why should I go and have a chat to my mate next door about what we're going to – when I can just say, 'Hey do you want to do...', it's like so it removes our obligation to see each other in that way, and I'm talking about in the written form, in the email form... Get up and have the conversation around

what we're doing rather than sending these trails of emails. Actually, it becomes more expedient just to have the conversation than to have 20 emails going back and forward around making a decision about something – Pihama.

Herein lies the eternal challenge for Māori to maintain some sense of balance in our utilisation of technology:

The manner in which virtually every private and public discourses go viral on the Internet in today's world acknowledges the critical roles (both positive and negative) that digital media technologies are now playing. What this proves is that digital means of communication have become probably the sole sources of news for a wide range of audiences who now have access to information through their personal computers, laptops, palmtops, and handheld devices especially mobile phones (Taiwo & Opeibi, 2016).

As stated in Chapter One, Māori adoption of Western clothing as a technology, led to a loss of Māori customary knowledge and practice about Māori clothing, resulting in current revitalisation movements of the artform. We must be cautious as we accommodate new technologies, and consider the broader implications of using new technologies, such as knowledge. The following chapter outlines the hazards identified by participants, Te Aka Tāepa, that threaten the success of Māori engagement online.

CHAPTER 8 DISCUSSING THE CAUTIONARY TALE

Kake ake

Tāwhaki continues his journey to the heavens. As he climbs, he gains awareness of the obstacles and works to overcome and avoid them. This section analyses the idea of Te Aka Tāepa for Māori as identified by participating Māori using the internet. This chapter discusses aspects of the internet experience that disrupt Māori engagement in the online space. This journey is referenced in the *oriori* with the line *kake ake - to continue the climb and overcome*.

8.1 TE AKA TĀEPA: ELEMENTS OF CAUTION

Te Aka Tāepa refers to weaknesses and behaviours that are not supportive of Māori actions online. As stated in the introduction of this thesis, the rapid evolution of the internet brings many challenges in terms of the expression of Māori (as Māori) in the digital internet space. The ongoing impacts of colonisation on Māori (Durie, 2003; Mikaere, 2011; Moewaka Barnes & McCreanor, 2019; Walker, 1990) and other indigenous populations (Dei & Jaimungal, 2018; Griffiths et al., 2016; Said, 1978) remains a significant challenge. ‘To live as Māori’ is an aspiration challenged even online.

Chapter Seven discussed Te Aka Matua, the elements of the internet that support Māori expression online. This chapter examines the converse elements, Te Aka Tāepa, that are identified as providing specific challenges to Māori expression online, where the internet can place Māori social and cultural values in a vulnerable position. There are a number of elements do not support Māori and the internet (Muhamad-Brandner, 2010; O’Carroll, 2013b; Waitoa, 2013). These include behaviours that are counter to the notion of whanaungatanga (Muhamad-Brandner, 2010; Waitoa, 2013), the lessening of physical contact (Edwards, 2004), and cultural value systems (Bell, 2004) that when expressed online, can bring with them further concerns. The caution here is that “we need also to remain open to the intuition that, in ‘using’ the Internet, individuals, groups and cultures are also being shaped and potentially transformed by and through it” (Goode, 2010, p. 529). These are also some of the apprehensions of Te Aka Tāepa, that participants expressed.

Technology is a tool; like all technologies, indigenous peoples don't always benefit from their use (Roy & Raitt, 2003). As stated:

Cyberspace is a fantastic technological achievement founded on the ideals of Western civilization. But it is not merely the latest "foreign good" – such as cooking pots, firearms, and automobiles – to be adopted into tribal communities. There as those other technologies had analogues in tribal communities and could be incorporated into tribal worldview, the pervasive universalism and individualism of the World Wide Web are antithetical to the particular localities, societies, moralities, and experiences that constitute tribalism (Howe, 1998, pp. 26–27).

It is these ideas of what actions are questionable for Māori 'netizens' (internet citizens) (Hauben & Hauben, 1997). According to Roy and Raitt (2003) indigenous peoples can lack access to information online, including indigenous websites and they question issues such as ownership. This is a similar issue that some iwi have identified for their engagement online who are concerned about access, control and privacy (Suckling, 2009). This poses one of the critical challenges for Māori and the internet:

Cyberspace is the quintessential place for individualism, and "netiquette"²⁴ condones equal and immediate access to information by all netizens. Because the actual biological, cultural, and social backgrounds of netizens are indeterminate or easily falsified on the Internet, the respected position elders and wisdom keepers should be accorded is often usurped by unscrupulous impostors (Howe, 1998, p. 23)

There are several Aka Tāepa that Māori should be conscious of within the internet space, which includes notions of safety and power relations. The challenge for indigenous communities is that "we must also avoid being co-opted by knowledge systems not sensitive to, or unable to perceive, our worldviews" (Wemigwans, 2018, p. 61).

²⁴ Identified as footnote 16 in the original text which says: This term is borrowed from Crotty, *How to Talk American*, 65.

8.2 TE AKA MOREAREA (THREADS OF HAZARD): SAFETY

8.2.1 THE SANCTITY OF KNOWLEDGE: INTENT MANA AND TAPU

I have argued that cultural focus on safety is a particular concern of Māori use online. Subsequently, the lack of security poses a considerable challenge for Māori online. Wilson cautions that we must be conscious of our behaviours and intent in the online space. The application of karakia for example, offers spiritual safety and provides cultural guidelines for behaviour. Māori philosophy is described by Taepa as the space that has the potential to both elevate or to suppress. He notes that,

The ability through the medium to really uplift, but of course, with that ability comes the ability to be destructive. It's probably... in terms of these things, have come upon us quickly. We haven't necessarily had the discussions around joining the relationships between some of the tikanga that we know we engage in the meta-physical space and social media spaces – Taepa.

Three specific points are raised here by Taepa. The first point is not having clear conversations around relationships and tikanga to hold us in good stead when engaging in cyberspace. The second point is that the evolution of this technological space has been very rapid; and third, is a reminder that this is a metaphysical space complete with Māori cultural associations that link to mana atua. In Chapter Six I discussed the idea of guidelines to assist our thinking and behaviour in various situations. This included the importance of tikanga Māori and tapu (sanctity) that needs to be considered in the online space (Rangiātea):

That would be another tūpato, and it's just basically through that meta-physical -when you send something in a forum that's as big as Rangiātea, you don't know whom it's going to arrive to....

You know it's the vessel – hei ipu rangi – it's that vessel of Ranginui and all of the things that are contained in that vessel. It's really interesting, whoever applied that word to the Internet, you know, not the pūwerewere [web] – Taepa.

The concept of conscious intention online reflects the inherent connection of Māori to the atua. More broadly, the transmission of kōrero tuku iho and the deep cultural knowledge is a concern that Soutar reflected on about teaching and learning online:

Some things are just really difficult to impart that aren't difficult to impart in a face-to-face wānanga, and that's about a taha wairua [spiritual dimension] and your emotional state and how you respond emotionally to what's being presented to you. I'm thinking particularly around stuff to do with Te Tuakiri o Te Tangata and when we're doing that stuff with Te Aho Matua – Soutar.

This idea of caution regarding deep cultural kōrero tuku iho was raised by Wilson in the Chapter Five (p.119), who spoke about his online/social media platform called Te Paepae Waho. He deliberately named the platform to indicate the information he was imparting was about publicly consumable information appropriate for the outside, while restricting other knowledge for closed group and face-to-face discussion. Keegan cautioned using the internet for ‘deep Māori topics’ and stated the preference for face-to-face contact.

Keegan also refers to the possibility of creating online avatars for future preservation. This technological advance is already happening overseas (Cone & Lewis, 2022b). There are benefits and risks associated with the digitising Māori knowledge (Stevenson & Callaghan, 2008; Waikato, 2005; Whaanga, 2017; Whaanga & Wehi, 2015). One of the critical concerns for Māori is around access to information and the inappropriate use of that knowledge which might transgress the tapu nature of the data (Stevenson & Callaghan, 2008). The appropriation of Māori and indigenous knowledge forms has been consistent over time (Pihama et al., 2004; Said, 1978; Tuhiwai-Smith, 2012). The digitisation of Māori information raises issues of access, intellectual property rights, copyright and care (Brown & Nicholas, 2012; Taiuru, 2020, 2021c; Whaanga et al., 2015, p. 526) to preserve tikanga Māori related to the information (Brown, 2022; Deguara, 2020; Hutchings & Reynolds, 2007; Taiuru, 2018, 2021b, 2021e, 2022c; Wilson & Bathgate, 2021).

Recognising the tapu nature of the internet and the power of the internet as an information and communication tool in Chapter Six, Mātāmua says that it is time for

Māori to establish 'kawa' for the marae to provide tikanga Māori that appropriately guides behaviour online.

Two critical warnings are raised by participants around the sanctity of Māori knowledge online. First, there are cautions around the intent by Māori when engaging online. The internet as a metaphysical space is neither new nor foreign; it is an ancestral space as depicted in all manner of whakapapa and oral tradition. Second, the challenge is that as we re-engage in this space via the internet, we acknowledge our inherent power and aim to engage in that space accordingly to express tikanga Māori and whitiwhiti ora.

8.2.2 SELF-REGULATION AND SAFETY

Māori capacity to engage with mana atua is inherent to being Māori. However, the process of colonisation has impacted the action of cultural expression in culturally appropriate ways. Therefore, the need to be consciously aware of how we use the internet remains an ongoing challenge. There must be a tikanga Māori consideration about our engagement in the online space and how to be mindful of 'getting lost' online. The atua realm and reference to te pō are noted as a normal space for creative Māori minds to occupy as Taepa explains:

the nature of what we do as creatives; I alluded to it before we delve into Te Po. And we just dive in, no map, then we find our way out, you know and back Te Ao Marama. But sometimes we get lost – Taepa.

The phenomenon of the creative process is mentioned here by Taepa to relate to the idea of 'scrolling' and immersing yourself so deeply in the online world that reality loses relevance, whether this is through losing time by mindlessly scrolling online or through becoming entrenched in an online situation that captures and redirects your attention (Young, 2004). The negative influences of the internet and its many platforms and worlds are explored through various documentaries such as 'the social dilemma' (Orlowski, 2020). Te Aka Taepa reminds us of what to be aware of online so we can self-regulate our behaviours and address them in a way that allows us to 'live as Māori' (Durie, 1997).

In relation to nature, human evolution, and the tools of technology, Wilson says:

the worst example of that is when humanity eats themselves. And every culture has done and been through that process. And though each culture will look at it differently and the purpose behind it differently, that's potentially one of the more challenging behaviours for us as humanity, and we've just got to make sure that these tools keep us safe and well, rather than feeding power and craycrayness. Because there is a lot of cray-cray out there – Wilson.

Taepa suggests that we need to be cognisant of online spaces that are likely to undermine our well-being. He identifies that there is some information available for children, like netsafe.com, to guide youth with engaging online. Still, more regulation of information and support is required for adults to ensure that mental well-being is sustained as the internet feeds your mind and inevitably your wairua:

there's another side to it. There's actually removing your hinengaro from the things that now, in the ipurangi space, especially when you're scrolling, you don't know what's coming next, and like I said, there's a real power and media, capitalise on this pull of people, like disaster, trauma, and things that are absolutely horrific for us, but it's a powerful draw.

... the acknowledgement that you're actually feeding yourself when you go into the Ipurangi with something. And that's powerful because of the metaphysical space. And if you feed yourself with enough kino, it will, inevitably, you know, manifest itself in you in the physical world, and, ... for myself personally, there are certain things that I don't watch. I don't watch the news – Taepa.

In this respect, Taepa shows a conscious concern for his mental safety. As previously quoted Keegan explicitly identifies the point of security:

I guess a concern is, how much does it change us as a people, and what practises can we put in place to ensure our children in our people are safe? Right?

The thing with tikanga - so we say that the internet and technology changes tikanga; well, the thing with tikanga is it's there to keep us safe. But when we're moving into an environment where there are no tikanga, no Māori tikanga, then there are no safety nets to keep us safe, and that's the concern.

You know that's the worry. There's a worry that we're losing our tikanga, but there's also a safety concern - are our children safe? – Keegan.

Soutar, Pihama and Broederlow identify actions of people online that would not be tolerated at marae. Riwai and Mātāmua also refer to 'kawa' as a guiding principle that could guide online behaviour for Māori. Taepa discusses the impact of damaging news programmes and his conscious decision to stop watching the news because of the prolific number of negative stories.

This stuff is so seductive, and yet, it's so destructive for your mind, so I made a conscious decision... I'm not watching the news again. And then, of course, you have social media. You get ways of this online news, you get snippets, so I'm very conscious of what I feel that meta-physical side of myself, and it's hard, it's really hard because, like I said, you just scroll. You might be just sort of in between being fully conscious or be getting tired near the end of the day, and so you think, 'I'll have a look at that', and it throws you into a tailspin - You get upset, and it's just something that's been suggested to you – Taepa.

The power of the internet and social media to deliberately fill your social media feeds with specific information is a deliberate intention of computer algorithms (Benasayag & Rendall, 2021). Taepa's request for better knowledge and support to ensure positive online experiences is valid. In 2022, the Netsafe website (*NetSafe*, n.d.) returned only 20 documents when searching the website for the search term 'Māori' and six papers in te reo Māori. The general sense of the information was presented in a Western manner with no correlation to Māori understandings of the world, InternetNZ (*internetnz*, n.d.) provides limited information on or for Māori, although they have recently appointed a Māori Advisory Group. This situation identifies a need for Māori centred details on internet safety.

8.2.3 BEHAVIOURS AND CODES OF CONDUCT TIKANGA

Self-regulation is necessary to scrutinise the information you are exposed to. Still, there is also a need to regulate individual behaviour or the behaviour of whānau members. Chapter Seven identified Māori behaviours online that can oppose regular codes of

conduct. Riwai refers again to notions of mana and tapu and how embedding these concepts as the foundation of relationships with her classes is critical:

So again, it's the filter of - know where I begin and where I end, and how I talk about things that I have heard or seen to people... it's our values that come to play, not the rules; it's 'what do I fundamentally think?' So that's where embedding those immediately at the beginning is key because now that engagement transcends the spaces, if it's online or in person. That's been the key for me in my personal experience with the online teaching space – Riwai.

For Riwai, to acknowledge 'where I begin and where I end' is to know the parameters of her 'mana' which laid a foundation for expected behaviour and engagement online. Issues related to values and behaviour are commonly discussed as social implications of the internet (DiMaggio et al., 2001). Fundamental values can hold space and guide online interaction, as Che comments in terms of online activity:

I've never deleted anybody; I have hidden the odd comment just because I don't like swearing on my pages. Other than that, I did it [use the internet] just to utilise the tool and find a way to share. Because I think in dealing with our own trauma, we've become mean. And although I get the trauma, it then becomes an excuse not to share.

And it's probably partly because of my father's view of the world that everything is always half full rather than half empty. So I always take it to a different space, even though I acknowledge that sometimes trauma also stirs my puku up too – Wilson.

Taepa raised the concern regarding people who cannot differentiate their own space and, who confuse the online space with real life.

One of the tūpato is that we start to think that that space [online] is this space [physical]. We can't differentiate it. I think that that could create a lot of confusion for our kids, but also for ourselves... I guess if you're thinking the reality is this reality, that confusion could be harmful to the person, either mentally or physically.

... And I worry that our kids might get out of balance; you know, we get drawn too far from the physical space and too far into that metaphysical space, and then all of the oranga that comes from the physical space? - Taepa.

Grounding through the application of tikanga Māori is one way, such as the enactment of the sacred pōhiri ceremony followed by the profane act of eating and sharing kai or food. Taepa raises the potential to disconnect from the physical world, whether it is paying attention to eating kai, to walking for exercise, or being out in the sun; these actions can affirm our connection to our natural environment. His trepidation is that the physical connection to our world is replaced by virtual rather than physically experiencing the natural environment, as well as the potential to then confuse the two spaces. Sometimes this confusion can extend to an individual identity, whereas online personas can drastically vary from real life. The power of the internet and its apps is to mould and shape its users (Bargh & McKenna, 2004; Castells, 2010; Kendall, Lori, 1998; Lumby, 2010; Niezen, 2005; Resta et al., 2013), but sometimes, there is a disconnection from an event happening in real-time.

I suppose there's one tikanga that I've noticed with people who will be online during karakia; they're having a kai or having a smoke. So things that you wouldn't do in person - online, you're doing – Wilson.

Soutar also notes hearing stories of online behaviour deemed 'impolite' or uncouth (i.e. wearing pyjamas in hui). In reaction to mana diminishing behaviours online, Riwai encourages her students to remember the impacts of colonisation on Māori, to respond from the reference point of "how would you like to be treated" and to reply with compassion. In effect, this simple reframing moves the engagement 'out of the gutter' to a more appropriate level of engagement:

You elevate them to the Rangi, and now they've got to meet you there... because I'm not coming down there... And it's amazing what happens when we start treating people like that – Riwai.

Riwai maintains that applying concepts of mana and tapu offers a baseline for engagement among her students to take account for how colonisation has disconnected Māori knowledge systems and from the contemporary realities of being Māori.

According to Keegan vital questions to consider in the online space include: how much does the internet change us as a people? Are our children safe? Are we losing our identity as Māori? How can we still be Māori on different internet platforms? A computer scientist, Keegan argues that we should be aware of these things while aiming to use new technologies to our advantage:

And when we make mistakes along the way, then let's learn by our mistakes and let's fix those mistakes – Keegan.

Similarly, diverse Māori behaviours expressed online illustrate further concerns for Māori, some of which the Taringa podcast explores, including discussions about appropriately sharing intimate moments online (Gloyne et al., n.d.).

Concerns for Māori behaviour online are those that demonstrate clear departures from tikanga Māori approaches, which Soutar states should be a concern for all Māori. The nature of open access information online allows many people to access this information which may not be correct or information that tends to blend into our everyday behaviours. For example over the COVID-19 lockdown period, Māori narratives and images were used to forward agendas that did not align with Māori perceptions of the world such as the 'give COVID-19 the boot' campaign, which was discontinued due to its culturally inappropriate focus (Wilson & Bathgate, 2021). The danger, Soutar argues, is that no code of ethics or cultural checks and balances parallel those of the whānau, marae, hapū or iwi to validate the information or the presentation of the information as authentic Māori understandings of the world. These types of tikanga Māori are missing in the online space, whereas in reality, the processes that whānau and marae engage involve kaumatua/pakeke support which does not allow for that type of situation to emerge.

Online you can be an expert in how you believe Māori know and do and be. Even though in a face-to-face situation, you're not leading anything in terms of Kaupapa Māori in your whānau. And I think that's difficult because it promotes that individualistic, sort of, me me me – it's my choice – Soutar.

The individual approach and perspectives are counter to the tikanga of collective benefit. This situation that could be described as the rise of ‘influencer pedagogy’ (a method where online personalities create a sense of expertise and garner the trust of their followers as expert and authentic) (Hendry et al., 2022). There are moments when Soutar has witnessed social media debates on cultural issues where some people openly debate Māori issues. Still, those people are not on the ground carrying out the work that needs to be done or are not the people that their people mandate to represent their position. At other times, public discussions about private issues are a culturally inappropriate process:

for me, that’s an [iwi] conversation, not for Twitter and everyone else who might want to comment on it... Because if we were at a real hui, we would say we just need to go out by ourselves – Soutar.

Realigning behaviours to real-world Māori situations to the standard expected at the marae, for example, is also shared by Mātāmua, who argues that the physical marae environment will identify appropriate leaders in different spaces to represent the collective:

One of the weaknesses of the Internet is the real Wild West nature approach to it. It’s a real lack of any proper regulations and the lack of Mana, you know on our marae, there will be, for the most part, Kaumatua and Kuia that have mana that will set down a particular approach and a particular standard of activity that’s to be maintained and... not anyone can just get up and do a whaikōrero right? – Mātāmua.

Broederlow refers to marae protocol to guide online behaviour. She states that she does not tolerate bullying or aggressive behaviour on her websites and establishes a “take your shoes off at the door” approach to what she considers is a virtual marae. Mātāmua describes marae situations where an individual may attempt to promote themselves, for example, to speak on formal occasions, but are overseen by kaumatua. In these instances, it is kaumatua who delegate the right and the duty to speak on behalf of the

people and not the other way around. The internet, however, lacks those checks and balances:

The problem with the Internet is that anyone can set up a marae and just spout anything out there and become an expert or feed into that space. It's having the ability to discern between a group or a person or a space that has mana and people that... don't have the same mana as the [expert] person that is talking.

I don't mean to be talking bad about people... There is some really dangerous stuff that happens on the internet. There are some really deranged, dangerous, deluded individuals on the internet, and they create themselves a platform and get a following. That doesn't happen on the marae, for the most part, because we're able to regulate it – Mātāmua.

Mātāmua raises the issue of dangerous people online. There are a number of examples, including: the online presence of white supremacist involved in the Christchurch terrorist attack (Elers et al., 2021) the 2022 misinformation (conspiracy theories) project resulting in a three-week anti-mandate protest of the government in Wellington (Reeve, 2022; Trigger, 2022), and the emergence of ‘conspiracy influencers’ who promote misinformation, white supremacy, hate and racism, is now cloaked in COVID-19 misinformation, anti-vaccination and anti-mandate rhetoric (Nee, 2020; Reeve, 2022). Mātāmua’s concern is a valid one that identifies the types of regulation that would occur at the marae does not happen online. The lack of regulation, for example, has allowed online threats against Māori activists such as Tina Ngata and member of parliament Debbie Ngarewa-Packer (Hudson, 2022).

Considering Māori approaches to online engagement, the rise of the ‘influencer’ (Giles & Edwards, 2018; Glucksman, 2017; Hendry et al., 2022; Robinson, 2020; Simeonova, 2023) challenges aspects of tikanga Māori. When asked about the idea of the influencer, Pihama states:

I don't know about Kaupapa Māori online influencers. I don't know any, to be honest, not in terms of the people doing the work and their whānau, hapu, iwi, their communities; most of those people are not online doing that stuff. I don't really follow ‘influencers’; I don't really know who they are or who they're meant to be – Pihama.

When reminded by her partner that she listens to people like Rangi Mātāmua (@LivingByTheStars) and Paraone Gloyne (Taringa Podcast), Pihama reaffirms that she does not view them as ‘influencers’ but rather as ‘knowledge holders’ and people that she would sit at her kitchen table to converse with. A key point is the cultural difference between what constitutes an ‘influencer’ and people actively participating in and influencing collective wellbeing. This situation also presents a key point – are these influencers leading real-time developments for Māori, and do their whānau, hapū, or iwi support them?

The nature of the Wild West/Free for All is also discussed by Soutar and Pihama, who also express ways to self-moderate behaviours online. Pihama’s concern is around the lack of moderation online and therefore the need implement a sense of ‘marae protocol’ to guide behaviour online. Similarly, Mātāmua also identifies a lack of regulation online, which allows people to act in ways that are not in line with tikanga Māori. He views social media platforms as similar to a marae and therefore takes his responsibility to moderate his platform as similar to maintaining a marae protocols and expressing manaakitanga to maintain mana. Soutar and Broederlow approached their websites in a similar manner. But Mātāmua also noted that the actions of the ‘key board warrior’ is a non-Māori approach to engaging online.

Taepa cautioned that:

As a result of colonisation, we, as Māori, are disconnected from our essential sense of mana, and we have a responsibility to act cautiously because of our inherent connection with mana atua. This responsibility must consider how we impact other people:

That’s the bit that I think for me I’m very conscious of, is what I say and do in that space, knowing that it could arrive at anybody. So personally, you know, refraining from tohe [quarrelling], because tohe in such an open environment... it’s different because if you have tohe with somebody. It’s a closed-off space that you have a physical relationship with; that’s quite different to having a tohe in an open forum when people were just watching... and you don’t have any physical relationships. You don’t even know who might read this, and where their

mental state might be, and you could unwittingly have quite a negative impact on that person's life or day – Taepa.

Riwai also identified that in many cases, when issues arise for Māori online, we can forget that they have real-world implications, and cautions us to instigate tikanga Māori in the physical world, i.e., to discuss issues face-to-face before taking to social media to broadcast matters:

And it really comes down to we're not good at conflict. So the separation of it - I'm going to write online 'cause I don't have to deal with the backlash... I could just turn my notifications off, or I can just do that.... now you can't turn notifications off [in a real-life situation] ... he whānau kotahi... I'm not interested in bringing [identifies an organisation as an example] into disrepute in a public arena when we haven't followed simple tikanga ... – Riwai.

Such impacts on personal well-being and wairua are discussed by all interview participants in one form or another. The critical idea expressed here is the major disconnect between how people would act face-to-face, where there are clear expectations and boundaries, compared to online, where people can express negative behaviours towards others. The situations discussed here cover a broad range of circumstances which also reflects Keegan's commentary:

I guess a key question to ask is how can we still be Māori on the internet. ... I think a better question to ask is, well, how can we still be Māori on Facebook? Or how can we still be Māori on Twitter on Tik Tok? So you've got to narrow it down because they're different environments, doing different things, and serving different needs – Keegan.

This presents the need to analyse Māori participation across platforms further and identify key tikanga and value systems to assess Māori interaction across spaces.

8.2.4 DISCONNECTION AND RELATIONSHIP

While the internet presents a fantastic tool for Māori connection, it also offers its issues. In terms of teaching and learning, it is highlighted as a particular weakness.

One of the weaknesses is that it's quite difficult to keep track of who's connecting. Like if you're teaching a group, say. So, what we've done at the Rūnanga, for example, in the Beginning Teachers Programme, there's a regional mentor in each region and in between sessions, they follow up personally with each individual teacher just to say, 'hey - I noticed you weren't on the zoom or were on the zoom. Got any questions? Let's unpack it or whatever, but without that, you could lose track easily – Soutar.

Soutar also notes that 'reading' people or getting a sense of their feelings and taking on information, as you would in a face-to-face situation, can also be problematic when meeting online. Riwai concurs that this is also a difficulty when monitoring the class on screen and considering that everyone is in their individual homes with homelife still occurring and attempting to get a sense of the 'wairua' when you are not physically face-to-face. She notes that the process required a conscious effort and was slower for her to gauge how students processed information. Since they were at home, sometimes it was hard to know if students were reacting to the information in the class or if something was happening in their home environment.

I had to have quite lengthy debriefs at the end with my teaching team to say who do we need to follow up was, you know, did you pick anything up in terms of body language? - Because facials are all we had, we didn't have whole body language... so those are some things that took a lot longer than it would have if we were in a connected space because I would have picked that energy up quite quickly.

... So that was something that was just slower. It was slower, and it probably wasn't as comprehensive as I would have liked because I just simply had a face - that's all I had,... you can manage it, but it just wasn't as quickly as I might of. It may have been lost in the iarere [frequency/vibe] - translation of things – Riwai.

To apply proper Māori pedagogical approaches, it is also essential to intensely discuss online learning. This is a challenge to understand information that is online entirely:

One of the downsides is if you're just uploading stuff, for teachers anyway, and there's no unpacking of it or facilitating how you might use it, then they're just like pretty little vignettes in a virtual space just sitting there, so we don't want that – Soutar.

There is a tendency to repackage information into consumable bites/bytes online due to a diminishing attention span (Weiss, 2010), but from a Māori perspective, knowledge requires a deeper conversation to fully understand the context and the intent of the information being shared (Pihama et al., 2004). Soutar continues to discuss the methods by which learning information online is being unpacked; the message here is a reminder of Māori perceptions of knowledge.

Māori perceptions of time and space offer a cautionary note for teaching and learning online and the need to maintain a balance between spaces:

And learning as a tool is a really interesting thing, going into COVID and going into Zoom. I don't know how far we go from learning something tactile or physical, going away from that and then how far we go into the metaphysical before we have got out of balance in terms of growth and learning. As an artist, I would like to see the huirangi, huipapa, ipurangi, and ipuwhenua go hand in hand together and not get consumed in one space. It's that balance, I guess – Taepa.

The stability sought in this statement refers to the equilibrium between the celestial space represented by huirangi and ipurangi and the terrestrial space huipapa and ipuwhenua. The need for balance is commonly sought in approaches to cultural activities where both male (Rangi) and female (Papa) leadership and energies complement each other (Smith, 2000).

As discussed in previous chapters, access to the internet presents an ongoing challenge for Māori (Gibson et al., 2013). Taiuru talks about the move of marae hui from 'in person' to online and says:

But again, there's a consideration for our kaumatua who don't have the internet, so setting up connections at the marae or wherever else - there's been a learning curve there – Taiuru.

Our developments of online use must also consider the digital divide and lack of access to the internet for elders, people experiencing poverty and the digital illiterate (Datta et al., 2018). More importantly, for Māori, the inability of kaumatua to participate online means their cultural guidance and position is absent.

8.2.5 OPEN SOURCE: ACCESS TO INFORMATION AND SHARING.

Tikanga Māori transgressions regarding open access to information are identified as a definite Aka Tāepa online. Customary knowledge practices contain their systems and pedagogy of knowledge transmission (Marsden, 2003). Those tikanga are easily overlooked online. Pihama states that in developing her websites, the group was actively thinking about the potential implications of the websites and how to mitigate those implications:

we kept it very clear that what we were putting up was often stuff that's already readily available in written text, right... you'll notice on those sites we don't go into a lot of depth tikanga; we take more of the kind of structuralist political [stance]- so we'll talk generally about these principles, “this is what you need to do” - but not layer it down with levels of mātauranga that are actually not ours to share, and that belong to others.

So I think we've always kind of kept at that level in order to kind of mitigate sharing things that are not ours to share or put out – Pihama.

The appropriate type of information to be shared online is discussed previously. The point made here is a caution around checks and balances for ensuring that only appropriate information is being shared online. This is supported by Keegan, who says, “Māori should be suspicious of the Internet, especially about the unapproved dissemination of tapu information... Quite simply, if we have information that is tapu

then don't publish it on the Internet!" (Keegan, 2000). Broederlow is involved in developing policies to guide information sharing online with her marae:

We've had very interesting kōrero that has come from this new digital space that's spreading throughout so many different marae, and we've been working on policies, privacy policies, the sharing of information, what information, addressing our kaumatua concerns... Our younger generation they've been born into this, so they don't see an issue, but we've got to be mindful of our kaumatua concerns – Broederlow.

Riwai discusses hasty responses to online posts and analyses the process of discussion that she undertakes with her classes. She articulates that the individual lived experience will determine the response online. However, the issue is with the personal interpretation of the initial post that can influence negative responses or bullying:

So all of the comments that come back are wetiweti [horrible]. We post one thing, and we can't understand the context. It's just a reading of that moment, and so people are going to respond with their own whakaaro about what that is without entering into any - 'I want to seek understanding'... you can't filter it. That's a free for all, and so you know when people sift through that, we're finding bullying, or we're taking to heart what Joe Bloggs said, and I have no idea who Joe Bloggs is. Well, why am I caring about what he says about it - because I posted it - I wanted someone to care about what I was going through, that's why and those are the tensions in terms of you, our babies... when we want likes from people, why are we worried about what these strangers care about what we're doing? – Riwai.

8.3 TE AKA WHAKARAERAE²⁵: SECURITY

8.3.1 CHALLENGES OF POWER/AUTONOMY

With the rapid growth of online platforms, the metaverse, and other technologies, Māori have not yet had the deep discussions and wānanga necessary to approach any concerns

²⁵ Vines of vulnerability

about these spaces adequately. Taepa discusses his concerns for his children and his hopes that they will consciously engage in the online space. He stated:

We just haven't had the time, I think, as Māori, to have good kōrero around tikanga that allows us to acknowledge the power of these metaphysical spaces that we are engaging with.

And with what that power, for want of a better word, influence – connection, always, I think, comes with responsibility, and that's the bit that is really interesting at the moment, I think, because part of the movement globally in terms of open source and that, is to, I guess, disestablish power and also level out notions of responsibility that often just crystallise people in powerful positions –
Taepa.

Some of the concerns noted in Taepa's discussion were around the idea of capitalisation of power online and the advent of 'Big Tech', digital imperialism and digital colonialism (Cormack et al., 2020; Kwet, 2019, 2022; Mann & Daly, 2019; Wernke et al., 2020). This is also linked to the 'influencer' who may assimilate into Western notions of the 'influencer' instead of being a 'knowledge holder'. There are also concerns about the misinformation influencers (McCann, 2022; Talbot & Alali, 2021). In terms of Te Aka Tāepa, the point here is that we must be conscious of the potential for power consolidation to happen online and how that impacts our children and us.

I think the adverse effects of cyberspace have real 'on the ground' impacts on our people. On the other side of that, is the rapidity to which we can respond to some of those things, particularly racism, and using the same medium gives the capacity to respond very quickly to those things and to make some quite transformative things happen in those spaces. I know when the Hurricanes did their thing, utilising Taranaki as the notion of going to war that, we responded very quickly to them, and they changed it very quickly. So that racism underpinned their media – Pihama.

8.3.2 MISINFORMATION

The rapid development of social media and other internet sites has a critical impact on Māori communities and their whānau, as exemplified in the 2022 anti-mandate protest

against the COVID-19 vaccinations that occupied New Zealand parliament (McCann, 2022), the hatred resulting in the Christchurch terrorist attacks (Elers et al., 2021), the rise of white supremacy online (Daniels, 2018; Ford, 2020; Ngata, 2020a) and general misinformation (Ngata, 2020b). Pihama identifies some of the negative impacts of the internet, which have included impacts on vaccination rates for Māori, the choice between unvaccinated and the choice not to vaccinate, and decisions based on misinformation:

I think COVID is a very good example of how misinformation online has extremely adverse effects on our people... I think that a lot of our people, including some of our own whānau, have made decisions based on misinformation that they've received through a whole range of social media platforms, and fear has been promulgated. Anger has been promulgated, and distrust has been promulgated.

So the stuff online has real material, physical implications - health implications... if we bring it to that, what does it really mean? Racism has real physical, mental health, psychological, and emotional impacts on our people. Homophobia, all those things do – they're not just something that's in cyberspace. Because they actually do have an impact – Pihama.

Misinformation poses an issue (Ngata, 2020a; Reeve, 2022; Talbot & Alali, 2021), but Māori have been subjugated to misinformation since the beginning of our colonisation (Meihana, 2015). Therefore Māori responses to misinformation are a reflection of our deep colonial issues and trauma (Ngata, 2020b). All forms of hatred and cyber-bullying (Houkamau, Satherley, et al., 2021; McClintock et al., 2016) impact Māori well-being.

Hate and hurt

Hate speech online is an enduring issue that affects Māori. From micro-aggressions and media portrayals (Barnes et al., 2012) to white supremacist threats against marae (Dreaver, 2021; Elers et al., 2021; Sadler, 2021):

I think the other thing is that maybe media outlets need to actually just moderation and not enable hate speech to be posted... because hate speech is not about freedom of speech. I think there's a level at which people need to take

more responsibility about what they allow to be said on their sites about us – Pihama.

There are ongoing debates around free speech in Aotearoa (Elers & Jayan, 2020; Pihama, 2018) and current adjustments to New Zealand hate speech laws. The hate speech online only serves as a media site for anti-Māori, far-right groups such as Hobson's Pledge and Action Zealandia. Pihama recalls her time on the New Zealand Constitutional Advisory Panel 2011 and the opposition received by groups like Hobson's Pledge. This highlighted a need to be more discerning about the types of information or misinformation that are being shared and taken on board, which Pihama says is also required in online platforms:

That would alleviate a lot of the misinformation stuff that all these platforms enable to continue; in fact, the algorithms enhance it and spread it through further to get more people... all of those algorithms create things as well - they create these beasts, and they enlarge them. So when someone like Stuff [online news website] says, 'We're going to be more aware of our work as an organisation', and then the best way to do that is actually to make sure you don't enable any of those comments. You stop doing opinion pieces that are demeaning of our people. Just because they have an opinion about it, it doesn't make it publishable – Pihama.

Riwai talks about the personal characteristics and human behaviours that can occur through the online space and the hurt that can be inflicted through online comments and posts; this type of behaviour she has witnessed is an attempt to be included and to feel connected (in some way) to each other. But when our words are not regulated:

You're really trying to eat your words back as soon as you've typed them. It's harder to get back. So you know, how do you regret it later on? Do you talk to your kids about it? You talk to them about human things, whether it's the word or on the page, it still hurts and does damage if that's your intention, but if you think it's different because it's on there, then you're mistaken, and you need to be able to now understand what is now your engagement in this space - Riwai.

8.3.3 AUTHENTICITY: VALIDITY

Lack of quality control, checks and balances for Māori information about Māori on the internet presents another challenge:

And that's kind of a little bit of a concern as well - like I do it because I know it's there, but if it's anything really important, especially if it's related to tikanga Māori and even the reo Māori, I will go and check with somebody that I trust, and when I'm getting information from the internet, I'm always looking at who's supplying that information is it authentic – Keegan.

Keegan continues that many people do not place authentic information on the internet. Thus, it is essential to check the validity of such information. Similarly, Taiuru and Soutar raised concern about the authenticity of information online.

8.4 TE AKA RAUKOTI²⁶: PROPER MANAGEMENT

8.4.1 THE INTERNET AND TIME/ADDICTION

While time and convenience are noted as a strength of internet use, it is also identified as a weakness. Screen addiction is a real issue that is facing new generations of internet users (Bowles, 2018; Domingues-Montanari, 2017; Kardaras, 2016; Lissack, 2018; Lozano-Blasco et al., 2022; Young, 2004; Yurtoğlu, 2016) which is an issue exacerbated by computer algorithms (Benasayag & Rendall, 2021; Noble, 2018; Petrescu & Krishen, 2020). Keegan and Wilson say:

I try hard not to use Facebook because it just sucks up so much of your time. And it's meant to do that, right? It's designed to do that. It's designed to suck up your time. It's designed to reconfigure itself, to reshape itself, to be specifically to what you want, so it's this tool that can really suck you in because that's what it wants to do. Because the more you use it, the more money they get – Keegan.

Then there are addictive issues with this. You've just gotta use common sense, and there are certain times I will say, 'do not record, do not do this, do not do

²⁶ Vines that are misused

that' - Because you've got to maintain the sanctity of whatever is being done. But it's difficult because people are so attached to their devices that sometimes they don't consciously know that they are doing it. So that is got to do with psychology, I think - and addiction behaviours – Wilson.

Pihama also mentioned AI in how it feeds and pushes specific information or misinformation to us, which is unhealthy when its readers cannot critically analyse the messages. Cautions here are being distracted, time-consuming and, as Wilson has already noted elements of addiction when it comes to screen use. As studies show the online space is addictive and seductive (Gansinger & Kole, 2016; Geere, 2017; Gonidis & Sharma, 2017; Kardaras, 2016; Lozano-Blasco et al., 2022), a comment that Taepa also makes:

With this idea of open source, like a free for all, it's really interesting to me as a creative ... but I do see in that space – it's seductive in its energy because it's a metaphysical energy that's powerful – Taepa.

The idea that the internet space is addictive and seductive is something that Riwai links to the deep desire to engage with others, but she cautions that when in doubt - don't post. Riwai has seen posts publicising the death of people who haven't died and the trauma and backlash that those types of messages create:

We're jumping the gun. We want to be good. We want to do this. What's the best thing? Silence is the best thing; if you are in doubt - shut it down. If in doubt, just don't. And it's difficult because we want engagement. We want people to comment to 'like' and to talk to us. That's what I mean about the loneliness thing. We're wanting engagement, so we jumped the gun, and people get the growling for - excuse me, that wasn't supposed to post. Now the backlashes start so. It's our own stuff that we have to manage and master – Riwai.

As digital capabilities evolve, so does the expression of cultural practice, and with the advent of COVID-19 lockdowns, the tangihanga process was impacted severely, with whānau and marae across the country having to re-evaluate new methods of facilitating

our grieving process (Harawira, 2021; Rangiwai & Sciascia, 2021). Tangihanga and the use of technologies are not new (Rishworth, 2022), but the whānau involved have discussed most approaches at length. What is certain is that more discussions around the representation of tangihanga online are happening and that more conversations will need to take place regarding the tikanga for the notification, facilitation and ongoing grieving processes online.

8.4.2 THE INTERNET AND LACK OF RESOURCES

There is a lack of relevant resources for Māori and te reo Māori resources. This indicated that Māori representation within resource development is not seen as a priority and that perhaps Māori capacity in the industry is lacking. Either way, the lack of resources does not allow full participation and education around internet safety for Māori or Māori engagement in the IT sector. Taiuru highlighted this:

I think there's probably a real lack of role models for our children, and you know, to get more Māori into, you know, the sciences and IT, but that has always been a problem as well. As I said before, if our kaumatua understood the Internet, then I think we'd have a lot more internet safety resources – Taiuru.

This situation is highlighted by the government investment in increasing Māori participation in the IT sector, including the 'Ka Hao i te Ao' programme (Howell & Tang, 2022; The Expert Advisory Group, 2016). Investigating the New Zealand Netsafe website shows there are limited resources, and similarly, within InternetNZ. Taiuru and Keegan also note the lack of resources:

You mentioned your daughter's Kura Kaupapa Māori, but there are no te reo Māori resources around Netsafe. They also don't use our purakau to explain Netsafe issues. I think that would be a good start for Netsafe – Taiuru.

*My thing is reo and technology, and we did some research looking at what technologies children were using in te reo Māori, and there weren't very many.
– Keegan.*

8.4.3 THE INTERNET AND HATE

One aspect of the internet that isn't scarce is the presence of online hate. Pihama identifies this as a significant issue, and so is the need to address those issues online through the use of the internet:

I think we can use it in those ways, but much more rapidly than we have in the past. But it's also exhausting. Because there's so much of it. There's so much hatred on social media; there's so much hatred of Māori, hatred of LGBTQI, hatred of women, hatred of people of colour, all that stuff... I see it in both ways; I really think using a Kaupapa Māori approach to things - that can be useful, but we are always having to mitigate all this other stuff that's going on – Pihama.

Broederlow also says that the development of Māori in Oz was to ensure that there was no aggression and bullying on the website. She stated that tikanga Māori were important and she only condoned respectful behaviour online. She likened her approach to likened this to taking your shoes off virtual before entering the virtual whareniui.

8.4.4 THE INTERNET AND OTHER IMPACTS

There are several critical discussions and considerations that we still have to make about Māori engagement with the internet. This is noted in terms of online learning through the COVID-19 period:

I think it will be interesting in the next few years to sort of reflect back and gather some data about the actual impact, like, say, kids who are in year 12 and 13 now, what it's meant for them and how might have impacted relationships? Because it may not have. It may have strengthened them, I don't know, but there seems to be a feeling there that there's a loss of something when online becomes the main mode – Soutar.

Unpacking the impact of online use during our heightened utilisation through the pandemic period might start with schooling. Still, it should extend to all areas of engagement for Māori and the population in general.

While the internet contributes to information overload and the current infodemic (Talbot & Alali, 2021), there is also a lack of good information that provides a clear and comprehensive perspective on the state of Māori and the internet, Māori and the IT sector. Checking the government website of Te Puni Kōkiri (Ministry for Māori Development) did not produce any current information on Māori in this area. **Ipurangi** provides a baseline to consider further areas of understanding that we need to develop. Still, there is a dearth of information from sites where one might expect to find baseline information, such as Statistics New Zealand, Te Puni Kōkiri, NetSafe, InternetNZ and the Ministry of Business and Innovation.

8.5 CONCLUSION: TE AKA TĀEPA

This chapter has established two focus points about Māori and the internet. Te Aka Matua focuses on the key threads that support Māori interactions on the internet. At the same time, Te Aka Tāepa refers to those actions which may detract from Māori engagement on the internet. Notions of Te Aka Tāepa are discussed in this chapter, identifying mana and tapu as critical areas that can be transgressed online. Broad discussions of areas that impact our ability to be Māori online include acknowledging the power of the internet to impact holistic Māori well-being, issues of safety and the need to self-regulate behaviours; the inability to identify the online presence of individuals; misinformation and online hate; screentime behaviours; and the lack of real understanding and resources relating to Māori and the internet.

The following section examines two further key themes highlighted through interview material - Toi Huarewa and Te Ara o Tāwhaki which discuss external factors that impact Māori use of the internet.

CHAPTER 9 DISCUSSING CHALLENGES AND POTENTIAL

Te Toi Huarewa, Te Ara o Tāwhaki i piki ai ki runga

Te Toi Huarewa and Te Ara o Tāwhaki: Challenges and Potential of the Internet

Tāwhaki's ascent through the heavens is referred to in the *oriori* Pinepine te kura by the line:

<i>Piki ake, kake ake i Te Toi Huarewa</i>	Ascend by suspended vine
<i>Te Ara o Tāwhaki i piki ai ki runga i rokohina atu ra, Maikuku-makaka</i>	the path of Tāwhaki to ascend happening upon Maikuku-makaka ²⁷
<i>Hapai-o-Maui</i>	otherwise known as Hapai-o-Maui

This section of the *oriori* talks about the journey of Tāwhaki and refers to Te Toi Huarewa and Te Ara o Tāwhaki. Both of these names denote pathways to the heavens. They are utilised in **Ipurangi** to remind us of the duality of life's journeys – the idea that there will always be obstacles and challenges, but achievement is possible. Te Toi Huarewa is commonly described as a pathway to the heavens and sometimes called a whirlwind path (Best, 1929). The metaphor is used here to acknowledge potential threats to successful online journeys for Māori users. Te Ara o Tāwhaki symbolises successful pathways for Māori travellers online. In the context of this thesis, Te Toi Huarewa and Te Ara o Tāwhaki represent the duality of Māori engagement online in the global/universal context and the need to chart a path of success, to navigate the challenges presented by the internet and to achieve successful objectives where “ambiguity stems from resistance against what is perceived as a loss of cultural values through the digitisation of a culture and the simultaneous increased use of technology to perpetuate and reinvigorate a culture perceived to be under threat” (Hofmann, 2011, p. 55).

Today, we have the capacity to make films, friends, or money; to spread hope or spread our ideas; to build community or build up movements; to spread

²⁷ Wife of Tawhaki whom he ascended to the heavens to find

misinformation or propagate violence – all on a vastly greater scale and with greater potential impact than we did even a few years ago.

Yes, this is because technology has changed. But the deeper truth is that *we* are changing. Our behaviours and expectations are changing. (Heimans & Timms, 2018, p. 1)

This comment reflects what many of the interview participants identified; furthermore, “[a]round the world digital technologies have been used both for the benefit and detriment of indigenous people” (Greenwood et al., 2011, p. 75). This chapter begins by analysing the notion of Te Toi Huarewa and Te Ara o Tāwhaki. Te Toi Huarewa is referred to as the pathway to the heavens that is characterised by whirling winds, that in the context of **Ipurangi** reflects the challenges that face Māori engaging online where:

The Internet has also been examined as a site for the extension of Western cultural hegemony (Sardar 2000) and for deepening inequalities of access to cultural capital (Webster 1995, Schiller 2000) as it becomes an increasingly central and commodified network for cultural circulation that opens up a ‘digital divide’ leaving disconnected and poorly resourced communities at an ever greater disadvantage. (Goode, 2010, p. 528)

Te Ara o Tāwhaki refers to Tāwhaki’s successful pathway to the heavens and illustrates the potential for Māori development online, as Greenwood et al. relate:

Māori use of digital technologies to the creation of ‘virtual marae’: meeting houses in cyberspace where Māori can meet, greet, acknowledge and support each other... Like the material marae the virtual marae can be a place where Māori values and protocols have pre-eminence. It can also create a surrounding of Māori images, oratory and performing arts (Greenwood et al., 2011, p. 76)

Chapter Five examined the landscape of the internet online for Māori, Chapter Six explored the elements of tikanga Māori that interview participants expressly discussed, and Chapter’s Seven and Eight identified Te Aka – those things that support or challenge Māori engagement online. This chapter addresses Te Toi Huarewa, the challenging pathway reflecting external factors that impact Māori internet use and which is likely to diminish Māori development, and Te Ara o Tāwhaki, where opportunities for Māori success can be facilitated online and the elements that allow Māori to flourish online.

9.1 TE TOI HUAREWA: CHALLENGES FOR MĀORI

Broader environmental concerns that impact Māori engagement online are outlined by applying a Kaupapa Māori analysis of discussions with participants in order to consider the socio-cultural impacts of colonisation on Māori and our utilisation of the internet. Generally, these challenges highlight eColonialism or iTāmi, which have been described as the areas of Te Toi Tāmi - rangatiratanga (including mana and tapu) and Te Toi Pori - Mana Motuhake (physical contact, safety and security).

The internet has a lot to offer Māori, but there are concerns of intellectual and cultural property rights, control, language, accuracy and authority, and access. Some initiatives are being developed at a national level in an attempt to address these apprehensions. When they are recognised and implemented the cultural safety of Māori information on the internet will be improved. (Pewhairangi, 2002, p. 143)

Whilst the internet is a site of great potential for Māori development and growth, iTāmi poses serious challenges (Keen, 2016) to Māori populations. These threats are highlighted in several ways. “As with any new technology there are positives and often more negatives for Māori and other Indigenous Peoples protecting their traditional knowledge from abuse, appropriation and theft” (Taiuru, 2022b).

9.1.1 TE TOI TĀMI: RANGATIRATANGA, CONTROL AND POWER (AUTONOMY)

In 1990 The Waitangi Tribunal produced a report regarding a claim lodged by the New Zealand Māori Council, Sir Graham Latimer, Ngā Kaiwhakapumau i te Reo and Huirangi Waikerepuru for the allocation of radio frequencies.

In and before 1840, the Māori chiefs and nations were in possession of, and had tino rangatiratanga over, the whole of New Zealand; all that was below, upon and above the surface. Tino rangatiratanga embraced the absolute and independent activity of Māori over the whole of the realm between Ranginui and Papatūānuku. Tino rangatiratanga also included the absolute and independent authority of Māori over their own affairs, their culture, and the Māori way of life including te reo Māori (The Waitangi Tribunal., 1990, p. 49)

In addition to local challenges to rangatiratanga, globalisation and trans-national corporate reach also pose challenges as they add another level of struggle for Māori:

... large technology monopolies such as Google need to be broken up and regulated, because their consolidated power and cultural influence make competition largely impossible. This monopoly in the information sector is a threat to democracy, as is currently coming to the fore as we make sense of information flows through digital media such as Google and Facebook in the wake of the 2016 United States presidential election. (Noble, 2018, p. 3)

Rangatiratanga, sovereignty and the ability to control how Māori utilise the internet as Māori is continuously opposed. With the ever-expanding information highway, iŪāmi is an always present issue for Māori in the globally networked world. Kaumatua Ross Himona has identified such obstructions from the first development steps of Māori to establish an online presence (Himona, 2005). Taepa also says:

The way in which we are going, I'd hope there are these discussions around us having the ability to have kaitiakitanga over these things [internet]. Because, at the moment, we are relying on government and law and systems to regulate these spaces - in particular when it comes to content, and globally it's a losing battle. As quick as you might catch something, take something down - there's a million other things going up that are inappropriate for our people – Taepa.

Pihama also identifies the airspace between Rangi and Papa and addresses some of the confusion that people have when it comes to individual views about participation online. She stated that there is a misconception that the internet is global and therefore 'de-territorised' but reminds us that we are still responsible to the lands upon which we are accessing the internet, therefore we have particular obligations as residents on those lands. The ability for people to forget that the people of the lands they reside on maintain their rangatiratanga is a concern for Māori and indigenous peoples for engaging online. Pihama's reference to the 'airspace' also references the Waitangi Tribunal Radio Frequency claim. In his reference to this claim, Taepa refers to the idea of 'rangatiratanga' that was the foundation of the claim, and the vision to ensure that we maintain a sense of kaitiakitanga and rangatiratanga over both 'known and old spaces'

for future generations, this is supported by Williams (2020). It is essential to maintain rangatiratanga even in the internet space:

Because we know that when we are reliant on the government and law and other things that govern these spaces, for the most part, they provide a real security for us, but then there's a moment where they no longer serve our cultural needs because they can't. They're not of the culture – Taepa.

For example, the New Zealand government's regulations imposed on our cultural practises of tangihanga, our most sacred tikanga, during the COVID-19 isolation period (Rangiwai & Sciascia, 2021). The parallel demonstrates a clear challenge to Māori rights to self-determination (Durie, 1998). According to Taepa, a critical challenge for Māori is our capacity to determine and govern all spaces, including the internet. He talks about Māori ways of discussing pertinent issues through wānanga and critical collective decision-making processes, which are currently undermined by colonisation which is an ongoing struggle for Māori:

I think some of our tupuna would have said, "No, no, we're not allowed to go into that space – it's kino". And they would have made the decisions through wānanga, and then the iwi [would have agreed] But we are not even there in terms of the re-establishment of our own place on our whenua, in our own place and in the metaphysical space. ...

We don't know what is going to be coming ten years from the ipurangi space or from that space, but we are definitely not in the position to make decisions as a people – Taepa.

Critically discussing issues of rangatiratanga, Taepa maintains that the processes of colonisation position Māori in a vulnerable state, especially when it comes to our ability to make decisions for ourselves in our way where aspects of rangatiratanga and mana Motuhake are still to be fully realised in Aotearoa. The situation of colonisation and its impacts are documented (Durie, 1995, 1998, 2003; Pihama, 2015; Smith, 1997; Tawhai, 2020; The Waitangi Tribunal, 1989; Tuhiwai-Smith, 2012; Walker, 1990; Warren, 2017), and there is a growing number of Māori raising concerns for colonisation online (Cormack et al., 2020; Craig & Te Rangi, 2022; Kukutai & Taylor, 2016b; Taiuru, 2020,

2021c, 2022a). AI development poses another significant challenge for rangatiratanga. For example Kantayya (2020) questions the racial bias in AI, the battle for international control over AI, and the Amazon sale of facial recognition to law enforcement, all of which could be weaponised against poor communities. AI activist Joy Buolamwini says:

people who have been marginalised will be further marginalised if we're not looking at ways of making sure the technology we're creating doesn't propagate bias – that's when I started to realise, algorithmic justice, making sure there's oversight in the age of automation is one of the largest civil rights concerns we have (Kantayya, 2020)

Taiuru confirms that our ability to contribute to the online space as Māori is also undermined by national internet organisations (Taiuru, 2021d, 2022c) and when asked about the New Zealand World Internet Project, which collects national information about the internet, he says:

Let's say, that they are aware there are Māori against that, and we have been ignored there as well – Taiuru

In a previous blog post on his website, Taiuru says:

Despite a number of efforts by numerous Māori and organisations to engage with NetSafe²⁸, Māori continue to be ignored and discriminated against.

When Māori are [resigning from positions due to racism](#), and then organisations such as NetSafe refuse to engage with Māori is an issue. But now, ignoring Māori in their research leads to the question, “Why?”.

Increasingly Māori are facing discrimination by the community and organisations. It is becoming ever increasingly important to review, restructure and create a Kaupapa Māori online safety organisation that recognises and honours Te Tiriti. (Taiuru, 2021d).

Taiuru suggests that te reo Māori resources and those resources centred on pūrakau (Māori narratives) would be a good development for Netsafe in order to contribute to Māori engaging online. The issues of rangatiratanga are further exacerbated by other

²⁸ The government approved agency charged with cybersafety of New Zealanders

governing organisations like Internet New Zealand, which are racist and male-orientated (O’Callaghan, 2022):

Internet New Zealand is a powerhouse of influence with government policy, and they just write up policies for the government without any consultation of Māori. And so our voice is getting left behind there – Taiuru.

Taiuru proposes that based on population statistics, there should be an equivalent representation of Māori on their board and to employ a tikanga Māori-focused position as per their review findings. He suggests that all organisations instil Māori in a position that is not based on IT expertise but on their ability to locate te ao Māori within the organisation's function. They should also ask Māori communities what they want and need from the organisation. In essence, organisations must recognise systemic cultural issues:

to decolonise itself and then actually learn how to appreciate the importance of internet connections and of data – Taiuru

Taiuru maintains that increased Māori representation at decision-making levels could be assisted by: the guidance of Kaupapa Māori groups, dedicated Māori board members, and robust Kaupapa Māori research methodologies to guide appropriate methods of data collection. This would be meaningful and helpful to Māori communities and Māori internet users in this quickly changing environment of the internet.

Taepa highlights the speed at which technology is evolving and the time we spend online, that there is a definite need to reaffirm our rangatiratanga over the online/metaphysical space, just as we continue to affirm our rangatiratanga over whenua and the physical space. This political position, he states, is about positioning well-being and Kaitiakitanga at the centre of the spaces we occupy.

And we are concerned with the return of land and culture and all those things taken away from us. But the biggest thing taken away from us was our ability to determine our destiny with things that exist. And so this is a new thing, that as new things come, it's just another thing that we don't have rangatiratanga over. This is interesting because it hasn't been necessarily removed, although access

to kōrero that makes us understand this place has. But the actual ipurangi itself is still there, but the choice to determine as kin, as whānau in terms of safety measures to what we are exposed to, is with somebody else. And those people even acknowledge that they can't even keep up with it – Taepa.

Two critical points are made here. First, technology is fast-paced and challenging to keep up with – for Māori, this has also been acknowledged in assisted human reproduction (Glover et al., 2008). Second, colonisation and Māori self-determination, rangatiratanga, are cornerstones of Māori living, Māori well-being and Māori sovereignty. The internet is another space where rangatiratanga is denied and suppressed, an issue raised by the Māori data sovereignty project (Kukutai & Taylor, 2016a, 2016b; Walter et al., 2021) and others (Himona, 2005; Kamira, 2003; Ruckstuhl et al., 2019; Ruckstuhl, 2023; Taiuru, 2018). In light of the current ‘data wars’ (Berman et al., 2018; Chester, 2012; Hudson et al., 2017; Kaiser, 2019; Lambert, 2021; Lerner, 1984; Meert, 2022) among Big Tech companies such as Facebook (now Meta), the Māori data sovereignty movement was in some ways ahead of the game and the newly developing #OwnYourData movement. In many ways Māori experience of exploitation and colonialism had prepared us for data imperialism. As part of this ongoing struggle, Soutar considers that government control is an issue that impedes Māori education development online:

the organisations I am involved in are not Crown agencies, there's a real reluctance to go out and find the pūtea [funding] because it inevitably comes with restrictions and conditions [tied to government criteria], and what I can see is when we have the pūtea and can do what we want, we are just way more creative... I just know we are better without it – Soutar.

There is a tendency to plan outcomes and developments to meet government (Crown) objectives and requirements, which can divert Māori efforts and stifle Māori development online – effectively undermining rangatiratanga. Pihama makes critical comments on the processes of colonisation. Her position is situated around the development of Kaupapa Māori research and Kaupapa Māori theory which she emphasises is founded on principles including tino rangatiratanga and whānau. This

reaction is a typical Kaupapa Māori response, to the colonial project of colonisation, and neo-colonialism which are new forms of colonisation/colonialism (Smith, 1997; Walker, 1990; Warren, 2017). In this case, Pihama, the kaupapamaori.com and the rangahau.com team utilised the internet to respond to the ongoing attempts to undermine Māori knowledge, and by using the internet as another platform to advance key Māori positions relating to Māori research as platforms arise that consolidate the ideals of colonisation, Māori, like all indigenous populations, must find their voice of resistance within all spaces that threaten their sovereign rights.

Reflecting on the internet as a colonising space, Keegan argues that internet sites are not conducive to indigenous languages, especially for young Māori:

They use Facebook in English, but often they'd speak Māori, but still, that interface was in English, so you know that's a concern for te reo Māori because it is showing... that even though your personal conversation is in a different language, the overall language is English, so it encourages the dominance of the colonising language – Keegan.

Keegan is a longstanding advocate for te reo Māori online and has worked with Microsoft and Google to develop te reo Māori options in online spaces as part of the te reo Māori revitalisation project.

The language continues to face considerable pressure from English, not just because English is a majority national language but because it is an increasingly global language with a significant presence in culture, science, media and technology... technology is an important domain of use for te reo Māori, particularly the continued use of the language by young people (Keegan & Cunliffe, 2014, pp. 385–386)

Corresponding with this position, Mātāmua states some of his concerns for the internet are the colonising aspects that it facilitates:

It is an English-dominated medium for our kids - that the social interaction on that space is very Western-dominated. I think that there are some cultural norms that are shared - viral kinds of humour that I don't think it's very funny, but our kids are sharing that as funny, and I think some of it is culturally very offensive. I do believe that it is a form of colonisation - Mātāmua.

In addition to this, te reo Māori speaking youth are more likely to post to social media in English in order to solicit more ‘likes’ (Poutū, 2014). The concerns about the expression of cultural nuance online are raised by theorists of eColonialism (Bagchi, 2019; Lyall, 2007; McPhail, 1987, 2008a; Nilsen, & Solevåg, 2016), virtual colonialism (Hall, 1999; Hutchinson, 2016), digital colonialism (Cardenas, 2021; Kizhner et al., 2021; Kwet, 2019; Mouton & Burns, 2021; Taiuru, 2015, 2020) and, data colonialism (Couldry & Mejias, 2019a, 2019b; Fraser, 2019; Mann & Daly, 2019). They confirm Mātāmua’s analysis of online cultural nuance as a form of colonisation. For Māori, this exacerbates the pre-existing impacts of colonisation and struggle for rangatiratanga. Māori data sovereignty addresses this exact point.

In an age when data permeate our lives daily, issues relating to data consent, use, ownership and storage have become increasingly complex. While indigenous peoples have long claimed sovereign status over their lands and territories, debates about ‘data sovereignty’ have been dominated by national governments and multinational corporations focused on issues of legal jurisdiction. Missing from those conversations have been the inherent and inalienable rights and interests of indigenous peoples relating to the collection, ownership and application of data about their people, lifeways and territories (Kukutai & Taylor, 2016a, pp. 1–2)

For Māori, such inherent and inalienable rights can be described as part of rangatiratanga, a right first internationally affirmed for Māori in 1835 with He Whakaputanga (the Declaration of Independence) and again by Te Tiriti o Waitangi 1840 (Independent Panel, 2012). However, this issue is not a concern raised by Māori alone; it is constantly raised in the United Nations Permanent Forum on Indigenous Issues (Kukutai & Taylor, 2016a). Māori control over Māori data and its use is, as Taepa argues, is just another site of contention and resistance for Māori to assert rangatiratanga and self-determination. Another aspect that challenges rangatiratanga is the co-option and ‘academic privatisation’ (Smith, 2012) of Māori within the IT sector. They often act in opposition to tikanga Māori when they are employed within the sector but cannot give expression to what it means to be Māori as Taiuru suggests they:

start creating tikanga, which does not exist, and then all of a sudden, they become the authorities, and they actually start publishing this – nonsense, I guess. And so that reinforces to some of our new generations that it's OK to do this, so there is no tikanga – Taiuru.

The danger is that the lack of tikanga and misguided tikanga can be promulgated by people who do not have the appropriate or adequate experience in the Māori world. They are likely to mislead others and perpetuate further misconceptions with what it means to be Māori.

As stated in previous chapters, access to the internet is a constant challenge for Māori (Hunia et al., 2020; Parker, 2003; Reti et al., 2011). Whether it is access to an internet connection or access to a device; age, location, and socio-economics also contribute to the digital divide and our inability as Māori to engage online:

When we [Māori] do have an internet connection, it's usually shared, or it can be shared by the whānau, and so one email address for the whānau, yet most systems these days need a unique email address per person. And then I think lack of internet access is a big issue – Taiuru.

The issue of Māori access to the internet and devices was highlighted during COVID-19 when in education teaching and learning transferred to an online context. The lack of access by Māori to digital devices was highlighted by schools across the nation (Hunia et al., 2020; Ministry of Education., 2021). The impacts of teaching and learning in relation to lack of Māori access during the national lockdown period remains relatively unknown (Harmey & Moss, 2021). This inequity poses a significant challenge to Māori self-determination and rangatiratanga.

Thus, as this chapter has shown so far, there are diverse issues that are in opposition to rangatiratanga as a defining characteristic of Te Toi Huarewa.

Mana and tapu: Colonised behaviour

Another prevailing wind that contests Māori engagement online is the idea of mana and tapu. Mana-diminishing actions (as opposed to mana-enhancing ones) are prevalent online. For example, access to bad information (Small, 2022), misinformation (Dutta, 2019; Loukas et al., 2022; McCann, 2022; Ngata, 2020a, 2020b, 2021a), media coverage of bad news (Arango-Kure et al., 2014), doomscrolling and doomsurfing (Paulsen & Fuller, 2020; Sharma et al., 2022), personal attacks online and collective attacks online

can be detrimental (Loebach et al., 2019; McClintock et al., 2016; Yusuf et al., 2020).

As Wilson explains:

... the downside is that social media has, in my opinion, become a modern form; when it's kino, it has become a modern form of māku. Because the bullying that happens on there and the abuse has resulted in people getting sick and or dying, taking their lives. That is māku. And keyboard warriors are actually gutless. People hide behind [the keyboard], and don't confront the issues. And they think they're neat, but it's actually just another form, a modern form, of māku, which is dangerous – Wilson.

Situating poor online behaviour within the cultural context of makutu (sorcery) has deep cultural associations, repercussions and regulation requirements. Māku is a profound Māori spiritual practice, one that is reserved for tohunga, traditional knowledge holders (Best, 1898; Buck, 1910; Paterson, 2011). The idea that this behaviour is dangerous is situated within customary understandings of Māori spiritual practice. Māori experience of the history of colonisation, many understandings of an inherent spiritual ability has been distorted, and so have those adept at identifying and addressing any ramifications of māku. Nonetheless, the idea that māku is taking place in a contemporary form online must be met with cultural approaches to rectifying and balancing this action as it poses a severe threat to the health and well-being of Māori engaging online. This is an issue that Wilson has addressed on his social media platforms (Wilson, 2022), and highlighted by Te Piringa (Kapa Haka) in 2018 who likened the internet to the spider web of the poisonous Katipō spider (Te Whānau o Te Piringa, 2018). Taepa argues that the internet facilitates metaphysical harm and acknowledges that atua exists across the spaces. He says:

... you are seeing others that you know and love harming one another in the metaphysical space, and that will just manifest itself in the physical. And somewhere along the line, you're going to have to see one another and reconcile that – Taepa.

Taepa discusses how he stopped watching television because of the nature of news items that are not conducive to mental health. The death of George Floyd (Reny & Newman,

2021) exemplifies the tragedies that are beamed and streamed direct to our homes. With the advent of online access to information, he worries about our ability to return from the online space without getting lost in the online wash of information. This idea is captured in the current research around doomscrolling and doomsurfing, a process of catching up in unhealthy online information (Paulsen & Fuller, 2020; Sharma et al., 2022). Taepa wonders what ancestral processes would have traditionally allowed us to enter the internet and, more importantly, to leave that state healthily. This type of knowledge, is essential for our children who have greater access to the internet:

We've got tūpato in our own culture, and I do worry for them [children] that they might get lost from the physical world - if this is the right way of saying it, to the metaphysical world and find it hard to come back. And I know that there is an increasing level of mental health issues in the younger generations coming through globally, and some people put it down to the lack of physical experience, like eating at the table together, those absolute physical things that allow you to be present in the moment – Taepa.

Diamandaki makes a similar point “[w]hen we talk about cyberspace; we refer to a distanced and disembodied social world, yet one naturalised and appropriated through new processes of inhabiting the non-physical” (Diamandaki, 2003, p. 2). In te ao Māori, this notion has real consequences for Māori when appropriate tikanga are not followed to relocate back into the physical world. This is a caution that Taepa makes. Related to the idea of being lost scrolling online and the ability to be ‘lost’ online, Keegan says that the internet is designed for people to waste time on it:

if you look at the guy who built Apple and Bill Gates, the guy who did Microsoft and the guys who did Google - they don't let their children on the Internet, they don't because they understand how bad an influence the internet can be on people – Keegan.

Taepa suggests that we need to be cognisant of Atua that reside in the online space and to be conscious of where all engagement online should be premised on the questions:

What am I going to feed other people in this metaphysical space? Am I going to feed them with oranga - te whitiwhiti ora? Or am I going to feed them with

taumahatanga, pōuri, mate, tohe [burden, sadness, demise, disputes]? Kei a koe te tikanga [the choice is yours] ... They are there to look after us, those Atua, they're not there to harm us, but we can find pathways to harm other people through them. And that is where I think the choice is with us – Taepa.

The view of well-being online is connected to Māori notions of mana and tapu. Taiuru also identifies how easy it is for Māori values and perspectives of cultural paradigms to be transgressed:

I was brought up that the photos have mauri in them and there's tapu... taking a photo of a photo and distributing it, breaking it up into binary and spreading it all around the world which - we were taught that photos are sacred, there is a protocol with them, you just don't go hand them out to anyone willy-nilly. There's all these tikanga I was brought up with are just not applied or considered anymore – Taiuru.

Taiuru raises this issue on his website pertaining to the sanctity of Māori personal images (Taiuru, 2021b, 2021e) and Waitoa (2013) raised a similar concern. It is an issue that requires further conversations among Māori whānau as 'Big Tech' increase their reach through the internet and as technology advances (Cone & Lewis, 2022b). Keegan, who values the sanctity of knowledge from a Māori perspective, expressed his concern for information that is tapu. His preference is face-to-face contact to discuss 'deep Māori topics' and warned that using the internet to transfer deep knowledge runs the risk of 'watering them down'.

These concerns centre on Māori ability to navigate our health and well-being in a Māori way while engaging with new technologies. These concerns are raised by Pihama around the impacts that racism and misinformation have on the mental and physical health of Māori populations. During his work with online Māori newspapers Te Taka noticed that bi-lingual people engage differently depending on the language they are utilising:

... with technology - when you are using it in te reo Māori, you have a certain persona, and if it has been used in English, it's a different persona. So, the fact that technology suppresses te reo Māori also means that it suppresses āhauatanga

Māori, Kaupapa Māori, tikanga Māori, wairua Māori... I don't feel we are going to stop technology; technology is going to keep rolling on. So what we've got to do is we've got to build avenues where we can use it as quickly and as easily as we can – Keegan.

The issues presented here reflect the diverse challenges facing Māori online as a significant concern when tikanga Māori is lost and suppressed. Taiuru suggests that we need to be guided by tikanga Māori when we engage online and share information:

It is hard to try and explain it to some people, but I think there is old tikanga that this generation or society has grown up with adaptive technology so quickly; we have forgotten our tikanga, our old stories, and everything is all about the internet – Taiuru.

Taiuru has also written on tikanga Māori that is absent from the functionality aspects of modern technology. For example, using apps to reanimate photos of the deceased (Taiuru, 2021b) and the placing of phones that might hold tapu photographs or whakapapa on kai tables (Taiuru, 2021e). The need for cautions is also applied when dealing online with tapu information such as whakapapa (Gifford, 2000). Such examples demonstrate points of discord for tikanga Māori and technology especially where there the threat of transgressing tikanga that is ultimately harmful to Māori engaging online. These concerns highlight again aspects of iŌtāmi and cultural imperialism that are present across the ranges of internet use, but, more importantly, how Māori persona changes depending on the language used.

9.1.2 TE TOI PORI: MANA MOTUHAKE

Te Toi Huarewa presents two significant challenges for Māori participation online. The previous section examined tenets of rangatiratanga and explicit rights to sovereign expression that are contested online. Mana Motuhake considers aspects of the internet that challenge personal expression in the online space, which include physical contact, safety and security.

Physical contact

While the internet accrues apparent benefits, as identified in the previous section, the interaction also challenges how Māori engage in the Māori world. Taiuru notes that with the ease and the expedience of attending hui online, there are some critical relationships and activities that are overlooked by not physically attending the hui:

People will just, out of convenience, won't physically go back to the marae... and then you miss out on all that whakawhanaungatanga and actually knowing who your cousins are and actually experiencing jumping in the ocean over there and to go up the creek and all those little things which I take for granted. But you know, people are brought up with online hui; they will just never know.

... I mean, I think you lose the connection to the whenua and to your natural resources, and it's hard if someone is always online; they don't actually get to see like the fish; in our harbour, the fish is just all gone now, but if I only ever spend my whole life on a video meeting there, I'd never know. I'd never actually appreciate or have those memories... just hearing that story is one thing, but it's physically living it and experiencing it is another story as well, so the future risks for how connected our people will be to their marae – Taiuru.

Taiuru identifies the challenges of not physically connecting to the whenua, the moana, and each other. He poses some nuances and genuine relationships that are not nourished and maintained by only interacting in marae hui for example, online. Taepa also noted the challenges of having an online experience in comparison to a physical experience.

Discussing online tangihanga, Pihama similarly notes the difference between physical participation and online participation. She says it is easy to wrongly identify our level of engagement when we participate in Kaupapa online:

We are actually not participating. It's a representation of what we are doing, but we're actually not there participating... people say this is how you can maintain ahi kaa. Well, you cannot maintain ahi kaa unless you are on the ground, and you cannot maintain that even if you live in the same country, but you are in Auckland, and your ahi kaa is in Taranaki. You are not. You know you can support the maintenance of ahi kaa, but you can't maintain it. You can support the tikanga that is happening, whether it be financially, whether it be

whatever, but you are actually not participating in that because you're not on the whenua in the act of doing it. Cyberspace is cyberspace – Pihama.

Safety measures

Cyber-safety and cyber-security are posing severe challenges worldwide with the proliferation of all forms of cyber-crime (Brenner, 2010; Deora & Chudasama, 2021; McClintock et al., 2016; Yusuf et al., 2020). For indigenous populations, the challenges are heightened due to the ongoing confrontations of colonisation, the inherent inequities (Huey & Ferguson, 2022) built on existing media systems.

While we often think of terms such as “big data” and “algorithms” as being benign, neutral, or objective, they are anything but. The people who make these decisions hold all types of values, many of which openly promote racism, sexism, and false notions of meritocracy, which is well documented in studies of Silicon Valley and other tech corridors (Noble, 2018, pp. 1–2)

For Māori, data sovereignty is a critical concern (Hudson et al., 2017; Kukutai, 2011; Kukutai & Taylor, 2016b; Ruckstuhl, 2023; Taiuru, 2018, 2020), as well as cyber-safety and cyber-security concerning mental and cultural safety (Hageman, 2022). In addition to the trauma of cyber-bullying, racism and extremism (Dutta, 2019; Elers et al., 2021; Ngata, 2020a, 2020b; Phillips, 2022) many Māori experience a deep level of compassion and sympathy for other people’s trauma communicated online. Taepa is concerned for our youth and that growing up with television provided a level of security through ratings and editing, but online direct streaming does not provide the same levels of restriction for content. In terms of the live-streaming aspects of the internet such as those of the George Floyd death for example, he notes:

It's powerful. And you take on the mamae [pain/grief] you share that mamae - you can't help if you watch it... you forget that there is this person who is passing away in front of your eyes. And we don't know how to unpack the trauma, because if we walked on the street and somebody passed away in front of their eyes, you know physically, we would give ourselves more time, and think 'I'm traumatised by that' - Taepa.

According to Taepa sometimes the difference between the online metaphysical world and the physical world is not so obvious to some people, and we, therefore, forget to regulate ourselves as we would normally. There is a risk of being lost in the metaphysical space, in the tragedies shown to us in the online space forgetting that there are tikanga to help us deal with tragedy and to ground us back on this world. For example: how we react and regulate ourselves while experiencing grief involves a particular process – for Māori, this would include karakia; but online, the caution is that we forget to undertake the processes we might undertake in a physical experience to ensure mental and spiritual safety. A subsequent risk is to ignore the absolute beauty of the real world and the natural environment that sustains and grounds us as Māori.

All of these things people, we, get seduced into... a real mate [unwell] space on the ipurangi, and we get lost into it. Because it's feeding us, It feeds us energy, and we know if it is good for us or not. We are drawn to it because it keeps feeding us this energy, this energy that tells us we are alive, but it is not necessarily healthy for us.

I think that's the pros and cons about connecting and communicating in that metaphysical space – Taepa.

The vulnerability of Māori online includes experiencing racism and extremism (Barnes et al., 2012)) and navigating sexism and homophobia that Pihama also identifies. According to Taiuru:

Statistically, Māori females are targeted with all the forms of abuse online. It's a major concern, and then we have agencies like NetSAFE who don't actually cater for Māori; they just have no idea – Taiuru.

Therefore, governance and rangatiratanga are important to manage impacts on Māori internet users and affirms several previous statements about safety. There are hyper-vulnerable populations online which include Māori women (Martin, 2020), and as Taiuru states, disabled populations are also vulnerable:

Safety issues are the biggest threat to Māori right now. And that goes from child exploitation right up to all the other abuses of Māori, but especially females, and

another high statistic is Māori who are disabled, and females are more likely than everyone else as well – Taiuru.

Personal safety has become an issue of privacy through the form of ‘doxing’ (MacAllister, 2016; Trottier, 2020), where personal information, including workplace and home address are captured and published online, thus targeting activists and their whānau. Personal relationship photos are also a concern that can lead to harm, such as issues of ‘revenge porn’ (Bates, 2017). According to Taiuru, personal safety issues like ‘doxing’ affects many Māori women disproportionately:

Then we also have what I’ve seen in my own personal circles Māori women being targeted by white supremacists, the anti-COVID people, the anti-vaccine people; they just seem to get targeted more than Māori men. I don't know why I can't explain it – Taiuru.

Security

Intellectual property rights, copyright and the appropriation of Māori content impact Māori engagement online (Ahu et al., 2017; Mead, 2002; Shand, 2002; Sheehan, 2011; Sterling et al., 2021; Tan, 2013; Van Meijl, 2009). In 2001 Lego was challenged for their appropriation of the Māori culture, which was brought to the attention of someone on a Lego fan website who posted:

"I am giving you 24 hours to pull this board down and discontinue the abusive use of the Māori culture, customs and history," the person, who used the name Kotiate, wrote on the website before the attack (Griggs, 2002)

The person Kotiate (the name of a close-range Māori combat weapon known for its ability to gut the opponent) proceeded to put the website under cyber-attack until Lego addressed its cultural appropriation issue. This was perhaps the first of its kind, an international ‘David and Goliath’ case to protect the Māori culture which gained significant support from Māori worldwide and led to a legal case being taken against Lego. In addition to Māori narrative and imagery being appropriated, it is perhaps the haka which makes an ongoing appearance in random situations, such as corporate advertising (Mahuta, 2012; “No Time” for Maori Input into Haka Ad.’, 2006; Wilson,

2020), sports (Hapeta et al., 2018); while the uplifting of Māori art (Lai, 2010; Tan, 2013), human remains (Palmer & Tano, 2007) and artefacts (Tan, 2013; Tapsell, 2012) are constantly being appropriated. Often, Māori response to such behaviour is to seek cultural guidance and secondly to propose the perpetrators cease and desist. In the globalised market, corporations seem to continue their imperialist agenda with no concern for the rights of indigenous peoples and which often underlies Māori apprehension of the loose dissemination of cultural knowledge online:

And then I also worry the old kōrero shouldn't happen online later because we don't know where that voice is going to end up and who's going to record it, who's going to take ownership of it, for example. I guess some of the kōrero could end up in America and be governed by American laws, or it could be in Australia. Worst still, it could end up on social media, and by default, you know that those social media companies take all ownership of everything – Taiuru.

Cultural appropriation and the theft of cultural and intellectual property are other challenges for Māori (Sheehan, 2011). As Taiuru explains about the potential of the internet for Māori business:

Our own IP is actually being stolen from us because of the Internet - so the reverse impact. I have seen people sell our images. Māori businesses sell their own artwork online, but then it gets hijacked by another company overseas and re-sold; there is no protection for them for that – Taiuru.

Writing extensively on this issue (www.taiuru.Māori.nz), Taiuru works to address a myriad of challenges, such as Digital Colonisation (Taiuru, 2015). Since early European contact, there has been the acquisition and appropriation of Māori crafts, artefacts, moko mōkai [preserved Māori heads] and imagery; which now extends to online practices (Taiuru, 2023). His concerns are shared by Sheehan, who says, “[t]he threats for Māori are based around the struggle and control over cultural knowledge and representation within technological structures including the rapid distribution platforms that the world wide web provides” (Sheehan, 2011, p. 98). In addition, there are risks of cyber-security for Māori who engage online (Hageman, 2022); this includes login security (Edwards, 2004), privacy (Cullen, 2009) and online purchasing safety (Peszynski, 2003). The

Māori data sovereignty project identifies such areas of concern (Kukutai & Taylor, 2016a; Mathias, 2022; Walter et al., 2021).

According to Te Toi Huarewa rangatiratanga, mana and tapu, physical contact, and safety measures are all critical issues that threaten Māori engagement online. These issues reinforce iŦāmi and the ongoing colonisation of Māori through online mediums. Some illustrations of iŦāmi nuances that Māori must be aware of when engaging online are considered:

If the coloniser has control of information technology and is in a position to validate, discard or modify knowledge, then information technology becomes a tool for further colonisation.

Yet, the face of the coloniser is not so easily seen these days. The control of information technology is strewn amongst many groups, including companies, governments and others who have access to technology resources, skills and “gateways”. They are the international corporations, the Silicon Valley tycoons, the computer “whizzes” sitting in their networked bedrooms in countries far from here, hiding behind aliases. (Kamira, 2003, p. 467)

9.2 TE ARA O TĀWHAKI: POTENTIAL FOR MĀORI

Te Ara o Tāwhaki represents external features of the internet that positively contribute to Māori development and Māori engagement online that identify what advantages Māori can garner from internet use. Such potential is variously described as follows:

Socially and economically driven Māori-led projects will bring opportunities to upskill, establish career pathways, generate new and periphery businesses, set the foundation for intellectual property development, and contribute to the country’s economic potential.

If we redirect those shovels to build extensions to a large-quality telecommunications infrastructure targeting rural communities and businesses and align the values that many of us are aching for post-lockdown, we can change our futures. (Kamira, 2020)

From the early establishment of the Māori domain name (Gifford, 2001), Māori have explored the potential of the internet for the purposes of Māori development. Even

today, the potential for Māori data sovereignty is being explored (Mathias, 2022). I now examine the areas that are identified as potential pathways that contribute to positive Māori development and include: Te Ara Rangatiratanga (cultural development, government policy and international connection), Te Ara Rauemi (resource development), and Te Ara Tūhono (connection online).

9.2.1 TE ARA RANGATIRATANGA

Te Toi Huarewa challenges the notion of rangatiratanga that confront the Māori experience online, so an examination of aspects of Te Ara o Tāwhaki is required in order to demonstrate some of the areas of expansion for the manifestation of rangatiratanga. In particular, cultural development, government policy and international connection.

Cultural development

A critical area for development online is the establishment of tikanga and kawa to guide Māori behaviour online. This provides Māori cultural parameters for online engagement and reaffirms how we connect to and utilise this meta-physical space as Māori. As technology develops and Māori start to utilise Avatars and AI technology, Mātāmua wonders how far-reaching the technology will allow us to adapt tikanga, kawa and cultural engagement for processes such as pōhiri and tangihanga. He states that there should be in depth discussions about the adoption of technology in these sacred spaces, and that cultural protocols should be developed to guide this process:

*Kua tae pea te wā te whakatakoto i ētahi tikanga tā o te kawa o te marae ipurangi
[Perhaps we have reached the point where kawa also needs to be instilled in the
online space] – Mātāmua.*

According to Mātāmua, Ahorangi Pou Te Mara maintains that Māori, must continue to evolve past our stagnation regarding Māori cultural practice and notions of Māori spirituality. He also discusses how atua relates to our environment, and some atua may find a locus for a time (like tiki) or a place (like Pele in Hawaii, which is absent in Aotearoa because the environments are different). Mātāmua discusses the thinking around AI by Pou Te Mara:

I know that he is doing some work with Hemi Whaanga around AI and the creation of different Māori deities in that space... Atua come and go for Māori, for Polynesians. And I don't think there's anything wrong with saying, OK, we've got this space; it needs some divine intervention and guidance. Let's do it, let's put it together – Mātāmua.

Mātāmua argues that colonisation has impacted Māori ability to consolidate Māori cultural and spiritual beliefs and practises and to continue our evolution in those spaces. He considers some of our practise stagnated and there is a tendency to refer to a certain period of our history as the only space and time valid in our expression of tikanga Māori. Furthermore, our confidence in ourselves is perhaps impeded by colonisation. Therefore, we are quite reserved in our application of tikanga Māori. Mātāmua encourages Māori to evolve with our new environment and circumstances while engaging in the uncomfortable or difficult conversations:

Sometimes, they need to be asked. Otherwise, we're just going to say, "Oh, the ipurangi is not a cultural space; only the marae is a cultural space", and that's just not it. Imagine that, imagine if when we get together, and we go into these big hui, and we do a karakia to a new Atua. Kūkara! [Google!] – Mātāmua.

In this instance, both Keegan and Mātāmua agree that Māori must continue to adopt and adapt to new environments, including the internet in a way conducive to Māori engaging.

I think one of the things that we have to continue to do in this space is to - colonise the coloniser in some ways because by not engaging, that's just not an option. But we have to engage to ensure that that we front foot it and make sure space is Māori – Mātāmua.

What is alluded to here is the notion of rangatiratanga, where Māori can engage in a way centred in te ao Māori and express Māori ways of knowing and being. Taepa agrees and notes that the internet space is evolving quickly but must consider rangatiratanga:

I think there is room to think about what rangatiratanga would look like in a current... Ipurangi space – Taepa.

Taiuru agrees that tikanga Māori must be maintained online and that we can adjust our spaces to maintain tikanga Māori while still amalgamating contemporary methods of connecting. He uses the example of tikanga associated with the ban on taking photos at some marae and how this tikanga can be maintained while hosting online hui at the marae for whānau who cannot physically attend the hui:

I would suggest that maybe a special room where you can't see the photos and the carvings... everything that is sacred and tapu should be blocked off from the video conference – Taiuru.

The maintenance and expression of tikanga Māori are critical to Māori development – “[w]ith New Zealand becoming a more multicultural society, such information will be invaluable to track in order to inform the public discourse regarding ethnic, cultural and national identity” (Smith et al., 2008, p. 325).

Government and Policy

It is generally agreed among participants in this study that the largest and most fundamental area for further development is achieving rangatiratanga within the online space and the ability and capacity of Māori to determine their pathways with technology. “We need all the voices to come to the fore and impact public policy on the most unregulated social experiment of our times: the Internet” (Noble, 2018, p. 6). All levels of decision-making require Māori participation across the technology sector:

To actually be involved properly with government consultations. At this stage, the government makes a number of consultations about the Internet and Internet technologies, and basically, Māori do not get much of a voice; it is the same if a few bureaucrats turn up and speak on behalf of us all; I think that's a bit of a concern.

There is definitely a need for another Māori Internet organisation, and there has been some talk about it. But you know, funding, time, resources - It hasn't gone anywhere – Taiuru.

Although there are some attempts by government agencies and internet organisations to involve Māori, the impact of Māori (if they are even approached) remains constrained. Taiuru says:

if the group gets opened up more to iwi and to Māori, who work in that area... you really build it up and basically let Māori be the leaders in [things like] 5G technologies – Taiuru.

Spectrum Working Group (maorispectrum.nz) is an example of what can be achieved when Māori drive developments. However, this requires financial support and the support of government agencies and national organisations to fulfil their Treaty responsibilities as good Treaty partners.

International Connection

In order to address issues that impact rangatiratanga, one important opportunity for Māori and the internet is to connect with other indigenous nations to discuss how they are approaching the internet space (and other sites of contention) as indigenous people who also face colonialism:

In the political history of this country, as you know, we have had rangatiratanga as a principal position in response to colonialism and the removal of mana motuhake or kaitiakitanga over spaces. And so I think in our world it would be really interesting to connect with other indigenous people. We've had long enough now to know the consequences of not determining rangatiratanga over things that come to our shores that affect us in our daily life – Taepa.

Similarly, Keegan notes the benefits of connecting nationally and internationally to see how other peoples (like the Basque and the Welsh) are using technology for language revitalisation for example. He suggests that there is an opportunity to collaborate on international projects of shared interest. The area of technology needs to be assessed to ensure that iāmi and adverse effects are not accrued, but there is merit in the investigation of the role of technology in language revitalisation where:

Technology should not be seen as a panacea, a cure all for the revitalisation of the Māori language, but it could be a powerful tool in providing access to language, culture, and identity to the multitudes. Tools that may be familiar to our ‘Digital Natives’, our leaders of the future, should be used to ensure our language survives and thrives. (McKenzie, 2014, p. 134)

Several indigenous technological developments are happening nationwide (James et al., 2020; Ka'ai-Mahuta, 2012; Keegan et al., 2011; Keegan & Sciascia, 2018) as well as internationally (for example see: cyberhui.org) - the Ka Hao Māori digital technology development fund (Howell & Tang, 2022; The Expert Advisory Group, 2016) is an example of indigenous collaboration.

The expedited access to international networks also provides a significant contribution to the ongoing protection of rangatiratanga and the preservation of Māori cultural elements:

Being able to reach out internationally when there is cultural abuse or cultural theft, say. A common example is in Europe; now it is very easy to reach out to the media in those countries, and the media, they take our side, they run our stories, and all those things were never possible, before then we have maybe heard about it in the newspaper or when someone came back a few months later from that country – Taiuru.

The Lego appropriation was one of the first instances in which the internet provided a means by which to address these issues quickly with international media attention. #IdleNoMore showed people how the internet's power could be harnessed to collectivise and address critical issues facing indigenous (minority) populations (Barker, 2015; Graveline, 2012; Tupper, 2014). Subsequently, several other situations have been called out in the media, like the appropriation of tā moko (Brown, 2022), art (Deguara, 2020), haka (Alves, 2021; Jeong-yeo, 2018; Kronast, 2020), and all forms of appropriation (Brown & Nicholas, 2012) that have some type of financial benefit for those exploiting Māori culture. However, as Taiuru points out, the internet does have a role in halting cultural appropriation by publicising such behaviour thereby resulting in appeals for the behaviour to cease (Ling, 2022; McLachlan, 2020). Taiuru's work online (www.taiuru.maori.nz) discusses many issues of cultural appropriation, intellectual

property (Taiuru, 2021a), and the WAI 262 Claim (The Waitangi Tribunal, 2011, 2011, 2011). Ultimately, the internet provides a massive platform for digital activism by Māori and minority populations (Brown & Nicholas, 2012; Waitoa, 2013), as seen in the power of the recent revitalisation of the #BlackLivesMatter movement following the death of George Floyd in America (Lebron, 2017; Taylor, 2016), #NoDAPL movement that opposed the Dakota Pipe Line through Standing Rock in America (Estes, 2019; Estes & Dhillon, 2019; Gilio-Whitaker, 2019; Steinman, 2019), #ProtectIhumatao the protest of the selling of iwi lands in south Auckland (Hancock et al., 2020) or the consciousness-raising of Tina Ngata (Ngata, 2020a, 2021b) and Te Pāti Māori²⁹ (Dreaver, 2021) about extremists online.

9.2.2 TE ARA RAUEMI: DEVELOPING RESOURCES

The internet provides critical opportunities for Māori innovation that can lead to the consolidation of our worldview as well as our understanding of the world in ways that are meaningful. According to Taiuru applying pūrakau to modern technology as ‘epistemologies of data’ is a great way to convey key cyber-safety and cyber-function ideas to Māori children. Whether it is to view our knowledge of the multiple heavens as layers of radio frequencies, likening our devices to fortified pā or Tāne-mahuta’s quest to retrieve the baskets of knowledge and being challenged by his brother Whiro and Māui stealing the voices of his aunties of the four winds; there is the opportunity to develop critical resources and realign key messages for Māori. However, Taiuru also identifies some of the challenges for Māori children who might not be as familiar with Māori narratives (as a result of colonisation and disconnection to Māori knowledge and lifeways). Keegan encourages children and whānau to use te reo Māori as much as possible with the technology:

We’ve taught the computer to understand English. We have taught it to understand all these other languages of the world. Fundamentally, it is quite straightforward to teach it to, to speak Māori, to understand Māori - But who has the time and the energy to do that kind of thing? – Keegan.

²⁹ New Zealand political party

At one point, Keegan reached out to Facebook to develop a te reo Māori interface (as other languages have available to them) and identified the large number of Māori utilising the platform. Using his personal networks, he was able to converse with the language interface manager of Facebook, who acknowledged that ‘smaller languages’ never get fully completed by the translation team partly due to a lack of available time by the proponents of the language, which is the situation for te reo Māori. Keegan still has a concern for the online spaces in the English language (Keegan et al., 2004), which suppress te reo Māori is evident in the lack of ability to advertise online in te reo Māori (Kohere, 2022). For his PhD research, Keegan (2007) established that te reo Māori use on the internet could be encouraged by setting te reo Māori as the default language of a website:

What was happening in the months that the default language was Māori, there was a much higher Māori language usage, and then in the months that the default language was in English, there was a much higher English usage. So it kind of said to me that if we can encourage people to use it in a particular language, they will... a much more important thing I noticed was that when people used the interface in Māori, they used it in a different way... So changing the language changes the characteristic of the usage, and I noticed it out of the newspaper, and then I started watching people who were bilingual and how they were reacting – Keegan.

The potential to develop resources that positively contribute to Māori development is vast. Some other areas noted as sites for further development include e-learning (Durie, 2004; Hond, 2004; Neal & Collier, 2006; New Zealand Council for Educational Research, 2004; Royal, 2005; Tamati, 2008; Tiakiwai & Tiakiwai, 2010), Māori medium ICT (Murphy & Reid, 2016), language revitalisation resources (Calude et al., 2020; Ka'ai, 2017; Ka'ai et al., 2006; Ka'ai-Mahuta, 2012; Mahuta, 2017; Moorfield, 2017; Taiuru, 2017), art and artefact repositories (Brown & Mané-Wheoki, 2001; Reihana & Devenport, 2009; Whaanga, 2017; Whaanga et al., 2015), technologies (Mirza & Sundaram, 2016), and cultural repositories of information (Greenwood et al., 2011; Reihana & Devenport, 2009). These sites are supported by existing developments such as databases (Māori land, Māori newspapers, Māori Land Court minute books) and internet voting (Bargh & Rata, 2020). Even though Māori access to the internet can be

inequitable, further developments for Māori are possible in terms of information gathering online where previous surveys involving Māori participants have already been completed, including health professionals (Harding & Oetzel, 2021), alcohol use (Clarke & Ebbett, 2010), cellphone use (Atlas, 2020), and smoking cessation (N. Walker et al., 2019). Other forms of Māori digital creation are apparent in the work of organisations like Kiwa Digital, Māori NFT creation (Taiuru, 2022b) and gaming (Jacobs, 2022; Shepherd et al., 2015). A focus on Māori workforce development for the IT sector will be critical to advance Māori engagement in the sector (Díaz Andrade et al., 2021; Kamira, 2003; New Zealand Digital Skills Forum., 2021; Waetford, 2004).

Given the intention and direction of Māori data sovereignty, the protection of and possibilities for collecting Māori data provide dynamic insight into critical areas for Māori development. This is supported, for example, by the development of a data toolkit, 'Ngā Tikanga Paihere', for New Zealand government agencies to manage data (Statistics New Zealand., 2020).

Creativity

Māori innovation can be found across the spectrum of Māori engagement with the internet, especially when Māori have the financial capacity to develop independently:

there's so much potential for what we could do... and what I can see is when we have the pūtea [finance] and can do what we want, we are just way more creative
– Soutar.

This idea is linked to current New Zealand digital development initiatives such as Ka Hao³⁰ (Howell & Tang, 2022; The Expert Advisory Group, 2016) for eCommerce. However, government insistence on forbidding Māori to exercise rangatiratanga (through all levels of decision making) inhibits Māori growth and creativity. Broederlow states that the development of Māori-In-Oz came from a desire to connect home and has witnessed Māori innovation online. Taepa reflects on an example of Māori agility and creativity to provide internet access in a remote rural location where local Māori obtained and relocated a discontinued cell tower:

³⁰ See: www.kahaoecommerce.com.au and www.digitalnatives.co.nz

there's this tower in the middle of the Urewera's [location in New Zealand]... that feeds the ipurangi to the valley and then down to the kids. The way in which we are going, I'd hope these discussions around us having the ability to have kaitiakitanga over these things - Taepa.

Both Soutar and Taepa comment on situations that identify Māori innovation when Māori are allowed to express rangatiratanga and kaitiakitanga (guardianship) that contribute to collective well-being for Māori. Soutar in terms of education resource development, and Taepa in terms of direct access in remote locations.

9.2.3 TE ARA TŪHONO: CONNECTION

Greater access and connection to the internet can facilitate several areas of development for Māori. If the inequities that impinge on Māori engagement online are addressed, there is no limit to the potential for Māori growth.

The newest form of internet is the development of 5G (fifth generation) that facilitates “augmented reality, high-resolution video streaming, self-driven cars, smart environment, e-health care” (Shafique et al., 2020, p. 23022) and a host of possibilities for Māori development.

Things like the 5G spectrum... there's a really good opportunity to use that spectrum back at our marae, whether its rural or whatever, and actually upskill our people in 5G technologies, and there's no reason why we shouldn't and can't do it – Taiuru.

5G technology also facilitates better/faster connection online, contributing to learning and general forms of connecting (Attaran, 2023). Online learning has long been an area of development for Māori, as Māori education outcomes are poor (Tomlins-Jahnke & Warren, 2011; Warren, 2014); e-learning has been explored at length to ensure pedagogy leads to successful learning for Māori (Hond, 2004; Karaka-Clarke, 2020; Keiha, 2008; Maharey, 2002; Neal & Collier, 2006; New Zealand Council for Educational Research, 2004). From the days of distance learning via KAWM, as Soutar has noted, the internet offers more options for learners who face the inequities of distance:

Access to learning. Most universities I am aware of have online learning, which gives us when we have whānau out in the country who cannot come to town, they can learn online – Taiuru.

Maintaining our connection to each other and all forms of whanaungatanga means there are enormous opportunities for Māori to bridge the digital divide. This was shown with many whānau during the COVID lockdown who were separated from each other:

if our kaumatua and our leaders actually knew and understood the internet properly, it might actually encourage more of our people to use the Internet and use it properly – Taiuru.

Connecting with whānau overseas remains a crucial area to be further developed. For example, Broederlow attended a tā moko hui in Brisbane where a wahine [woman] who had lived in Australia for 37 years was yearning to learn about identity as Māori. The wahine asked how to do this, and Broederlow was surprised because, in her view, so much information is available online:

The manaakitanga - we are always supporting one another in this virtual space. I love that. I love the fact that just because we are here in Australia doesn't mean that we can't continue to share our tikanga online. We have a lot of generations, three or four generations, that are born and raised here. And those tamariki grow up hungry [to learn about Māori culture]– Broederlow.

Such connections provide huge potential for developing skills in the IT sector, and Taiuru also identifies potential for eCommerce.

Business Opportunity

Business development is an important area for Māori development. There are opportunities to develop IT skills, to commercialise the IT skills through online teaching and learning, to share business and cultural projects, marketing and promotion, and to

invest in the spectrum block ourselves with companies such as 2degrees (telecommunications):

I think there are plenty of opportunities: for tourism; marae projects like mara kai with 100% organic kai being grown at the marae; I think there are chances to showcase that online; create viable businesses for our whānau – Taiuru.

There has been significant growth for Māori online, especially in utilising internet platforms to achieve a wide reach. The government investment in Ka Hao (Howell & Tang, 2022; The Expert Advisory Group, 2016) is perhaps the first indication that Māori can thrive in eCommerce, as the initiatives such as 2Nui Code (Walker, 2017) and Te Kiwa Digital (Lemon, 2017) look to increase Māori development skills, and social media platforms provide a crucial forum to promote Māori business online – as in the case of the Facebook page Buy Māori Made (@buymaorimade):

I think there is huge potential for both commercial returns and each educational purposes, business opportunities, and for some of our marae who do not have Internet access. I see it as a perfect opportunity to commercialise things even by having wānanga for any of the people who want to learn about the technology thing... we have got a lot of clever people out there who could really benefit from this and then take those skills anywhere in the world – Taiuru.

And as the internet and social media takes off, Māori writers also identify digital marketing as a highly used medium for digital marketing (Haurua & Rangiwai, 2020; Niland et al., 2017), an addition to the eCommerce capabilities.

9.3 CONCLUSION: CHALLENGES AND POTENTIAL

Several key observations emerge from the participant interviews for consideration of Te Toi Huarewa and Te Ara o Tāwhaki. The necessity of research like **Ipurangi** is emphasised by the scarcity of literature and studies that pay attention to the internet. We view the internet as a new space that is actually an old space for Māori when we acknowledge the impact of colonisation on Māori capacity to live between Ranginui and Papatūānuku. This chapter has highlighted key areas of challenge that can diminish

Māori capacity and capability online; both are Te Toi Huarewa and iTāmi aspects that Māori need to be aware of constantly. Rangatiratanga and Mana Motuhake are key points of contention for Māori and the internet. However, the potential for Māori to flourish online are outlined in Te Ara Tāwhaki, where areas for further development include: Te Ara Rangatiratanga, pathways of potential for rangatiratanga, Te Ara Rauemi, pathways of potential for resource development and Te Ara Tūhono pathways of potential for connecting.

The critical areas of discussion for Te Toi Huarewa and Te Ara o Tāwhaki recognise the dichotomy of the internet for Māori engagement online, which are identified by Māori leaders on (and in) the internet.

CHAPTER 10 CONCLUSION: IPURANGI, MĀORI AND THE INTERNET

Taku wahine purotu, taku tāne purotu, kōrua ko te tau e!

10.1 IPURANGI: MĀORI, THE INTERNET, AND IMPLICATIONS FOR TIKANGA MĀORI.

In Māori cosmo-genealogical narratives, Tāwhaki ascends through the heavens via **Te Aka Matua** to obtain new knowledge (Mead, 1996). Throughout this thesis, **Ipurangi**, the journey of Tāwhaki conceptualises this customary narrative to describe contemporary Māori engagement with the internet. Technically, the internet functions between physical devices and cables and airwaves. This function provides a global interconnected network with access to ‘new worlds’ – such worlds as those described in customary Māori narrative and referenced in the *oriori – pinepine te kura*. This oriori has been used as a conceptual framework for this thesis which I have termed **Ipurangi**, in order to guide the development of thought and analysis throughout.

Pinepine te kura, hou te kura, Chapter One introduced the foundations of this thesis that positions me as the researcher and describes the genesis of the idea that underpins this study; my concern as a parent for the colonising implications of the internet for my daughter, coupled with a critical conversation on the possibilities of the internet for tikanga Māori.

Whanake te kura i raro i Awarua, Chapter Two located the internet within Māori epistemology and develops a new theoretical understanding of the internet, including the concepts of – **iWhakaaro**, Kaupapa Māori internet theories and **iTāmi** Kaupapa Māori eColonialism.

Ko te kura nui, ko te kura roa, ko te kura o tawhiti, Chapter Three explored the methodological basis for this study. **iRangahau** was employed as a Kaupapa Māori approach to internet research and Kaupapa Māori cyber-ethnography, including the parameters for selecting Māori critical internet users as interview participants.

Tēnei te tira hou, tēnei haere mai nei, framed Chapter Four as an examination of existing studies of Māori and the internet in the literature, and summarised the key themes found across the studies.

Nau mai e tama ki te taiao nei, Chapter Five provided the context of Māori engagement with the internet as identified by critical Māori exponents that aligned to the broader literature. For example it was found that Māori customary practice such as karakia and kawa can guide online thinking and behaviour, as well as Māori institutional contexts such as whare and marae. Five key areas emerge for consideration regarding Māori engagement with the internet: information sharing, connecting with others, COVID-19 as a catalyst and enhancer, practical benefits of the internet and cautions about the internet space.

Kia whakangungua koe ki te kahikātoa, ki te tūmatakuru, Chapter Six distinguishes key tikanga Māori as experienced by the interview participants. The study found that tikanga Māori are flexible and adaptable when expressed online, with the ability of Māori institutions like karakia and marae protocols to recenter Māori wellbeing and engagement online. Moreover the idea of personal responsibility online is reflective of colonisation on Māori populations in so much as Māori knowledge of tikanga Māori and our ability to actively implement tikanga Māori online. Overall, these findings show that this aspect is often challenging for Māori engagement online.

Piki ake kake ake, Chapter Seven, explored the duality of the internet for Māori engagement. Premised on the whakatauākī of Whaitiri (the grandmother of Tāwhaki), **Te Aka Matua** outlined the positive contributions of the internet that support Māori development, and **Te Aka Tāepa** described the aspects of the internet that detract from Māori engagement. The study found that COVID-19 was a catalyst for increased Māori engagement online, where the critical components of **Te Aka Matua** were whanaungatanga and information sharing. Furthermore, **Te Aka Tāepa** identified those aspects that require caution involving: transgressions of mana and tapu, impacts on Māori wellbeing, safety, security, misinformation and online hate, addictive behaviour, and lack of resources for Māori.

Te Toi Huarewa, Te Ara o Tāwhaki i piki ai ki runga, Chapter Eight described **Te Toi Huarewa** as the challenges that diminish Māori engaging online; and the binary **Te Ara o Tāwhaki** as the pathway of potential for Māori engaging online. The main challenges identified in **Te Toi Huarewa** relate to how Rangatiratanga and Mana Motuhake are contested online. By contrast, **Te Ara o Tāwhaki** highlighted those key aspects of internet use that hold potential for Māori development to flourish such as rangatiratanga, resource development, and connection.

Taku wahine purotu, taku tāne purotu, korua ko te tau e. This final chapter summarises the findings and analysis of **Ipurangi** and outlines the development of the Kaupapa Māori lexicon at the intersection of Kaupapa Māori research and cyberspace. In particular, this chapter discusses the content as pertinent to Māori, revises **Te Aka Matua**, **Te Ara o Tāwhaki**, **Te Aka Tāepa**, **Te Toi Huarewa** to develop **ipuRangi: A framework** for critically assessing Māori engagement with the internet; and **īTikanga** as a guide to personal etiquette for engaging online. Finally, the chapter identifies several areas for further research.

This chapter also uses bold text to highlight key ideas produced by **Ipurangi**, which include:

- The lines from the *oriori* – **pinepine te kura** that outline each chapter;
- Kaupapa Māori lexicon **īRangahau**, **īTikanga**, **īWhakaaro**, **īTāmi**, **īAhurea**, **īTuakiri**;
- **Ipurangi** to identify the framework developed from the findings of interviews;
- **Te Aka Matua** (Threads of Affirmation: **Te Aka Kōtui** whanaungatanga, connection, information access and practicality; **Te Aka Pā** information sharing, karakia and learning), **Te Aka Tāepa** (Threads of Caution: **Te Aka Mōrearea** safety issues, self-regulation, disconnection, and open source information, **Te Aka Whakaraerae** issues of security, power/autonomy, misinformation, lack of authenticity, **Te Aka Raukoti** issues of time management and addiction, lack of resources, unknown impacts), **Te Ara o Tāwhaki** (Pathways of Potential: **Te Ara Rangatiratanga** cultural development, **Te Ara Rauemi** resource development and creativity, **Te Ara Tūhono** whanaungatanga and iPākihi/eCommerce), **Te Toi Huarewa** (Challenges to Engagement: **Te Toi Tāmi** challenges to Māori self-determination and Māori cultural aspects (mana and tapu); **Te Toi Pori** challenges to physical relationships, safety and security).

10.2 THE CONTEXT OF MĀORI ONLINE

Māori engagement with the internet facilitates two significant cultural values – whanaungatanga and information sharing. During the COVID-19 pandemic, the internet provided an important method for whānau and friends to remain connected. Whanaungatanga is a significant cultural value for Māori that can be applied and

mediated by the internet. Information sharing via the internet was found to form a significant part of Māori engagement, a modern form of technology that has evolved since first contact and evolution of early manuscripts by Māori in the 1800s. As *kōrero tuku iho* is central to the Māori world, it is argued that online information sharing across a range of forums and institutions, is therefore a critical characteristic as confirmed in the literature. The practicality of the internet in terms of information retrieval and connection is another major contributor, especially for Māori who are engaged across many kaupapa. In this way, the internet has allowed expeditious engagement with people for hui or information gathering. Participants noted that with many of the positive contributions the internet makes, there are also associated cautions (discussed in **Te Aka Tāepa**) Māori must be aware of in terms of the ‘pros and cons’ that come with using the internet, and to be aware of the implications for tikanga Māori.

10.3 TE AKA MATUA, TE ARA O TĀWHAKI AND THE POTENTIAL OF THE INTERNET

Te Aka Matua identified two significant **aka** (threads) that contribute to Māori engaging online. Reaffirming the context of the internet for Māori, **Te Aka Kōtui**, threads of whanaungatanga and **Te Aka Pā** threads of information sharing/dissemination are shown to be critical and enduring tikanga Māori that generalise Māori engagement online. **Te Ara o Tāwhaki** extends the possibilities of the internet for Māori engagement and recognises that there are three distinct **ara** (pathways) for Māori development through the online environment: **Te Ara Rangatiratanga**, pathways for self-determination; **Te Ara Rauemi**, pathways for resource development; and **Te Ara Tūhono**, pathways of connection (Figure 5).

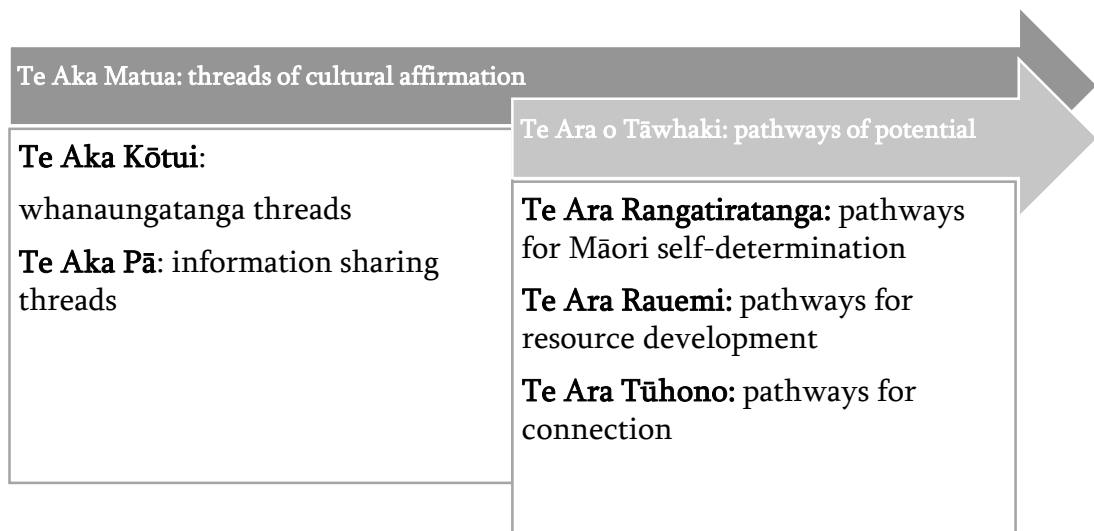


Figure 5: Kaupapa hāpai (positive attributes of the internet)

10.4 TE ARA O TĀWHAKI: THE PATHWAYS OF POTENTIAL

As technology evolves, there is a need for Māori to discuss and develop ways in which rangatiranga is maintained in the internet space, particularly the need to articulate distinctly Māori approaches online. There are current conversations around the formalisation of cultural paradigms on the internet, such as atua and kawa (as identified in interviews). However, there is a need for broader conversations and wānanga to occur in order to establish online Māori cultural expressions and Māori measures of self-determination. Specific areas for addressing are atua related to the internet, kawa appropriate for the internet, and guiding principles for online engagement.

10.4.1 ARA MAI TE ATUA: ESTABLISHING THE DOMINION OF ATUA

There is potential for cultural nuances to be established online utilising atua to frame the parameters of Māori engagement. As with all natural environments, Māori perspectives and interactions with these spaces operate within the cultural paradigm of an associated atua. For example, the forests are the dominion of Tāne Māhuta, oceans and seas of Tangaroa and Hinemoana. The whakapapa connections for considering Māori deities as connected to data, include for example, Tāne Māhuta as the deity who retrieved knowledge from the heavens; Tangaroa and Hinemoana as connected to the oceans' data cables; Tāwhirimātea as the being of the sky and winds related to 'wifi'; Whiro the deity who challenged Tāne on his journey (Taiuru, 2021c). The subject of atua Māori,

however, requires a broader discussion in order to understand and collectively conceptualise the internet space as being situated within Māori understandings of the world, and to consolidate Māori worldviews within cyberspace as grounded in their local iwi, hapū, and marae epistemes.

10.4.2 ARA MAI TE KAWA I TE IPURANGI: INVOKING PROTOCOL

A critical endeavour for the safety (spiritual or otherwise) of Māori engaging online is the development of kawa. The research found that kawa should be developed to embed and (re)indigenise the internet space, which was described by several participants as approximating a marae context. While this primary area for development is beyond the capacity of this thesis, as discussed in Chapter Six, it is identified here as an aspiration that would contribute to Māori online development. While reference was made to the internet space as a marae., participants were not aware that a formal ritual has ever taken place specifically for the internet that is similar to the rituals that would take place for the opening of a marae. Such ceremonies, *tā i te kawa*, clear the metaphysical space, imbue it with the aspirations of the community, and reset the spiritual space. This formality accentuates *mana atua*, affirms *mana whenua*, and provides the principles for *mana tangata*, human interaction. Applying this ritual would truly reflect aspects of the internet from a Māori worldview. This process would involve *wānanga* of *tohunga*, which can reawaken the spiritual dimensions and reaffirm Māori structures such as **Te Ara o Tāwhaki**. The institutions, such as **Te Ara o Tāwhaki**, have been relatively dormant for many Māori due to the process of colonisation. However, as Māori continue to engage in larger numbers in the internet space, it is important that appropriate cultural protocols are undertaken for the domain.

10.4.3 ARA MAI TE MATĀPONO: GUIDING PRINCIPLES

Determining the parameters of Māori cultural engagement online would assist Māori engaging and guide the expression of *tikanga* Māori in the internet space. Local variations of what is appropriate and what is not would precede a singular universal application. Those institutions should define guidelines for iwi/hapū/marae pluralism—methods of ensuring that critical cultural values such as those described in this thesis are essential. The analysis of the interview data finds that the values of *whanaungatanga*,

kōrero tahi (information sharing), mana and tapu are enhanced in online engagement, but caution that we should be aware of interactions that undermine rangatiratanga, mana motuhake, mana and tapu (such as safety, security, adequate management). The research found that karakia and marae protocols provide a crucial platform to consider online engagement and varying forms of online behaviour that are the result of the impacts of colonisation, which has enforced Māori disconnection from Māori cultural paradigms. Analysis of the interviews discloses critical values that can be applied to Māori expression online:

- The aspiration for ‘whiti ora’ (wellbeing), both individual and collective wellbeing, as derived from karakia. This includes the expression of manaakitanga (demonstrating aroha, hospitality and support to others),
- Mana enhancing behaviours which affirm the idea of acting in a manner that is respectful and not harmful to others,
- Acknowledgement of tapu and the appropriate calibration of behaviour to respect the sanctity of people, places, objects and information.

Each of these values is expressed in multiple ways in karakia and marae settings, sometimes nuanced and sometimes explicitly. However, for those who are disconnected from (or reconnecting with) whānau, hapū, iwi and marae, these values provide a starting point to anchor online behaviours as Māori. Hence, for those who understand karakia and marae protocols the same aspirations and expectations should be applied to online engagement.

10.4.4 TE ARA RANGATIRATANGA

How do we express rangatiratanga online? Te Mana Raraunga (Māori Data Sovereignty Network) are currently addressing some of this work. Yet, broader national discussions, which include whānau, hapū and iwi, are needed to identify fundamental Māori aspirations with the internet and concerns facing Māori communities. Moreover, any future discussions need to include education strategies for whānau concerning the potential and the hazards of the internet space. Overall, these broader discussions can outline Māori aspirations and responses to barriers. The internet space is developing rapidly and as such, maintaining rangatiratanga in this space is critical.

As developed in Chapter Two, iŦāmi recommends that Māori engagement with the internet and the expression of rangatiratanga on the internet must consider the broad impacts of colonisation and coloniality by analysing:

- a) what are the economic and social implications for land, technology, capital and labour (means of production);
- b) who controls, benefits, exchanges and distributes data/technology (relations of production); and
- c) what is the role of law, education, religion and ideology as related to data/technology (ideological and political superstructure).

Advancing Māori self-determination is an ongoing project, and areas for further development of rangatiratanga online include increasing Māori participation across the technology landscape. Advancing on from the aspirations of Te Mana Raraunga would include, for example:

- a) increasing the Māori workforce engaged in internet spaces (labour), Māori development of technologies to advance Māori aspirations (technology), Māori governed funding, and Māori return on investments (capital), Māori based institutions on Māori owned lands, and resources derived from the Māori land base which should be acknowledged and compensated appropriately (land),
- b) Māori ownership of the relationships and means of production (expropriation), Māori control of the relationships and means of production (control), Māori determination of relationships of trade and exchange (exchange), Māori distribution of produce and benefits (distribution),
- c) Māori determination of laws associated with the internet (law), Māori knowledge production about the internet (education), validity of Māori understandings and philosophies associated with the internet (ideology), the sovereignty of Māori beliefs and customs for the internet (religion).

Te Ara Kawana: Government policy

The study found that government policy and support for Māori aspirations within the internet space could be advanced further. For example, there is space for improving Māori participation across the internet through funding allocations to Māori

representations on national agencies. For Māori to be meaningfully included in government policy related to the internet, requires a fulfilment of the provisions of Te Tiriti o Waitangi and courage on behalf of the government to uphold them.

With this in mind, active Māori participation in government policy related to the internet is necessary to manifest rangatiratanga as characterised by the objectives of Te Mana Raraunga (Te Mana Raraunga - Māori Data Sovereignty Network, n.d.) and as an expression of Māori as Treaty Partners. This requires workforce development and governance inclusion across the internet industry (New Zealand Digital Skills Forum., 2021; Williams, 2020). On a larger scale all agencies proposing to represent the New Zealand population must also uphold Treaty obligations as good Treaty partners; agencies like Internet New Zealand and NetSafe NZ could develop better partnerships, better research teams and better data collection processes that include Māori as partners.

Te Ara Tāwahi: International connection

Building international connections, particularly with indigenous communities, will allow Māori to discuss collective approaches towards navigating the various internet challenges that face populations. On a broader scale, establishing key relationships is one way to gain further insight into internet challenges and develop creative solutions for them. While there are international indigenous groups who meet often (e.g. World Indigenous People Conference on Education (wipce2022.net), Native American and Indigenous Studies Association (naisa.org), International Work Group for Indigenous Affairs (iwgia.org/en/), and Indigenous Digital Excellence (@IndigenousDX)), the ability to meet collectively and discuss internet issues could be advanced through the attending of forums like the Internet Society (internetsociety.org) or Indigenous Digital Excellence (ncie.org.au).

This would enhance Māori participation in the social relationships (relations of production) involved in the internet economy on an international scale and provide insight into Māori perspectives of framing and dealing with the challenges facing indigenous populations.

10.4.5 TE ARA RAUEMI: RESOURCE DEVELOPMENT

This research found that there is a dearth of resources for Māori and the internet, however the ongoing development of resources is particularly important for cyber-safety, counteracting cyber-bullying and maintaining cyber-security. Yet, to-date, there has been a lack of research conducted on this issue, therefore, additional research about Māori and the internet is necessary.

Moreover, there is also a need for te reo Māori resources to be developed across the sector. Where resources are being developed (e.g., education, health, security), it is critical for Māori contributions to be present in order to reflect Māori cultural values, te reo Māori, and express Te Tiriti o Waitangi. It is noted that there are so few online resources about Māori that any development would be helpful.

However, the findings from this research confirm that the priority areas for resource development are around the context of the resources, that resources must have a Kaupapa Māori focus, and draw on Māori philosophy to contextualise the information. With the latter being demonstrated in this thesis via the alignment of Māori creation narrative and atua to communicate critical messages and understandings of the internet to Māori audiences.

Te Ara Hua Mai: Unleashing Māori Creativity

Ko Māui Hangarau (kmh.nz), Kiwa Digital, 2Nui Code, and Marae Mariko are examples of Māori creativity online which could be further encouraged both online and in the ICT space. However, a typical challenge to Māori development is the restriction of funding and the imposed regulations required for reporting, which adds unnecessary pressure to teams seeking to develop creatively in the ICT space. External leadership has to find the courage to trust in quality Māori leadership to produce creative Māori content that articulates te ao Māori, and in a manner that does not compromise its authenticity with colonial traits.

The caution for Māori is to apply **iWhakaaro** and be aware of **iTāmi** theory ensuring that all developments are founded on Kaupapa Māori principles. This would ensure that developments are not mere reflections of Pākehā processes but fully based on tikanga Māori, Māori philosophical understandings and the expression of Māori values. The issue can be mitigated by strengthening leadership that positively contributes to Māori.

10.4.6 TE ARA TŪHONO: CONNECTION

This research highlights three key areas relating to connection, which are identified as spheres to be addressed for Māori participation online. First, individual access to the internet; second, physical access to the internet; and third, opportunities for **iPākihi** (Māori eCommerce).

Individual access to the internet: Many Māori currently have access to the internet via home connection, mobile networks, work-places, or free public access spaces. However, COVID-19 highlighted the lack of individual internet access for Māori, as evident through issues around online teaching and learning (Aiko Consultants Limited, 2020; Brown, 2020; Education Review Office, 2021b; Houkamau, Mika, et al., 2021; Hurihanganui, 2020; Ministry of Education., 2021). This enigma requires further examination and information collection to ascertain the exact factors facing Māori and why some information identifies Māori internet access as high, in contrast with, access during COVID-19, which was considered poor. While these findings are skewed, there could be many reasons for this, including different aims, objectives, and collection methods, different agencies collecting information, inappropriate or unsuitable questions for identifying the nature of internet facilities being accessed, or a small or skewed participant sample. Nonetheless, the discrepancies across findings show that national agencies either do not know how to conduct research in a manner that is considered rigorous, robust and culturally appropriate, or they simply do not care enough. Either way, addressing the digital divide remains a crucial need.

Physical access to the internet: Physical access to good internet connections and 5G for Māori communities needing access to internet services must be assessed and facilitated. However, it is important to note that some areas and communities may not wish for internet access to interrupt their communities; some of my uncles and aunts prefer this option at the marae so that people talk to each other instead of communicating via screens. Yet, others would like to facilitate iwi and marae online hui from the marae itself and encourage online iwi participation in hui like Annual General Meetings. Overall, regardless of the intention, individual and collective access provides a critical method of connecting each other to worldwide information and is a mitigating factor for those for whom physical distance remains an issue.

iPākihi –Māori eCommerce: Māori have always been entrepreneurial (Warren, 2009), and as mentioned earlier in this thesis, it is in the spirit of business endeavours, that **iPākihi** is considered a vast area for Māori development. Kia Hao currently works towards encouraging eCommerce among Māori, however, it is uncertain whether the eCommerce training incorporates Kaupapa Māori approaches or centres Māori business as a defining cultural factor of Māori business (as identified by (Mika et al., 2019)). The Māori business portfolio amounted to \$50 billion in 2017 (Chapman Tripp, 2017), but, it is unclear what percentage of this pertains to Māori eCommerce, or the potential amount for growth in the **iPākihi** space. Overall, the ability for Māori businesses to participate in a global economy without the traditional marketing budget and sell items from the palm of the hand, creates opportunities now more than ever. Moreover, the growth of Māori in this sector presents an exciting development, even more so with small Māori businesses gaining international reach that is mediated through the internet. The challenge here will be maintaining Māori authenticity while battling international copyright issues (as identified in Chapter Eight). Therefore, there is an urgent need to grow Māori capacity to safeguard Māori services and products internationally through international legal channels.

Te Aka Matua and **Te Ara o Tāwhaki** recognise that there is space to develop distinct cultural paradigms online: **Ara mai te atua** identifying relevant atua online, **Ara mai te kawa** instilling cultural, spiritual pillars online, **Ara mai te mātāpono** developing fundamental Māori cultural values for online expression; **Te Ara Rangatiratanga** to reaffirm Māori self-determination through government policies and agencies and the establishment of international relationships; **Te Ara Rauemi**, developing relevant resources for Māori communities; and **Te Ara Tūhono** developing individual and collective pathways to access the internet; all of which present legitimate pathways that facilitate Māori flourishing online.

10.5 TE AKA TĀEPA, TE TOI HUAREWA: CHALLENGES ONLINE FOR MĀORI

Te Aka Tāepa identified challenges among Māori populations about the internet; **Te Aka Mōrearea** outlined safety issues for Māori, **Te Aka Whakaraerae** demonstrated security issues; and **Te Aka Raukoti** outlined where better management is required.

Te Aka Mōrearea recognises that Māori safety issues include the sanctity of knowledge and the disconnection of Māori from our inherent cultural instructions. The internet is acknowledged as a space that tupuna, such as Tāne and Tāwhaki have engaged. Māori, therefore, must remember the ancestral abilities to navigate the internet and act in a manner that enhances wellbeing (kia whiwhia kia rawea) rather than in a manner that diminishes wellbeing. As such, we must be aware of our agency to act in ways that are tika and pono, be aware of our ability to impact those we are connecting with and be cognisant of the hazards of the internet. While we are still healing from the impacts of colonisation, we must also be more aware of basic notions of tikanga Māori, implement them as best we can on the internet, and critically reflect on how we implement tikanga Māori to adjust as necessary. **Ipurangi** has identified a lack of the expression of tikanga Māori, where Māori either cannot, or do not, act in ways that express tikanga Māori and cultural value systems, and therefore act in ways that are detrimental to personal mana and tapu, which are ultimately reflective of colonialism.

Te Aka Tāepa identified that mana and tapu are critical areas that can be transgressed online, and examined several areas that impact the ability to be Māori online, including Te Aka Mōrearea (hazards), Te Aka Whakaraerae (security), Te Aka Raukoti (management). The implication of experiencing issues online therefore requires a Kaupapa Māori response. The suggestion from research participants is to establish appropriate kawa and tikanga to guide Māori behaviour online, which would act as a countermeasure to the impacts of iTāmi. **Te Toi Huarewa** identified that two major concerns for Māori exist: Te Toi Tāmi (challenges to rangatiratanga) and Te Toi Pori (contests to mana motuhake). These issues highlight broad impacts of iTāmi experienced by Māori online and require constant monitoring in order to uphold tikanga Māori, Māori values, rangatiratanga and mana motuhake.

Te Aka Tāepa and **Te Toi Huarewa** represent challenges to tikanga Māori and Māori engagement online which are summarised as ‘kaupapa kaupare (diminishing attributes of the internet)’ outlined in Figure 6.

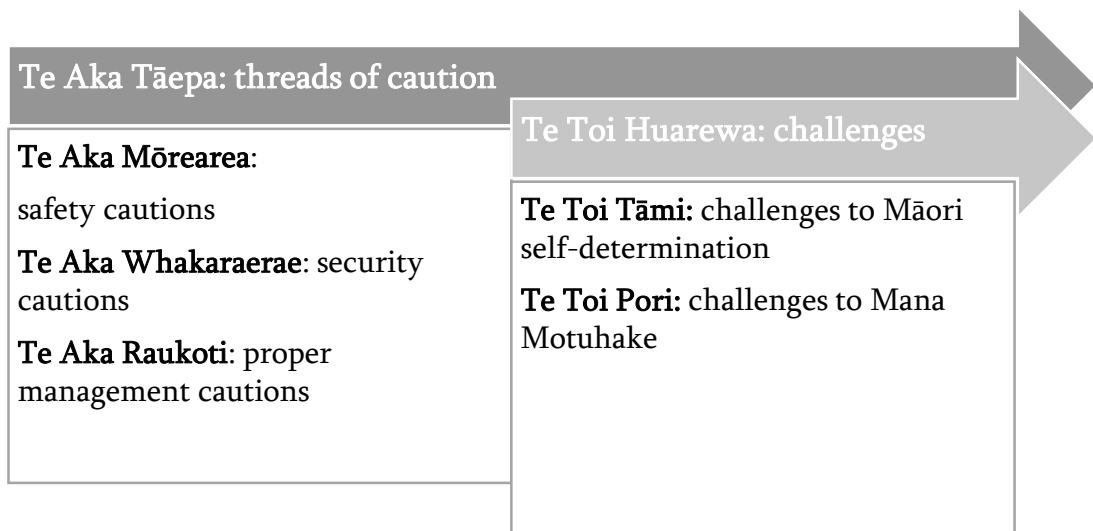


Figure 6: Kaupapa kaupare (diminishing attributes of the internet)

10.6 IPURANGI: A FRAMEWORK FOR ASSESSING MĀORI ENGAGEMENT WITH THE INTERNET.

All positive aspects of the internet, as identified with **Te Aka Matua** and **Te Ara o Tāwhaki**, exist in duality with **Te Aka Tāepa** and **Te Toi Huarewa**, where Māori potential for development online always bears the potential of **īTāmi**. The internet is, therefore, a binary space that can both support the flourishing of, or cause a diminishing of Māori aspirations to live as Māori. An analysis of the research findings produces **ipuRangi: A framework** for assessing Māori engagement with the internet. This framework is founded upon five tenets of tikanga Māori: kawa, karakia, marae, wellbeing, and personal responsibility and identifies ten key elements for consideration in Table 10.2 below (see Appendix 4 for an exemplar):

Table 10.1: ipuRangi: A framework for assessing Māori engagement with the internet.

ipuRangi: A framework for assessing Māori engagement with the internet.

TE AKA MATUA: (elements of support)

1 Te Aka Kōtui - Connection: how can whanaungatanga, information access, expedience and other positive elements be utilised to support Māori engagement with the internet?

2 Te Aka Pā - Communication: how can elements of information sharing, karakia (to guide), learning and other positive elements be utilised to support Māori engagement with the internet?

TE AKA TĀEPA: *(elements of caution)*

3 Te Aka Mōrearea - *Safety*: *in what ways might the internet negatively impact on mana and tapu, self-regulation, behaviours and conduct, disconnection, open sourcing and other elements of Māori safety for engaging with the internet? And how might those issues be countered?*

4 Te Aka Whakaraerae - *Security*: *in what ways might the internet negatively impact on Māori autonomy, misinformation, authenticity and other elements of security for Māori regarding the internet? And how might those issues be countered?*

5 Te Aka Raukoti – *Proper Management*: *in what ways might the internet exacerbate time addiction, lack of resources, and other impacts for Māori engaging online? What areas require more information? And how might those issues be countered?*

TE ARA O TĀWHAKI: *(potential of the internet)*

6 Te Ara Rangatiratanga – *Self-determination*: *how can the internet be used to advance rangatiratanga for cultural development, in government policy, for international connections and in other areas of potential development with the internet?*

7 Te Ara Rauemi - *Resource development*: *how can the internet be used to create resources to inform Māori users about online safety, to enhance creativity, and support other developments?*

8 Te Ara Tūhono - *Connection*: *how can the internet facilitate beneficial relationships, business opportunities and other developments?*

TE TOI HUAREWA: *(challenges on the internet)*

9 Te Toi Tāmi – *Challenges to Rangatiratanga*: *in what ways might the internet challenge rangatiratanga, mana, tapu and other notions of self-determination online? And how might those issues be countered?*

10 Te Toi Pori – *Challenges to Mana Motuhake*: *in what ways might the internet challenge cultural values like face-to-face contact, personal safety, personal security and other concerns for Mana Motuhake when engaging with the internet? And how might those issues be countered?*

Tikanga Māori: Kawa, Karakia, Marae, Well-being, Personal responsibility (īTikanga).

The dichotomy of the internet must be considered across the sites that facilitate Māori development. For example, te reo Māori revitalisation online might include an analysis as illustrated in Table 10.3:

Table 10.2: Example of Ipurangi framework applied to te reo Māori revitalisation utilising the internet.

Ipurangi: Te Reo Māori revitalisation utilising the internet.

TE AKA MATUA: *elements of support for online language revitalisation*

1 Te Aka Kōtui - connection: The internet can support whanaungatanga and connection among te reo learners and tutors through a myriad of platforms (i.e. Email, Teams, Google Classroom, Facebook). The internet can provide access to te reo Māori information already online, or electronically provided to learners through different platforms. The internet can facilitate face-to-face learning online through platforms (i.e. Zoom, Teams) at convenient times and recorded for later access.

2 Te Aka Pā - communication: The internet provides a method of sharing information. Karakia can be shared online and experienced in realtime across platforms – for learning purposes, and spiritual safety. Learning can take place in realtime online and the internet can act as a repository of knowledge.

TE AKA TĀEPA: *elements of caution for online language revitalisation*

3 Te Aka Mōrearea - Safety: a learning community should have clear protocols for appropriate behaviour to regulate and ensure that actions are mana enhancing. Learners and teachers should be encouraged to engage regularly online and physically face-to-face. Participants should be encouraged to engage with their marae or Māori communities. There should be clear protocols established to manage information online and clear guidelines about whether information is for public consumption or to be kept within the class/whānau/hapū. Karakia should be incorporated to provide spiritual and mental safety, and to provide guidelines for behaviour. Kaumātua should be enabled to participate online.

4 Te Aka Whakaraerae - Security: learning communities should provide clear guidelines to maintain the integrity and sanctity of information shared online, and clear guidelines of expectations in the learning environment. Participants should be aware of the possibility of accessing false information online and there should be guidelines for checking the authenticity of information. There should be a process to encourage holistic wellbeing of participants, especially emotional safety (whakamā and language trauma).

5 Te Aka Raukoti – Proper Management: Online language learning should encourage good time management, and focus. Access should be provided to all necessary resources for learning and good online resources should be identified. There should be an awareness when there is a lack of available resources, and an attempt to create appropriate resources when necessary. There should be a preparedness for unknown factors, which may require further investigation and a pivot in the teaching and learners.

TE ARA O TĀWHAKI: *potential of the internet for language revitalisation*

6 Te Ara Rangatiratanga – *Self-determination*: how can the internet be used for cultural development and influence government policy that impacts online teaching and learning? International connections can be created online to bolster revitalisation efforts for online teaching and learning.

7 Te Ara Rauemi - *Resource development*: Online te reo Māori resources can be created to assist in teaching and learning that can provide internet users with access to appropriate te reo Māori resources. In particular, online safety resources in te reo. Participants should be encouraged to be creative with their use of the internet in teaching and learning.

8 Te Ara Tūhono - *Connection*: whanaungatanga should be encouraged, along with relationships conducive to online teaching and learning of te reo Māori. Relationships could include connecting with others learning te reo Māori and revitalising language in other international communities (including international te reo Māori communities). There is the possibility of creating īPākihi focused on te reo Māori, and resources might be sourced from existing te reo Māori businesses.

TE TOI HUAREWA: *challenges for online language revitalisation*

9 Te Toi Tāmi – *Challenges to Rangatiratanga*: Participants should be aware of issues regarding the control of information and be aware for the potential for cultural information to be appropriated, and for data to be collected across platforms. Safety protocols should be established to counter this and to protect mana and tapu online.

10 Te Toi Pori – *Challenges to Mana Motuhake*: Face-to-face contact should be encouraged among the learning community as well as physical contact with marae. Processes and protocols should be established for, a) the emotional, mental and spiritual safety of participants; and b) the security of participants and their information.

Online teaching and learning of te reo Māori is underpinned by: **Tikanga Māori. Kawa. Karakia. Marae. Well-being. Personal Responsibility (īTikanga).**

10.7 ĪTIKANGA MĀORI FOR PERSONAL IMPLEMENTATION

Upon reflection the views of critical Māori exponents utilising the internet, that emerged from this study provides some key ideas related to Māori participation online as Māori – despite an individual’s connection or disconnection to te ao Māori. The following shows individual **īTikanga** derived from notions of Māori citizenship (Warren et al., 2017) and **Ipurangi** research findings that can be implemented to guide personal online engagement:

Table 10.3: *īTikanga, A framework for personal implementation online*

Mana Atua: <i>reaffirming mana atua</i>	
	<ul style="list-style-type: none"> - Seek to encourage well-being online - whitiwhiti ora (as indicated in the words of karakia) seeks to facilitate positive engagements that are mana-enhancing rather than actions that are destructive. - Acknowledge the tapu of people, places, objects and information. All things possess an element of mauri, sanctity and sacredness – so act accordingly, in Te Kawa o Rangi.
Mana Whenua: <i>acknowledging the space and draw on the stories embedded online</i>	
	<ul style="list-style-type: none"> - What is your kaupapa for engaging online, and what do you want to achieve in that space? - Behave (or speak) as if you are at the marae in front of your whānau. Be guided by marae protocols - if you would not do it in public at the marae, do not do it online .
Mana Tangata: <i>defining your service to whānau and community</i>	
	<ul style="list-style-type: none"> - Supplement online relationships with kanohi ki te kanohi relationships – be seen in person by your whānau and community. - What do you want your mokopuna to read about you? Everything online is captured and retained – take personal responsibility for your actions online.

īTikanga is supported by Mead’s tests to arrive at a ‘tikanga Māori’ position (Mead, 2016), and should be used to minimise the need for mitigation. Mead notes that the application of ‘tikanga Māori’ should consider: how is tapu implicated, how is mauri implicated, if tapu or mauri is breached, what is the recognition and mitigation process to address the breach (is there a precedent to follow), and how are the values of whanaungatanga, manaakitanga, mana, and noa implicated? (Mead, 2016).

10.8 TE ARA RANGAHAU: RECOMMENDATIONS FOR FURTHER RESEARCH

Ipurangi has investigated the implications of the internet for tikanga Māori, however, further investigation is required to identify the breadth of **īTāmi** on Māori aspirations in specific development sites (e.g. education, health, the environment) and specific internet platforms (e.g. Facebook, Twitter, Shopify etc.). **Ipurangi** has formed a generic

baseline framework for assessing the internet's duality (pros and cons) as identified from interviews with critical Māori exponents utilising the internet across several domains. It is also important to note that, there may be site-specific nuances that show additional **Aka**, **Ara** and **Toi** that are relevant to different sectors.

Ipurangi has mentioned the advent of dual personalities online, an online persona that varies from one's real character experienced *kanohi ki te kanohi*. Examples of this are identified in the interviews with the notion of the 'keyboard warrior' and the unauthentic social media profiles where online personalities assume authority on Māori issues but do not hold that same position in real life within their *whānau*, *hapū*, *iwi* or *marae*. Therefore there needs to be further examination of what I term **īTuakiri**, the online persona (Diamandaki, 2003; O'Carroll, 2013c; Thomas & Thomas, 2007) of Māori who engage online. Further examination may expose a spectrum of personalities among Māori, but it is likely to also provide more insight into how these personas impact or distract from a more authentic Māori identity online.

In conjunction with this idea is an exploration of **īAhurea**, the notion of Māori cyberculture. Here, **Ipurangi** has sought to provide insight into **īAhurea** by examining how *tikanga* Māori is expressed online and the challenges for Māori engaging online. However, a closer exploration of *Kaupapa* Māori approaches alongside notions of cyberculture (Adrian, 2012; Bell, 2004, 2007b, 2007a; Maity, 2013; Nakamura, 2006) might identify further developments required for Māori as we engage online.

The exploration of **īTikanga**, online ethics, could also be developed for various sectors and uses where Māori engage online. Unfortunately, the development of **īTikanga** goes beyond the scope of this research project as different projects require slightly different approaches. For example, the digitisation of information (Whaanga et al., 2015), online learning (Laws et al., 2008), IT artefacts (Shedlock & Hudson, 2022), political participation (Waitoa, 2013) and eCommerce by applying Māori business philosophies (Mika et al., 2019).

A more comprehensive evaluation of **īTāmi**, *Kaupapa* Māori eColonialism, is necessary, as it applies in more focused areas. For example: what does **īTāmi** look like on specific social media sites like Twitter, Youtube, Facebook, or Instagram? What does **īTāmi** look like for **īPākihi** (and across key sites like Shopify or Squarespace)? Moreover, it is critically important for future research to enquire, how can we ensure that Māori

engagement across those spaces affirms rangatiratanga, Māori cultural perspectives and express Māori aspirations in those spaces rather than colonialism? With a growing concern for cyber-bullying, extreme terrorism, AI, cultural appropriation, surveillance and new platforms (such as OnlyFans), further investigation of these areas is critical to assess their impacts on Māori.

Due to the lack of research regarding Māori and the internet, future studies would benefit from adopting a broad approach to understanding how Māori are engaging online is required, including how diverse Māori communities, such as children, adolescents, rural communities, and kaumātua, are impacted by the internet.

In a 2008 study on the internet in Aotearoa, New Zealand, as part of the World Internet Project, it was identified “that further research is needed in order to explicate how the social impacts of the Internet identified in this study will impact on different sectoral uses of the Internet” (Smith et al., 2008, p. 324). For Māori, studies such as this continue to be outstanding.

10.9 CONCLUDING COMMENTS

This thesis, **Ipurangi** has investigated the implications of the internet for tikanga Māori and Māori engaging online. An outcome of **Ipurangi** is the development of new perspectives that create a nexus between Kaupapa Māori research approaches and theories and current cyber domains – terminologies for the interface between Kaupapa Māori and the internet (as shown in Table 10.4).

Table 10.4: Kaupapa Māori internet terminologies

Research Term	Research Explanation	Māori Terminology
Kaupapa Māori Internet Theories	Theories about the internet from a critical Māori perspective	īWhakaaro
Kaupapa Māori eColonialism	Aspects of electronic colonialism as analysed from a Kaupapa Māori perspective	īTāmi
Kaupapa Māori Cyber Ethnography and Methodologies	Methodology, undertaking Kaupapa Māori research in the online space	īRangahau
Kaupapa Māori Online ethics	Māori online behaviour Guidelines	īTikanga
Māori identity online	Māori cyber-identities	īTuakiri

Māori culture online	Māori cyber-culture	īAhurea
Māori Online connections	Māori relationships online	īWhanaungatanga (E-Whanaungatanga)

Māori must adopt and adapt technology to our needs and remember; that we do not need to be Pākehā online; we *need* to be Māori. However, this requires a critical understanding of **īTāmi**, which can be facilitated in online spaces by applying **Ipurangi**: A framework to assess Māori engagement on the internet. We have much to gain online (as identified in **Te Aka Matua** and **Te Ara o Tāwhaki**), but we also have much to lose (**Te Aka Tāepa** and **Te Toi Huarewa**), including rangatiratanga. Therefore, **Ipurangi** suggests that as we navigate our pathway onto the internet, we heed the words of the Kuia Whaitiri and always remain conscious of the pathway that seeks to hinder and harm us whilst advancing our journey online – ‘kia mau ki te aka matua, kei mau ki te aka tāepa’. Moreover, if we cannot engage in this space fully as Māori, perhaps we need to develop our own internet space to fully realise and maintain tino rangatiratanga online with “a future in which Indigenism is the protocol” (Morford & Ansloos, 2021, p. 38).

This research **Ipurangi**, interprets the allegory embedded in the *oriori* – ‘*pinepine te kura*’ to guide and recentre our engagement online as Māori, so that we are aware of processes that seek to recolonise us through **īTāmi**, but more importantly, so that we can critically navigate successful pathways as we journey to and through the internet - just like the tupuna Tāwhaki. As Māori face the new frontier for colonisation, **Ipurangi** encourages readers to acknowledge the binary - challenges and potential of the internet for Māori, in order to move forward, and upward:

piki ake, kake ake, ki Te Toi Huarewa, Te Ara o Tāwhaki!

*Pinepine te kura, hou te kura,
whanake te kura i raro i Awarua
ko te kura nui, ko te kura roa,
ko te kura o tawhiti na Tu-hae-po!*

*Tēnei te tira hou, tēnei haramai nei:
Ko Te Umu-rangi nā Te Whatu-i-
apiti.
Nau mai, e tama, ki te tai-ao nei,*

Little tiny kura, the kura of renown,
The kura who came from below Awarua:
The noble kura, the famous kura,
The kura from afar off, the kura of Tu-hae-
po!
A strange visitor is he, lately arrived here;
He is Te Umu-rangi, and of Te Whatu-i-apiti
is he.
Welcome, O son, welcome to this world of
life,

*Ki whaka-ngungua koe, ki te
kahikātoa,
Ki te tūmatakuru, ki te taraongaonga;
Ngā tairo rā nāhau, e Kupe,*

I waiho i te ao nei.

*Piki ake, kake ake i Te Toi Huarewa,
Te ara o Tawhaki i piki ai ki runga;*

*I rokohina atu ra Maikuku-makaka,
Hapai-o-Maui, He waha i pā mai,*

*‘Taku wahine purotu!’ ‘Taku tāne
purotu!’*

Kōrua ko te tau, e.

You are to be ritually strengthened with the
kahikātoa,
With the tūmatakuru and the taraongaonga;
These were the obstructions that you, O
Kupe,
Bequeathed unto this world.

Climb hither, ascend by the suspended way,
The pathway of Tawhaki when he ascended
on high;

And there found Maikuku-makaka,
Attended by Hapai of Maui, and greetings
were uttered,
‘My beautiful lady!’ ‘My handsome man!’

A tribute for you two, O loved ones.

(Ngata, 2006, pp. 76–77)

REFERENCE LIST

- Ackermann, A., & Ackermann, A. (2012). Cyberanthropology. *Anthropos.*, 107(2), 632–634.
- Adrian, A. (2012). An old narrative for a new culture: What cyber-culture can learn from indigenous culture. *International Journal of Liability and Scientific Enquiry*, 5(3–4), 242–269.
- Adum, A. N., Kenechukwu, S., & Abuah, F. (2015). Media Technology and Cultural Imperialism in Developing Countries. *Communication Panorama African and Global Perspectives*, 1(1).
- Ahu, T., Whetu, A., & Whetu, J. (2017). Mātauranga Māori and New Zealand's intellectual property regime—Challenges and opportunities since Wai 262. *Butterworths of New Zealand*, 8(5), 79–91.
- Aiko Consultants Limited. (2020). *The effects of Covid-19 on Māori education outcomes*. Te Pūtea Whakatupu Trust. <https://tpwt.maori.nz/assets/Post-COVID/a15bee2400/The-Effects-of-COVID-19-on-Maori-Education-Outcomes-V2.pdf>
- Akturan, U. (1983). A review of cyber ethnographic research: A research technique to analyze virtual consumer communities. *Bogazici Journal*, 23(1–2), 1–18. <https://doi.org/10.21773/boun.23.1.1>
- Alves, V. (2021, May 18). UK company Invictus using Māori culture to sell carpet. *NZ Herald*. <https://www.nzherald.co.nz/nz/uk-company-invictus-using-maori-culture-to-sell-carpet/AYABESWCHFV4BWZX3A3W4VQEF4/>
- Aotearoa Cafe. (n.d.). In *Wikipedia, the free encyclopedia*. https://en.wikipedia.org/wiki/Aotearoa_Cafe
- Aotearoa Māori Internet Organisation. (2003, November 5). Maori have internet representative/support body. *Scoop Independent News*. <https://www.scoop.co.nz/stories/SC0311/S00015/maori-have-internet-representativesupport-body.htm>

- Arango-Kure, M., Garz, M., & Rott, A. (2014). Bad news sells: The demand for news magazines and the tone of their covers. *Journal of Media Economics*, 27(4), 199–214.
- Armstrong, W. (1978). New Zealand: Imperialism, class and uneven development. *The Australian and New Zealand Journal of Sociology*, 14(3), 297–303.
- Atlas, A. (2020). Cell phone and technology use by octogenarians. *Journal of Primary Health Care*. <https://doi.org/10.1071/HC19042>
- Attaran, M. (2023). The impact of 5G on the evolution of intelligent automation and industry digitization. *Journal of Ambient Intelligence and Humanized Computing*, 14(5), 5977–5993. <https://doi.org/10.1007/s12652-020-02521-x>
- Bagchi, A. K. (2019). Marx, the Digital Divide and Hegemony. *Social Scientist*, 47(5/6), 31–44.
- Bargh, J. A., & McKenna, K. Y. (2004). The Internet and Social Life. *Annual Review of Psychology*, 55, 573–590.
- Bargh, M., & Rata, A. (2020). Voting in Māori Governance Entities. *International Indigenous Policy Journal*, 11(3), 1–19.
- Barker, A. J. (2015). ‘A direct act of resurgence, a direct act of sovereignty’: Reflections on idle no more, Indigenous activism, and Canadian settler colonialism. *Globalizations*, 12(1), 43–65.
- Barnes, A. M., Borell, B., Taiapa, K., Rankine, J., Nairn, R., & McCreanor, T. (2012). Anti-Maori themes in New Zealand journalism-toward alternative practice. *Pacific Journalism Review*, 18(1), 195–216.
- Bates, S. (2017). Revenge porn and mental health: A qualitative analysis of the mental health effects of revenge porn on female survivors. *Feminist Criminology*, 12(1), 22–42.
- Beaule, C. D. (2018). *Frontiers of colonialism*. University Press of Florida. <https://doi.org/10.5744/florida/9780813054346.001.0001>
- Beaulieu, A. (2004). Mediating Ethnography: Objectivity and the Making of Ethnographies of the Internet. *Social Epistemology*, 18(2–3), 139–163.
- Bell, D. (2004). *Cyberculture: The key concepts*. Routledge.

- Bell, D. (2007a). Cyberculture. *The Blackwell Encyclopedia of Sociology*.
<https://doi.org/10.1002/9781405165518.wbeosc195>
- Bell, D. (2007b). *Cyberculture theorists: Manuel Castells and Donna Haraway*.
 Routledge. <https://doi-org.ezproxy.massey.ac.nz/10.4324/9780203357019>
- Benasayag, M., & Rendall, S. (2021). *The Tyranny of Algorithms. Freedom, Democracy, and the Challenge of AI*. Europa Editions.
- Berman, E., Felter, J. H., & Shapiro, J. N. (2018). *Small wars, big data: The information revolution in modern conflict*. Princeton University Press.
- Best, E. (1898). Omens and superstitious beliefs of the Maori. Part I. *The Journal of the Polynesian Society*, 7(3 (27)), 119–136.
- Best, E. (1929). *Maori religions and mythology part 2*. P. D. Hasselberg.
- Best, E. (1934). *The Whare Wananga—The Maori As He Was: A Brief Account of Maori Life as it was in Pre-European Days*. Dominion Museum.
- Best, E. (1976). *Maori religion and mythology: Being an account of the cosmogony, anthropogeny, religious beliefs and rites, magic and folk lore of the Maori folk of New Zealand*. (eBook). Government Printer.
- Bhuie, A., Ogunseitan, O., Saphores, J.-D., & Shapiro, A. (2004). Environmental and economic trade-offs in consumer electronic products recycling: A case study of cell phones and computers. *Conference Record 2004*, 74–79.
<https://doi.org/10.1109/ISEE.2004.1299691>
- Black, H. L. (2013). *He ipu whakairo—Inscribing peace, knowledge and understanding: new/beginning social science teachers' delivery of Treaty of Waitangi and citizenship education in New Zealand secondary schools* [Masters thesis, Massey University].
<https://mro.massey.ac.nz/handle/10179/4338>
- Bomström, M., & Hettne, B. (1984). *Development theory in transition*. Zed Books.
- Bowles, N. (2018, October 26). A dark consensus about screens and kids begins to emerge in Silicon Valley. *The New York Times*.
<https://www.nytimes.com/2018/10/26/style/phones-children-silicon-valley.html>
- Brenner, S. W. (2010). *Cybercrime: Criminal threats from cyberspace*. ABC-CLIO.

- Brewer, J. D. (2000). *Ethnography*. Open University Press.
- Bright Hub PM. (2010, 12). *SWOT - History and evolution*. Bright Hub PM Project Management. <https://www.brighthubpm.com/methods-strategies/99629-history-of-the-swot-analysis/>
- Brocklehurst, N. T. (2014). *Māori culture at the digital interface: A study of the articulation of culture in the online environment*. [Masters thesis, Massey University]. <http://hdl.handle.net/10179/6338>
- Brown, D. (2007). Te āhua hiko: Digital cultural heritage and indigenous objects, people, and environments. In F. Cameron & S. Kenderdine (Eds.), *Theorizing digital cultural heritage. A critical discourse*. (pp. 77–91). The MIT Press.
- Brown, D., & Mané-Wheoki, J. (2001). *Techno Maori. [Computer file]: Maori art in the digital age*. City Gallery Wellington.
- Brown, D., & Nicholas, G. (2012). Protecting indigenous cultural property in the age of digital democracy: Institutional and communal responses to Canadian First Nations and Māori heritage concerns. *Journal of Material Culture*, 17(3), 307–324. <https://doi.org/10.1177/1359183512454065>
- Brown, G. T. (2020). Schooling beyond COVID-19: An unevenly distributed future. *Frontiers in Education*, 5, 82. <https://doi.org/10.3389/feduc.2020.00082>
- Brown, L. (2022, September 5). Growing anger over use of moko, mataora in image filters: ‘That’s a mockery’. *RNZ*. <https://www.rnz.co.nz/news/te-manu-korihi/474142/growing-anger-over-use-of-moko-mataora-in-image-filters-that-s-a-mockery>
- Buck, P. H. (1910). *Medicine amongst the Maoris in ancient and modern times* [Doctoral dissertation, University of Otago]. <http://hdl.handle.net/10523/10413>
- Buck, P. H. (1929). *The coming of the Maori*. (2nd ed). Cawthron Institute.
- Calude, A., Stevenson, L., Whaanga, H., & Keegan, T. T. (2020). The use of Māori words in National Science Challenge online discourse. *Journal of the Royal Society of New Zealand*, 50(4), 491–508.

- Cardenas, S. (2021). Unpacking Amazon through meatpacking, Adam Smith, and digital colonialism. *2021 IEEE International Symposium on Technology and Society (ISTAS)*, 1–6. <https://doi.org/10.1109/ISTAS52410.2021.9629196>
- Carlson, Bronwyn & Frazer, Ryan. (2021). *Indigenous Digital Life: The Practice and Politics of Being Indigenous on Social Media*. Palgrave Macmillan.
- Carré, H. (Director). (2017). *Post truth times: We the media*. [Documentary].
- Castells, M. (2004). *The network society. A cross-cultural perspective*. Edward Elgar Publishing Incorporated.
- Castells, M. (2010). *The power of identity*. (2nd ed., with a new preface). Wiley-Blackwell.
- Castells, M. (2012). *Networks of outrage and hope: Social movements in the Internet age*. Polity.
- Castells, M. (2013). *Communication power*. (2nd edition). Oxford University Press.
- Chapman Tripp. (2017, June). *Te Ao Māori: Trends and insights Pipiri 2017*. Chapman Tripp. <https://chapmantripp.com/media/j1slpr3f/te-ao-maori-2017-english.pdf>
- Chester, J. (2012). Cookie wars: How new data profiling and targeting techniques threaten citizens and consumers in the “big data” era. In *European Data Protection: In Good Health?* (pp. 53–77). Springer.
- Chirot, D., & Hall, T. D. (1982). World-system theory. *Annual Review of Sociology*, 8(1), 81–106.
- Chomsky, N. (2002). *Media control: The spectacular achievements of propaganda*. (2nd ed). Seven Stories Press.
- Clarke, D., & Ebbett, E. (2010). Maori Identification, Drinking Motivation and Mental Health. *International Journal of Mental Health and Addiction*, 8(2), 145–159.
- Cleave, P. (2009). *Iwi station: A discussion of print, radio, television and the internet in Aotearoa/New Zealand*. (2nd ed). Campus Press.
- Cone, I., & Lewis, R. (Directors). (2022a). *The future of ‘gaming’* [Video recording]. Netflix. <https://www.netflix.com/nz/title/81123425>

- Cone, I., & Lewis, R. (Directors). (2022b). *The future of 'life after death'* [Video recording]. Netflix. <https://www.netflix.com/nz/title/81123425>
- Cormack, D., Kukutai, T., & Cormack, C. (2020). Not one byte more: From data colonialism to data sovereignty. Kia kaua tētahi paita anō: Mai i ngā whakatōpū raraunga ki te mana motuhake o ngā raraunga. In A. Chen (Ed.), *Shouting zeros and ones: Digital technology, ethics and policy in New Zealand*. (pp. 28–34). Bridget Williams Books Ltd.
- Couldry, N., & Mejias, U. (2019a). Making data colonialism liveable: How might data's social order be regulated? *Internet Policy Review*, 8(2). <https://doi.org/10.14763/2019.2.1411>
- Couldry, N., & Mejias, U. A. (2019b). Data Colonialism: Rethinking Big Data's Relation to the Contemporary Subject. *Television and New Media*, 20(4), 336–349. <https://doi.org/10.1177/1527476418796632>
- Craig, A., & Te Rangi, H. (2022). The possibility of the internet of things / Te āheitanga o te ipurangi o ngā mea. In A. Pendergast & K. Pendergast (Eds.), *More zeros and ones. Digital technology, maintenance and equity in Aotearoa New Zealand*. (pp. 1–9). Bridget Williams Books.
- Craun, D. (2013). Exploring pluriversal paths toward transmodernity. *Human Architecture: Journal of the Sociology of Self-Knowledge*, 11(1), 91–114.
- Crosby, R. D. (2017). *The musket wars: A history of inter-iwi conflict, 1806-1845*. (New edition). Oratia Books, Oratia Media.
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Sage Publications.
- Cullen, R. (2001). Addressing the digital divide. *Online Information Review*., 25(5), 311–320.
- Cullen, R. (2009). Culture, identity and information privacy in the age of digital government. *Online Information Review*., 33(3), 405–421. <https://doi.org/10.1108/14684520910969871>
- Dadas, C. (2017). Hashtag activism: The promise and risk of “attention.” *Social Writing/Social Media: Publics, Presentations, Pedagogies*, 17–36.

- Daniels, J. (2018). The Algorithmic Rise of the “Alt-Right”. *Contexts*, 17(1), 60–65.
<https://doi.org/10.1177/1536504218766547>
- Datta, A., Bhatia, V., Noll, J., & Dixit, S. (2018). Bridging the digital divide: Challenges in opening the digital world to the elderly, poor, and digitally illiterate. *IEEE Consumer Electronics Magazine*, 8(1), 78–81.
- Davidson, M. (2013, November 18). National day of action against rape culture—Marama Davidson speech. [Wordpress]. *Te Wharepora Hou*.
<https://tewhareporahou.wordpress.com/tag/roastbusters/>
- Deguara, B. (2020, December 18). ‘It’s definitely appropriation’: Use of tā moko in Cyberpunk 2077 video game. *Stuff*. <https://www.stuff.co.nz/pou-tiaki/123715517/its-definitely-appropriation-use-of-t-moko-in-cyberpunk-2077-video-game>
- Dei, G. J. S., & Jaimungal, C. S. (Eds.). (2018). *Indigeneity and decolonial resistance: Alternatives to colonial thinking and practice*. Myers Education Press.
- Deora, R. S., & Chudasama, D. (2021). Brief study of cybercrime on an internet. *Journal of Communication Engineering & Systems*, 11(1), 1–6.
- Diamandaki, K. (2003). Virtual ethnicity and digital diasporas: Identity construction in cyberspace. *Global Media Journal.*, 2(2), 1–14.
- Díaz Andrade, A., Hedges, M., Pacheco, G., & Turcu, A. (2021). *The world internet project New Zealand 2021*. New Zealand Work Research Institute.
https://workresearch.aut.ac.nz/__data/assets/pdf_file/0007/571129/WIP-2021-Final_Nov.pdf
- Díaz Andrade, A., Hedges, M. R., Karimikia, H., & Techatassanasoontorn, A. (2018). *World Internet Project: The Internet in New Zealand 2017*. New Zealand Work Institute.
https://workresearch.aut.ac.nz/__data/assets/pdf_file/0009/174915/WIP-2017.pdf
- Díaz Andrade, A., Techatassanasoontorn, A. A., Singh, H., & Staniland, N. (2021). Indigenous cultural re-presentation and re-affirmation: The case of Māori IT professionals. *Information Systems Journal*, 31(6), 803–837.
<https://doi.org/10.1111/isj.12331>

- Digital Inclusion Research Group. (2017). *Digital New Zealanders: The pulse of our nation. A report to MBIE and DIA*. [Government Report.]. Ministry of Business and Innovation & Department of Internal Affairs.
<https://www.mbie.govt.nz/dmsdocument/3228-digital-new-zealanders-the-pulse-of-our-nation-pdf>
- DiMaggio, P., Hargittai, E., Neuman, R., & Robinson, J. P. (2001). Social implications of the Internet. *Annual Review of Sociology*, 27, 307–336.
- Domingues-Montanari, S. (2017). Clinical and psychological effects of excessive screen time on children. *Journal of Paediatrics and Child Health*, 53(4), 333–338.
- Dreaver, C. (2021, June 2). Māori Party question police response to white supremacist video. *RNZ*. <https://www.rnz.co.nz/news/te-manu-korihi/443860/maori-party-question-police-response-to-white-supremacist-video>
- Dretzin, R., & Maggio, J. (Producers). (2008). *Growing up online* [Documentary]. Frontline. <https://www.pbs.org/wgbh/frontline/documentary/kidsonline/>
- Dunn, J., Simon. (2018). *Digital technologies and engaging with whānau*. [Masters thesis]. Unitec Institute of Technology.
- Durie, M. H. (1995). *Ngā matatini Māori, diverse Māori realities*. Wānanga Pūrongo Kōrerorero, Turangawaewae-Ngaruawahia., Ngaruawahia.
- Durie, M. H. (1997). Maori Cultural Identity and Its Implications for Mental Health Services. *International Journal of Mental Health*, 26(3), 23–25.
<https://doi.org/10.1080/00207411.1997.11449407>
- Durie, M. H. (1998). *Te mana, te kāwanatanga: The politics of Māori self-determination*. Oxford University Press.
- Durie, M. H. (1999). MARAE AND IMPLICATIONS FOR A MODERN MĀORI PSYCHOLOGY: Elsdon Best Memorial Medal Address Polynesian Society Annual General Meeting. *The Journal of the Polynesian Society*, 108(4), 351–366.
- Durie, M. H. (2003). *Ngā kāhui pou: Launching Māori futures*. Huia.

- Durie, M. H. (2004, September 5). Māori achievement: Anticipating the learning environment. *Hui Taumata Mātauranga IV, Increasing Success for Rangatahi in Education Insight, Reflection and Learning*. Hui Taumata Mātauranga IV, Taupo, NZ.
https://www.massey.ac.nz/documents/490/Maori_Achievement_Anticipating_the_learning_environment.pdf
- Durie, M. H. (2017). *Pūmau tonu te mauri: Living as Maori, now and in the future*. Te Puni Kōkiri. <https://www.tpk.govt.nz/documents/download/documents-2081/Pumau%20Tonu%20te%20Wairua%20Mason%20Durie.pdf>
- Durie, M. H., Cunningham, C., Olson, R., Coupe, N., Waldon, J., Gillies, A., & Taite, S. (Eds.). (1998). *Proceedings of Te Oru Rangahau Māori Research and Development Conference, School of Māori Studies, Massey University, 7-9 July 1998*. Te Pūtahi-ā-Toi School of Māori Studies, Massey University.
- Dutta, M. (2019, May 5). *Understanding disinformation*. NewNaratif.
<https://newnaratif.com/understanding-disinformation/>
- Dyson, L. E., Hendriks, M. A. N., & Grant, S. (2007). *Information technology and indigenous people*. IGI Global.
- Education Gazette editors. (2020). We are kanohi ki te kanohi people’: Keeping Māori students connected during Covid-19. *New Zealand Education Gazette (1980)*, 99(6). <https://gazette.education.govt.nz/articles/we-are-kanohi-ki-te-kanohi-people-keeping-maori-students-connected-during-covid-19/>
- Education Review Office. (2021a). *He Iho Ruruku 2021: Te Aho Matua Kura Kaupapa Māori perspective*. Education Review Office (NZ).
<https://ero.govt.nz/our-research/he-iho-ruruku-te-aho-matua-perspectives>
- Education Review Office. (2021b). *Learning in a Covid-19 World: The Impact of Covid-19 on Schools*. Education Review Office (NZ). <https://ero.govt.nz/our-research/learning-in-a-covid-19-world-the-impact-of-covid-19-on-schools>
- Edwards, J. (2004). *State Services Commission ICT Branch. Privacy Impact Assessment of the proposed government logon service*. The Department of Internal Affairs. [http://www.dia.govt.nz/diawebsite.nsf/Files/pia-logon-2005/\\$file/pia-logon-2005.pdf](http://www.dia.govt.nz/diawebsite.nsf/Files/pia-logon-2005/$file/pia-logon-2005.pdf)

- Elers, C. H., & Jayan, P. (2020). “This is us”: Free speech embedded in whiteness, racism and coloniality in Aotearoa, New Zealand. *First Amendment Studies*, 54(2), 236–249.
- Elers, S., Elers, P., & Dutta, M. (2021). Responding to White Supremacy: An analysis of Twitter messages by Māori after the Christchurch terrorist attack. In B. Carlson & J. Berglund (Eds.), *Indigenous Peoples Rise Up: The Global Ascendency of Social Media Activism* (pp. 65–79). Rutgers University Press. <https://doi.org/10.36019/9781978808812-005>
- Elliott, M. (2018). *Out of the maze: Building digitally inclusive communities*. The Workshop. <https://static1.squarespace.com/static/5bd0d99e16b6404fe9018538/t/5bdf7f9b575d1f0d19337766/1541373904877/OutOfTheMaze.pdf>
- Enari, D., & Rangiwai, B. W. (2021). Digital innovation and funeral practices: Māori and Samoan perspectives during the COVID-19 pandemic. *AlterNative: An International Journal of Indigenous Peoples*, 17(2), 346–351. <https://doi.org/10.1177/11771801211015568>
- Estes, N. (2019). *Our history is the future: Standing Rock versus the Dakota Access Pipeline, and the long tradition of indigenous resistance*. Verso Books.
- Estes, N., & Dhillon, J. (2019). *Standing with standing Rock: Voices from the#NoDAPL movement*. University of Minnesota Press.
- Ferguson, S. (2012). *E-Aorangi an indigenous model for e-Education*. [Doctoral dissertation, Awanui-a-Rangi]. https://www.researchgate.net/profile/Sheryl-Ferguson/publication/282008108_Ferguson_S_2012_e-Aorangi_An_indigenous_model_for_e-Education_A_thesis_submitted_in_fulfillment_for_the_requirements_for_the_degree_of_Doctor_of_Philosophy_at_Te_Whare_Wananga_o_Awanuiarangi_2012_Publi/links/592356e0aca27295a8a88534/Ferguson-S-2012-e-Aorangi-An-indigenous-model-for-e-Education-A-thesis-submitted-in-fulfillment-for-the-requirements-for-the-degree-of-Doctor-of-Philosophy-at-Te-Whare-Wananga-o-Awanuiarangi-2012-Pub.pdf
- Ford, K. (2020). Mapping the New Zealand Far-Right. *Peace Review*, 32(4), 504–511. <https://doi.org/10.1080/10402659.2020.1921412>

- Forte, M. (2003). Mindscape: Ecological thinking, cyber-anthropology and virtual archaeological landscapes. *BAR International Series, 1151*, 95–108.
- Frank, A. G. (1970). The development of underdevelopment. In Rhodes (Ed.), *Imperialism and underdevelopment: A reader*. (pp. 4–17). Monthly Review Press.
- Fraser, A. (2019). Curating digital geographies in an era of data colonialism. *Geoforum, 104*, 193–200.
- Fry, S. (1997). Framing the islands: Knowledge and power in changing Australian images of “the South Pacific”,. *The Contemporary Pacific, 9*(2), 305–344.
- Fuchs, C. (2019). Karl Marx in the Age of Big Data Capitalism. In D. Chandler & C. Fuchs (Eds.), *Digital objects, digital subjects: Interdisciplinary perspectives on capitalism, labour and politics in the age of Big Data*. (pp. 53–71). University of Westminster Press. : <https://doi.org/10.16997/book29.d>
- Gansinger, M. A. M., & Kole, A. (2016). *Roots Reloaded. Culture, Identity and Social Development in the Digital Age*. Anchor Academic Publishing.
- Geere, D. (2017, February 8). It’s true: Research proves you really do lose track of time when surfing the web. *Techradar*. <https://www.techradar.com/news/its-true-research-proves-you-really-do-lose-track-of-time-when-surfing-the-web>
- Gergen, K. J. (2001). *Social construction in context*. SAGE.
- Geyser, W. (2022, April 4). *What is an Influencer? – Social Media Influencers Defined [Updated 2022]*. Influencer Marketing Hub. <https://influencermarketinghub.com/what-is-an-influencer/>
- Gibson, A., Miller, M., Smith, P., Bell, A., & Crothers, C. (2013). *World Internet Project New Zealand. The Internet in New Zealand 2013*. Institute of Culture, Discourse & Communication, AUT University.
- Gifford, A. (2000, October 27). Online family tree stirs strife on marae. *New Zealand Herald.*, 2.
- Gifford, A. (2001, April 16). Māori stake claim to their own dot in cyberspace. *New Zealand Herald.*, 12.

- Giles, D. C., & Edwards, L. (2018). Instagram and the rise of the social media 'influencer'. In D. C. Giles, *Twenty-first century celebrity: Fame in digital culture* (pp. 155–173). Emerald Publishing Limited.
- Gilio-Whitaker, D. (2019). *As long as grass grows: The Indigenous fight for environmental justice, from colonization to Standing Rock*. Beacon Press.
- Glover, M., McCree, A., & Dyall, L. C. T. (2008). *Māori attitudes to assisted human reproduction: An exploratory study*. School of Population Health, University of Auckland.
<https://www.maramatanga.co.nz/sites/default/files/Research%20Report%20-%20Maori%20Attitudes%20to%20Assisted%20Rproduction%20FINAL.pdf>
- Gloyne, P., & Snowden, T. P. (n.d.). *Taringa* [Broadcast]. taringapodcast.com
- Gloyne, P., Snowden, T. P., & Sinclair, E. (n.d.). *Tikanga 101—Pāhopori (Social Media)* (116) [MP3].
<https://www.taringapodcast.com/?s=Tikanga+101&paged=3>
- Glucksman, M. (2017). The rise of social media influencer marketing on lifestyle branding: A case study of Lucie Fink. *Elon Journal of Undergraduate Research in Communications*, 8(2), 77–87.
- Gonidis, L., & Sharma, D. (2017). Internet and Facebook related images affect the perception of time. *Journal of Applied Social Psychology*, 47(4), 224–231.
<https://doi.org/10.1111/jasp.12429>
- Goode, L. (2010). Cultural citizenship online: The Internet and digital culture. *Citizenship Studies*, 14(5), 527–542.
<https://doi.org/10.1080/13621025.2010.506707>
- Graham-Stewart, M., & Gow, J. (2006). *Out of time: Māori & the photographer 1860-1940: The Ngawini Cooper Trust collection*. John Leech Gallery.
- Graveline, F. J. (2012). Idle no more: Enough is enough! *Canadian Social Work Review/Revue Canadienne de Service Social*, 29(2), 293–300.
- Greenwood, J., Te Aika, L. H., & Davis, N. (2011). Creating Virtual Marae: An Examination of How Digital Technologies Have Been Adopted by Maori in Aotearoa New Zealand. In P. Randolph Leigh (Ed.), *International Exploration of Technology Equity and the Digital Divide: Critical, Historical and Social*

- Perspectives*. (pp. 58–79). IGI Global. <http://doi:10.4018/978-1-61520-793-0.ch004>
- Grey, G. (1853). *Ko nga moteatea, me nga hakirara o nga Maori: He mea kohikohi mai*. Robert Stokes.
- Griffiths, K., Coleman, C., Lee, V., & Madden, R. (2016). How colonisation determines social justice and Indigenous health—A review of the literature. *Journal of Population Research*, 33(1), 9–30.
- Griggs, K. (2002, November 21). Lego Site Irks Maori Sympathizer. *WIRED*. <https://www.wired.com/2002/11/lego-site-irks-maori-sympathizer/>
- Grimes, A., & White, D. (2019). *Digital inclusion and wellbeing in New Zealand*. (Motu Working Paper 19-17) [A report for Department of Internal Affairs.]. Motu Economic and Public Policy Research.
- Grosfoguel, R. (2007). THE EPISTEMIC DECOLONIAL TURN. Beyond political-economy paradigms. *Cultural Studies*, 21(2-3: Globalization and the De-Colonial Option.), 211–223. <https://doi.org/10.1080/09502380601162514>
- Hageman, M. (2022, May 30). Māori and cyber safety—Examining an unsafe online climate and the need for action. *Security Brief New Zealand*. <https://securitybrief.co.nz/story/maori-and-cyber-safety-examining-an-unsafe-online-climate-and-the-need-for-action>
- Hall, M. (1999). Virtual Colonization. *Journal of Material Culture*, 4(1), 39–55. <https://doi.org/10.1177/135918359900400103>
- Hallett, R. E., & Barber, K. (2014). Ethnographic research in a cyber era. *Journal of Contemporary Ethnography*, 43(3), 306–330.
- Hamelink, C. J. (2000). *The ethics of cyberspace*. Sage.
- Hamer, P. (2008). One in six? The rapid growth of the Māori population in Australia. *New Zealand Population Review*, 33(34), 153–176.
- Hammersley, M., & Atkinson, P. (2019). *Ethnography: Principles in practice*. ProQuest Ebook Central. <https://ebookcentral.proquest.com>

- Hancock, F., Lee-Morgan, J., Newton, P., & McCreanor, T. (2020). The case of ihumatao: Interrogating competing corporate and indigenous visions of the future. *New Zealand Sociology*, 35(2), 15–46.
- Hapeta, J., Palmer, F., & Kuroda, Y. (2018). Ka Mate: A commodity to trade or taonga to treasure? *MAI Journal*, 7(2), 170–185.
<https://doi.org/10.20507/MAIJournal.2018.7.2.5>
- Harawira, T. (2021, October 29). Live streaming of tangihanga? *Te Ao Māori News*.
<https://www.teaomaori.news/live-streaming-tangihanga>
- Harding, T., & Oetzel, J. (2021). Implementation effectiveness of health interventions with Māori communities: A cross-sectional survey of health professional perspectives. *Australian & New Zealand Journal of Public Health*, 45(3), 203–209.
- Harmey, S., & Moss, G. (2021). Learning disruption or learning loss: Using evidence from unplanned closures to inform returning to school after COVID-19. *Educational Review*, 1–20.
- Hartsell, T. (2008). Netiquette. In L. Tomei (Ed.), *Encyclopedia of Information Technology Curriculum Integration*. (pp. 620–626). IGI Global.
<https://doi.org/10.4018/978-1-59904-881-9.ch098>
- Hauben, M., & Hauben, R. (1997). *Netizens: On the history and impact of Usenet and the Internet*. IEEE Computer Society Press.
- Haurua, J., & Rangiwai, B. (2020). Digital marketing in Māori higher education: A case study of Te Wānanga o Aotearoa. *Te Kaharoa*, 13(1).
<https://doi.org/10.24135/tekaharoa.v15i1.302>
- He Kupenga Hao i te Reo. (n.d.-a). Īkōpaki. In *Paekupu*. Ministry of Education.
<https://paekupu.co.nz/word/ikopaki>
- He Kupenga Hao i te Reo. (n.d.-b). Īmēra. In *Paekupu*. Ministry of Education.
<https://paekupu.co.nz/word/imera>
- He Kupenga Hao i te Reo. (n.d.-c). ĪPapa. In *Paekupu*. Ministry of Education.
<https://paekupu.co.nz/word/ipapa-2>

- He Kupenga Hao i te Reo. (n.d.-d). Īpuka. In *Paekupu*. Ministry of Education.
<https://paekupu.co.nz/word/ipukapuka-3>
- Head, L. (2006). *Land, authority and the forgetting of being in early colonial Maori history*. [Doctoral dissertation, University of Canterbury.].
<https://ir.canterbury.ac.nz/handle/10092/967>
- Hegedus, C., & Noujaim, J. (Directors). (2001). *StartUp.com* [Broadcast]. Artisan Entertainment.
- Heimans, J., & Timms, H. (2018). *How Power Works in Our Hyperconnected World—And How to Make it Work for you: New POWER*. Pan Macmillan Australia.
- Hendry, N. A., Hartung, C., & Welch, R. (2022). Health education, social media, and tensions of authenticity in the ‘influencer pedagogy’ of health influencer Ashy Bines. *Learning, Media and Technology*, 44(7), 427–439.
<https://doi.org/10.1080/17439884.2021.2006691>
- Herman, E. S., & Chomsky, N. (1994). *Manufacturing consent: The political economy of the mass media*. Vintage.
- Heyday! (2010). *1989: It came without a manual*. Down to the Wire, the story of New Zealand’s Internet. <http://downtothewire.co.nz/the-beginning-1989/>
- Hikuroa, D. (2017). Mātauranga Māori—The ūkaipō of knowledge in New Zealand. *Journal of the Royal Society of New Zealand*, 47(1), 5–10.
<https://doi.org/10.1080/03036758.2016.1252407>
- Himona, R. N. (2005, May 6). Fostering the creation of local & indigenous content. *Theme 2 – Global Experiences in Building a Multilingual Environment*. UNESCO WSIS Thematic Meeting, Multilingualism for Cultural Diversity and Participation of All in Cyberspace, Bamako, Mali.
<http://www.unesco.org/wsis/meetings/multilingualism>
- Hine, C. (2000). *Virtual Ethnography*. SAGE Publications Ltd.
- Hofmann, D. A. (2011). *Virtually tribal/tribally virtual: Shareholders in indigeneity*. [Doctor of Philosophy., University of Otago]. <http://hdl.handle.net/10523/590>
- Holland, Z. (2021, August 2). Ngā Tohu o Matariki o te Tau: Māori excellence celebrated at this year’s Matariki awards. *NZ Herald*.

<https://www.nzherald.co.nz/kahu/nga-tohu-o-matariki-o-te-tau-maori-excellence-celebrated-at-this-years-matariki-awards/OV4WUAPQ5UQBWUW2ZTZXMIKWXYZ/>

- Hond, R. (2004). *A perspective regarding Māori and e-learning. With reference to: Barriers /capability/participation/good practice/quality*. [Report to the e-Learning Advisory Group.]. Ministry of Education.
http://www.steo.govt.nz/static/maori_participation.htm
- Hond, R. (2013). *Matua te reo, matua te tangata: Speaker community: Visions, approaches, outcomes*. [Doctoral dissertation, Massey University].
<https://mro.massey.ac.nz/handle/10179/5439>
- Hoskins, T. K. (2010). *Māori and Levinas: Kanohi ki te kanohi for an ethical politics* [Doctoral dissertation, University of Auckland].
<http://hdl.handle.net/2292/6089>
- Houkamau, C., Mika, J. P., Newth, J., Sibley, C. G., Dunn, T., Dell, K., & Keelan, T. (2021). *The wellbeing of Māori pre and post Covid-19 lockdown in Aotearoa / New Zealand*. The University of Auckland and Ngā Pae o te Māramatanga.
<https://www.psych.auckland.ac.nz/en/about/maori-identity-financial-attitudes-study.html>
- Houkamau, C., Satherley, N., Stronge, S., Wolfgramm, R., Dell, K., Mika, J., Newth, J., & Sibley, C. G. (2021). Cyberbullying Toward Māori Is Rife in New Zealand: Incidences and Demographic Differences in Experiences of Cyberbullying Among Māori. *Cyberpsychology, Behavior, and Social Networking*, 24(12), 822–830.
- Howe, C. (1998). Cyberspace Is No Place for Tribalism. *Wicazo Sa Review*, 13(2), 19–28. <https://doi.org/10.2307/1409143>
- Howell, B. E., & Tang, X. (2022). Using Spectrum Allocations to Address Indigenous Policy Obligations: The Case of New Zealand. *Available at SSRN 4177433*.
<http://dx.doi.org/10.2139/ssrn.4177433>
- Hudson, M., Anderson, T., Dewes, T. K., Temara, P., Whaanga, H., & Roa, T. (2017). ‘He Matapihi ki te Mana Raraunga’—Conceptualising Big Data through a Māori lens. In H. Whaanga, T. T. Keegan, & M. Apperley (Eds.), *He Whare*

Hangarau Māori Language, culture & technology. (pp. 64–73). Te Pua Wānanga ki te Ao, Te Whare Wānanga o Waikato.

Hudson, S. (2022, March 22). Damien De Ment banned from Facebook permanently. *This Quality*. <https://thisquality.com/damien-de-ment-banned-from-facebook-permanently/>

Huey, L., & Ferguson, L. (2022). Another Digital Divide: Cybersecurity in Indigenous Communities. *Sociology Publications*, 55, 1–28.

Hunia, R., Salim, S., McNaughton, S., Menzies, R., Gluckman, P. D., & Bardsley, A. (2020). *Addressing rangatahi education: Challenges after COVID-19*. The University of Auckland.

Hurihanganui, T. A. (2020, April 15). Covid-19: Māori education providers tackle students' internet connectivity. *RNZ*. <https://www.rnz.co.nz/news/te-manu-korihi/414273/covid-19-maori-education-providers-tackle-students-internet-connectivity>

Hutchings, J., & Reynolds, P. (2007). Maori and the 'McScience' of new technologies: Biotechnology and Nanotechnology Research and Development. In *Matariki*. (Vol. 1, pp. 81–112). Te Mata o Te Tau, The Academy for Māori Research and Scholarship.

Hutchinson, R. (2016). Virtual Colonialism: Japan's Others in SoulCalibur. In *Transnational Contexts of Culture, Gender, Class, and Colonialism in Play: Video Games in East Asia* (p. 178). Springer International Publishing. https://doi.org/10.1007/978-3-319-43817-7_7

Independent Panel. (2012). *Ngāpuhi speaks: He Whakaputanga and Te Tiriti o Waitangi: Independent Report on Ngāpuhi Nui Tonu Claim/commissioned on behalf of the kuia and kaumātua of Ngāpuhi Nui Tonu*. Kawariki & Network Waitangi Whangarei.

Institutes of Technology and Polytechnics of New Zealand. (2005). *Critical success factors for effective use of e-learning with Māori learners*. Ministry of Education. <https://www.educationcounts.govt.nz/publications/schooling2/digital->

technology/critical-success-factors-for-effective-use-of-e-learning-with-maori-learners

internetnz. (n.d.). *Internetnz*. Internetnz. www.internetnz.nz

Jackson, M. (2013). He Manawa Whenua, Keynote Presentation. In L. Pihama, H. Skipper, & J. Tipene (Eds.), *He Manawa Whenua Conference Proceedings, Inaugural Issue* (pp. 59–63).
<https://www.youtube.com/watch?v=lajTGQN8aAU>

Jacobs, M. (2022, April 13). Katuku Island—Award-winning game takes on te reo Pākehā with an indigenous lens. *Stuff*. <https://www.stuff.co.nz/pou-tiaki/300565042/katuku-island--awardwinning-game-takes-on-te-reo-pkeh-with-an-indigenous-lens>

Jahnke, R. H. G. (2006). *He tātaitanga āhua toi: The house that Riwai built, a continuum of Māori art*. [Doctoral dissertation, Massey University].
<https://mro.massey.ac.nz/handle/10179/984>

James, J., Shields, I., Berriman, R., Keegan, P. J., & Watson, C. I. (2020). *Developing resources for te reo Māori text to speech synthesis system*. 12284, 294–302.
https://doi.org/10.1007/978-3-030-58323-1_32

Jeong-yeo, L. (2018, December 2). NCT 127 accused of cultural appropriation after sampling Maori haka. *The Jakarta Post*.
<https://www.thejakartapost.com/life/2018/12/01/nct-127-accused-of-cultural-appropriation-after-sampling-maori-haka.html>

Joost, H., & Schulman, A. (Directors). (2010). *Catfish* [Broadcast]. Universal Pictures.

Ka'ai, T. (2017). Te Whare Matihiko o Te Reo—Digital tools for the revitalisation of te reo Māori. In H. Whaanga, T. T. Keegan, & M. Apperley (Eds.), *He Whare Hangarau Māori Language, culture & technology*. (pp. 29–34). Te Pua Wānanga ki te Ao, Te Whare Wānanga o Waikato.

Ka'ai, T., McDonald, J., 1962-, & Moorfield, J. C. (John C., 1943-2018. (2006). Te Whanake Online: An interactive resource for Māori language learning. *Journal of Māori and Pacific Development : He Puna Kōrero*, 7(2), 62–67.

Ka'ai-Mahuta, R. (2012). The use of digital technology in the preservation of Māori song. *Te Kaharoa*, 5(1).

- Kaiser, B. (2019). *Targeted: The Cambridge Analytica Whistleblower's Inside Story of How Big Data, Trump, and Facebook Broke Democracy and How It Can Happen Again*. Harper Collins Publishers.
- Kaka, T. R. (2014). What are the significant factors that have influenced the adoption of Moodle by staff in a Maori tertiary institution? *2014 IEEE Frontiers in Education Conference (FIE) Proceedings, Frontiers in Education Conference (FIE), 2014 IEEE*, 1–4. <https://doi.org/10.1109/FIE.2014.7044258>
- Kamira, R. (2003). Te Mata o te Tai – the edge of the tide: Rising capacity in information technology of Maori in Aotearoa-New Zealand. *The Electronic Library*, *21*(5), 465–475.
- Kamira, R. (2020). How Māori can bridge the digital divide in the post-Covid world. *The Spinoff*. <https://thespinoff.co.nz/atea/28-04-2020/how-maori-can-bridge-the-digital-divide-in-the-post-covid-world>
- Kantayya, S. (Director). (2020). *Coded bias*. [Broadcast]. Netflix.
- Karaka-Clarke, T. H. R. (2020). *Ngā whenu ranga tahi: Drawing from Māori principles of wellbeing: Transforming online synchronous teaching and learning of te reo Māori*. [Doctoral dissertation, University of Canterbury.]. https://ir.canterbury.ac.nz/bitstream/handle/10092/100072/Karaka-Clarke%2C%20Te%20Hurinui_Final%20EDD%20Thesis.pdf?sequence=1&isAllowed=y
- Kardaras, N. (2016). *Glow kids: How screen addiction is hijacking our kids-and how to break the trance*. St. Martin's Press.
- Karim, K., H. (2003). Mapping diasporic mediascapes. In K. Karim H. (Ed.), *The media of diaspora*. (pp. 1–18). Routledge.
- Keall, C. (2021, September 28). Rocket Lab shares jump as US military funding confirmed. *NZ Herald*. <https://www.nzherald.co.nz/business/rocket-lab-shares-jump-as-us-military-funding-confirmed/H7IBEHJ4HMNE734JKWVC74NJ6E/>
- Keegan, P. J., Keegan, T. T., & Laws, M. (2011). Online Māori resources and Māori initiatives for teaching and learning: Current activities, successes and future directions. *MAI Review*, *1*. <http://www.review.mai.ac.nz/mrindex/MR/article/view/365/605.html>

- Keegan, T. T. (2000, August 11). *Tikanga Māori, reo Māori ki te ipurangi: Māori culture and language on the Internet*. [Seminar]. Seminar series of the Department of General and Applied Linguistics., University of Waikato.
<https://www.cs.waikato.ac.nz/~tetaka/PDF/TikangaMaori.pdf>
- Keegan, T. T. A. G. (2007). *Indigenous Language Usage in a Digital Library: He Hautoa Kia Ora Tonu Ai*. [Doctoral dissertation, University of Waikato].
<https://hdl.handle.net/10289/3997>
- Keegan, T. T., & Cunliffe, D. (2014). Young people, technology and the future of te Reo Māori. In R. Higgins, P. Rewi, & V. Olsen-Reeder (Eds.), *The value of the Māori language: Te Hua o te Reo Māori*. (pp. 385–398). Huia Publishers.
- Keegan, T. T., & Cunningham, S. J. (2003). *Indigenous language presence on the web—The Māori example*. Association of Internet Researchers Conference 4.0, Toronto, Canada., Toronto, Canada.
- Keegan, T. T., Cunningham, S. J., & Benton, R. (2004). Is the web being used to speak our language? *He Pukenga Kōrero*, 8(1), 27–36.
- Keegan, T. T., Gregory, A., Cunningham, S. J., & Apperley, M. (2008). *The Niupepa Collection: Opening the blinds on a window to the past*. Department of Computer Science, The University of Waikato.
- Keegan, T. T., & Sciascia, A. D. (2018). Hangarau me te Māori: Māori and technology. In M. Reilly, S. Duncan, G. Leoni, L. Paterson, L. Carter, M. Rātima, & P. Rewi (Eds.), *Te Kōparapara: An Introduction to the Māori World* (1–20, pp. 359–371). Auckland University Press.
<https://hdl.handle.net/10289/11955>
- Keen, A. (2016). *The internet is not the answer*. Grove Press.
- Keiha, P. A. (2008). *Advancing a digital strategy for learning and teaching te reo Māori*. [Electronic resource]. Ako Aotearoa National Centre for Tertiary Teaching Excellence. <https://ako.ac.nz/assets/Knowledge-centre/Advancing-a-Digital-Strategy-for-Learning-and-Teaching-te-reo-Maori/Advancing-a-Digital-Strategy-for-Learning-and-Teaching-te-reo-Maori.PDF>

- Kendall, Lori. (1998). Meaning and Identity in “Cyberspace”: The Performance of Gender, Class, and Race Online. *Symbolic Interaction*, 21(2), 129–153.
<https://doi.org/10.1525/si.1998.21.2.129>
- Kennedy, V. (2010). Social network analysis and research with Māori collectives. *MAI Review*, 3(21).
<http://www.review.mai.ac.nz/mrindex/MR/article/download/372/372-2894-1-PB.pdf>
- Khoshbakht, M., Gou, Z., & Dupre, K. (2017). Cost-benefit Prediction of Green Buildings: SWOT Analysis of Research Methods and Recent Applications. *Procedia Engineering*, 180, 167–178.
<https://doi.org/10.1016/j.proeng.2017.04.176>
- Kizhner, I., Terras, M., Rumyantsev, M., Khokhlova, V., Demeshkova, E., Rudov, I., & Afanasieva, J. (2021). Digital cultural colonialism: Measuring bias in aggregated digitized content held in Google Arts and Culture. *Digital Scholarship in the Humanities*, 36(3), 607–640.
- Knappenberger, B. (Director). (2012). *We are Legion: The story of the hackivists* [Broadcast]. <http://wearelegionthedocumentary.com/see-the-film/>
- Knappenberger, B. (Director). (2014a). A threat to internet freedom (S3E20) [Broadcast]. In *Op-Docs*. The New York Times.
- Knappenberger, B. (Director). (2014b). *The internet’s own boy: The story of Aaron Swartz*. [Broadcast]. Participant Media.
- Kohere, R. (2022, September 22). Why you can’t advertise online in te reo Māori. *The Spinoff*. <https://thespinoff.co.nz/atea/22-09-2022/why-you-cant-advertise-online-in-te-reo-maori>
- Kozinets, R. V. (2020). *Netnography: The essential guide to qualitative social media research*. (3E ed.). SAGE Publications Ltd.
- Kronast, H. (2020, April 20). UK nurses’ COVID-19 haka slammed as cultural appropriation. *Newshub*. <https://www.newshub.co.nz/home/world/2020/04/uk-nurses-covid-19-haka-slammed-as-cultural-appropriation.html>
- Kukutai, T. (2011). Māori demography in Aotearoa New Zealand: Fifty years on. *New Zealand Population Review*, 37, 45–64.

- Kukutai, T., & Pawar, S. (2013). A socio-demographic profile of Māori living in Australia, NIDEA Working Papers No. 3. *National Institute of Demographic and Economic Analysis*. <https://hdl.handle.net/10289/7978>
- Kukutai, T., & Taylor, J. (2016a). Data sovereignty for indigenous peoples: Current practice and future needs. In T. Kukutai & J. Taylor (Eds.), *Indigenous data sovereignty: Toward an agenda* (pp. 1–22). Australian National University Press.
- Kukutai, T., & Taylor, J. (Eds.). (2016b). *Indigenous data sovereignty: Toward an agenda*. Australian National University Press.
- Kwet, M. (2019). Digital colonialism: US empire and the new imperialism in the Global South. *Race and Class*, 60(4), 3–26. <https://doi.org/10.1177/0306396818823172>
- Kwet, M. (2022). The Digital Tech Deal: A socialist framework for the twenty-first century. *Race & Class*, 63(3), 63–84.
- Lai, J. C. (2010). Māori culture in the modern world: Its creation, appropriation and trade. *Appropriation and Trade (September 2010)*. I-CALL Working Paper, 2.
- Lambert, T. A. (2021). What’s behind the War on Big Tech? *Regulation*, 44, 30.
- Landzelius. (2006). Cyberethnography. In K. Landzelius (Ed.), *Native on the Net: Indigenous and Diasporic Peoples in the Virtual Age*. (1st ed., pp. 272–291). Routledge. <https://doi-org.ezproxy.massey.ac.nz/10.4324/9780203489147>
- Laws, M., Ferguson, S., & Werahiko, H. (2008). *Ngā Kaupapa Māori Arataki mo te ‘eWānanga’*. Māori Guidelines for the Student Online Learning and Management System, Māori e-Learning Guidelines Case Study, e-Learning Guidelines New Zealand. Te Whare Wānanga o Awanuiarangi. http://elg.massey.ac.nz/index.php?title=Ng%C4%81_Kaupapa_M%C4%81ori_Arataki_mo_te_eW%C4%81nanga
- Lebron, C. J. (2017). *The making of black lives matter: A brief history of an idea*. Oxford University Press.
- Lee, J. (2015). Decolonising Māori narratives: Pūrākau as method. In *Kaupapa Rangahau: A reader* (pp. 95–104). Te Kotahi Research Institute.

https://www.waikato.ac.nz/_data/assets/pdf_file/0009/339885/Kaupapa-Rangahau-A-Reader_2nd-Edition.pdf

- Lee, M. (2018). A Kaupapa Māori Facebook Group for Māori and Indigenous Doctoral Scholars: Maryann Lee in Conversation With Dr. Mera Lee-Penehira, Dr. Hinekura Smith, and Dr. Jennifer Martin. In I. Piven, R. Gandell, M. Lee, & A. M. Simpson (Eds.), *Global perspectives on social media in tertiary learning and teaching*. (pp. 72–90). IGI Global.
- Lemon, R. (2001). The impact of new media on Māori culture and belief systems. *Culture, Discourse and Communication*, 1(1), 1–12.
- Lemon, R. (2017). Te Reo Māori Ka Rere:" Talknology" and Māori Language as a Language of Choice. *Teachers and Curriculum*, 17(2), 89–94.
- Lerner, E. J. (1984). International data wars are brewing: US telecommunications deregulation, Third World protectionism, and European privacy regulations may complicate or curtail data flow across borders. *IEEE Spectrum*, 21(7), 45–49.
- Levy, S. (2021). *In the plex: How google thinks, works, and shapes our lives*. Simon & Schuster Paperbacks.
- L'Hirondelle, C. (2011). *Codetalkers of the Digital Divide (or why we didn't become "roadkill on the information superhighway")*. [Art Exhibition].
<https://www.pavedarts.ca/2011/codetalkers-of-the-digital-divide-2/>
- Liben, A., & Liben, E. (2005). Cyber-Anthropology: A new study on human and technological co-evolution. In R. G. Bushko (Ed.), *Future of intelligent and extelligent health environment*. (Vol. 118, pp. 146–155). IOS Press.
- Ling, J. (2022, October 19). Northland artist Lester Hall calls it quits after 'sustained and nasty attacks'. *NZ Herald*. <https://www.nzherald.co.nz/northern-advocate/news/northland-artist-lester-hall-calls-it-quits-after-sustained-and-nasty-attacks/GO6S63ZY7VZLV2PVJ5TCL5WCYI/>
- Lissack, G. (2018). Adverse physiological and psychological effects of screen time on children and adolescents: Literature review and case study. *Environmental Research*, 164, 149–157.

- Loebach, J., Tilleczek, K., Chaisson, B., & Sharp, B. (2019). Keyboard warriors? Visualising technology and well-being with, for and by indigenous youth through digital stories. *Visual Studies*, 34(3), 281–297.
- Lopesi, L. (2018). *False divides*. Bridget Williams Books.
- Loukas, G., Murugesan, S., & Andriole, S. J. (2022). Information Hygiene: The Fight Against the Misinformation “Infodemic”. *IT Professional*, 24(2), 16–18.
<https://doi.org/10.1109/MITP.2022.3163007>
- Lozano-Blasco, R., Latorre-Martínez, M., & Cortés-Pascual, A. (2022). Screen addicts: A meta-analysis of internet addiction in adolescence. *Children and Youth Services Review*, 135, 106373.
- Lumby, B. (2010). Cyber-indigeneity: Urban Indigenous Identity on Facebook. *The Australian Journal of Indigenous Education*, 39(Supplementary), 68–75.
<https://doi.org/10.3316/informit.473707009911239>
- Lyall, S. (2007). Fight electronic colonialism (Microsoft’s software piracy Vista). *ARCHITECTURAL REVIEW*, 221(1321), 97–97.
- MacAllister, J. M. (2016). The doxing dilemma: Seeking a remedy for the malicious publication of personal information. *Fordham L. Rev.*, 85, 2451.
- MacBride, S. (1980). *Many voices one world: Communication and society today and tomorrow: Towards a new more just and more efficient world information and communication order*. Kogan Page.
<https://unesdoc.unesco.org/ark:/48223/pf0000040066>
- Madison, D. S. (2005). *Critical ethnography: Method, ethics, and performance*. SAGE Publications. <https://www-doi-org.ezproxy.massey.ac.nz/10.4135/9781452233826>
- Maharey, S. (2002). *The report of the e-learning advisory group, March 2002: Māori and e-learning*. Ministry of Education.
<http://www.executive.govt.nz/minister/maharey/highways/references.htm>
- Mahuika, N. (2021). *Rethinking oral history and tradition: An indigenous perspective*. Oxford University Press.

- Mahuta, D. P. S. (2012). Māori in video games—A digital identity. *Te Kaharoa*, 5(1). <https://doi.org/10.24135/tekaharoa.v5i1.101>
- Mahuta, D. P. S. (2017). Building virtual language communities through social media—Because we don't live the village life anymore. In H. Whaanga, T. T. Keegan, & M. Apperley (Eds.), *He whare hangarau Māori language, culture & technology*. (pp. 42–45). Te Pua Wānanga ki te Ao, Te Whare Wānanga o Waikato.
- Maity, N. (2013). From comic culture to cyber culture: Cultural imperialism and its impact on the youth since 1960s. *IOSR Journal of Humanities and Social Science*, 8(4), 10–14.
- Mann, M., & Daly, A. (2019). (Big) Data and the North-in-South: Australia's Informational Imperialism and Digital Colonialism. *Television and New Media*, 20(4), 379–395. <https://doi.org/10.1177/1527476418806091>
- Maori in Oz. (2008, October). *Tū Mai*, 101, 42–43.
- Markham, A. (2018). Ethnography in the Digital Internet Era: From fields to flows, descriptions to interventions. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research*. (5th ed., pp. 650–668). SAGE Publications.
- Markham, A. N. (2018). Ethnography in the digital internet era: From fields to flows, descriptions to interventions. In N. K. Denzin & Y. S. Lincoln (Eds.), *SAGE handbook of qualitative research*. SAGE.
- Marsden, M. (2003). *The woven universe: Selected writings of Rev. Māori Marsden*. (T. A. C. Royal, Ed.). Estate of Rev. Māori Marsden.
- Marsden, M., & Henare, T. A. (1992). *Kaitiakitanga: A definitive introduction to the holistic world view of the Maori*. Ministry for the Environment.
- Martin, A. (2020). *Welfare and single Māori mothers in the media: Symbolic power and the case of Metiria Turei*. [Masters thesis.]. Massey University.
- Martínez-López, F. J., & Martínez, L. F. (2022). *Advances in digital marketing and eCommerce: Third International Conference 2022*. Springer.
- Marx, K. (1963). *Selected writings in sociology and social philosophy*. (T. B. Bottomore & M. Rubel, Eds.; 2nd ed.). Penguin Books.

- Massey University. (2017). *Code of Ethical Conduct for Research, Teaching and Evaluations Involving Human Participants*. Massey University.
<https://www.massey.ac.nz/massey/research/research-ethics/human-ethics/code-ethical-conduct.cfm>
- Mataira, T. H. K. (2008). Official version of Te Aho Matua o ngā Kura Kaupapa Māori and an explanation in English. Pursuant to Section 155A of the Education Act 1989. *New Zealand Gazette*, 32, 733–746.
- Mathias, S. (2022, July 29). Inside the fight for Māori data sovereignty. *The Spinoff*.
<https://thespinoff.co.nz/internet/29-07-2022/indigenous-data-sovereignty-will-make-the-internet-a-better-place-for-maori>
- Mato, P. (2009). *Using a digital library as a Māori language learning resource: Issues and possibilities*. [Master of Arts]. University of Waikato.
- Mato, P. (2018). *Mā te hangarau te oranga o te reo Māori e tautoko ai? Can technology support the long-term health of the Māori language?* [Doctoral dissertation., University of Waikato]. <https://hdl.handle.net/10289/11921>
- Mato, P., Dalley, T., & Keegan, T. T. (2012). *Reo Māori ki ngā Rorohiko o te Kura: An investigation into the use of software with a Māori-language interface by Māori-medium schooling of New Zealand. A report provided to the Te Reo Māori Schooling Group of the Ministry of Education, NZ*. Ministry of Education.
- Mato, P., Keegan, T. T., & Naera, L. (2015). How usable is a smartphone with a Māori-language interface? *MAI Journal*., 5(1), 17–35. <https://doi.org/doi:10.20507/MAIJournal.2016.5.1.2>
- McCann, M. (2022, March 8). Experts warn misinformation will have ‘long-term impact’ on social cohesion in New Zealand. *Newshub*.
<https://www.newshub.co.nz/home/new-zealand/2022/03/experts-warn-misinformation-will-have-long-term-impact-on-social-cohesion-in-new-zealand.html>
- McClintock, K. K., McClintock, R., & Brown, T. (2016). *Cybersafety for indigenous youth population*. Te Rau Matatini.

- McKenzie, T. G. K. (2014). *The challenges and opportunities of using mobile devices to attain Maori language proficiency* [Doctoral dissertation, Victoria University].
<http://researcharchive.vuw.ac.nz/bitstream/handle/10063/3291/thesis.pdf?sequence=2>
- McLachlan, L.-M. (2020, June 3). Gallery pulls artwork after complaints of cultural appropriation. *RNZ*. <https://www.rnz.co.nz/news/national/418152/gallery-pulls-artwork-after-complaints-of-cultural-appropriation>
- McPhail, T. (2008a). *eColonialism theory: Hegemony and the role of American media*. Common Ground Publishing Pty Ltd.
- McPhail, T. (2008b). eColonialism Theory: Hegemony and the Role of American Media. *The Global Studies Journal*, 1(2), 45–54.
<https://doi.org/10.18848/1835-4432/CGP/v01i02/40822>
- McPhail, T. (2014, March 21). eColonialism Theory: How Trends are Changing the World. *The World Financial Review*.
<https://worldfinancialreview.com/ecolonialism-theory-trends-changing-world/>
- McPhail, T. L. (1987). *Electronic colonialism: The future of international broadcasting and communication*. (Rev. 2nd ed). Sage Publications.
- Mead, A. (2002). *Understanding Māori intellectual property rights*. The Inaugural Maori Legal Forum, available at: www.conferenz.co.nz/library/m/mead_aroaha.html.
- Mead, H. M. (1996). *Ko Tāwhaki Nui-a-Hema āna mahi whakahirahira*. Reed Publishers.
- Mead, H. M. (2000, August 11). *The Nature of Tikanga*. Mai i te Ata Hapara, Te Wānanga o Raukawa, Otaki.
- Mead, H. M. (2003). *Tikanga Māori: Living by Māori values*. Huia Publishers.
- Mead, H. M. (2016). *Tikanga Māori: Living by Māori values*. (Revised edition). Huia Publishers.
- Meert, B. (2022, January 7). The Data War: The Past, Present And Future Of Data In Digital Advertising. *Forbes*.

<https://www.forbes.com/sites/forbesagencycouncil/2022/01/07/the-data-war-the-past-present-and-future-of-data-in-digital-advertising/?sh=26671ca2ff05>

Meihana, P. N. (2015). *The paradox of Maori privilege: Historical constructions of Maori privilege circa 1769 to 1940*. [Doctoral dissertation, Massey University]. <https://mro.massey.ac.nz/handle/10179/7849>

Merriam-Webster. (n.d.). Ethic. In *Merriam-Webster.com dictionary*. Merriam-Webster.com. <https://www.merriam-webster.com/dictionary/ethic>

Mignolo, W., & Walsh, C. E. (2018). *On decoloniality: Concepts, analytics, praxis*. Duke University Press.

Mika, J. P., Fahey, N., & Bensemman, J. (2019). What counts as an indigenous enterprise? Evidence from Aotearoa New Zealand. *Journal of Enterprising Communities: People and Places in the Global Economy.*, 13(3), 372–390.

Mikaere, A. (2011). *Colonising myths—Māori realities: He rukuruku whakaaro*. Huia Publishers and Te Wānanga o Raukawa.

Ministry of Education. (n.d.). *Information about e-ako maths adventures*. Ministry of Education. <https://nzmaths.co.nz/information-about-e-ako-maths-adventures>

Ministry of Education. (2021, June 1). *Tackling the digital divide during COVID-19*. [DIGITAL.GOV.T.NZ]. <https://www.digital.govt.nz/showcase/tackling-the-digital-divide-during-covid-19/>

Ministry of Health. (2015). *Tatau Kahukura: Māori Health Chart Book 2015 (3rd edition)*. Ministry of Health. <https://www.health.govt.nz/publication/tatau-kahukura-maori-health-chart-book-2015-3rd-edition>

Ministry of Health. (2018). *Neighbourhood deprivation*. Ministry of Health. <https://www.health.govt.nz/our-work/populations/maori-health/tatau-kahukura-maori-health-statistics/nga-awe-o-te-hauora-socioeconomic-determinants-health/neighbourhood-deprivation>

Mintu-Wimsatt, A., Kernek, C., & Lozada, H. R. (2010). Netiquette: Make it part of your syllabus. *MERLOT Journal of Online Learning and Teaching.*, 6(1), 264–267.

- Mirza, A., & Sundaram, D. (2016). Architecting Crowd-Sourced Language Revitalisation Systems: Generalisation and Evaluation to Te Reo Māori and Vietnamese. In H. T. Nguyen & V. Snasel (Eds.), *Computational Social Networks* (pp. 333–344). Springer International Publishing.
- Moewaka Barnes, H., & McCreanor, T. (2019). Colonisation, hauora and whenua in Aotearoa. *Journal of the Royal Society of New Zealand*, 49(sup1), 19–33.
- Molina, M. D., Sundar, S. S., Le, T., & Lee, D. (2021). “Fake News” Is Not Simply False Information: A Concept Explication and Taxonomy of Online Content. *American Behavioral Scientist*, 65(2), 180–212.
<https://doi.org/10.1177/0002764219878224>
- Moorfield, J. (2017). Te Whanake and Te Aka digital resources. In H. Whaanga, T. T. Keegan, & M. Apperley (Eds.), *He Whare Hangarau Māori Language, culture & technology*. (pp. 35–41). Te Pua Wānanga ki te Ao, Te Whare Wānanga o Waikato.
- Morford, A. C., & Ansloos, J. (2021). Indigenous sovereignty in digital territory: A qualitative study on land-based relations with #NativeTwitter. *AlterNative: An International Journal of Indigenous Peoples*, 17(2), 293–305.
<https://doi.org/10.3316/informit.932021240495955>
- Morris, F. (Director). (2022). *The Tinder Swindler* [Broadcast]. Netflix.
- Mouton, M., & Burns, R. (2021). (Digital) Neo-colonialism in the Smart City. *Regional Studies*, 55(12), 1890–1901.
- Mross, M. (Director). (2014). *The rise and rise of Bitcoin* [Broadcast]. 44th Floor Productions.
- Muhamad-Brandner, C. (2009). Biculturalism online: Exploring the web space of Aotearoa/New Zealand. *Communication & Ethics in Society*, 7(2/3), 182–191.
- Muhamad-Brandner, C. (2010). *Exploring the cyber-rohe. Māori identity and the Internet*. [Doctoral dissertation, University of Auckland].
<https://researchspace.auckland.ac.nz/handle/2292/6382>
- Murphy, H., & Reid, D. (Educator). (2016). *Ngā hangarau matihiko i ngā kura ara reo Māori: Maori-medium ICT research report 2016: Digital technologies*. Te Tāhuhu o te Mātauranga Aotearoa.

<https://www.educationcounts.govt.nz/publications/91416/105966/nga-hangarau-matihiko-i-nga-kura-ara-reo-maori>

Muru-Lanning, C. (2020, February 29). By any memes necessary: How Māori meme pages are helping to decolonise Aotearoa. *The Spinoff*.
<https://thespinoff.co.nz/atea/29-02-2020/by-any-memes-necessary-how-maori-meme-pages-are-helping-to-decolonise-aotearoa>

Nakamura, L. (2006). *Critical Cyberculture Studies* (D. Silver & A. Massanari, Eds.; pp. 29–36). New York University Press.
<https://doi.org/10.18574/nyu/9780814708903.003.0006>

Namugenyi, C., Nimmagadda, S., L., & Reiners, T. (2019). Design of a SWOT analysis model and its evaluation in diverse digital business ecosystem contexts. *Procedia Computer Science*, 159, 1145–1154.

Neal, T., & Collier, H. (2006). Weaving kaupapa Maori and e-Learning. *He Puna Korero: Journal of Maori and Pacific Development*, 7(2), 68–73.
<https://doi.org/10.3316/informit.789143005474790>

Nee, J. (2020). Social Media Influencers must stop Spreading COVID-19 Conspiracy Theories. *UWIRE Text*, 1–1.

NetSafe. (n.d.). www.netsafe.org.nz

Netsafe. (2018). *New Zealand teens' digital profile: A Factsheet*. Netsafe.
<https://www.netsafe.org.nz/youth-factsheet-2018>

New Zealand Council for Educational Research. (2004). *Critical Success Factors and Effective Pedagogy for e-learning in Tertiary Education. Background paper for ITP New Zealand*. New Zealand Council for Educational Research.
https://www.educationcounts.govt.nz/__data/assets/pdf_file/0005/170861/Critical-Success-Factors-and-Effective-Pedagogy-for-e-Learning-in-Tertiary-Education-NZCER.pdf

New Zealand Digital Skills Forum. (2021). *Digital skills Aotearoa, digital skills for our digital future*. New Zealand Digital Skills Forum. digitalnation.nz

Ngata, A. T., Sir, & Jones, P. T. H. (1972). *Nga moteatea: He maramara rere no nga waka maha*. A. H. & A. W. Reed for the Polynesian Society.

- Ngata, A. T., Sir (Ed.), Jones, P. T. H. (Trans.). (2006). Pinepine te kura: Little tiny kura. In *Ngā Mōteatea, he maramara rere nō ngā waka maha. The Songs, scattered pieces from many canoe areas.: Vol. Part Three* (3rd edition, pp. 74–93). Auckland University Press.
- Ngata, T. (2020a, August 9). The rise of Māori MAGA. *E-Tangata*. <https://e-tangata.co.nz/comment-and-analysis/the-rise-of-maori-maga/>
- Ngata, T. (2020b, November 15). What I Wish People Understood About Misinformation and Māori. [Wordpress]. *Tina Ngata: Dismantling Frameworks of Domination, Rematrating Ways of Being*. <https://tinangata.com/2020/11/15/what-i-wish-people-understood-about-misinformation-and-maori/>
- Ngata, T. (2021a). Rangatiratanga in the Age of Misinformation. [Wordpress]. *Tina Ngata: Dismantling Frameworks of Domination, Rematrating Ways of Being*. <https://tinangata.com/2021/11/05/rangatiratanga-in-the-age-of-misinformation/>
- Ngata, T. (2021b). The top 5 colonial conspiracy theories. [Wordpress]. *Tina Ngata: Dismantling Frameworks of Domination, Rematrating Ways of Being*. <https://tinangata.com/2021/03/07/the-top-5-colonial-conspiracy-theories/>
- Ngata, W. (2017). Kanohi ki te kanohi: Face-to-face in digital space. In H. Whaanga, T. T. Keegan, & M. Apperley (Eds.), *He Whare Hangarau Māori Language, culture & technology*. (pp. 178–183). Te Pua Wānanga ki te Ao, Te Whare Wānanga o Waikato.
- Nicholson Consulting. (2020). *Te Matapaeroa 2020*. [Technical report.]. Te Puni Kōkiri. <https://www.tpk.govt.nz/en/o-matou-mohiotanga/maori-enterprise/te-matapaeroa-2020>
- Niezen, R. (2005). Digital identity: The construction of virtual selfhood in the indigenous peoples' movement. *Comparative Studies in Society and History*., 47(3), 532–551.
- Niland, P., McCreanor, T., Lyons, A. C., & Griffin, C. (2017). Alcohol marketing on social media: Young adults engage with alcohol marketing on facebook. *Addiction Research & Theory*, 25(4), 273–284.

- Nilsen, T. D., & Solevåg, A. R. (2016). Expanding Ecological Hermeneutics: The Case for Ecolonialism. *Journal of Biblical Literature*, 135(4), 665–683.
<https://doi.org/10.15699/jbl.1354.2016.3111>
- ‘No time’ for Maori input into haka ad. (2006, July 9). *NZ Herald*.
<https://www.nzherald.co.nz/kahu/no-time-for-maori-input-into-haka-ad/JZGXR7R3OIXSCIJXWCZQNWCAQ4/>
- Noble, S. U. (2018). *Algorithms of Oppression: How Search Engines Reinforce Racism*. New York University Press.
- Nordenstreng, K., & Varis, T. (1974). Television Traffic: A One-Way Street? A Survey and Analysis of the International Flow of Television Programme Material. Reports and Papers on Mass Communication No. 70. *Reports and Papers on Mass Communication*, 70.
https://www.researchgate.net/publication/234625045_Television_Traffic_A_One-Way_Street_A_Survey_and_Analysis_of_the_International_Flow_of_Television_Programme_Material_Reports_and_Papers_on_Mass_Communication_No_70
- Noujaim, J., & Amer, K. (Directors). (2019). *The great hack*. [Broadcast]. Netflix.
- O’Callaghan, J. (2022, November 23). Internet NZ apologises to Māori after fallout over racist video. *Stuff*. <https://www.stuff.co.nz/pou-tiaki/130563474/internet-nz-apologises-to-mori-after-fallout-over-racist-video>
- O’Carroll, A. D. (2013a). An Analysis Of How Rangatahi Māori Use Social Networking Sites. *MAI Journal*, 2(1), 46–59.
- O’Carroll, A. D. (2013b). *Kanohi ki te kanohi—A thing of the past? An examination of Māori use of social networking sites and the implications for Māori culture and society*. [Doctoral dissertation., Massey University.].
<http://hdl.handle.net/10179/5323>
- O’Carroll, A. D. (2013c). Māori Identity Construction in SNS. *International Journal of Critical Indigenous Studies.*, 6(2), 2–16. <https://doi.org/10.5204/ijcis.v6i2.99>
- O’Carroll, A. D. (2013d). Virtual whanaungatanga: Maori utilizing social networking sites to attain and maintain relationships. *AlterNative: An International Journal*

of Indigenous Peoples, 9(3), 230–245.
<https://doi.org/10.3316/informit.535942708314482>

O’Carroll, A. D. (2013e). Virtual whanaungatanga. Māori utilizing social networking sites to attain and maintain relationships. *AlterNative An International Journal of Indigenous Peoples.*, 9(3), 230–245.

Ohia, M. (2005). Introduction—Monte Ohia, member, project Māori reference group. In Institutes of Technology and Polytechnics of New Zealand. (Ed.), *Critical success factors for effective use of e-learning with Māori learners*. (pp. 3–4). Institutes of Technology and Polytechnics of New Zealand. www.itpnz.ac.nz

Orlowski, J. (Director). (2020). *The social dilemma*. [Broadcast]. Netflix.
<https://www.netflix.com/nz/title/81254224>

Osibanjo, O., & Nnorom, I. C. (2008). Material flows of mobile phones and accessories in Nigeria: Environmental implications and sound end-of-life management options. *Environmental Impact Assessment Review*, 28(2–3), 198–213.

O’Sullivan, J., & Mills, C. (2009). The Māori cultural institution of hui: When meeting means more than a meeting. *Communication Journal of New Zealand*, 10(2), 18–39.

Oswald, T. K., Rumbold, A. R., Kedzior, S. G., & Moore, V. M. (2020). Psychological impacts of “screen time” and “green time” for children and adolescents: A systematic scoping review. *PloS One.*, 15(9), Article e0237725.
<https://doi.org/10.1371/journal.pone.0237725>

Oxford University Press. (2014). Internet. In *Oxford Dictionaries*. Oxford University Press.
<http://www.oxforddictionaries.com/definition/english/Internet?q=internet>

Palmer, C., & Tano, M. L. (2007). *Mokomōkai: Commercialization and desacralization*. New Zealand Electronic Text Centre.

Parker, B. (2003). Māori access to information technology. *The Electronic Library.*, 21(5), 456–460.

- Paterson, L. (2004). *Ngā reo o ngā Niupepa Māori language newspapers 1855-1863*. [Doctoral dissertation., University of Otago.].
<https://ourarchive.otago.ac.nz/handle/10523/146>
- Paterson, L. (2011). Government, Church and Māori Responses to Mākutu (Sorcery) in New Zealand in the Nineteenth and Early Twentieth Centuries. *Cultural and Social History*, 8(2), 175–194.
- Paterson, L. (2016). The New Zealand Government's Niupepa and their Demise. *New Zealand Journal of History*, 50(2), 44–67.
- Paulsen, P., & Fuller, D. (2020). Scrolling for data or doom during COVID-19? *Canadian Journal of Public Health*, 111(4), 490–491.
- Peszynski, K. J. (2003). Trust in B2C E-Commerce: The New Zealand Maori Internet Shopper. In T. Thanasankit (Ed.), *E-Commerce and Cultural Values*. (pp. 168–197). IGI Global. <http://doi:10.4018/978-1-59140-056-1.ch008>
- Petrescu, M., & Krishen, A. S. (2020). The dilemma of social media algorithms and analytics. *Journal of Marketing Analytics*, 8(4), 187–188.
- Petrie, H. (2006). *Chiefs of industry: Māori tribal enterprise in early colonial New Zealand*. Auckland University Press.
- Pewhairangi, S. (2002, February 10). Internet safety and Māori. *NetSafe: Society, Safety and the Internet. Technical Report 172*. NetSafe: Society, Safety and the Internet, Auckland, New Zealand.
<https://www.cs.auckland.ac.nz/~john/NetSafe/Pewhairangi.pdf>
- Phillips, J. B. (2022). Covering tangata whenua in Aotearoa: A big data exploration of print media and Māori. *Kōtuitui: New Zealand Journal of Social Sciences Online*, 1–18. <https://doi.org/10.1080/1177083X.2022.2122517>
- Pihama, L. (1994). *Tungia te ururua, kia tupu whakaritorito te tupu o te harakeke: A critical analysis of parents as first teachers*. [Masters thesis.]. University of Auckland.
- Pihama, L. (2001). *Tīhei mauri ora: Honouring our voices: Mana wahine as a kaupapa Māori: Theoretical framework*. (Internet) [Doctoral dissertation, University of Auckland].

[http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.470.7833&rep=rep1
&type=pdf](http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.470.7833&rep=rep1&type=pdf)

- Pihama, L. (2015). Kaupapa Māori theory: Transforming theory in Aotearoa. In *Kaupapa Rangahau: A reader* (pp. 5–16). Te Kotahi Research Institute. https://www.waikato.ac.nz/__data/assets/pdf_file/0009/339885/Kaupapa-Rangahau-A-Reader_2nd-Edition.pdf
- Pihama, L. (2018, August 12). Hate speech is not Free speech. [Wordpress]. *Kaupapa Māori as Transformative Indigenous Analysis*. <https://kaupapamaori.com/2018/08/12/444/>
- Pihama, L., Smith, K., Taki, M., & Lee, J. (2004). *A literature review on kaupapa Maori and Maori education pedagogy*. The Indigenous Research Institute for Maori and Indigenous Education (IRI).
- Pihama, L., Southey, K., & Tiakiwai, S. (2015). *Kaupapa rangahau: A reader: A collection of readings from the Kaupapa rangahau workshop series*. (Second edition). Te Kotahi Research Institute. https://www.waikato.ac.nz/__data/assets/pdf_file/0009/339885/Kaupapa-Rangahau-A-Reader_2nd-Edition.pdf
- Pihama, M. (Director). (2022, June 14). *Hongi to hangī: And everything in between*. [Broadcast]. TV1. <https://www.tvnz.co.nz/shows/hongi-to-hangi-and-everything-in-between>
- Pink, S., Horst, H. A., Postill, J., Hjorth, L., Lewis, T., & Tacchi, J. (2016). *Digital ethnography: Principles and practice*. SAGE Publications Ltd.
- Plaut, S. M. (1997). Online Ethics: Social Contracts in the Virtual Community. *Journal of Sex Education and Therapy*, 22(1), 84–90. <https://doi.org/10.1080/01614576.1997.11074177>
- Pohatu, T. W. (2013). Āta: Growing respectful relationships. *Journal of Psychotherapy Aotearoa New Zealand*, 17(1), 13–26.
- Porta, M. (2016). *Epistemology*. Oxford University Press. <https://doi.org/10.1093/acref/9780199976720.013.0685>

- Poutū, H. (2014). *Kia Tiori ngā Pīpī: Mā te aha e kōrero Māori ai ngā taitamariki ngā wharekura o Te Aho Matua?* [Doctoral dissertation, Massey University]. <http://hdl.handle.net/10179/7752>
- Precious Tilly. (2022, April 24). [Broadcast]. In *Sunday*. TVNZ. <https://www.tvnz.co.nz/shows/sunday/live>
- Project Force: AI and the military—Friend or foe?* (2021, March 28). [Broadcast]. Al Jazeera. <https://www.aljazeera.com/features/2021/3/28/friend-or-foe-artificial-intelligence-and-the-military>
- Rainie, S. C., Kukutai, T., Walter, M., Figueroa-Rodríguez, O. L., Walker, J., & Axelsson, P. (2019). Indigenous data sovereignty. In T. Davies, S. B. Walker, M. Rubinstein, & F. Perini (Eds.), *The State of Open Data: Histories and Horizons* (1–21, pp. 300–319). African Minds and the International Development Research Centre (IDRC). <https://hdl.handle.net/10289/12918>
- Rakena, R., & Bridgman, M. (n.d.). *Mana Moana* [Digital Artwork Collaboration]. Mana Moana. manamoana.co.nz
- Raley, R. (2004). eEmpires. *Cultural Critique*, 57, 111–150.
- Rameka, L. K. (2015). Te Ira Atua: The spiritual spark of the child. *He Kupu The Word*, 4(2), 82–92.
- Rangiwai, B. (2020). The potential effects of COVID-19 on research interviews in Year 2 of the Master of Applied Indigenous Knowledge programme at Te Wānanga o Aotearoa in Māngere. *Te Kaharoa*, 13(1), 1–13.
- Rangiwai, B., & Sciascia, A. D. (2021). The impacts of COVID-19 on tangihanga. *Journal of Global Indigeneity.*, 5(1), 1–14.
- Reeve, D. (2022). *Fake Believe. Conspiracy theories in Aotearoa*. Upstart Press.
- Regenbrecht, H., Park, N., Duncan, S., Mills, S., Lutz, R., Lloyd-Jones, L., Ott, C., Thompson, B., Whaanga, D., Lindeman, R. W., Tong, K., Clifford, R., Jones, N., Mato, P., Keegan, T. T., & Whaanga, H. (2022). Ātea Presence—Enabling Virtual Storytelling, Presence, and Tele-Co-Presence in an Indigenous Setting. *IEEE Technology & Society Magazine*, 41(1), 32–42.
- Reihana, L., & Devenport, R. (2009). *Digital marae*. Govett Brewster Art Gallery.

- Reny, T. T., & Newman, B. J. (2021). The opinion-mobilizing effect of social protest against police violence: Evidence from the 2020 George Floyd protests. *American Political Science Review*, 115(4), 1499–1507.
- Resta, P., Christal, M., & Roy, L. (2013). Digital technology to empower indigenous culture and education. In *World Yearbook of Education 2004* (pp. 193–209). Routledge.
- Reti, S., Feldman, H. J., & Safran, C. (2011). Online access and literacy in Māori New Zealanders with diabetes. *Journal of Primary Health Care.*, 3(3), 190–191.
- Rice, R. E. (2005). New Media/Internet Research Topics of the Association of Internet Researchers. *The Information Society*, 21(4), 285–299.
<https://doi.org/10.1080/01972240500189232>
- Rishworth, S. (2022, April 25). Tairawhiti’s first online Tangi. *The Gisborne Herald*.
<https://www.gisborneherald.co.nz/frontpage-featured/20200418/tairawhitis-first-online-tangi/>
- Robinson, B. (2020). Towards an ontology and ethics of virtual influencers. *Australasian Journal of Information Systems*, 24, 1–8.
- Robinson, D., & Robinson, K. (2005). ‘Pacific ways’ of talk: Hui and talanoa. NZ Trade Consortium Working Paper.
- Roy, L., & Raitt, D. (2003). The impact of IT on indigenous peoples. *The Electronic Library*, 21(5), 411–413. <https://doi.org/10.1108/02640470310501412>
- Royal, A. (2005). eLearning Supporting The Revitalisation of the Maori Language. In G. Richards (Ed.), *Proceedings of E-Learn 2005—World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education*. (pp. 2664–2667). Association for the Advancement of Computing in Education (AACE). <https://www.learntechlib.org/primary/p/21602/>.
- Royal, T. A. C. (2012). Politics and knowledge: Kaupapa Māori and mātauranga Māori. *New Zealand Journal of Educational Studies*, 47(2), 30–37.
- Ruckstuhl, K. (2023). Data is a taonga: Aotearoa New Zealand, Māori Data Sovereignty and implications for protection of treasures. *Journal of Intellectual Property & Entertainment Law*, 12, 391–412.

- Ruckstuhl, K., Haar, J., Hudson, M., Amoamo, M., Waiti, J., Ruwhiu, D., & Daellenbach, U. (2019). Recognising and valuing Māori innovation in the high-tech sector: A capacity approach. *Journal of the Royal Society of New Zealand*, 49(sup1), 72–88.
- Sade-Beck, L. (2004). Internet ethnography: Online and offline. *International Journal of Qualitative Methods*, 3(2), Article-4.
- Sadler, R. (2021, June 3). White supremacy ‘very normalised’ in New Zealand, Māori ‘not believed’ when saying it affects them—Professor Margaret Mutu. *Newshub*. <https://www.newshub.co.nz/home/new-zealand/2021/06/white-supremacy-very-normalised-in-new-zealand-m-ori-not-believed-when-saying-it-affects-them-professor-margaret-mutu.html>
- Said, E. (1978). *Orientalism*. Penguin Books.
- Salmond, A. (1975). *Hui: A study of Maori ceremonial gatherings*. A. H. & A. W. Reed.
- Schiller, H. I. (1976). *Communication and cultural domination*. International Arts and Sciences Press.
- Schroeder, R. (2018). *Social theory after the Internet. Media, technology and globalization*. UCL Press. <https://doi.org/10.14324/111.9781787351226>
- Sciascia, A. D. (2016a). *Māori cultural revitalisation in social networking sites*. [A paper prepared for Te Puni Kōkiri.]. Te Puni Kōkiri.
- Sciascia, A. D. (2016b). Negotiating Place, Negotiating Identity: Rangatahi Māori in Facebook. In T. Skelton, K. Nairn, & P. Krafft (Eds.), *Space, Place, and Environment. Geographies of Children and Young People*. (Vol. 3, pp. 67–85). Springer. https://doi.org/10.1007/978-981-287-044-5_29
- Sciascia, A. D., & Keegan, T. T. (2021, June 30). *Using social media for research*. [Workshop]. Ngā Pae o te Māramatanga: Professional Excellence Workshop., Online. <http://mediacentre.maramatanga.ac.nz/content/npm-professional-excellence-workshop-using-social-media-research>
- Selby, M. (2006). Language, Matauranga Maori. . . And Technology? *He Puna Kōrero: Journal of Maori and Pacific Development*, 7(2), 79–86.

- Shafique, K., Khawaja, B. A., Sabir, F., Qazi, S., & Mustaqim, M. (2020). Internet of things (IoT) for next-generation smart systems: A review of current challenges, future trends and prospects for emerging 5G-IoT scenarios. *Ieee Access*, 8, 23022–23040.
- Shand, P. (2002). Scenes from the colonial catwalk: Cultural appropriation, intellectual property rights, and fashion. *Cultural Analysis*, 3(2002), 47–88.
- Shannon, T. R. (2018). *An introduction to the world-system perspective*. Routledge.
- Sharma, A. (2022, February 15). Texas sues Facebook’s Meta over facial-recognition tech. *The National*.
<https://www.thenationalnews.com/business/technology/2022/02/14/texas-sues-facebooks-meta-over-facial-recognition-tech/>
- Sharma, B., Lee, S. S., & Johnson, B. K. (2022). The dark at the end of the tunnel: Doomscrolling on social media newsfeeds. *Special Collection: Technology in a Time of Social Distancing*, 3(1). <https://doi.org/10.1037/tmb0000059>
- Shea, V. (1994). Core Rules of Netiquette. *Educom Review.*, 29(5), 58–62.
- Shedlock, K., & Hudson, P. (2022). Kaupapa Māori concept modelling for the creation of Māori IT Artefacts. *Journal of the Royal Society of New Zealand*, 1–15.
<https://doi.org/10.1080/03036758.2022.2070223>
- Sheehan, M. (2011). Developing Internet protocol television and future broadcasting platforms: A literature review. *Te Kaharoa*, 4(1), 97–118.
<https://doi.org/10.24135/tekaharoa.v4i1.113>
- Shepherd, M., Fleming, T., Lucassen, M., Stasiak, K., Lambie, I., & Merry, S. N. (2015). The Design and Relevance of a Computerized Gamified Depression Therapy Program for Indigenous Maori Adolescents. *Journal of Medical Internet Research*, 17(3), 1–1.
- Sill, L., Barnett, E., Givens, M., Slutskaya, S., & Tench, R. (2022). Report of the ALA Core Creative Ideas in Technical Services Interest Group Discussions from the ALA Annual Conference 2021, Online, June 25, 2021, 1: 00 pm EDT. *Technical Services Quarterly*, 39(1), 57–63.
- Simeonova, L. (2023). The Rise of Influencers: An Update to the Multi-step Flow Theory of Communication in the Perspective of the COVID-19 Infodemic in

- Bulgaria. In M. Winiarska-Brodowska (Ed.), *THE NEW COMMUNICATION REVOLUTION* (pp. 175–200). Uniwersytet Jagiellońsk.
<https://media.uj.edu.pl/documents/1384650/134373778/The+New+Communication+Revolution/7db052ea-68e9-4f47-bbdc-ad18c05de8cd>
- Small, Z. (2022, July 26). Calls for tougher regulations after study finds fast food brands targeting youths on TikTok. *Newshub*.
<https://www.newshub.co.nz/home/lifestyle/2022/07/calls-for-tougher-regulations-after-study-finds-fast-food-brands-targeting-youths-on-tiktok.html>
- Smith, A. G. (1997). *Fishing with new nets: Māori internet information resources implications of the internet for indigenous peoples*. Internet Society (INET), Kuala Lumpur. http://www.isoc.org/inet97/proceedings/E1/E1_1.HTM
- Smith, G. (2012). Interview: Kaupapa Maori: The dangers of domestication. *New Zealand Journal of Educational Studies*, 47(2), 10–20.
- Smith, G. H. (1997). *The development of kaupapa Maori theory and praxis* [Doctoral dissertation, Auckland University]. <http://hdl.handle.net/2292/623>
- Smith, G. H. (2017). Kaupapa Māori theory: Indigenous transforming of education. In T. K. Hoskins & A. Jones (Eds.), *Critical conversation in Kaupapa Māori* (pp. 70–81). Huia Publishers.
- Smith, L. T. (2015). Kaupapa Māori research- Some Kaupapa Māori principles. In L. Pihama & K. South (Eds.), *Kaupapa Rangahau A Reader: A Collection of Readings from the Kaupapa Maori Research Workshop Series Led* (pp. 46–52). Te Kotahi Research Institute. <https://hdl.handle.net/10289/12026>
- Smith, P., Gibson, A., Crothers, C., Billot, J., & Bell, A. (2011). *The Internet in New Zealand 2011*. Institute of Culture, Discourse & Communication, AUT University.
- Smith, P., Smith, N., Sherman, K., Kripalani, K., Goodwin, I., & Bell, A. (2008). The internet: Social and demographic impacts in Aotearoa New Zealand. *Observatorio (OBS*) Journal.*, 6, 307–330.
- Smith, T. (2000). Nga tini ahuatanga o whakapapa korero. *Educational Philosophy and Theory*, 32(1), 53–60.

- So, A. Y. (1990). *Social change and development: Modernization, dependency and world-system theories* (Issue 178). Sage.
- Soler-Costa, R., Lafarga-Ostáriz, P., Mauri-Medrano, M., & Moreno-Guerrero, A.-J. (2021). Netiquette: Ethic, Education, and Behavior on Internet—A Systematic Literature Review. *International Journal of Environmental Research and Public Health*, 18(3), 1212. <https://doi.org/10.3390/ijerph18031212>
- Stache, L. C. (2015). Advocacy and political potential at the convergence of hashtag activism and commerce. *Feminist Media Studies*, 15(1), 162–164.
- Statistics New Zealand. (2018). *Māori ethnic group*. Statistics New Zealand. <https://www.stats.govt.nz/tools/2018-census-ethnic-group-summaries/m%C4%81ori>
- Statistics New Zealand. (2020). *Ngā Tikanga Paihere: A framework guiding ethical and culturally appropriate data use*. Statistics New Zealand. <https://data.govt.nz/assets/data-ethics/Nga-Tikanga/Nga-Tikanga-Paihere-Guidelines-December-2020.pdf>
- Statistics New Zealand. (2022). *Child poverty statistics: Year ended June 2021*. Statistics New Zealand. <https://www.stats.govt.nz/information-releases/child-poverty-statistics-year-ended-june-2021>
- Stec, C. (2020, July 27). Social media definitions: The ultimate glossary of terms you should know. *Hubspot*. <https://blog.hubspot.com/marketing/social-media-terms>
- Steinman, E. (2019). Why was Standing Rock and the# NoDAPL campaign so historic? Factors affecting American Indian participation in social movement collaborations and coalitions. *Ethnic and Racial Studies*, 42(7), 1070–1090.
- Stephens, M. (2022). ‘Kei a koe, chair!’-the norms of Tikanga and the role of Hui as a Maori constitutional tradition. *Victoria University Wellington Law Review*., 53(3), 463–505. <https://doi.org/10.26686/vuwlr.v53i3.8005>
- Sterling, R., Riddle, K., Brooks, R., Anderson, J., & Hudson, M. (2021). *Intellectual Property, Mātauranga Māori, and Māori Data: Report prepared for Science for Technological Innovation National Science Challenge & Genomics Aotearoa*. Te Kotahi Research Institute, University of Waikato. <https://researchcommons.waikato.ac.nz/bitstream/handle/10289/14657/Intellect>

ual%20Property%2C%20M%C4%81tauranga%20M%C4%81ori%20%26%20M%C4%81ori%20Data%20Report%20-%20Final%20May%202021.pdf?sequence=2&isAllowed=y

Stevenson, A., & Callaghan, S. (2008). *Digitisation and Mātauranga Māori*. LIANZA Conference 2008: Poropitua Outside the Box.

<http://researcharchive.vuw.ac.nz/handle/10063/608>

Stewart, G. T. (2020). Mātauranga Māori: A philosophy from Aotearoa. *Journal of the Royal Society of New Zealand*.

<https://doi.org/10.1080/03036758.2020.1779757>

Straubhaar, J., LaRose, R., & Davenport, L. (2018). *Media now: Understanding media, culture, and technology*. (Tenth). Cengage Learning.

Suckling, J., & Lee, J. (2015). Redefining scope: The true environmental impact of smartphones? *The International Journal of Life Cycle Assessment*, 20(8), 1181–1196.

Suckling, L. (2009). Cyber connections. *Karaka, Makariri*(43), 21–23.

Suja, V. J. (2015). E-Colonialism. *International Journal of Engineering Research & Technology (IJERT) NSRCL.*, 3(28), 1–3.

Sullivan, R. (1999). *Star waka*. Auckland University Press.

Suri, H. (2011). Purposeful sampling in qualitative research synthesis. *Qualitative Research Journal*, 11(2), 63–75.

Switalla-Byers, L. J. (2015). The Use of Podcasts to Improve the Pronunciation of the Māori Language and Develop Reflective Learning Skills. In L. E. Dyson, S. Grant, & M. Hendriks (Eds.), *Indigenous People and Mobile Technologies*. (pp. 179–194). Routledge.

Taira, E. (2006). *Māori media: A study of the Māori 'media sphere'*. [Doctoral dissertation, University of Canterbury].

https://ir.canterbury.ac.nz/bitstream/handle/10092/3079/Thesis_fulltext.pdf;sequence=1

Taiuru. (2015, July 23). Definition: Digital colonisation [Wordpress]. *Dr. Karaitiana Taiuru PhD*. <https://www.taiuru.maori.nz/definition-digital-colonialism/>

- Taiuru, K. (2016). *Māori ICT Groups analysis and directory*. Dr. Karaitiana Taiuru. <http://www.taiuru.maori.nz/wp-content/uploads/Maori-ICT-Organisations-Directory.pdf>
- Taiuru, K. (2017). 20 years of reflections using technology to compile Māori language dictionaries. In H. Whaanga, T. T. Keegan, & M. Apperley (Eds.), *He Whare Hangarau Māori Language, culture & technology*. (pp. 52–55). Te Pua Wānanga ki te Ao, Te Whare Wānanga o Waikato.
- Taiuru, K. (2018, December 19). Data is a Taonga. A customary Māori perspective. [Wordpress]. *Dr. Karaitiana Taiuru PhD*. <https://www.taiuru.maori.nz/data-is-a-taonga/>
- Taiuru, K. (2020, September 10). *Māori data sovereignty and digital colonisation*. Digital Justice - Emerging technologies, methods and research. <https://www.taiuru.maori.nz/maori-data-sovereignty-and-digital-colonisation/>
- Taiuru, K. (2021a, January 10). Māori Culture Guidelines for Brand Owners and Marketing. [Wordpress]. *Dr. Karaitiana Taiuru PhD*. <https://www.taiuru.maori.nz/branding/>
- Taiuru, K. (2021b, March 20). Tikanga about animated pictures of the dead. [Wordpress]. *Dr. Karaitiana Taiuru PhD*. <https://www.taiuru.maori.nz/tikanga-about-animated-pictures-of-the-dead/>
- Taiuru, K. (2021c, May 16). Indigenising through Te Taha Wairua: AI, Algorithms, Data, Internet and IOT. [Wordpress]. *Dr. Karaitiana Taiuru PhD*. <https://www.taiuru.maori.nz/indigenising-through-te-taha-wairua-ai-algorithms-data-internet-and-iot/>
- Taiuru, K. (2021d, August 28). Online safety research ignores Māori. [Wordpress]. *Dr. Karaitiana Taiuru PhD*. <https://www.taiuru.maori.nz/online-safety-research-ignores-maori/>
- Taiuru, K. (2021e, November 26). Tikanga: Cell phone on the table you eat from. [Wordpress]. *Dr. Karaitiana Taiuru PhD*. <https://www.taiuru.maori.nz/tikanga-cell-phone-on-the-table-you-eat-from/>
- Taiuru, K. (2022a). Honouring Te Tiriti o Waitangi in data and technology projects / Te whakahōnore i Te Tiriti o Waitangi i roto i te taraunga me ngā kaupapa

- hangarau. In A. Pendergast & K. Pendergast (Eds.), *More zeros and ones. Digital technology, maintenance and equity in Aotearoa New Zealand*. (pp. 19–28). Bridget Williams Books.
- Taiuru, K. (2022b, March 22). Consumer Guidelines for Māori Non Fungible Tokens. [Wordpress]. *Dr. Karaitiana Taiuru PhD*.
<https://www.taiuru.maori.nz/consumer-guidelines-for-maori-non-fungible-tokens/>
- Taiuru, K. (2022c, May 13). Tikanga Tawhito Tikanga Hou – Literature Reviews. [Wordpress]. *Dr. Karaitiana Taiuru PhD*.
<https://www.taiuru.maori.nz/literature-reviews/>
- Taiuru, K. (2023). Dr. Kairaitiana Taiuru PhD. Māori AI, Data and Emerging Technology Ethicist & Kaupapa Māori Researcher. www.taiuru.maori.nz
- Taiwo, R., & Opeibi, B. O. (2016). *The Discourse of Digital Civic Engagement: Perspectives From the Developing World*. Nova Science Publishers, Inc.
- Talbot, H., & Alali, N. (2021). *The edge of the infodemic: Challenging misinformation in Aotearoa*. Classification Office Te Mana Whakaatu.
- Tamati, K. (2008). *Exploring Māori E-Learning: Instructional Technology, Design, & Delivery*. [Masters thesis.]. Unitec Institute of Technology.
- Tan, L. (2013). Intellectual property law and the globalization of indigenous cultural expressions: Māori tattoo and the Whitmill versus Warner Bros. Case. *Theory, Culture & Society*, 30(3), 61–81.
- Tapsell, P. (2012). “Aroha Mai: Whose Museum?”: The Rise of Indigenous Ethics Within Museum Contexts: A Maori-Tribal Perspective. In *The Routledge Companion to Museum Ethics* (pp. 85–111). Routledge.
- Tawhai, V. M. H. (2020). *A red-tipped dawn: Teaching and learning about indigeneity and the implications for citizenship education*. [Doctoral dissertation, Massey University]. <https://mro.massey.ac.nz/handle/10179/16332>
- Taylor, K.-Y. (2016). *From# BlackLivesMatter to black liberation*. Haymarket Books.
- Te Ao Hikohiko, & Te Tauihu o ngā Wānanga. (2005). *A report on education success factors*. Te Tauihu o ngā Wānanga.

- Te Mana Raraunga - Māori Data Sovereignty Network. (n.d.). *Te Mana Raraunga—Māori Data Sovereignty Network Charter*. Te Mana Raraunga - Māori Data Sovereignty Network.
<https://static1.squarespace.com/static/58e9b10f9de4bb8d1fb5ebbc/t/5913020d15cf7dde1df34482/1494417935052/Te+Mana+Raraunga+Charter+%28Final+%26+Approved%29.pdf>
- Te Whānau o Te Piringa (Writer). (2018, July 3). *Kui Katipō* [Te Piringa Kapa Haka Performance].
- The Expert Advisory Group. (2016). *Ka Hao: Māori Digital Technology Development Fund*. [Funding Plan]. Te Puni Kōkiri.
<https://www.tpk.govt.nz/docs/mdtdf/tpk-ka-hao-operational-framework.pdf>
- The Law Commission. (2001). *Māori custom and values in New Zealand Law*. Law Commission.
<https://www.lawcom.govt.nz/sites/default/files/projectAvailableFormats/NZLC%20SP9.pdf>
- The Waitangi Tribunal. (1989). *Report of the Waitangi Tribunal on the Te Reo Māori Claim (WAI 11) (2nd ed.)*. The Waitangi Tribunal. www.forms.justice.govt.nz
- The Waitangi Tribunal. (1990). *Report of The Waitangi Tribunal on claims concerning the allocation of radio frequencies*. (WAI 26, WAI 150) [Waitangi Tribunal Report.]. The Waitangi Tribunal.
https://forms.justice.govt.nz/search/Documents/WT/wt_DOC_68476762/Allocation%20of%20Radio%20Frequencies%201990.pdf
- The Waitangi Tribunal. (1999). *The radio spectrum management and development final report (WAI 776)*. GP Publications.
https://forms.justice.govt.nz/search/Documents/WT/wt_DOC_68205950/Wai776%20final.pdf
- The Waitangi Tribunal. (2011). *Ko Aotearoa tēnei: A report into claims concerning New Zealand law and policy affecting Māori culture and identity*. (Waitangi Tribunal Report. Te Taumata Tuarua, Volume 1; WAI 262). The Waitangi Tribunal.
https://forms.justice.govt.nz/search/Documents/WT/wt_DOC_68356416/KoAotearoaTeneiTT2Vol1W.pdf

- The Waitangi Tribunal. (2014). *He Whakaputanga me te Tiriti = The Declaration and the Treaty: The report on stage 1 of the Te Paparahi o Te Raki Inquiry (WAI 1040)*. (WAI 1040). The Waitangi Tribunal.
<https://waitangitribunal.govt.nz/assets/Documents/Publications/WT-Part-1-Report-on-stage-1-of-the-Te-Paparahi-o-Te-Raki-inquiry.pdf>
- The Waitangi Tribunal. (2021). *Haumarū. The Covid-19 priority report. Pre-publication version*. WAI 2575. (WAI 2575) [Waitangi Tribunal Report.]. The Waitangi Tribunal.
<https://waitangitribunal.govt.nz/assets/Documents/Publications/Covid-Priority-W.pdf>
- Thomas, A. A., & Thomas, A. (2007). *Youth online: Identity and literacy in the digital age* (Vol. 19). Peter Lang.
- Thompson, P. A. (2020). Mission impossible? Research praxis and activist interventions in New Zealand media policy. *Interactions: Studies in Communication & Culture*, 11(2), 227–244.
- Tiakiwai, S.-J., & Tiakiwai, H. (2010). *A literature review focused on virtual learning environments (VLE) and e-learning in the context of te reo Māori and kaupapa Māori education*. [Report to the Ministry of Education.]. Ministry of Education.
- TikTok: Data mining, discrimination and dangerous content on the world's most popular app*. (2021, July 26). [Broadcast]. ABC News In-depth.
<https://www.abc.net.au/news/2021-07-26/tiktok:-data-mining,-discrimination-and-dangerous/13470700>
- Timoner, O. (Director). (2009, January 19). *We live in public* [Documentary].
- Tomlins-Jahnke, H., & Warren, K. T. (2011). Full, exclusive and undisturbed possession: Māori education and the Treaty. In V. M. H. Tawhai & K. Gray-Sharp (Eds.), *Always speaking: The Treaty of Waitangi and public policy*. (pp. 21–33). Huia Publishers.
- Trigger, S. (2022, February 8). Covid 19 Omicron outbreak: Thousands of anti-mandate protesters ‘in it for the long haul’. *NZ Herald*.
<https://www.nzherald.co.nz/nz/covid-19-omicron-outbreak-thousands-of-anti->

mandate-protesters-in-it-for-the-long-
haul/3WTKGVHGS5M26XJWXFVOX7Y/

- Trottier, D. (2020). Denunciation and doxing: Towards a conceptual model of digital vigilantism. *Global Crime*, 21(3–4), 196–212.
- Tuhiwai-Smith, L. (2012). *Decolonizing methodologies: Research and indigenous peoples*. (2nd ed). Zed Books.
- Tuhiwai-Smith, L. (2015). Kaupapa Māori research—Some kaupapa Māori principles. In *Kaupapa Rangahau: A reader* (pp. 47–54). Te Kotahi Research Institute. https://www.waikato.ac.nz/__data/assets/pdf_file/0009/339885/Kaupapa-Rangahau-A-Reader_2nd-Edition.pdf
- Tuiono, T. A. (2021, June 21). Greens announce Members Bill to stop military launches at Rocket Lab protest. [Political Party]. *Green*. https://www.greens.org.nz/greens_announce_members_bill_to_stop_military_launches_at_rocket_lab_protest
- Tunçalp, D., & Lê, P. L. (2014). (Re)Locating boundaries: A systematic review of online ethnography. *Journal of Organizational Ethnography*, 3(1), 59–79. <https://doi.org/10.1108/JOE-11-2012-0048>
- Tunstall, J. (1977). *The media are American: Anglo-American media in the world*. Constable.
- Tupper, J. (2014). Social Media and the Idle No More Movement: Citizenship, Activism and Dissent in Canada. *Journal of Social Science Education*, 13(4), 87–94.
- US army uses video games as part of recruitment drive*. (2009, November 12). [Broadcast]. Al Jazeera.
- Van Meijl, T. (2009). Māori intellectual property rights and the formation of ethnic boundaries. *International Journal of Cultural Property*, 16(3), 341–355.
- Venkatesan, V., & Nambiar, N. (2003). E-Colonialism the New Challenge of the 21st Century. In M. Khosrow-Pour (Ed.), *Information Technology and Organizations: Trends, Issues, Challenges and Solutions*. (pp. 778–779). IGI Global.

- Volkmer, I. (2021). *Social media and covid-19. A global study of digital crisis interaction among Gen Z and millennials*. University of Melbourne.
https://arts.unimelb.edu.au/__data/assets/pdf_file/0007/3958684/Volkmer-Social-Media-and-COVID.pdf
- Waetford, T. J. (2004). *E-workforce development: Utilising information technology in Māori mental health workforce development*. Te Rau Matatini, Te Putahi-a-Toi, School of Maori Studies, Massey University.
- Waikato, T. (2005). He Kaitiaki Matauranga: Building a protection regime for Maori traditional knowledge. *Yearbook of New Zealand Jurisprudence*, 8(2), 344–410.
- Waiti, P. (2005). *Evaluation of Kaupapa ara whakawhiti matauranga (KAWM)*. Ministry of Education.
- Waitoa, J. (2013). *E-whanaungtanga: The role of social media in Māori political engagement*. [Masters thesis.]. Massey University.
- Waitoa, J., Scheyvens, R., & Warren, T. R. (2015). E-WHANAUNGATANGA: The role of social media in Māori political empowerment. *AlterNative*, 11(1), 45–58.
- Walker, D. T. W. (2017). *Tikanga Māori ki te Ao Matihiko: 'Māori values as a framework for digital leadership': Masters in Advanced Leadership Practice report*. [Masters thesis.]. Massey University.
- Walker, N., Smith, B., Barnes, J., Verbiest, M., Kurdziel, T., Parag, V., Pokhrel, S., & Bullen, C. (2019). Cytisine versus varenicline for smoking cessation for Māori (the indigenous people of New Zealand) and their extended family: Protocol for a randomized non-inferiority trial. *Addiction*, 114(2), 344–352.
- Walker, R. (1987). *Nga tau tohetohe = Years of anger*. Penguin Books.
- Walker, R. J. (1990). *Ka whawhai tonu matou struggle without end*. Penguin Books.
- Walker, R. J. (1996). *Ngā pepa a Ranginui = The Walker Papers*. Penguin Books.
- Wallerstein, I. (1980). *The modern world system II: mercantilism and the consolidation of the European world economy, 1600-1750*. Academic Press.

- Walter, M., Kukutai, T., Carroll, S. R., & Rodriguez-Lonebear, D. (2021). *Indigenous data sovereignty and policy*. Taylor & Francis.
- Walters, M., Walters, R., & Walters, Sam. (2021). *Marae. Te tatau pounamu, a journey around New Zealand's meeting houses*. Godwit.
- Ward, K. J. (1999). Cyber-ethnography and the emergence of the virtually new community,. *Journal of Information Technology.*, 14, 95–105.
- Warren, K. T. R. (2009). *Once upon a tikanga: A literature review of early Māori business practise*. Te Au Rangahau, Māori Business Research Centre. Massey University.
- Warren, K. T. R. (2014). The legacy of Māori education—A view in 2014. In Te Mata o Te Tau. (Ed.), *Matariki: A monograph*. (pp. 15–31). Office of the DVC Māori, Massey University.
- Warren, K. T. R. (2017). Te reo Māori: Analysing the colonial history of the native Māori language of Aotearoa (New Zealand). *Revista Lin guística / Revista Do Programa de Pós-Graduação Em Linguística Da Universidade Federal Do Rio de Janeiro.*, 13(1), 349–366.
- Warren, K. T. R. F. (2004). *Rūnanga: Mānuka kawē ake, facilitating Māori aspirations*. [Masters thesis]. Massey University.
- Warren, T., Forster, M., & Tawhai, V. (2017). Tangata whenua: Māori, identity and belonging. In T. Cain, E. Kahu, & R. Shaw (Eds.), *Tūrangawaewae: Identity & belonging in Aotearoa New Zealand* (pp. 53–69). Massey University Press.
- Weekes, J. (2021, March 1). Roast Busters: New charges to be presented after another complainant comes forward. *NZ Herald*. <https://www.nzherald.co.nz/nz/roast-busters-new-charges-to-be-presented-after-another-complainant-comes-forward/T5RDUH2RLJTVSWDNUAZSHNTXUQ/>
- Weiss, M. (2010). An exploration of new, bite-sized trends. *Packaging Review South Africa*, 36(1), 28–29.
- Wemigwans, J. (2018). *A Digital Bundle: Protecting and Promoting Indigenous Knowledge Online*. University of Regina Press.

- Wernke, S., VanValkenburgh, P., & Saito, A. (2020). Interregional Archaeology in the Age of Big Data: Building Online Collaborative Platforms for Virtual Survey in the Andes. *Journal of Field Archaeology*, 45(sup1), S61–S74.
<https://doi.org/10.1080/00934690.2020.1713286>
- Whaanga, H. (2017). He mahi māreikura: Reflections on the digitising of the Pei Jones' collection. In H. Whaanga, T. T. Keegan, & M. Apperley (Eds.), *He Whare Hangarau Māori Language, culture & technology*. (pp. 74–80). Te Pua Wānanga ki te Ao, Te Whare Wānanga o Waikato.
- Whaanga, H., Bainbridge, D., Anderson, M., Scrivener, K., Cader, P., Roa, T., & Keegan, T. T. A. G. (2015). He Matapihi Mā Mua, Mō Muri: The Ethics, Processes, and Procedures Associated with the Digitization of Indigenous Knowledge—The Pei Jones Collection. *Cataloging & Classification Quarterly*, 53(5–6), 520–547. <https://doi.org/10.1080/01639374.2015.1009670>
- Whaanga, H., Keegan, T. T., & Apperley, M. (Eds.). (2017). *He whare hangarau Māori language, culture & technology*. (Version 1.012). Te Pua Wānanga ki te Ao, Te Whare Wānanga o Waikato.
- Whaanga, H., & Wehi, P. (2015). Te wawao i te mātauranga Māori: Indigenous knowledge in a digital age—Issues and ethics of knowledge management and knowledge exchange in Aotearoa/New Zealand. In *Ethnographies in Pan Pacific Research: Tensions and Positionings*. (pp. 231–250). Taylor & Francis Group.
- Whatahoro, H. T. (1913). *The Lore of the Whare-wānanga, or, Teachings of the Māori college on religion, cosmogony, and history. Volume 1: Te kauwae-runga, or, 'things celestial'*. (S. P. Smith, Trans.; Vol. 1). Cambridge University Press.
<https://doi.org/10.1017/CBO9781139109277>
- Whyte, K. P. (2017). Technology, tribes, and environmental racism: From techno-oppression to tribal sovereignty. In G. Ricci R. (Ed.), *Values and technology. Religion and public life*. (Vol. 37, pp. 145–157). Transaction Publishers.
- Williams, W. (2020). *Digital taniwha. Growing Māori participation in the IT industry*. [Doctoral dissertation, University of Waikato].
<https://hdl.handle.net/10289/13842>

- Wilson, C. (2020, March 30). *Kauhau Session #1 A karakia during tough times to invoke life and wellness Māia Maranga* [Che's Channel - Te Paepae Waho]. <https://www.instagram.com/reel/B-WcHmngXNP/>
- Wilson, C. (2022). *Kauhau Session: S6—#5 15 Feb 2022—WAIRUATANGA #5—Social media and the links to makutu* [Video]. <https://www.youtube.com/watch?v=ky0hgTTqNhU>
- Wilson, I. T. (2020). The misappropriation of the haka: Are the current legal protections around matauranga Maori in Aotearoa New Zealand sufficient? *Victoria University Wellington Law Review*, 51(4), 523–558. <https://doi.org/10.26686/vuwlr.v51i4.6698>
- Wilson, L., & Bathgate, B. (2021, July 23). Covid-19: Māori artist created offensive pamphlet design with moko on cartoon virus. *Stuff*. <https://www.stuff.co.nz/pou-tiaki/125840147/covid19-mori-artist-created-offensive-pamphlet-design-with-moko-on-cartoon-virus>
- Winitana, C., & Winitana, T. (Directors). (2015, May 10). *Paepae* (7) [Broadcast]. Māori Television. <https://www.maoritelevision.com/shows/paepae/S01E007/paepae-series-1-episode-7>
- Wolpe, H. (1980). *The articulation of modes of production*. Routledge.
- World Wide Web Foundation. (2022, February 23). *Online Abuse in the Metaverse Untangled*. World Wide Web Foundation. <https://webfoundation.org/2022/02/online-abuse-in-the-metaverse-untangled/>
- Worsley, P. (1984). *The three worlds culture and world development*. Weidenfield & Nicolson.
- Yang, G. (2016). Narrative agency in hashtag activism: The case of #BlackLivesMatter. *Media and Communication*, 4(4), 13.
- Young, J. C. (2019). The new knowledge politics of digital colonialism. *Environment and Planning A: Economy and Space*, 51(7), 1424–1441. <https://doi.org/10.1177/0308518X19858998>
- Young, K. S. (2004). Internet addiction: A new clinical phenomenon and its consequences. *American Behavioral Scientist*, 48(4), 402–415.

Yurtoğlu, O. C. (2016). Smartphones and Symptoms of Behavioral Addiction. In M. A. M. Gansinger & A. Kole (Eds.), *Roots Reloaded. Culture, Identity and Social Development in the Digital Age* (pp. 132–155). Anchor Academic Publishing.

Yusuf, S., Idris, K., Samah, A. A., Ibrahim, A., Ramli, N. S., Ibrahim, M. S., & Rahman, N. A. A. (2020). Keyboard Warrior, Online Predator or Cyber Bully? The Growing Menace of Child Exposure to Internet Harm based on Research Evidence. *Pertanika Journal of Social Sciences & Humanities*, 28(2), 1291–1309.

APPENDICES

Appendix 1: Information Sheet



Ipurangi: Tikanga Māori and the Internet

PEPA WHAKAMARAMA: INFORMATION SHEET

1 TE TĀPAE KAIRANGAHAU: Researcher Introduction

Mai i te Onetapu, whakawhiti atu ki Mōkai Pātea, he uri tēnei nō Ngāti Whitikaupeka, nō Ngāi Te Ohuake, nō Ngāti Tamakōpiri, nō Ngāti Hauiti. Nō Aorangi maunga, ka puta ki te kohinga wai o Rangitikei, ka rere ki te Reureu ki te Hiiri o Mahuta, koia ko Rangatahi Matakore. Ka piki atu i te Ahu-ā-Tūranga ki Makirikiri ki Tāmakinui-ā-Rua.

Ko Te Rina Warren taku ingoa, e rangahau ana i ngā pānga o te Ipurangi ki ngā tikanga Māori. He uiui te huarahi kōhi kōrero i ngā tāngata matatau ki ēnei momo mahi. He rangahau Kairangi tēnei.

Kia ora, my name is Te Rina Warren, I am investigating the implication of the internet on tikanga Māori. Interviews will allow me to collect information from those who are experienced in this area, and who can make informed comment on this topic. This research is for the fulfilment of the qualification of Doctor of Philosophy at Massey University.

Ko tēnei te tono ki a koe kia whakauru koe hei puna korero mō tēnei tuhinga Kairangi

This is an invitation for you to participate as an expert informant in this PhD research



2 KO TE RANGAHAU – IPURANGI: Project Description and Invitation

Ko **Ipurangi** te ingoa o te rangahau e whakaraukakai ana i ngā tuahua o tā te Māori whakamahi Ipurangi – he aha ngā hua me ngā toretore o te mahi, me ngā paanga o te Ipurangi ki ngā tikanga Māori. Kei te uiui ahau i ētahi e matatau ana ki ngā āhua o te whakamahi Ipurangi me ngā paanga o te Ipurangi ki ngā tikanga Māori.

Ipurangi is the short name of the research project which investigates the implications of the internet for tikanga Māori – what are the advantages and disadvantages of Māori use of the internet. I am interviewing people who have an experience and understanding of the online space and the implications for tikanga Māori.



Te Pūtahi a Toi School of Māori Knowledge
College of Humanities & Social Sciences
Private Bag 11222, Palmerston North 4442, New Zealand
T +64 6 3569099 F +64 6 350 5631 www.massey.ac.nz



3 KO TĀ TE KAIRANGAHAU WHAKAMARAMA: Participant Identification and Recruitment



NGĀ KAIWHAKAURU: Kua kitea etahi tangata matatau ki ngā tikanga Māori, ngā ahuatanga Māori me ngā paanga o te Ipurangi ki te oranga o te Māori. Kua tonoa era tangata ki te whakauru i tēnei rangahau hei kaiuiui. Kua aro atu ki etahi tangata kaha ki te whakamahi i te Ipurangi hei pae korero mo te iwi Māori.

Participants: A number of key informants were identified, who are knowledgeable in aspects of tikanga Māori, and are aware of the politics of internet engagement and how they impact Māori culture and Māori lives. These informants were then asked to participate as interviewees for the research. All participants selected for the research commonly use internet platforms sharing Māori content or content that impacts Māori.



NGĀ TUKANGA RANGAHAU: Ko te tukanga o te mahi nei, kia uiuia te kaiwhakauru (kanohi ki te kanohi, ma te Ipurangi ranei) mo te ahua 1-2 haora. Ka tū tetahi uiui i ngā marama tata nei. Ka kapohia ngā kōrero o te uiui. Ka tuhia ngā korero, ka whakahokia ki te kaiwhakauru ki te whakarite i ngā korero. Ka tū tetahi uiui ano ki te hiahia te kaiuiui whai muri i te whiwhinga tuhinga.

Research Process: The research procedure involves an interview (either face to face where possible, or online) for between 1-2 hours. One interview will be scheduled in the coming month. The interviews will be recorded, and transcribed, then returned to the participant for review and editing. A second interview will be held if the participant requests it, following the receipt of transcripts.



NGĀ KORERO: Ka whakamahi ngā kohinga korero mō te tuhi Kairangi. Tera pea, ka puta ki etahi korero rangahau whai muri i te mahi kairangi. Ka noho ngā korero ki ahau, ki taku rorohiko, me tētahi pūnaha pupuri korero. Ka noho matatapu ki ngā puna whai kupu huna. Ka whakahokia ngā korero ki ia kaiwhakauru i te mutunga o te tuhi kairangi, me tētahi kape o te tuhinga kairangi. Ki te hiahia te kaiwhakauru kia noho matatapu tana ingoa, ka whai ingoa whakakapi mona.

Data Management: The collected data will be used for Ipurangi the doctoral research, and in subsequent research outputs (ie. Journal articles). The data will be held on a personal laptop and personal data repositories (transcriber, USB, online database) which are all password protected. Individual information will be returned to each participant, along with a final copy of the written PhD on completion. If the interviewee wishes to remain anonymous a synonym will be used.

4 TE MANA O TE TANGATA: Participant's Rights



Ehara i te mea me whakaae ki tēnei tono whakauru. Ki te whakaae mai koe, e āhei ana koe:

- kia kaua e whakautu i tētahi patai
- kia puta i tēnei rangahau (tae atu ki te wā ka whakahoki mai koe i āu pānuitanga uiui)
- ki te tuku pātai mai ki tau e hiahia ai
- kia noho matatapu to ingoa (mēnā ko tēnei to hiahia)
- ki te whiwhi kohinga korero whai muri i te rangahau
- ki te whakaweto i ngā mihini kapo kōrero ki waenganui i te uiui

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- *decline to answer any particular question;*
- *withdraw from the study at any time **up until** you sign the release of your transcript;*
- *ask any questions about the study at any time during participation;*
- *provide information on the understanding that your name will not be used unless you give permission to the researcher;*
- *be given access to a summary of the project findings when it is concluded.*
- *ask for the recorder to be turned off at any time during the interview.*

5 NGĀ WHAKAPAANGA: Project Contacts



Te Rina Warren (researcher)

k.t.warren@massey.ac.nz

Huia Jahnke - Professor (supervisor)

h.t.jahnke@massey.ac.nz

Bob Jahnke - Professor (supervisor)

r.h.jahnke@massey.ac.nz

Graham Hingangaroa Smith - Distinguished Professor (supervisor)

g.h.smith@massey.ac.nz

Me he pātai, tena whakapa mai – if you have any queries please contact myself or one of my supervisors

1. MUHEC APPLICATIONS

Committee Approval Statement

This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 4000022994. If you have any concerns about the conduct of this research, please contact Dr Gerald Harrison, Chair, Massey University Human Ethics Committee: Southern B, telephone 06 356 9099 x 83570, email humanethicsouthb@massey.ac.nz

2. LOW RISK NOTIFICATIONS

"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Prof Craig Johnson, Director, Research Ethics, telephone 06 356 9099 x 85271, email humanethics@massey.ac.nz".

Massey Human Ethics Notification Number 4000022994.

Te Pūtahi a Toi School of Māori Knowledge
College of Humanities & Social Sciences
Private Bag 11222, Palmerston North 4442, New Zealand
T +64 6 3569099 F +64 6 350 5631 www.massey.ac.nz

THE ENGINE
OF THE NEW
NEW ZEALAND
AUTAHI WHAKAMUA



Appendix 2: Consent Form



Ipurangi: Tikanga Māori and the Internet

TE WHAKAAETANGA Ā TANGATA: PARTICIPANT CONSENT FORM – INDIVIDUAL

1	Kua pānui ahau i te Pepa Whakamarama, ā, kua whakamārama mai ki ahau i ngā korero mō te rangahau. Kua whakautua paitia aku uiui, e marama ana ahau e āhei ana au ki te tuku pātai anō ki waenga i te tukanga rangahau. I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.
2	Kei te whakae ahau/Kāore au i te whakae ki te kapo kōrero i tēnei tukanga uiui. I agree/do not agree to the interview being sound recorded.
3	Kei te whakae ahau/Kāore au i te whakae ki te ripene i taku mata i tēnei tukanga uiui. I agree/do not agree to the interview being image recorded.
4	Kei te hiahia ahau/Kāore au i te hiahia kia whakahoki mai i aku kaponga ki ahau. I wish/do not wish to have my recordings returned to me.
5	Kei te hiahia ahau/Kāore au i te hiahia kia mau aku korero ki tētahi pātaka/puna kōrero. I wish/do not wish to have data placed in an official archive.
6	Kei te whakae ahau/Kāore au i te whakae ki te whakauru i tēnei rangahau mā ngā whakamarama o te Pepa Whakamarama. I agree/I do not agree to participate in this study under the conditions set out in the Information Sheet.
***	Ka tuku ahau i taku kiitaurangi mō taku whakauru ki tēnei kaupapa rangahau I give my verbal consent to participate in this research, rather than written consent.

TOHU: Signature:

RĀ:

Date:

**INGOA: Full Name -
printed**

Te Pūtahi a Toi School of Māori Knowledge
College of Humanities & Social Sciences
Private Bag 11222, Palmerston North 4442, New Zealand
T +64 6 3569099 F +64 6 350 5631 www.massey.ac.nz



Appendix 3: Interview Questions

Interview questions to guide the conversation

Focus on internet use:

- How do you utilise the internet, and why have you chosen to use the internet in the way you do?
- How does tikanga Māori factor into how you use the internet?

Focus on tikanga Māori

- What tikanga Māori behaviours have you observed online?
- Do you think our behaviour online has any impacts on tikanga Māori?

Focus on positive contributions of the internet for Māori development

- What are some of the internet's strengths for Māori and our development?
 - o Does tikanga Māori play a role here?
- What opportunities are there for Māori online?
 - o What about opportunities for tikanga Māori online?

Focus on negative implications for tikanga Māori and Māori internet use

- What, if any, are the weaknesses of the internet and its use for Māori and our development?
 - o Does tikanga Māori factor here?
- What threats exist for Māori engagement online?
 - o What about threats for tikanga Māori online?
- Do you perceive any adverse effects of the online space for tikanga Māori?

Focus on Māori narratives

- What kōrero tuku iho, Māori narratives about the internet do you know of?
- What lessons do you think we can draw from those narratives?
- Do you have any other comments to make?

Appendix 4: Exemplar – ipuRangi: A framework for assessing Māori engagement with the internet.

ipuRangi: A framework for assessing Māori engagement with the internet.

TE AKA MATUA: elements of support

Te Aka Kōtui – Connection: *how can whanaungatanga, information access, expedience and other positive elements be utilised to support Māori engagement with the internet?*

Whanaungatanga and connection	
Access to information	
Expedience	
Other:	

Te Aka Pā – Communication: *how can elements of information sharing, karakia (to guide behaviour), learning and other positive elements be utilised to support Māori engagement with the internet?*

Information sharing	
Karakia	
Learning	
Other:	

TE AKA TĀEPA: elements of caution

Te Aka Mōrearea – Safety: *in what ways might the internet negatively impact on mana and tapu, self-regulation, behaviours and conduct, disconnection, open sourcing and other elements of Māori safety for engaging with the internet? And how might those issues be countered?*

	Caution	Counter measure
Mana and tapu		
Self-regulation		
Behaviours and conduct		
Disconnection		
Open sourcing		
Other:		

Te Aka Whakaraerae – Security: *in what ways might the internet negatively impact on Māori autonomy, misinformation, authenticity, and other elements of security for Māori regarding the internet? And how might those issues be countered?*

	Caution	Counter measure
Power/autonomy		
Misinformation		
Authenticity		
Other:		

Te Aka Raukoti –Proper Management: *in what ways might the internet exacerbate time addiction, lack of resources, and other impacts for Māori engaging online? What areas require more information? And how might those issues be countered?*

	Caution	Counter measure
Time addiction		
Lack of resources		

Unknown impacts		
Other:		

TE ARA O TĀWHAKI: potential of the internet

Te Ara Rangatiratanga – Self-determination: *how can the internet be used to advance rangatiratanga for cultural development, in government policy, for international connections and in other areas of potential development with the internet?*

Cultural development	
Government policy	
International connection	
Other:	

Te Ara Rauemi – Resource development: *how can the internet be used to create resources to inform Māori users about online safety, to enhance creativity, and support other developments?*

Personal safety	
Creativity	
Other:	

Te Aka Tūhono – Connection: *how can the internet facilitate beneficial relationships, business opportunities and other developments?*

Whanaungatanga	
īPākihi	
Other:	

TE TOI HUAREWA: challenges on the internet

Te Toi Tāmi – Challenges to Rangatiratanga: *in what ways might the internet challenge rangatiratanga, mana, tapu and other notions of self-determination online? And how might those issues be countered?*

	<i>Challenge</i>	<i>Counter measure</i>
Control		
Mana and tapu		
Other:		

Te Toi Pori – Challenges to Mana Motuhake: *in what ways might the internet challenge cultural values like face-to-face contact, personal safety, personal security, and other concerns for Mana Motuhake when engaging with the internet? And how might those issues be countered?*

	<i>Challenge</i>	<i>Counter measure</i>
Less face-to-face contact		
Personal safety concerns		
Security issues		
Other:		

Tikanga Māori: Kawa, Karakia, Marae, Well-being, Personal responsibility (īTikanga)
