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‘NGĀTI PUKAMATA’

**Virtual iwi: Using Facebook to manage
whakapapa**

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HE MIHI¹

Koinei taku pēpeha i tōku taha i Waiōmio.

I te taha o tōku pāpā:

Ko Hikurangi te maunga

Ko Taumarere te awa

Ko Ngāpuhi te iwi

Ko Ngāti Hine te hapū

Ko Hare Riki Reihana rāua ko Ngahiraka Tauroa ōku tūpuna

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He āhua roa rawa te ingoa o tō mātau maunga, ko TaumatawhakatangiHangakōauauo-
tamateaturipūkākāpikimaungahoronukupōkaiwhenuakitanatahu

Ko Te Paerahi te moana

Ko Ngāti Kahungunu te iwi

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This research begins and ends with my pepeha. It begins with my pepeha because it is important to my discovery of whakapapa. It ends with my pepeha because it is an affirmation of who I am. My origins are grounded in whakapapa.

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Na Pikihuia Reihana

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‘NGĀTI PUKAMATA’

VIRTUAL IWI: USING FACEBOOK TO MANAGE WHAKAPAPA

ABSTRACT

Social networking sites such as Facebook enable like-minded people to network around the subjects that are of interest to them. One such subject that has recently sparked interest is whakapapa². For Māori, whakapapa plays an important social, political and traditional role and Māori are beginning to establish themselves in various forms without relevance to physical location. The research uses kaupapa³ Māori and a grounded theory framework to examine contextual problems with crowdsourced whakapapa and how Facebook addresses these problems. The research findings reinforce current thinking about attitudes, behaviours user norms and expectations of Facebook interaction and crowdsourcing. To illustrate, this research argues that Māori are claiming a virtual space for their whakapapa which this research has determined as ‘Ngāti Pukamata’⁴.

Keywords: social networking, crowdsourcing, whakapapa, kanohi ki te kanohi (K2K), Pukamata ki te Pukamata (P2P)

INTRODUCTION

In more recent times whakapapa has been collected by trawling through handwritten manuscripts, analysing inscriptions on headstones, skimming through photo albums and viewing archived records held in libraries, parishes, museums, genealogical societies and registry offices. Research has also encompassed studying passenger lists, census and military records, as well as recording the information gathered on family group sheets, pedigree charts and in journals. For Māori the collation of whakapapa not only embraced the previously mentioned pathways it also included the passing of whakapapa from previous generations through oral traditions. Those oral traditions have then been weaved with whakapapa in order to show connections to the land and its people.

² Whakapapa is a term used to describe the Māori customary practice of sharing and building family history and ancestry. Whakapapa is further defined later in the research.

³ A collective vision or aspiration of a community is referred to as kaupapa. Kaupapa is defined later in the research within the context of kaupapa Māori theory.

⁴ ‘Ngāti Pukamata’ is a translation of Face and Book – Pukamata. Ngāti in its simplest sense means; the joining of people, therefore Ngāti Pukamata can be translated as meaning, the joining of people through Facebook.

These tactics have taken decades of building up trusting intergenerational relationships, many cups of tea and many years of pondering over how best to make sense all those records. Moreover, those records were treated as taonga⁵ to be highly prized and guarded. Quite often those that spent decades collecting whakapapa guarded it against those who did not hold the necessary ‘qualifications’. Consequently gaping holes were created where the managing of whakapapa was concerned. However in this technologically advanced age, social networking sites like Facebook have shortened the speed in which whakapapa can be collated, shared and memorialised. In turn, Māori have experienced a shift in attitude concerning their whakapapa and the sharing of it where the ‘ordinary’ could now share snippets of information heard in family gatherings and such, like on Facebook.

This research argues that Māori are attempting to use Facebook to enquire and source from their online communities’ answers and solution options that hopefully supplement understanding of their whakapapa and make sense of their snippets. This form of knowledge acquisition in itself poses a problem, however it is not the point of this research to solve this. The point here is to show how whakapapa can be contextualised by contrasting typically gathered content in juxtaposition with individual Facebook ‘posts’ and ‘comments’ and reinforced through interviews conducted by the researcher. The aims therefore are to first provide an understanding of how Māori are using Facebook to determine their whakapapa. This is with the intention of capturing these snippets that, this paper argues, fills the gaps that were quite often left out due to the ambiguous nature of whakapapa. Its second aim is to argue that as a result of this online interaction Māori have claimed a virtual space for their whakapapa and in doing so, have formed virtual iwi.

This paper has determined this virtual iwi as Ngāti Pukamata.

In order to achieve the aims of this paper, two approaches were taken: the first approach was to review the literature that surrounds the following terms: whakapapa, tāngata⁶, whānau⁷, hapū⁸ and iwi⁹ all of which are key parts in Māori social constructs. Māori social constructs

⁵ Taonga are highly prized and guarded artefacts of significance to the bearer and their forebears. See Appendix A.

⁶ Tāngata is the term used to describe an individual, a persona, people or participants. See Appendix A.

⁷ The term ‘whānau’ is typically used to describe the immediate and extended family structure (Lawson-Te Aho, 2010). See Appendix A.

⁸ Hapū is the term used to describe a sub-tribe. See Appendix A.

⁹ Iwi is the term used to describe a tribe. See Appendix A.

also include Māori expatriates who have attempted to create a sense of belonging in other countries such as Ngāti Ranana¹⁰ and more recently, Ngāti GC¹¹. Not to digress from the main narrative, these terms along with others will be discussed in the literature review. Other terms considered here were crowdsourcing for data collection and social networking as it relates to the collection of whakapapa.

The second approach was to weight the validity of the data presented on Facebook in order to glean its content to see whether Facebook aids in ‘filling the gaps’ in ones’ whakapapa. It is here where the researcher conducted interviews and has cross examined its content with these interviews. The purpose here was to show that the individuals interviewed have learned far more about their whakapapa through Facebook than they would have without it. Further to this, the researcher has examined the practices of these individuals to test the reliability of the data they obtained through Facebook.

This paper will be of relevance for Māori who are intending on ‘filling the gaps’ in their whakapapa and are unsure of its reliability. However, this is not to mean they should only be using online research as the very essence of being Māori because it is possible for online and offline whakapapa to coexist.

LITERATURE REVIEW

Conceptual and theoretical framework

It is important to understand Māori practices and norms because it influences the researcher’s Māori worldview and therefore the current research. Whilst investigating the social media behaviours of Māori, Acushla O’Carroll, a PhD and Fulbright alumnus adopted a kaupapa Māori methodology (O’Carroll, 2013a, 2013b, 2013c). This research draws on O’Carroll’s works as well as her recent Fulbright seminar where she presented her latest research findings on face to face communication as a being a thing of the past (O’Carroll, 2014). O’Carroll’s research methodology is derived from the work of kaupapa Māori theorists (Mahuika, 2008; Pihama, Cram, & Walker, 2002; G. Smith, 2012; L. T. Smith, 2006).

¹⁰ Ngāti Ranana is name of the pan-tribal iwi based in London, United Kingdom.

¹¹ Ngāti GC is a newly coined term and used as an example of a virtual iwi.

Graham Smith, a distinguished professor and Chief Executive Officer of Te Wānanga o Awanuiārangi in Whakatane, coined the term kaupapa Māori theory in 1987 in a meeting with the Minister of Education at the time (G. Smith, 2012). Since then kaupapa Māori theory has been developed into a social sciences framework by theorists such as Pihama and Mahuika. Mahuika (2008) explains that it is an assertion of cultural beliefs and practices by Māori in ways that allow Māori to realise and experience their own personal truth. Consistent with this underlying premise of tino rangatiratanga¹², Ballara (1998) infers that [Māori] are dynamic and ever evolving to adapt to their current environment. O’Carroll broadly describes the kaupapa Māori framework as a set of Māori-based philosophies and values used as a way of understanding (2013c, p. 234). This research is influenced by O’Carroll’s methodology which is explained in more depth later.

Accordingly, this research recognises the kaupapa Māori principles of kaupapa, whānau and tino rangatiratanga (Rautaki Limited & Māori and Indigenous Analysis Limited, n.d.; Pihama, et al., 2002). Additionally, the kaupapa Māori framework is firmly based in te reo Māori¹³ and culture (Henry & Pene, 2001; Mahuika, 2008; Pihama, et al., 2002; Ryan, 2005). Te reo Māori terms are therefore used throughout this research, a list of terms and definitions are provided in Appendix A.

The nature of whakapapa

The research requires further understanding of key terms and definitions employed, in particular as they relate to whakapapa which are tāngata, whānau, hapū and iwi. To start, whakapapa in its simplest form is the study of family histories and genealogy. Family history provides a platform for contextualising information about families including biographical data, social history, and relationships to a period, other people and to locations. This is unlike genealogy which is the discipline of tracing a living person's pedigree back in time from the present, or a historic person's descent to the present. However this view is not shared by all as there are several definitions available. The Gale Virtual Reference Library defines whakapapa as “the descent-line from a particular ancestor that Māori learn to establish their identity and status. The descent-line also acts as a means of tracing and identifying in time traditional historical events which have become associated with the name

¹² Tino rangatiratanga as described by Mahuika is an assertion of cultural beliefs and practices by Māori in ways that allow Māori to realise and experience their own personal truth. See Appendix A.

¹³ Te reo Māori is the indigenous language of Māori. See Appendix A.

of a particular ancestor” (2005, p. 720). The online Māori dictionary (2014) describes whakapapa as verb, that is to recite genealogies and as a noun, such as genealogical tables. Regardless, the research defines whakapapa as the Māori customary practice of sharing and building family history and ancestry.

The current research supposes that the terms family history and genealogy are used interchangeably by Māori and non-Māori alike. Because of their strong ties with each other, the current research therefore chooses not to separate the terms. Within a Māori context family history was and is used to convey the story of how a whānau, hapū and iwi came into being. The term genealogy is commonly used to convey an individual’s pedigree which then places them in context in the story of how they came into being. For Māori, this is common practice.

The research argues that for Māori whakapapa contextualises who they are by positioning themselves within the context of people and communities that include whānau, hapū and iwi; and their relationship with the landscape and the environment. According to experts of Māori theory and indigenous analysis it is within these contexts that Māori derive their whakapapa. Living relationships such as connections to people are important to Māori because it contributes to their ability to establish themselves as belonging to a whānau, hapū and iwi.

The ability to connect to whānau, hapū and iwi is important to Maori because it assists with establishing identity such as who they are, where they come from and from whom they descend. One way of determining this whakapapa was by employing Facebook (O’Carroll, 2014). Traditional methods of determining whakapapa were through oral histories. The whakapapa is maintained by the uri¹⁴ or descendants of an eponymous ancestor or tūpuna¹⁵ and constructed for each whānau and whakatupuranga¹⁶ or generation. Often times a single whānau member may be tasked with collecting the whakapapa of many whānau and whakatupuranga. For Māori this can be considered a birthright.

¹⁴ Uri – refer also Appendix A.

¹⁵ In this context tūpuna is the term used to describe an eponymous ancestor. See Appendix A.

¹⁶ Whakatupuranga – refer also Appendix A.

On the other hand, non-living relationships for Māori are considered to be those connections made with the landscape and the environment such as to papa kainga¹⁷; marae; a food source and the whenua¹⁸. Inherent to these relationships are myths, legends, stories and events of cultural significance to Māori. These relationships to non-living or inanimate things further enrich how Māori contextualise themselves.

In her book entitled *Decolonizing methodologies: Research and indigenous peoples*, Linda Tuhiwai Smith (2006) conveys a story from the perspective of colonisers. The colonisers' story explains how tradition [including whakapapa] is an assemblance of interconnected ideas. For example L.T Smith draws from a series of conversations with indigenous peoples and writes a summary of their collective views of tradition. Inference was made in relation to a universal story and one large chronology. Further, the inference suggests an imposition of binary categories held together by one coherent narrative (L. T. Smith, 2006, pp. 30-31). Consistent with the view of how Māori contextualise themselves, Roberts et al justifies that Māori make sense of the world by classifying objects or entities (Roberts et al., 2004). Of equal importance however, is how those stories are conveyed from the perspective of indigenous groups (Mahuika, 2008).

Traditionally, whakapapa uses the constructs of family and whānau. According to Lawson-Te Aho, family is a subset of whānau where whānau encompasses both immediate and extended family (2010, p. 52). To add, whānau relationships are fundamental to Māori and their ability to contextualise their cultural identity.

Māori convey whakapapa by adhering to a four tier social structure. Figure 1 shows a flat relationship between tāngata, whānau, hapū and iwi. Embedded within these social structures is a body of knowledge used by Māori in their indigenous knowledge system (Roberts, 2012; Roberts, et al., 2004).

¹⁷ Papa kainga is a term used to describe a place of dwelling. The term is most commonly used to refer to an ancestral home. See Appendix A.

¹⁸ Whenua is a term used to describe land and waterways which include river or awa and the sea or moana which are of historical significance to Māori. See Appendix A.

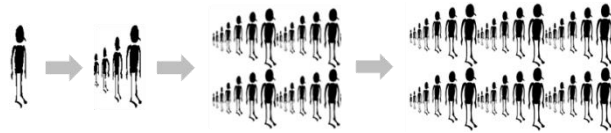


Figure 1 Four tier Māori social structure - Tāngata, whānau, hapū, iwi

An alternate view of this four tier social structure, as shown in Figure 2, illustrates multi-generational and multi-whānau relationships where tāngata are the uri of two parents, they are part of a whānau. Many whānau are the uri of an eponymous ancestor, they are part of a hapū. Many hapū may belong to a single iwi but whānau within a hapū may whakapapa to more than one iwi. Tāngata can have more than one tūpuna. A whānau can be multi-generational comprising multiple whānau. The definition of whānau is complex but Walker, as cited by Lawson-Te Aho (2010), cautions that any effort to produce a definitive meaning of whānau should be avoided.

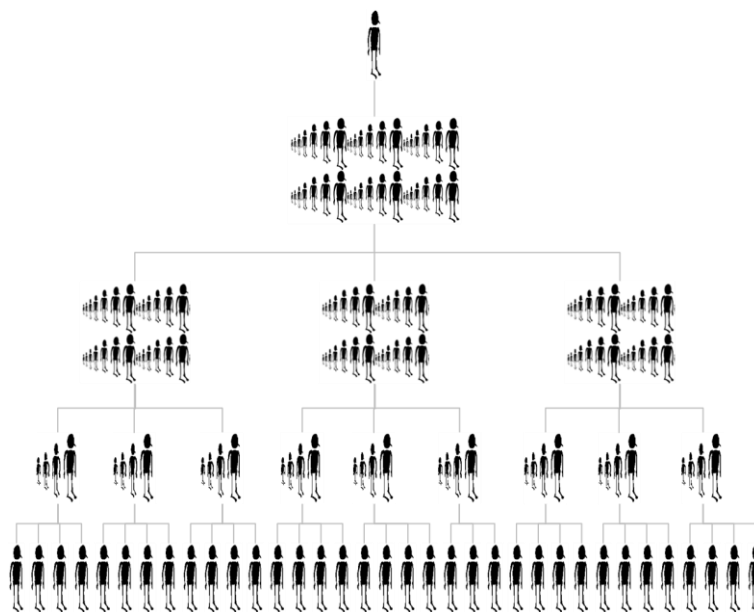


Figure 2 Five tier Māori social structure - Multi-generational and multi-whānau

Another perspective is provided by Paipa (2010) who describes whakapapa as both a verb and a noun. Whakapapa is the recording of human descent lines and relationships; whakapapa functions as a genealogical table or family pedigree in which lineages are connected to a metaphysical reference to each whakatupuranga of a whānau or papa¹⁹. Whakapapa systematically groups genealogical data into papa (Roberts, et al., 2004) similar

¹⁹ Papa is a term used to describe a metaphysical reference to one or many generations. See Appendix A.

to that expressed by the four tier social structures. Each individual belonging to each papa are recorded with their names expressed in order of seniority from the eldest child down to the youngest. Dates are also important as they assist with identifying age, seniority and generational groups.

Academic literature provides evidence that an oral transfer of history and knowledge is not uncommon amongst indigenous cultures (Abad, 2000; Pigliasco, 2007; Pigliasco & Lipp, 2011). In accordance with Māori customary practice, whakapapa capability is the passing of information to the next whakatupuranga in an oral format to either the eldest child or the eldest son. The decision of traditional knowledge transference can vary between iwi but in a modern context knowledge transfer has become one of practicality or preference as children leave home or lack the desire to learn. When whakapapa is viewed as an activity or structure it provides a platform for Māori that is traditionally oral (Roberts, et al., 2004). On the contrary, the platform is localised, referring to a place of origin rather than proximity. Subtle variation on where or to whom whakapapa is shared may vary between whānau, hapū and iwi nonetheless it is practiced in the home, and on marae²⁰.

Virtual iwi: Location is irrelevant

Māori culture, as explained by Mead, has had to change to adapt to ever-changing circumstances (2003, p. 87). The Honourable Justice E. Taihakurei Durie agrees with Mead's sentiment believing too that he has "challenged Māori to develop traditional protocols in new ways that keep pace with world changes" (Mead, 2003, p. ix). Likewise, Ballara thought the same, believing that Māori are dynamic and that perhaps the notion of traditional Māori is a misnomer (1998, p. 219). This research is greatly influenced by Mead and Ballara's style of forward thinking.

To illustrate how Māori are adapting to ever-changing circumstances, this research references the formation of two overseas Māori groups as examples of virtual iwi and how location is irrelevant within the context of whakapapa - Ngāti Ranana and Ngāti GC. The term "Ngāti" or "Ngai" is translated as tribe or clan but is used to prefix a proper noun, in this case Ngāti Ranana which is the name of a pan-tribal iwi based in London, United Kingdom. The group

²⁰ Marae is the term used to describe the ceremonial gathering place of whānau, hapū and iwi. See Appendix A.

was formed in the late 1950's based on their need to maintain a sense of whanaungatanga²¹, manākitanga²² and kotahitangi²³ (Ngāti Rānana London Māori Club, n.d.). Their whakapapa is based on kaupapa rather than kin.

Likewise, the recent New Zealand reality television series, *The GC* profiles the rise and fall of a group of Māori twenty-something year olds living on the Gold Coast, Australia (Mackey, 2014). Since the show's inception a newly coined phrase has materialised on Facebook, referring to the group as 'Ngāti GC'. Facebookers or users of Facebook and Fairfax NZ News alike may argue that the show contributes to the negative stereotyping of Māori whilst fans of the television series advocate that the show demonstrates Māori pride. That pride is revealed in the flaunting of moko²⁴ and the normalisation of te reo Māori in lieu of non-Māori slang.

In considering the creation of virtual iwi, the research posits that Ngāti Pukamata is another valid case in point. Houkamau and Sibley (2011) claim that essential to the continuation of a living Māori culture is an improved belief that tāngata have the personal resources to engage appropriately as Māori within a cultural context (p. 382). Houkamau and Sibley surmise that this Māori cultural efficacy is reliant of personal resources such as te reo Māori, kawa me ona tikanga²⁵ and whakapapa. The present study extends that personal resources view to encompass also technological advances that allow the transfer of traditional Māori culture to a virtual space. This is because modern Māori are already leveraging off the available technology, like Facebook, to re-establish networks and familial ties through whakapapa thereby reaffirming that location is irrelevant.

The notion of Ngāti Rānana, Ngāti GC, and now Ngāti Pukamata highlight how location is irrelevant and that Māori are comfortable taking traditional protocols and applying it locally, albeit wherever they are.

²¹ Whanaungatanga is the term used to describe the natural course of socialisation. See Appendix A.

²² Manākitanga is the term used to describe the duties and expectations of care and reciprocity. See Appendix A.

²³ Kotahitanga is the term used to describe a collective unity. See Appendix A.

²⁴ Moko is the term used to describe Māori designed tattoos. See Appendix A.

²⁵ Kawa me ona tikanga refers to Māori protocols, customs and norms. See Appendix A.

Tools and techniques

A review of literature published over the past 10 years reveals a broad selection of research available on crowdsourcing (Behrend, Sharek, Meade, & Wiebe, 2011; Daren C Brabham, 2008; Dandurand, Shultz, & Onishi, 2008; Estelles-Arolas & Gonzalez-Ladron-de-Guevara, 2012; Howe, 2006) and social networking (Bakardjieva & Gaden, 2012; Bateman, Gray, & Butler, 2011; Boyd & Ellison, 2008; Kim, Shim, & Ahn, 2011). The literature assesses and evaluates Facebook and the opportunities that Facebook presents for harvesting social data. The literature also discusses the implications of privacy and the role of data stewardship within the context of whakapapa. However, available research that examines the implications of social networking sites on Māori is scarce. Additionally, research that examines Facebook's suitability for crowdsourcing a task such as whakapapa and the contextualisation of whakapapa either online or offline remains unexplored. Recent studies include how Māori are virtualising cultural customs (O'Carroll, 2013a, 2013b, 2013c), how Māori establish their identity online (Houkamau & Sibley, 2011), and how social media is being used by archives to develop connections with family historians (Paterson, 2011).

The usefulness of crowdsourcing

In Wired magazine, writers and editors Jeff Howe and Mark Robinson first coined the phrase crowdsourcing in 2006 (Howe, 2006). In an attempt to understand what the term crowdsourcing meant, a recent research study (Estelles-Arolas & Gonzalez-Ladron-de-Guevara, 2012) was conducted to produce an integrated definition. The study involved a review of 209 documents that were the result of consulting six databases and a keyword search on the term 'crowdsourcing'. Of the shortlisted documents reviewed by the study, there were 40 original definitions and the most frequently cited documents included Howe, Brabham and Wikipedia. A global definition took into account the crowd, the task, compensation if any, the responsibilities of the initiator, the output produced by the crowd, the process and the medium. The study verified that the term crowdsourcing is in its infancy and therefore subject to change.

This research therefore assumes crowdsourcing definitions published by Howe and Brabham. Howe's definition describes how crowdsourcing was born out of the idea of recruiting an online workforce and in doing so it exploits the fundamentals of a networked world enabling access to information at any given time (Howe, 2013). Brabham's definition describes how crowdsourcing is a technique that harnesses the power of a distributed network (Daren C.

Brabham, 2010) and one that is collaborative in nature yet difficult to define as definitions by some experts are not accepted by others (Estelles-Arolas & Gonzalez-Ladron-de-Guevara, 2012).

Other experts such as Behrend, et al (2011) investigated the viability of crowdsourcing and found that it offered convenience, flexibility, and had the ability to reduce both the complexity and operational costs associated with the completion of a task. Their understanding was established by comparing problem-solving performed by participants recruited online versus offline. The study revealed a strong link between the abilities, attitudes and personality types of the participants versus their motivation toward the tasks. Participants who had personally met the crowdsourcing initiator were likely to have committed more effort to the task as opposed to those with whom face to face contact had not been made. In conclusion, the study reported that the psychometric properties of online and offline participants were equivalent. Dandurant, Shultz and Onishi (2008) observed similar findings adding that without incentives the length and difficulty of a task can appear excessive to the participants. Accordingly, McKinley (2012) posits that there are limitations associated with crowdsourcing and those limitations are determined by the participants' motivation to participate and their imagination. In addition to the psychometric similarities between participants and their motivation, researchers commented on the expended effort of participants and that there was a direct correlation between compensation or incentives and the quality of the data provided by participants.

There are problems with crowdsourcing such as the lack of a definition and its practical use for whakapapa. However, these problems are overcome by accepting that it does lend itself to allowing its users to determine how or whether to apply the technique as a suitable method for researching whakapapa due to its adaptability. Because of this, the study also accepts that any non-trivial problem as determined by Estelles-Arolas & Gonzalez-Ladron-de-Guevara (2012) can benefit from crowdsourcing which can range from routine tasks to complicated tasks (p. 194).

Māori internet use and use of social network sites

In an interim report involving the study of 467 participants, researchers sought to gain an understanding of the identity information behaviours of New Zealanders (Lips, Eppel, Sim, Barlow, & Lofgren, 2014). Respondents were asked where and how often they accessed the

internet. According to the study Maori much more than non-Maori preferred to access the internet via a mobile device. The research also established that the most popular activity undertaken on the internet was searching for information (99%) but the report indicated that a small proportion of Māori surveyed (confidence level greater than or equal to 10%) didn't go online to search for information. Approximately 94% of Maori internet users had engaged in online communication of some form while 75% of Maori internet users had engaged in social networking (Lips, Eppel, Sim, Barlow, & Lofgren, 2014, pp. 25, 65). The study is inconclusive at this point but gives an insight into the behaviours of Māori and their online activities. Notably, Māori are a subset of the total population surveyed for the study.

Facebook affordances

Experts have discussed at length the features, functions and benefits of Facebook of which they assert are reshaping the way in which people interact with each other (Langlois, Elmer, McKelvey, & Devereaux, 2009; Tang & Liu, 2011). The rise of Facebook has presented an opportunity for Māori - tāngata, whānau, hapū and iwi to interact in virtual spaces. This research attempts to show that Māori are employing Facebook as a vehicle to manage their whakapapa by sharing and gleaning content from Facebook posts. That is: Researchers have also hand written letters to enthusiastic amateur genealogists or engaged kanohi ki te kanohi (K2K) and now Pukamata ki te Pukamata²⁶ (P2P) to gather oral histories.

Based on a study by Langlois, et al. (2009) social networks enable users to create content, maintain and build social ties and engage in online discussion that can result in citizen participation in local events. One such example of citizen participation was the Arab Spring (eSourceVideo, 2011) where political leaders considered that social media like Facebook offered only entertainment. That view was proved to be a mistake during the Arab Spring uprising as Facebook was instrumental in disseminating communications to the masses and quickly. Whilst the consequences of the uprising were detrimental to the government at the time Facebook proved to be a most effective and powerful technology because of its reach. Research conducted by Langlois, et al. (2009) and Tang and Liu (2011) referred to the 1.2 million followers of the Barack Obama Facebook group. Again, this demonstrated the reach and impact of citizen participation and the willingness of a networked public to be engaged online and in this case, in political matters.

²⁶ Pukamata ki te Pukamata or P2P is the term employed by this research to describe Facebook to Facebook or technology mediated contact. See Appendix A.

Key Facebook affordances take into account the ability of Facebookers to connect, communicate and collaborate regardless of distance. In lieu of K2K, Facebook reduces geographical distances and overcomes the cost barriers associated with physical travel (Howe, 2006; McKinley, 2012). Facebook overcomes the barriers of distance by offering ease of access to information and information sources 24 hours a day, 7 days a week. According to Langlois, et al (2009) Facebook's growing importance is based on the premise of offering an online meeting space where communities can convene at a time of convenience. This means that communities can remain abreast of issues of common interest and to enter into dialogue as and when they choose.

Other Facebook affordances on offer are opportunities for Māori to tap into a networked whānau by exploiting their memories, teachings, lessons learned and their resources. Howe compares this to tapping into a distributed labour network (2006). A key crowdsourcing benefit afforded by Facebook is the ability for Facebookers and likewise Māori to collect intelligence from their online communities by utilising the extensive range of features offered by Facebook. Additionally, Facebook enhances personal networks by providing access to potential whakapapa sources that can be geographically dispersed locally, nationally and internationally.

O'Carroll (2013c) posits that Facebook enables global whanaungatanga. Individuals and communities want to do more than just connect to others online. They want to know how and why they should connect. They also want to know the benefits and challenges of maintaining the online relationship.

Facebook also allows its users to vote (like, share), micro blog (comment, post status updates), tag (photos, geotag), upload/generate content (photos, events, surveys, documents), define communities (public, closed), send and receive private messages and subscribe to news feeds. Facebookers can become friends, fans, or followers of others. Groups can also be created to support specific community interests from which new information sources may emerge. Facebook content can be generated by any individual or community at any time. Likewise, the information can be retrieved by any individual within the community. Community members determine for themselves the value of the information they obtain.

To contrast generally accepted practice as previously described, behaviour that is seen to intentionally contradict the goals and objectives of Facebook whānau groups, such as nuisance or offensive posts, or any forms of harassment the then intending Facebookers can be defriended, or blocked. Access to a site or Facebook whānau group can simply be revoked at any time by individuals or in the case of Facebook whānau groups, by Administrators or Moderators. Moderation can be a time costly exercise requiring frequent monitoring. It is hoped that Facebookers would act with integrity and respect but unfortunately this is not always the case.

Harvesting social data from Facebook

Much like gleaning content from an array of handwritten or published documents, data collectors are now harvesting content from Facebook content. To do this an individual is first required to create a Facebook account. Account creation involves providing a name, date of birth, gender, and optional contact information such as a telephone number, address or email. But that information is latent and stored as metadata against the account. Voluntary information is also held by Facebook and includes status updates, photo uploads, and comments that an individual makes.

Additional data is collected each time an individual performs an action. Facebook will collect data on an individual's device, their IP address, User ID and whether the individual is online or offline. The latent data can be used to make associations. Common known associations are those based on an individual's profile which can be aggregated and anonymised and provided to advertising partners. Facebook can also make recommendations for newsfeeds or by using an individual's location (made known through GPS technology) it can advise on who in the individual's network is nearby (Facebook, 2013). Facebook takes advantage of a number of social plugins that allow users to see what their friends have liked, commented on or shared. As shown in Table 1, there is a vast amount of information that Facebook holds about its users, both visual and non-visual (Facebook, 2014).

Table 1

Information that Facebook holds about its users

| YOUR INFORMATION | INFORMATION OTHERS SHARE ABOUT YOU | OTHER INFORMATION RECEIVED ABOUT YOU | INFORMATION YOU CHOOSE TO MAKE PUBLIC | INFORMATION THAT IS ALWAYS PUBLICALLY AVAILABLE |
|--|---|--|--|---|
| <p>Facebook receives information from you when you:</p> <p>Register Name Email address Date of birth</p> <p>Choose to share information Post a status update Upload a photo Comment on a friend’s story Add a friend Like a page or website Add a place to your story Indicate you are in a relationship Use Facebook contact importers</p> | <p>Facebook receives information about you when others:</p> <p>Upload your contact information Post a photo of you Tag you in a photo or status update, or at a location, or add you to a group Upload and manage their invites and contacts</p> | <p>Facebook receives data about you when:</p> <p>You look at another person’s timeline Send or receive a message Search for friend or page Click on, view or interact with things Use a Facebook mobile app Purchase Facebook credits Make purchases through Facebook</p> <p>Facebook receives metadata when you perform an action:</p> <p>Time Date Place</p> <p>Facebook receives data from your device including:</p> <p>IP address Internet service Location Browser type Pages you’ve visited Social plugins Launch points that allow you to navigate to Facebook Operating system User ID Verification that you are logged in</p> | <p>Facebook information can:</p> <p>Be associated with you (i.e. name, profile pictures, cover photos, timeline, User ID, username etc.) when you online or offline Show up when someone does a search on Facebook or on a public search engine Be accessible to Facebook-integrated games, applications, and websites Can be accessible to anyone using Facebook APIs</p> <p>Your Facebook information will be publicly available when:</p> <p>A sharing icon is unavailable to be selected Others share information about you, they can choose to make it public</p> | <p>Name Profile pictures and cover photos Network Gender Username User ID</p> |

Note: Adapted from <https://www.facebook.com/about/privacy/your-info> (Facebook, 2014)

Facebook as a photo-sharing site contains a vast amount of latent information about our world and human behaviour. Visual and non-visual information from photos can be analysed to study what a place must have looked like in the collective consciousness of photographers (Crandall & Snavely, 2012, p. 55). If it is possible to infer the names of people and places as a consequence of geotagging or through photographs, then it is possible to infer genealogical connections because someone has been tagged in a photograph. The popularity of Facebook has created a social aspect to photo collections (Crandall & Snavely, 2012). It is possible to build automatic algorithms that analyse large collections of imagery to understand and model people and places at a global scale. Geotagged photographs can be used to identify the most photographed places on Earth, as well as to infer the names and visual representations of these places. There is a huge amount of rich data contained in the content of text tagged photos, comments and status updates.

There are technical difficulties in tracking information on private online spaces which can be an impact of black-boxed architecture used by platforms like Facebook (Langlois, et al., 2009). Black boxed architecture is based on the notion of not exposing the inner workings of a design to the users of a technology. Further users know only what data they input and what is produced but not the transformation of that data or the metadata captured at the time of input. Langlois (2009) highlights the importance of understanding first the encounter between individuals and [Facebook] that might secondly present opportunities for resolving new issues like whakapapa (p. 416).

As mentioned previously, Facebook networks comprise heterogeneous relations and latent affiliations (Tang & Liu, 2011, p. 447). This means that Facebookers are presented with opportunities to profile other users such as validating their relationship with each other; targeting such as classifying users or in the case of Facebook creating public or private user groups with a specific purpose, for example creating a whānau group for the descendants of a common tūpuna. Recommendations may be made for individuals to make direct contact with mutual friends either online or offline. Tang and Liu's (2011) research observed that when individuals share an affiliation they tend to connect to each other (p. 454). In the context of Facebook and whakapapa there is an increased likelihood that users will connect to each other when they share mutual connections. The research cautions however that users are likely to join more than one network.

With the vast volume of Facebook profiles currently in existence it is more likely than ever that you can find who you're looking for. Conversely, the research assumes that the greater the volume of user generated content, the greater the user participation, and consequently a better informed and engaged community. Consistent with the findings of Suki, Ramayah and Ly's (2012) study on factors that influence the behavioural intention to use Facebook, there is a direct correlation between frequency of use and enjoyment and when this occurs people are more likely to use a tool like Facebook. With more information available there is a likelihood of volumes getting bigger, worse, complex, or difficult to navigate. A related problem could also be fewer unique visitors, increased repeat visits, or fewer online interactions. These uncertainties are a result of reviewing the literature. However to answer these questions is not the point of this research. These questions will be reassessed but later in this research and with the outlook of potential future research.

Privacy as a criticism of Facebook

Facebook has been widely criticised. A common theme of the criticism has been the privacy, visibility; exposure and invasion or lack thereof of personal data. One such example is Quit Facebook Day. Quit Facebook Day started on 31 May 2010 and has since become an annual event but with varied outcomes. Quit Facebook Day emerged in response to Facebookers disliking how their personal data and its storage were being treated. The event was reported by PC World as a flop as a mass exodus from Facebook did not happen. That aside, Quit Facebook Day successfully highlighted to Facebookers a need to make conscious decisions about personal data privacy (Spring, 2010). In a recent Huffington Post article, Jacques recommended that lack of privacy and exposure of personal data should be amongst 11 reasons why users should quit Facebook (2014). Other reasons included believability of the content posted, excessive and unsolicited advertising, and the impact on one's mental health.

Another criticism of Facebook emerged in response to a 2006 newsfeed feature that reported how Facebook had aggregated data and then pushed that data out to the masses. The aggregation made it possible for "what was previously obscure, difficult to miss (and even harder to forget)" (Boyd, 2008, p. 15). Consequently, users felt vulnerable fearing that the masses could view everything they had posted. To regain a sense of privacy and control users complained to which the founder of Facebook, Mark Zuckerberg, justified how information made available via newsfeeds was already publicly available. Also, the newsfeeds that individuals received via their personal logins were merely updates on their

friends and only their friends (Zuckerberg, 2006). Boyd reported that Zuckerberg's response did not resolve users' concerns. Further, Boyd argued that users now had to consider how their posts might be perceived or shift to another platform where they could regain a sense of control and privacy (Boyd, 2008). Still users were forced to temper their posts by considering some form of social etiquette.

A recent study of why users are exiting Facebook (Digits, 2014) reports that teenagers prefer not to hang out on the same platform as their parents and grandparents. This is because they are searching for a degree of privacy. Since 2011 Facebook has seen a drop in the number of teenagers by 25.3%. In contrast, Facebook has seen a marked increase in the number of 55 plus age group by 80.5%. The study suggests that baby boomers are now entering the social media space but recognise also that audience behaviour can be unpredictable. This being the case it is uncertain whether user volumes will remain consistent. To retain its users, Facebook has been acquiring other social media platforms like Instagram.

The sense of control and privacy highlighted by Boyd (2008) assumes a degree of stewardship over information. The research agrees and claims that data should be a key responsibility of collectors. As highlighted in Table 1, it is possible that control over ones' Facebook content can be lost because when users agree to Facebook's terms and conditions of use they essentially opt-in to its practices and norms. However if a user is dissatisfied with Facebook then there are options to deactivate their account (Facebook, 2013). Similarly an individual has the right to determine what information is shared about them nonetheless this can be managed by adjusting the available privacy settings in Facebook.

RESEARCH QUESTIONS

This research seeks to answer the following questions:

1. What are the contextual problems with crowdsourced whakapapa?
2. How does the use of Facebook address these problems?

The intention is to provide an understanding of how Māori are using Facebook to manage whakapapa in order to develop techniques to improve online whakapapa research. Accordingly, the goal of this research is to determine the contextual problems with crowdsourced whakapapa and to understand how the use of Facebook addresses them.

In order to answer these research questions, the following interview questions were asked:

1. How do you research whakapapa?
2. Do you consider crowdsourcing an effective method for gathering whakapapa? If so, why?
3. Do you consider Facebook an effective forum for researching whakapapa? If so, why? How has Facebook affected your ability to do whakapapa?
4. Considering the volume of information you gather, how do you make it meaningful to you?
5. Who owns the whakapapa you obtain from Facebook?
6. Why is ownership important?

Interview questions were developed on the basis of the literature study. An analysis of the interview responses are provided later in the research.

RESEARCH DESIGN AND METHODOLOGY

A qualitative study

This research is informed by a qualitative study of Māori Facebook users (Facebookers). The research also considers kaupapa Māori theory and grounded theory (Glaser, 2012) as part of its conceptual and theoretical framework. The research is best suited to a qualitative approach as it allows for an interpretative view of collected data by the researcher as a way of understanding participant experiences, perspectives and belief systems.

Participant selection

Research data was gathered by a researcher of Māori descent. The research therefore acknowledges the Māori tribal affiliations and upbringing of the researcher²⁷, in particular Ngāti Hine, Ngāti Kere-Ngāti Pihere and Rangitane ki Wairau. The researcher's tribal affiliations contributed to the strength and nature of social ties with the selected participants.

Purposive sampling (Suri, 2011) enabled deliberate participant selection based on the belief that the selected participants are information-rich and that the same information would not be

²⁷ The research adopts O'Carroll's (2013a, 2013b, 2013c) approach to acknowledging the Māori tribal affiliations of the researcher and that in doing so the research recognises the relevance of the existing ties between the researcher and the research participants.

attainable from others given the same or similar circumstances. Purposive sampling enabled participant selection based on a specific purpose, that is:

- of Māori descent and therefore Māori social structure membership
- kaupapa and/or kin-based relationships with the researcher whether online, offline or both
- known to the researcher as possessing a cross-section of whakapapa interests and related practices.

Participant selection also considered membership of existing Facebook groups to which the researcher was also affiliated. The Facebook groups are unnamed but are based on kaupapa and/or kinship. Whakapapa knowledge varied between individuals, from novice to expert. Note that sex and age variables have been excluded from the study.

Seven individuals were recruited for the study.

The names of the individuals who consented to participate in the research are undisclosed and are confidential to the research. Nevertheless, outside the research boundaries it would be difficult to prevent any participant from discussing their interview experience with another individual also selected for participation in this research.

Participant selection was difficult and in itself seemed to contradict privacy and data ownership concerns highlighted in the present study. Due to existing social ties with the selected participants, the researcher had opportunity to observe the participants online and offline activity which could have easily introduced a degree of bias to the research. Prior knowledge of the participants, except that stated above, has not been considered for the current study.

Research setting

Interviews were conducted in the home of either the researcher, the participant, or in one instance an interview was conducted at the home of `kin-based whānau.

Research participants were provided a Participant Information Sheet (see Appendix B) that outlined the proposed research along with an outline of how data was to be collected.

Informed consent was obtained by way of a Participant Consent Form (see Appendix C) that included also a description of how data was to be collected.

Data collection

The methods used for collecting data were by interview, both *kanohi ki te kanohi* (K2K) and *Pukamata ki te Pukamata* (P2P). K2K was selected because it is culturally appropriate for Māori, and hence a preferred pedagogy. This pedagogy is supported by Smith (2012) who argues that a culturally appropriate methodology such as K2K (includes includes *hui*²⁸, *korero*²⁹ and *purakau*³⁰) ensures data reliability and validity when researching indigenous peoples. P2P was an unintended method but its value was realised in the process of overcoming time and location constraints.

For K2K participants, interviews were 25 to 30 minutes in duration. Participants had agreed to their interview being audio recorded. For P2P participants, they agreed that textual data obtained via private messaging could be used for analysis in the research. P2P interviews were twice as long because the interviews were computer-mediated. Hence, they needed time to type their responses. Unpublished data obtained from a Fulbright seminar (O'Carroll, 2014) was also considered. Email permission was obtained from the presenter and the seminar organisers to quote or cite material.

Research participants had opportunity to ask verbal or written questions about the research. They also had opportunity to withdraw from the interview or have their data withdrawn from the research. Neither situation eventuated. Participants were promised confidentially and that they would have their questions answered to their satisfaction. No questions were asked about the interview/data collection process, nor were questions asked about usage of the data following the interviews except that each participant confirmed they wished to receive a copy of the research report.

The researcher intended to conduct the research interviews via K2K or phone but instead conducted interviews via P2P and successfully obtained answers to interview questions.

²⁸ A meeting or gathering is referred to as a *hui*. See Appendix A.

²⁹ To speak or to discuss is referred to as *korero*. See Appendix A.

³⁰ *Purakau* is the term used to describe a narrative or story. See Appendix A.

Whilst the K2K method did not provide the same sensory observation type opportunities as P2P, use of the P2P method proved that location is irrelevant.

Conducting the interviews

Open-ended questions, as provided above, were used to generate opinions from the research participants whilst closed questions were used to limit the degree of bias introduced into the interview responses. Occasionally the researcher asked further questions to elicit added information or to seek clarification where the researcher was uncertain of what was intended by the participant's response. All participants were asked the same interview questions.

Data analysis

Data analysis was initially based on the researcher's interpretation of the interview responses, an approach consistent with grounded theory literature (Glaser, 2012). The data was subjected to further analysis based on three stages: (1) transcription, (2) familiarisation, and (3) coding.

Transcription

Textual data was generated from K2K interviews which were transcribed from audio recordings. On occasion audio recordings were difficult to hear and subsequently data could not be transcribed. During the analysis phase corrective action was taken by going back to the recording to check context, and interpretation. Setting, context, body language, voice inflection all contributed to interpretation of the data. Researcher notes were taken during the interviews and included observations, perceived intent, key ideas and points of interest.

Transcription was not required in the case of P2P interviews as data was already available in text format. However, allowance had to be made for the time needed by the participants to type their answers.

Familiarisation

As implied previously, it would have been possible to predict responses to interview questions due to the researcher's knowledge and relationship with the participants. The researcher and participants had similar perspectives on whakapapa and whakapapa research practices.

Coding

Interview responses were summarised and coded based on emergent themes from the data. A summary of the interview responses and initial coding is provided in Appendix E. Coding was further refined by matching on key words and intent according to the researcher's notes. There were some overlaps between the themes and associated sub-themes. From the analysis five overarching and inter-related thematic areas emerged as shown in Table 2. The K2K and P2P datasets were integrated for this purpose.

FINDINGS AND DISCUSSION

Defining 'the middle'

When participants were asked how they research whakapapa their responses changed aspects of the whakapapa definition proposed by the research, that is: the customary practice of building and sharing family history and ancestry. One participant described whakapapa as "the glue that acts as a reminder of how we connect". Another participant asked questions, such as who are the people you're meeting and where are you living. This suggests whakapapa is multi-dimensional and encompasses more than events and dates. Further, another participant advocated that whakapapa is concerned with 'the middle' which comprises the experiences, memories and physical objects representative of moments in one's life and not necessarily event or date markers.

This insight contributes to the research findings by suggesting that it is 'the middle' that gives meaning to or contextualises who you are.

The emergent themes and sub-themes of the structured interviews are presented in Table 2.

Table 2*Themes and sub-themes identified by the thematic analysis*

| THEMES | SUB-THEMES | DESCRIPTION |
|--|--|---|
| MANAGEMENT OF SOURCES AND DATA People, templates and technology used to collect, disseminate and store data. | Fit for purpose tools | Structured electronic or paper forms designed for the purpose of capturing genealogy and family history |
| | Kaumatua | Kaumatua are considered keepers of primarily oral histories and historical artefacts |
| | Oral histories and handwritten records | Personal and published works compiled from oral histories, observations and experiences |
| | Public records | Records available through National Archives, libraries |
| | Whānau | Information gathering by participating/attending reunions, hui, whānau events and through crowdsourcing |
| MOTIVATIONS FOR USE Whakapapa-driven goals or wishes | Whānau records | Information contained in whānau, hapū and iwi documents |
| | Address gaps | To resolve inaccuracies and remedy incomplete information |
| | Connecting | To create new and maintain existing relationships and data sources |
| | Identifying patterns | To contextualise data |
| PRACTICES AND PROBLEM RESOLUTION Techniques used to create and support creation of knowledge | Land claims | To establish rights to land |
| | Content harvesting | Replicating or copying content |
| | Elicitation | To draw out more information through interviews, conversations, observations and transcripts |
| | Self-management | Understanding the role of 'self' and the impact that has on eliciting information |
| | Site administration | Managing user access and provision of support for online tools |
| | Accessibility and availability | The degree to which data sources are available |
| | Address gaps | The approach used to resolve knowledge gaps |
| | Authority and credibility | Determining the degree to which a source is an authority and therefore a credible source. |
| | Evaluate barriers | Understanding what, why, when, and how to share data to avoid harm and minimise missed opportunities |
| CONTEXTUALISATION Methods used to embed and transfer knowledge | Evaluate sources | Understanding the reliability and trustworthiness of a source |
| | Validation | Ensuring the correctness and accuracy of data |
| | Complete forms | Structured electronic or paper forms used to capture collected data |
| | Online databases | Online genealogy databases |
| | Photos | Photos used to provide visual context to knowledge |
| | Recitation | Method used to assist with memory, recall, learning and teaching |
| | Tikanga | Māori customs and protocols |

Management of sources and data

The management of sources and data refers to the people, templates and technology engaged to collect and disseminate whakapapa. Research participants discussed where they sourced whakapapa from and how they managed their sources (see Table 3).

Participants reported a reliance on kaumatua to provide guidance as well as to validate information they had gathered from multiple sources. They agreed that kaumatua were pivotal in confirming the identities of individuals in photos and written records. Kaumatua also played a role in recalling and sharing their memory of individuals, locations, and events. Oral histories are still relevant and kaumatua are perceived to be primary sources of oral histories but the information they provide are not always correct. There was concern by participants that kaumatua are getting older, they're unwell, their memories are not as sharp as they use to be and some kaumatua have since passed away. There is also a risk that because of their frail state of mind they can be insensitive to questions asked of them.

It was common practice, according to all participants, to search for records held in both online and offline repositories. They were of the belief that one source validated the other. Similarly, that validation practices gave them confidence in information they had sourced, and regardless of the source. Facebook was noted as a useful source of whakapapa but that it was more useful for disseminating data rather than collecting data.

Participants were concerned with the accuracy and adequacy of whakapapa they had obtained, whether it answered their questions and/or filled gaps in their research. Whānau, hapū and iwi were a rich source of data. Family history centres and Archives provided access to microfiches, wills, school records, and minutes of meetings that also contained the births, deaths and marriages information.

Table 3*Quotations -Management of sources and data*

| SUB-THEMES | QUOTATIONS |
|---|--|
| Fit for purpose tools | <p>“I was concerned that Geni would one day shut down and disappear. It was at that point I wanted to know what happened to the stuff I put on there” (K2K-P1)</p> <p>“[...] we were starting to be connected to a global tree and they were linking up our ancestors.” (K2K-P2)</p> <p>“doesn’t matter what tool it is, it’s only effective when you have champions” (K2K-P4)</p> <p>“Facebook is very good for whakapapa because the people you invite as your friends are mainly whānau and between as all we manage to get the research we are looking and also we get confirmation from other whānau members online” (P2P-P6)</p> |
| Kaumatua | <p>“The perception is that the kaumatua are a one stop shop, they know everything.” (K2K-P2)</p> <p>“[...] I used to switch off when Dad talked about it” (P2P-P7)</p> |
| Oral histories and handwritten records | <p>“Mum use to copy records by hand into a notebook” (K2K-P1)</p> <p>“I have copies of some of [...] handwritten records.” (K2K-P4)</p> |
| Public records | <p>“I go to the church family history centre and have look on their files, microfiches, public records” (K2K-P2)</p> <p>“I am likely to find the information that is needed in the library, national archives, online, births deaths and marriages, newspapers, family records” (K2K-P4)</p> |
| Whānau | <p>“ I’d get too many different stories, who’s the right story, which is the right whakapapa” (K2K-P5)</p> <p>“I have an uncle who, because he takes the role to do whaikorero for us when we go to marae and that, I know he’s knowledgeable because it’s part of his speech” (K2K-P3)</p> |
| Whānau records | <p>“was using it because a reunion was coming up” (K2K-P1)</p> <p>“I read our whānau whakapapa books, and do some research on the computer.” (P2P-P6)</p> |

The tāngata, whānau, hapū, iwi model (see Figure 3) takes advantage of the multi-generational and multi-whānau five tier Māori social structure (see Figure 2). It is useful for visualising the transformation of whakapapa from ‘snippets’ based on facts and observations to knowledge with insight at the top of the hierarchy.

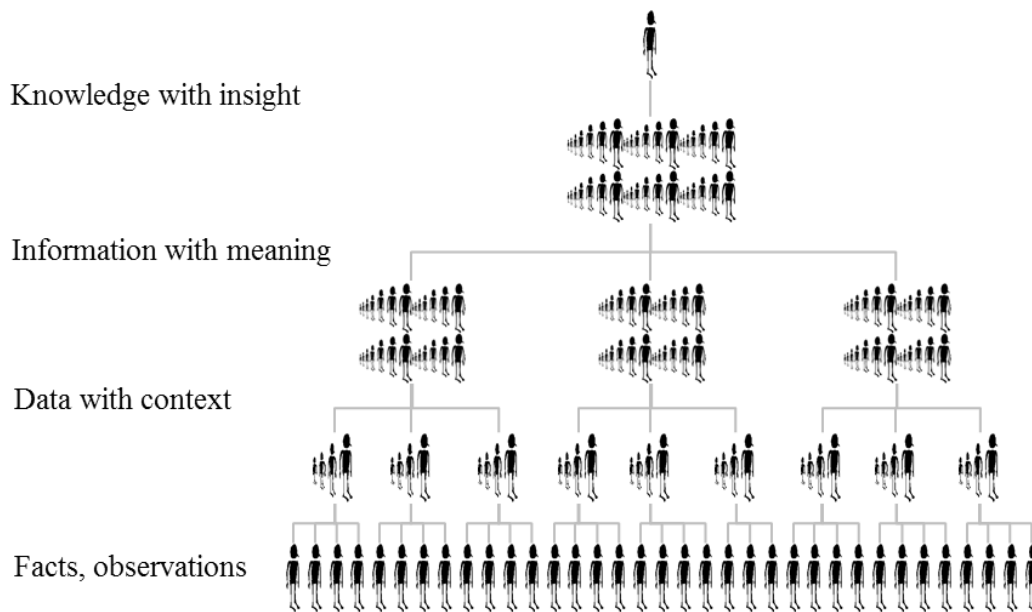


Figure 3 Tāngata, whānau, hapū, iwi model

Tāngata are representative of multiple and disparate data and sources. An application of varied practices leads to clusters of data or likewise validated data that are represented in the model as whānau. Moving up the model, identifying and resolving known problems assist with contextualisation which is represented in the model as hapū. Iwi and similarly tupuna are perceived to be the holders and keepers of collective knowledge.

Motivations

Research participants discussed their motives and antecedents in using Facebook for whakapapa (see Table 4).

The research findings show that the perceived usefulness of Facebook influenced whether participants used Facebook to ask questions about gaps in their whakapapa. Facebook was considered by participants as a great tool for setting up whānau groups as a means of channelling communications to a specific audience. Facebook’s private messaging feature meant that users did not need any alternate contact details of individuals if after conducting a name search they were successful in locating individuals online. The private messaging feature made it possible to ask and seek answers to sensitive questions without exposing any individuals. O’Carroll (2014) explained how whanaungatanga is being played out on Facebook where people are meeting K2K after first meeting in a social media space.

One participant suggested that we are facilitators of whakapapa that is held in hardcopy and contextualised to the moment. The participant believed that the traditional view of whakapapa has evolved and that facilitators such as Facebookers, are now furnishing the in-between that may not have been seen before. The participant considered that we only ever capture the beginning and end details but often have no idea about where or how the threads of the story are tied together. This insight gives rise to the contemporary definition of whakapapa as discussed previously.

Table 4

Quotations -Motivations

| SUB-THEME | QUOTATIONS |
|-----------------------------|---|
| Address gaps | “If individuals wish to post their information then I don't have a problem. I would disagree if someone posted information about me because the information about me may be incorrect.” (P2P-P6) |
| Connecting | “I don't feel whakapapa should be shared randomly but within a closed group with common connections” (P2P-P7) “I wouldn't recommend Facebook. Only useful for starting and making referrals. It's good to start conversations and making connections” (K2K-P5) |
| Identifying patterns | “A lot of names in the [...] whakapapa repeat.” (K2K-P2) “first one died so they named the next one and then that one died so they named the next one” (K2K-P2) “So if you are friends with somebody you can see who they are mutually friends with and then you are making connections with friends who have the same last name or making virtual connections these ways. And really it contributed to people's awareness of themselves but also their connections with their family.” (O'Carroll, 2014) |
| Land claims | “[...] you are successor to this land. And of course, you need to provide your genealogy, your whakapapa” (K2K-P3) “whānau are wary of posting information that might lead to land claims” (P2P-P6) |

Practices and problem resolution

Practices and problem resolution refers to the techniques used to create knowledge or to support the creation of knowledge. Research participants talked about the effectiveness of their personal whakapapa strategies (see Table 5).

Participants' childhood recollections included the dismissal of stories told to them by older members of their whānau. Yet in later years they recognise they had missed opportunities to obtain oral histories. Equally, of the oral histories and whānau records held, participants recognised the need to validate existing records to resolve inaccuracies. For example, one participant stated “they didn't check with me”. Of equal importance was the need to evaluate

the reliability and trustworthiness of a source which therefore improved the likelihood of reuse. O’Carroll (2014) explained that her regular practice was to return home believing that that is where the knowledge resides and is looked after, further that “these sorts of knowledge transmissions should occur on the marae, should occur at home, should occur face to face”.

Another participant explained how whakapapa is personal to individuals in part because it takes time to compile whakapapa. It also requires access to and careful management of multiple sources in order to compile whakapapa. This notion is supported by another participant who claimed that “while Facebook may be used to fill in gaps or help another whānau with their queries, your whakapapa is yours”.

Table 5

Quotations - Practices and problem resolution

| SUB-THEME | QUOTATIONS |
|---------------------------------------|---|
| Accessibility and availability | “old people sometimes aren’t gentle with that information” (K2K-P4) “kaumatua have died young, some have dementia or we live in different towns or countries” (P2P-P7) |
| Address gaps | “when I do look into whakapapa one of my concerns is getting it right for my descendants and the young whānau members who show an interest” (P2P-P7) “I have also used the online family tree to check things and fill in the gaps” (P2P-P7) |
| Authority and credibility | “I guess for some its evidence of where they were and what they were doing. It may corroborate things for them.” (K2K-P3) “Depends who is giving the information” (K2K-P5) |
| Content harvesting | “can’t protect photos can still harvest with print screen” (K2K-P2) “I disagree with harvesting of photos” (P2P-P6) |
| Elicitation | “I write stories, ask questions and use it as a way to extract more information” (K2K-P1) “I would still go through everything because it might open a thread to something else, another story, another family member.” (K2K-P3) |
| Evaluate barriers | “people out there who might use their photos for foul means” (P2P-P6) |
| Evaluate sources | “I personally like to see the written record or speak with the holder of the info and therefore feel I can evaluate it better.” (P2P-P7) |
| Self-management | “I own my whakapapa and I’m responsible for it.” (K2K-P5) |
| Site administration | “At the moment, [...] administer it, but when we die, it’s not, “well, this belongs to you, [...], it belongs to everybody. (K2K-P4) |
| Validation | “They didn’t check with me.” (K2K-P1) “The other thing is the Māori electoral rolls from 1908 they always help to validate other information” (K2K-P2) “it is only as good as the person who loaded it on to the computer. I still go back to the human resource to get confirmation.” (P2P-P6) |

Validation techniques emerged as a necessity when aiming to correct or prevent inaccuracies. There was also a strong dependency on the ability to locate sources and determine their credibility. More importantly however was the value of being able to identify inaccuracies which was perceived as the first step towards problem resolution.

Contextualisation

Varied tools and techniques are used to contextualise whakapapa (see Table 6). One respondent had a philosophical view that whakapapa is personal and belongs to whomever is the subject. In contrast, another respondent inferred that information posted on social media becomes public and is available to whoever has access to the site.

Participants were familiar with forms specifically for recording genealogy; in particular those adopted The Church of Jesus Christ of Latter Saints³¹. Forms, such as family group sheets and pedigree charts, assist with contextualising names, dates, events and relationships. One participant shared the experience of how as a youth they would spend weekends with their family at the church family history centre searching for information about their great grandparents, their grandparents, their parents, uncles, aunts, cousins, and their siblings. Successful searches resulted in filling out family group sheets and pedigree charts. Another participant explained how the forms were useful for prompting stories and memories from older whānau members.

Photos were reported as being a useful tool for eliciting information such as associations to time, location, people and events. Photos were used to provide visual context.

Table 6

Quotations - Contextualisation

| SUB-THEMES | QUOTATIONS |
|-------------------------|---|
| Complete forms | “I convert it into a format that people can understand” (K2K-P2) |
| Online databases | “[...] put it into our genealogical database. Update it every time I get new information.” (K2K-P4) “[...]looked you up [...] on Nga Whanau [...] I could give him a better answer than if that resource hadn't been there” (P2P-P7) |
| Photos | “I would find a photo and show her and ask her what do you know” (K2K-P1) “I always have to have photographs, photos go alongside the name and helps |

³¹ The Church of Jesus Christ of Latter Saints, otherwise referred to as the Mormon church are founders of the Family Search website <http://familysearch.org/>

| SUB-THEMES | QUOTATIONS |
|-------------------|--|
| | with memory and you can't do that when you go back on a direct line of descent because you don't have photos to match the name." (K2K-P2) |
| Recitation | "You have to practice it all the time." (K2K-P2) "I love piecing the information together and then I practice reciting what I learn to my mokopuna ³² " (P2P-P6) |
| Tikanga | "when we're having kai I don't talk about whakapapa. If people want to talk about whakapapa I generally try to avoid it" (K2K-P2) "an uncle who [...] takes on the role to do whaikorero for us when we go to marae [...] I know he's knowledgeable because it's part of his speech. So I'll ask him questions." (K2K-P3) |

The ability to draw on a number of tools and techniques as a means of contextualising data emerged as a significant contributor to determining whakapapa. Second was the ability to use various tools and/or techniques concurrently as a way of embedding knowledge and supporting the transfer of knowledge, regardless of the technology in use.

CONCLUSION

In this paper crowdsourcing, social networking and whakapapa were examined. In the course of this examination, the notion of 'Ngāti Pukamata' was also identified and developed. The research questions sought to understand the contextual issues with crowdsourced whakapapa and how the use of Facebook addressed those problems.

There were situations where the approach and collected data may prove useful. From the collected data a tāngata, whānau, hapū, iwi model (as shown in Figure 3) emerged, representative of how whakapapa knowledge is acquired and contextualised.

The traditional spaces of Māori are changing where Māori are now convening in virtual spaces like Facebook and seemingly emerging as an online iwi – Ngāti Pukamata. Facebook addresses the contextual problems of whakapapa by providing a platform where whānau, hapū and iwi can furnish 'the middle' that is comprised of snippets harvested from posts, comments and tags. The research acknowledges the limitations of crowdsourcing and Facebook alike but participants were not deterred by these limitations.

Personal gaps in whakapapa have been resolved by identifying mutual friends who have the same family name. Connections are being made online that do not necessarily exist offline.

³² Mokopuna – grandchild. See Appendix A.

Facebook allows K2K practices to be mirrored online as P2P. Any information harvested from primary or secondary sources need to be cross referenced and validated. It is the validation practice that confirms whether the information gathered is accurate.

Understanding the perceptions of K2K and P2P engagements may assist in determining how whakapapa can coexist both online and offline. From this the research has determined that Maori offline practices are intersecting with the online practices of Maori. Further the research demonstrated through P2P that location is irrelevant.

This paper is reflective of the author's Māori worldview which greatly affected the interpretation and generalisability of Facebook's usefulness for determining whakapapa, Whakapapa is personal to the researcher and this was evident in the online and offline social ties with the research participants.

Great efforts are made to preserve whakapapa. Because the research was unable to observe how records are stored or archived future consideration might include investigation into the storage and archival practices of Facebook mediated whakapapa. This virtual space for managing whakapapa should also be the basis of emergent social conventions on Facebook such as the virtualisation of tikanga online. The tāngata, whānau, hapū, iwi model provided by this research should be developed further. It is anticipated that this model would be valuable to kaupapa Māori theorists and knowledge brokers.

Appendix A – Glossary

The way in which this research employs te reo Māori terms was discussed throughout this paper, accordingly a list of terms and their definitions are listed below. Macrons have been used to indicate a long vowel. The research does not assume the definitions to be exhaustive and that other meanings may be sought from Māori cultural experts.

| | |
|-------------------------|--|
| Hapū | Sub-tribe |
| He mihi | Acknowledgements |
| Hui | A meeting or gathering |
| Iwi | Tribe |
| Kai | Food |
| Kaikorero | Speaker |
| Kanohi ki te kanohi | To meet face to face |
| Kaupapa | A collective vision or aspiration |
| Kawa me ona tikanga | Māori protocols, customs and norms |
| Korero | To speak or to discuss |
| Kotahitanga | A collective unity |
| Manākitanga | Duties and expectations of care and reciprocity |
| Marae | The ceremonial gathering place of whānau, hapū and iwi. |
| Mātauranga Māori | Knowledge that is inherently Māori |
| Mokopuna | Grandchild |
| Papa | A metaphysical reference to each generation of a family |
| Papa kainga | A place of dwelling |
| Pukamata | ‘Ngāti Pukamata’ is a translation of Face and Book – Pukamata. Ngāti in its simplest sense means; the joining of people, therefore Ngāti Pukamata can be translated as meaning, the joining of people through Facebook |
| Pukamata ki te Pukamata | Facebook to Facebook or technology mediated contact |
| Purakau | A narrative or story |
| Rangatahi | Youth |
| Tāngata | An individual, a persona, people or participants |
| Taonga | Highly prized and guarded artefacts |
| Te reo Māori | The indigenous language of Māori. |

| | |
|---------------------|--|
| Tino rangatiratanga | An assertion of cultural beliefs and practices by Māori |
| Tūpuna | Eponymous ancestor |
| Uri | Offspring or descendent |
| Whaikorero | Maori oratory, a formal speech delivered by men during powhiri where the speaker or kaikorero connects himself with the hosts through whakapapa |
| Whakapapa | Family history provides a platform for contextualising information about families including biographical data, social history, and relationships to a period, other people and to locations. This is unlike genealogy which is the discipline of tracing a living person's pedigree back in time from the present, or a historic person's descendancy to the present |
| Whakatupuranga | Generation |
| Whānau | Immediate and extended family |
| Whanaungatanga | The act of understanding an individual's connectedness with whānau , the whenua, and tāngata |
| Whenua | The land and waterways (includes river or awa and the sea or moana) of historical significance to Māori |

Appendix B – Participant Information Sheet



SCHOOL OF INFORMATION MANAGEMENT
TE KURA TIAKI, WHAKAWHITI KŌRERO
LEVEL 5, RUTHERFORD HOUSE, PIPITEA CAMPUS, 23 LAMBTON QUAY, WELLINGTON
PO Box 600, Wellington 6140, New Zealand
Phone +64-4-463 5103 Fax +64-4-463 5446 Email sim@vuw.ac.nz Website www.victoria.ac.nz/sim

Participant Information Sheet

Research Project Title: Virtual iwi: Using Facebook to determine whakapapa

Researcher: Pikihuia Reihana, School of Information Management, Victoria University of Wellington

As part of the completion of my **Masters in Information Management** this study is designed to **determine the contextual problems with crowd sourced whakapapa and to understand how Facebook addresses them**. Victoria University requires, and has granted, approval from the university's Human Ethics Committee.

I am inviting members of existing closed Facebook groups involving whānau, hapū and iwi members. Research participants, who are known within the identified Facebook groups as being actively involved in whakapapa research online and offline are invited to participate in this research. Participants will be asked to take part in a **30 minute interview**. Permission will be asked to record the interview, and a transcript of the interview will be sent to participants for checking. A full report of the research can be provided to you on request.

Participation is voluntary, and you will not be identified personally in any written report produced as a result of this research, including possible publication in academic conferences and journals. All material collected will be kept confidential, and will be viewed only by myself and my supervisor **Tony Hooper, MIM Programme Director**. The **research report** will be submitted for marking to the School of Information Management, and subsequently deposited in the University Library. Should any participant wish to withdraw from the project, they may do so until **31 March 2014** and the data collected up to that point will be destroyed. All data collected from participants will be destroyed **2** years after the completion of the project.

If you have any questions or would like to receive further information about the research project, please contact me at reihanpiki@vuw.ac.nz or telephone **021 754842**, or you may contact my supervisor **Tony Hooper, MIM Programme Director** at tony.hooper@vuw.ac.nz or telephone **0064-4-4635015**.

Pikihuia Reihana

Appendix C – Participant Consent Form



SCHOOL OF INFORMATION MANAGEMENT
TE KURA TIAKI, WHAKAWHITI KŌRERO
LEVEL 5, RUTHERFORD HOUSE, PIPITEA CAMPUS, 23 LAMBTON QUAY, WELLINGTON
PO Box 600, Wellington 6140, New Zealand
Phone +64-4-463 5103 Fax +64-4-463 5446 Email sim@vuw.ac.nz Website www.victoria.ac.nz/sim

Participant Consent Form

Research Project Title: Virtual iwi: Using Facebook to determine whakapapa

Researcher: Pikihiua Reihana, School of Information Management, Victoria University of Wellington

I have been given and have understood an explanation of this research project. I have had an opportunity to ask questions and have them answered to my satisfaction.

I understand that I may withdraw myself (or any information I have provided) from this project, without having to give reasons, by e-mailing reihanpiki@vuw.ac.nz by the **31 March 2014**.

I understand that any information I provide will be kept confidential to the researcher and their supervisor, the published results will not use my name, and that no opinions will be attributed to me in any way that will identify me. I understand that my participation is voluntary and that I will not be identified personally in any written report. I also understand that all opinions and data will be reported in aggregated form in such a way that individual persons or organisations are not identifiable.

I understand that the data I provide will not be used for any other purpose or released to others.

I understand that, if this interview is audio recorded, the recording and transcripts of the interviews will be erased within 2 years after the conclusion of the project. Furthermore, I will have an opportunity to check the transcripts of the interview.

Please indicate (by ticking the boxes below) which of the following apply:

- I would like to receive a copy of the research report when it is completed.
- I agree to this interview being audio recorded.

Signed:

Name of participant:

Date:

Appendix D – Abridged transcript of Acushla Dee O’Carroll from Fulbright Seminar

Start 17:31

Often people talked about that without Facebook these relationships would suffer because they just simply didn’t meet up face to face enough. It strengthened relationships but it also interestingly initiated new ones so people were meeting new family members whether they were as close as first cousins or they could be quite
5 distant. They were meeting these people in a social media space which often, more often than not led to physical meet up kanohi ki te kanohi meet up. And so that in terms of how whanaungatanga is being played out is really quite innovating. And Facebook has enabled us to make those connections based on a function that they have mutual friends. So if you are friends with somebody you can see who they are mutually friends
10 with and then you are making connections with friends who have the same last name or making virtual connections these ways. And really it contributed to people’s awareness of themselves but also their connections with their family. It contributed to whānau ora, and it was a really positive, and it continues to be a really positive part of the social media experience. To sort of illustrate that I’ll just read this quote out. "I don't know
15 what I would do without it. When you're away from home if you're not in regular contact with whānau and friends you feel disconnected. Social networking allows you to stay in contact with friends and whānau as if you were there with them, keeping your relationships intact" [Survey respondent, PhD thesis]. Essentially the research participant spoke about how important it was to keep relationships intact and often
20 without those connections, those virtual connections, and accessibility to other people these relationships would suffer. Secondly, rangatahi³³ use social media to learn more about their Maori identity but also it was used as a space to express this. So there was a range of different examples that was given, but some of the more poignant ones that stick out to me are in terms of our Maori youth using social media was to find out more
25 about genealogy. Now when I think about my whakapapa or genealogy often I’d go home and talk to my mother, my grandparents and elders of my marae, that’s where that knowledge resides and that’s where the knowledge is being looked after. The ease and accessibility of this kind of information, this knowledge through social media connections. Images of ancestors and actual family trees are being shared in this space.

³³ Rangatahi – Youth. See Appendix A.

30 So people are finding out more about who they are, where they come from and who
they come from through Facebook. But also more broadly through the internet and
google. In saying that there was some really positive things from the people who spoke
about their experiences. It was positive in that they didn't feel that they were shut off or
limited by only having to go back to their marae to find that information out. Now
35 obviously there is another side to that and there are some conflicting opinions from our
elders who reside at home, who reside on out marae and look after that knowledge that
these, that these sorts of knowledge transmissions should occur on the marae, should
occur at home, should occur face to face. But this is the sort of change that we are
seeing and seeking out that knowledge, attaining that knowledge through virtual [...]
40 and Facebook is one of these spaces in which it is happening. What I really like is that
it is a space where people are freely and frankly able to express who they are. And
there are a number of spaces out there on Facebook that encourage rangatahi to be
proud and express their Maori identity.

End 21:30 min

Appendix E – Summary of interview responses from research participants.

1. How do you research whakapapa?

| | SUMMARY OF RESPONSES | KEY THEMES |
|---------------|--|---|
| K2K P1 | Search family records and talked with mother. Search records held with the family history centre, other public records and online databases. Observed that personal information on online databases was incorrect because the information was not posted by themselves. | Practices – Observation, conversation, validation Sources – Kaumatua, public records, whānau records |
| K2K P2 | Information obtained through oral sources including interviewing kaumatua, and writing letters. Use photos to provide visual context. Apply two approaches (1) vertical approach such as determining lines of descent and (2) lateral approach such as determining great grandparents and their siblings followed by grandparents and their siblings, parents and their siblings, self and siblings and so forth down the line. Research approaches help to identify multigenerational connections and patterns such as repeated and strategic use of names. | Motivations – Connecting, identifying patterns Practices - Research approaches, interviews, letter writing, use photos to provide visual context Sources - Oral sources, kaumatua |
| K2K P3 | Talk to parents and other family members. Parents have not been proactive in passing on oral histories or whakapapa. Other whānau members are proficient in te reo and willingly accept role of kaikorero for purpose of whaikorero ³⁴ on marae. Motivation to know whakapapa has been driven by succession order to land in which case, required to provide connection. | Motivations – Connecting, to provide connection to land through whakapapa Practices – Conversation, passive vs active knowledge transfer Sources - Oral sources |
| K2K P4 | Determine gaps that need to be filled and the information needed. Search library and National Archives record; births, deaths, marriages, newspapers and other family records. Expressed concern that whānau are missing out on kaumatua knowledge because they're getting older and there are fewer of them. | Motivations - Determine gaps and information needed Kaumatua – barriers and missed opportunities Sources – Public records, whānau records |
| K2K P5 | Make connections through conversations with people including whānau. As a child spent many weekends with whānau at the family history centre filling in gaps in whānau records. | Motivations - Connections through conversations, determine gaps and information needed |
| P2P P6 | Listened to whaikorero on marae, read whānau whakapapa books and researched online. | Sources – Public records, whānau records, kaumatua |
| P2P P7 | Whilst a youth, observed father writing down whakapapa and when relations visited, observed father comparing notes. Uninterested in whakapapa at the time and regret that now. In an ideal world consider that there might be access to kaumatua but in reality kaumatua have died, have dementia or we live in different towns or countries. | Kaumatua – barriers and missed opportunities Practices – Observation, validation Sources - Handwritten records |

³⁴ Whaikorero is the term used to describe Maori oratory, a formal speech delivered by men during powhiri where the speaker or kaikorero connects himself with the hosts through whakapapa. See Appendix A.

2. Do you consider crowdsourcing (enlisting the services of your networks on the internet) an effective method for gathering whakapapa (whānau histories, genealogy)? If so, why?

| SUMMARY OF RESPONSES | | KEY THEMES |
|----------------------|--|---|
| K2K P1 | Observed inaccuracies in information posted by someone else, in particular where the posted information was about the participant and their family. Motivated to verify accuracies. | Practices – Observation Motivations – Data inaccuracies |
| K2K P2 | Concerned with inaccuracies in whakapapa. Of the belief that kaumatua are a one-stop-shop with whakapapa but they can be wrong or their stories embellished. Recognised need to validate information against alternate sources. Trust pakeha records as far back as 5 generations but oral histories are the best source where information relates to periods earlier than 5 generations back. Follow a rigorous process of validating information against multiple sources but have identified many errors in public records Resigned to the fact that some information may never be found. Often question the importance of being able to fill of gaps. | Motivations – Data inaccuracies Management of sources – Kaumatua, credibility, determine gaps and information needed Practices – Validation |
| K2K P3 | Consider that Facebook is effective because of its reach providing convenience, privacy, and the option to disclose what you want to and when | Tools – Benefits |
| K2K P4 | Crowdsourcing requires active participation but only effective when you have champions. It doesn't matter what tool you use. Nga Whanau designed specifically for genealogy versus social media which address the needs of the 'present' such as catching up. Social media is not conducive to obtaining the type of information you need to address gaps in whakapapa. Whakapapa is our connection to the land and to the people and you can't make that connection on Facebook. Facebook is not the place to store information because we are all over the world. | Techniques – Crowdsourcing benefits and drawbacks Tools /technology – Geni, Nga Whanau, social media, benefits and drawbacks |
| K2K P5 | Crowdsourcing provides a starting block. It is not the best technique for eliciting whakapapa. Questions were asked such as how do you know the information you've been provided is right, and is the information provider the authoritative source. There is an unspoken element of trust required between the requestor and the provider. Validation processes consider also the perceived credibility of the source. | Techniques – Crowdsourcing benefits and drawbacks Managing sources – Authoritative, credibility Practices - Validation |
| P2P P6 | Crowdsourcing as a technique is only as good as the person using it. Similarly, information obtained through crowdsourcing is only as good as the person who put it on there in the first place. It is still necessary to check the validity and accuracy of the information obtained. | Techniques – Crowdsourcing benefits and drawbacks |
| P2P P7 | A member has published a book that contains their family history. There are multiple sources and some are unknown. Mistakes can creep in and be perpetuated. Crowdsourcing is an effective technique for disseminating knowledge to those who need to know but can't think of an example of using the technique actively – more an observer. Technology can be useful for putting something right. | Sources – Kaumatua, whānau records Techniques – Crowdsourcing benefits and drawbacks |

3. Do you consider Facebook an effective forum for researching whakapapa? If so, why?
How has Facebook affected your ability to do whakapapa?

| SUMMARY OF RESPONSES | | KEY THEMES |
|----------------------|--|--|
| K2K P1 | Facebook effective for furnishing a history that hadn't been written. Attempted to fill a void, parent no longer performing role of family historian. Supplemented research on Geni with oral histories provided by parent. Interpreted information within the context of relationships - information is relative. Primary focus to establish a connection with the information. | Tools – Facebook, Geni Sources – Facebook, parents Motivations – Connecting Problem solving – focus was to establish a connection |
| K2K P2 | Facebook – love Facebook Benefits - able to ask questions of the masses but use private messaging for specific person to person questioning Photos provide visual context, can't protect photos as users can still copy using print screen. Treat archives with respect, whakapapa is tapu. Don't talk about whakapapa at the kai ³⁵ table. Personal approach when sharing whakapapa is to recite connections back to myself rather than give lineage from tupuna down. | Tools – Facebook Sources – Facebook benefits and drawbacks Technique – Content harvesting Practice – Photos provide visual context, tikanga, recitation |
| K2K P3 | Facebook Benefits - effective because of its reach, offers convenience, privacy, and ability to disclose what you want and when, e.g. private messaging to ask sensitive questions like 'children born out of marriage'. | Facebook benefits and drawbacks – reach, convenience, privacy |
| K2K P4 | Facebook Benefits - requires active participation, effective when you have champions, suitable for re/connecting Drawbacks – no audit trail, not conducive to getting the right type of information, not whakapapa specific, not suitable for information storage Doesn't matter what tool you use | Practice – moderation Tools – doesn't matter, Nga Whanau, social media Facebook benefits and drawbacks – participatory, not conducive, re/connecting but not necessarily to land, not specific, no audit trail, geographically dispersed crowd, not suitable for information storage |
| K2K P5 | Facebook – provides a starting block. Drawbacks – how do you know information is right, credibility of source, trust. | Tools – Facebook is a starting block Drawbacks – authority, credibility |
| P2P P6 | Facebook useful for obtaining information quickly, verifying and validating information already obtained. | Facebook features – quick access Practice - validation |
| P2P P7 | Facebook – ineffective for whakapapa research because it's too much at arms-length and the kanohi ki te kanohi element isn't there. But effective for sharing and checking information against what others might hold. Prefer to consult written records or speak with the holder of the information and therefore feel I can evaluate it better. | Practice – validation Sources – written records, oral sources, prefer kanohi ki te kanohi Perceptions – can better evaluate written records and oral sources |

³⁵ Kai – food. See Appendix A.

4. Considering the volume of information you gather, how do you make it meaningful to you?

| SUMMARY OF RESPONSES | | KEY THEMES |
|----------------------|---|---|
| K2K P1 | Write stories and use photos as a way of being able to extract more detail and more information. Realise that information obtained from oral sources won't always be available. Document findings by filling out pedigree charts and family group sheets. Practice helps to embed knowledge of lineage. | Practice – transcription, fill out forms Concerns – availability of sources, available |
| K2K P2 | Convert information into a format that can be understood by others, people like to see and feel. Share information with others who share the same vision. Sometimes people use whakapapa to disprove Māori land claims. Whakapapa is about identity. Modern Māori perspective is to register with iwi to get money. | Practice – transcription, knowledge transfer Concerns - credibility of sources, financial gain |
| K2K P3 | Analyse information to determine whether the information answers questions asked. It is possible that data can open a thread to something else Use information to create or update online records | Practice – transcription, knowledge transfer |
| K2K P4 | Transcribe information and upload to genealogical database where it can be accessed by others, e.g. photos of headstones. Hopefully by uploading content it will help others to recall their own experiences and memories. | Practice – transcription, knowledge transfer |
| K2K P5 | Conversations with parents are ongoing and useful for validating information obtained from other sources. | Practice – validation Sources – oral histories |
| P2P P6 | Enjoy piecing information together and learn whakapapa through recitation. Supports self-identification. | Practice - recitation |
| P2P P7 | Parents share oral histories. Whakapapa provides “the glue that acts as a reminder of how we connect”. Online tools like Nga Whanau provide context to support offline activity. Concerned about “getting it right for my descendants and the young whānau members who show an interest”. | Sources – oral histories Tools – Nga Whanau Concerns – “getting it right” |

5. Who owns the whakapapa you obtain from Facebook?

| SUMMARY OF RESPONSES | | KEY THEMES |
|----------------------|--|--|
| K2K P1 | Concerned about the availability and longevity of information and that websites might shut down. We are facilitators of whakapapa that is held in hardcopy and contextualised to the moment. Traditional view of whakapapa has evolved, furnishing the in between that we might not have seen before. We only ever capture the beginning and end details but often have no idea about where or how the threads of the story are tied together Personal feel exposed and find Facebook to be judgemental | Concerns – accessibility Facebook drawbacks – creates feeling of judgement and exposure |
| K2K P2 | Everyone owns whakapapa regardless of the technology, Facebook, Geni, Nga Whanau | Tools – Facebook, Geni, Nga Whanau Ownership |

| SUMMARY OF RESPONSES | | KEY THEMES |
|----------------------|--|---|
| K2K P3 | Determining ownership is difficult. More important to be responsible in how or with whom whakapapa is shared. | Practice – ownership versus responsibility |
| K2K P4 | Everyone owns whakapapa. There is a difference between the format and medium used to convey whakapapa versus the information that has been conveyed. Site administrators exist to maintain the site, not the information | Practice – ownership, open access Roles – administrators, moderators |
| K2K P5 | Everyone owns whakapapa. Individuals can determine for themselves how they share their whakapapa. Personal belief that if sharing whakapapa then there is a responsibility to reduce/prevent risk of theft, or harm Ownership and responsibility go hand in hand | Ownership vs responsibility |
| P2P P6 | Whakapapa posted on Facebook is for everyone. Where individuals post information about themselves then they are considered the authority. Don't agree with someone else posting information about me because it may be wrong. | Ownership – belongs to everyone Responsibility – post Sources – authority, credibility |
| P2P P7 | Gradually we become the ones responsible for passing it on Never obtained substantial amounts of whakapapa from Facebook and wouldn't know how ownership could or should be ascribed. Your whakapapa is something probably compiled from multiple sources and while you may use Facebook to fill in gaps or help another whānau with their queries your whakapapa is yours whether you describe in terms of ownership or in some other way. | Practice – knowledge sharing, compiled from multiple sources, fills personal gaps and gaps for other whānau Ownership - personal |

6. Why is ownership important?

| SUMMARY OF RESPONSES | | KEY THEMES |
|----------------------|--|--|
| K2K P1 | It is important to manage your personal affairs online and offline as social media practices can have wide reaching impacts both in and out of the workplace. Employer has introduced a social media policy which is linked to a code of conduct in the workplace. Also, concerned that Gen-Y are too loose with their conversation. | Practice – self-management |
| K2K P2 | Why are we worried about linking to a global tree? I don't think we'll ever know what is 'ours'? | Ownership |
| K2K P3 | As a participant in the exchange of information, individuals have a responsibility to make sure it is right. Important to own your actions rather than the data. Ownership applies to the physical storage of the data. | Ownership versus responsibility |
| K2K P4 | Ownership is important when you're dealing with selfish people. Good information management includes using information in a manner that is not harmful to others | Practice – avoid harm |
| K2K P5 | Wouldn't recommend Facebook for whakapapa. It's useful for starting conversations and making connections. If we don't speak about whakapapa to others then there is a risk of it being lost 'don't keep things in your back pocket - share it'. Whānau whakapapa has been put into a datashow and used for presentations - we're evolving! | Tools – Facebook is not fit for purpose Practice – risk of loss if not shared |

| SUMMARY OF RESPONSES | | KEY THEMES |
|-----------------------------|--|---|
| P2P P6 | Whakapapa is about identity. If content is harmful then it should be removed. | Definition – whakapapa is about identify Practice – avoid harm |
| P2P P7 | The real questions should be ‘Is ownership important? Don’t spend any length of time thinking about ownership but respect others claims to do so. Personal practice excludes sharing anything that others feel they own without their permission. Whakapapa should not be shared randomly but within a closed group with common connections. | Practice – avoid hard, consideration of others, sharing |

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