

Research Discussion Paper

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Clubhouse 274

Discussion Paper: The question of research on the impact of the Computer Clubhouse programme in New Zealand

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Executive Summary

We understand our accountability to funders and stakeholders and wish to provide quality information on outcomes for youth and their families as a result of their involvement in Clubhouse 274 and the Connected Community Project, however, we contend that traditional quantitative data about access and individual competencies is insufficient for this exercise in our community. It asks the wrong questions and therefore doesn't measure what the project values and wants to deliver.

- Traditional research approaches to addressing the 'digital divide' are aimed at equitable access, infrastructure, productivity, uptake and individual computer user competency
- This approach ignores the social and cultural capital of the community, that is built on connections and relationships of trust, and the unique cultural worldviews of the participants. It not only ignores these perspectives, it serves to negate them and thus alienate the community.
- The Computer Clubhouse Trust Strategic Plan cites research that providing devices and conduits alone is not enough to make a difference in social inclusion for those not previously involved in ICT or connected to the Internet (Warschauer, 2002).
- It follows that data that is limited to technical access and outcomes does not do justice to the *Clubhouse Connected Community Project's* goals, which go beyond access and individual skills.
- Digital and technological fluency means much more than the ability to use technological tools; that would be equivalent to understanding a few common phrases in a language. To become truly fluent in a language (like English or French), you must be able to articulate a complex idea or tell an engaging story (Resnick, Rusk & Cook, 1998). We want to be able to tell the complex, rich, and engaging stories of our digitally fluent youth in this community – beyond access, beyond limited technical outcomes and beyond data for data's sake.
- In Phase 2 of our project, the *Clubhouse Connected Community* (Computer Clubhouse Trust Board, 2009). we are engaging our whole community, mapping and mobilising assets and capability, building relationships for mutually beneficial problem solving, and developing a community vision and plan. This process will involve community driven action research which will enable the community to determine what is relevant in terms of outcomes and direction.
- **There are two research paradigms relevant to this project:**
 - **Community Informatics** - the application of information and communications technologies (ICTs) to enable community processes and the achievement of community objectives. CI goes beyond the "Digital Divide" to making ICT access usable and useful to excluded populations and communities for local economic development, social justice, and political empowerment.
 - **Culturally Relevant Kaupapa Maori Research** – an indigenous approach to research which addresses, 'Maori cultural aspirations for power and control over the issues of initiation, benefits, representation, legitimation and accountability' in educational research. (Bishop and Glynn 1999, p.106)

We have an ideal scenario in this project to provide a model that brings together a Maori world view, with emerging community informatics research, and in doing so establish methodology that will not only break new research ground, but earn world-wide interest and attention.

Preamble

The traditional approach to addressing digital divide issues has been based on the following methods:

- Address equitable access to technology (computers & Internet access), and specifically focusing on “poor” communities.
- Teach people in these communities to use computers to a standard that is equitable to advantaged communities.

In general both approaches are predicated on high-level exogenous interventions both in terms of resources and external expert knowledge.

The overarching assumption is that access and computer skills will improve the outcomes for people from disadvantaged communities, and therefore have better macro outcomes in terms of:

- A highly skilled workforce and therefore improved productivity
- Social isolation and access to “knowledge” is improved.

On this premise current research has trended towards metrics that are predicated on the following quantitative measures:

- Infrastructure mapping, penetration and uptake.
- Individual user competency in using a computer (Examples: Schools ICT curriculum based on current unit standards, International Computer Drivers License, Computers In Homes¹).

Such research has served this premise well, that is:

1. provide a person a computer or access to a computer and internet, and
2. teach them to a level that is preset by external experts, and generally the research cites very positive outcomes.

However in the context of an emergent broadband economy where business and productivity at every level is now clearly predicated on social capital, (the connections and relationships of trust between people, enacted in the real and digital world) the question around our research is less about the absolute skill people need to operate digital devices, but how they navigate through a world and market place that is (a) representative of multiple paradigms, cultures, values and languages (b) constantly changing and dynamic. This is no less true for island states such as New Zealand where there are less primary production opportunities as countries with a higher population base are securing market share, and require us to trade beyond our borders to reach market scale.

Therefore if we are to become competitive as a nation, serious examination needs to occur into the current approaches of addressing the digital divide, the high level investment been made into seemingly erroneous interventions, and research that appears to be self serving.

In considering this, the Computer Clubhouse Trust developed a two-phase strategic plan that aimed at addressing these very concerns.

Beyond access

The Computer Clubhouse Trust Strategic Plan (Phase 1 2006-2009) cited research that said providing devices and conduits alone is not enough to make a difference in social inclusion for those not previously involved in ICT or connected to the Internet (Warschauer, 2002).

¹ (CIH web site Sep 2010) *“The programme works via low decile schools, to help families in greatest need to use the internet, email and basic computer skills in their everyday lives, to enhance their performance at school and at work.”*

This is because of the absence of the sort of **social and cultural capital** necessary to take advantage of the benefits. Other researchers (Bishop & Glynn, 1999; Pinkett 2003; Stanley 2003; Venkatesh, Morris, Davis & Davis, 2003, categorise some of these barriers into:

Relevance	Don't see how computer use can be of any benefit to their daily lives – lack of knowledge about what technology can offer
Comfort zone	Deterred by social costs, difficulty of use, presumed lack of competence, anxiety.
Self concept / Identity	The vision one holds about who and what one may become. Don't see selves as computer 'types'. Cultural barriers e.g. oral traditions vs writing information down, preference for <i>kanohi ki te kanohi</i> (face to face) communication.
Power relations	Who has the power? Who controls the information? Whose knowledge counts? Who initiates? Who benefits?
Ownership	Community members need to be active, rather than passive, participants in the process
Skepticism	It sounds too good to be true
Responsibilities	Too difficult to juggle existing commitments

Digital Fluency

To understand what is meant when we say “digitally fluency”, Professor Mitch Resnick, Co-founder of the Computer Clubhouse Network explains that technological fluency means much more than the ability to use technological tools; that would be equivalent to understanding a few common phrases in a language. To become truly fluent in a language (like English or French), you must be able to articulate a complex idea or tell an engaging story (Resnick, Rusk & Cook, 1998). So to be a technically fluent person ICT forms a seamless set of digitally empowered skills that act as a modern enabler of expression, engagement and transference of ideas and pursuits; In the context of community we take the digitally fluent person and link them to the multiplicity of social networks & relationships that are embedded in the social and cultural forms of that community. We contend that digital fluency is the 21st Century enabler, that provides the relevant skill set, sought after by New Zealand employers.

Research undertaken by NZICT Group in 2009 and IDG in 2008² confirm, that what has been labeled “soft-skills” are in fact becoming the premium set of capabilities and competencies sought after by employers when considering who they will employ – we contend that where young people from communities such as Otara had been failed by an under-performing school system, now over-perform by being highly digitally fluent.

Rank	Skill	% of respondents
1	Reliability	85.7%
2	Team work	64.3%
3	Willingness to learn	57.1%
4	Good communication skills	57.1%
5	Responsive to change	57.1%
6	Dedication / commitment	50.0%
7	Enthusiasm	50.0%
8	High personal values/standards	50.0%
9	Attention to detail	42.9%
10	Integrity	35.7%
11	Performs tasks with speed	21.4%
12	High energy	14.3%
13	Calm attitude	14.3%
14	Entrepreneurial	7.1%
15	Thoughtful / analytical	7.1%
16	Other (good attitude/aptitude)	14.3%

More importantly such emotional intelligence (EI) indicators is represented by a strong cultural identity in young people who in-turn demonstrate higher levels of motivation, resiliency and future goal setting (Nelson & Low 2003).

² IDG Highbrook Skills Assessment Survey 2008

In Phase 1, the focus for Clubhouse 274 was capacity building - putting down our roots (presence and infrastructure), establishing credibility, and developing the way we operate. The key focus here has been on a critical mass of early adopters in the community – This represents just under 500 young people aged 10 – 18 years old as at March 2010, who are now ready to be the conduits in assisting in the migration of skills and knowledge into the wider community; this is Phase 2 of our strategic intent for the community of Otara.

In the Phase 2, the “*Clubhouse Connected Community*” (2010 – 2013) we draw together the different activities that have enabled Clubhouse 274 to become such a success story, both in the community and further afield. In this phase it is important to have a common purpose centred on community (whanau) and our young people, where ICT and social/cultural capital become the critical enablers in community transformation. Kretzmann and McKnight (1993) identify five steps toward whole community mobilisation:

1. **Asset-mapping** - Mapping completely the capacities and assets of individuals, citizens' associations and local institutions,
2. **Building internal relationships** - Building relationships among local assets for mutually beneficial problem solving within the community,
3. **Asset-mobilisation** - Mobilising the community's assets fully for economic development and information sharing purposes,
4. **Building a vision** - Convening as broadly representative a group as possible for the purposes of building a community vision and plan, and
5. **Establishing external connections** - Leveraging activities, investments and resources from outside the community to support asset-based, locally defined development

Asset Based Community Development (ABCD) is an endogenous intervention that is, it is community driven and owned (Mathie & Cunningham, 2002), and where knowledge, assets and key performance indicators are developed from “the inside out”. External resources are used only to leverage the ideas and capacities generated through these five key processes, and therefore it is often less costly and has longer sustainability than external one off or short-term funded projects.

ABCD has been initiated as a process in the Clubhouse 274 community as from September 2010; and is a form of action research in its own right. It will shape part of a wider proposal of addressing authentic research praxis for the Computer Clubhouse.

Research that is relevant

If we contend that in the main, digital divide projects and cohort research to date have been erroneous in their approach and therefore have generated irrelevant metrics, it would also follow that applying the same science or assessment constructs to *Clubhouse Connected Community* outcomes is equally flawed in its thinking.

Therefore this discussion paper aims to introduce key Clubhouse stakeholders and funders to the emergent academic science of **Community Informatics** as a likely school of thought when addressing any future research activities of the project.

It also discusses research that is relevant to Maori and minoritised communities, and to Otara.

“We have been researched to death” or “we are the most researched people in the world” are two statements that a researcher entering a Maori community today is still likely to be confronted with. (Tuhiwai Smith)

This feeling is prevalent in indigenous communities worldwide and is certainly common in Otara, which has been under a media and research microscope for decades. The result is a widespread mistrust of research that is “done to” the community. **It is essential to the success of the project that research is conducted in ways that are culturally relevant to the community and to Maori.**

1. Community Informatics

Community Informatics (CI)³ is the application of information and communications technologies (ICTs) to enable community processes and the achievement of community objectives. CI goes beyond the Digital Divide to making ICT access usable and useful to excluded populations and communities for local economic development, social justice, and political empowerment.

CI approaches ICTs from a “community” perspective and develops strategies and techniques for managing their use by communities both virtual and physical including the variety of Community Networking applications. CI assumes that both communities have characteristics, requirements, and opportunities that require different strategies for ICT intervention and development from individual access and use. Asset Based Community Development is relevant to CI as a field of practice within the community of location. Also, CI addresses ICT use in developing countries as well as among the poor, the marginalised, the elderly, or those living in remote locations in developed countries. CI is of interest both to ICT practitioners and academic researchers and addresses the connections between the policy and pragmatic issues arising from the tens of thousands of Community Networks, Community Technology Centres, Telecentres, Community Communications Centres, and organisations such as the Computer Clubhouse here in New Zealand and globally.

2. Culturally Relevant / Kaupapa Maori Research

Fundamental to research that is empowering are relationships of shared control and reciprocity. This has implications for the gathering of information, the methods used, attitudes towards time, the participation of the researcher with the researched in contexts outside the area of research, the presentation of the research back to the people in appropriate forms and forums.

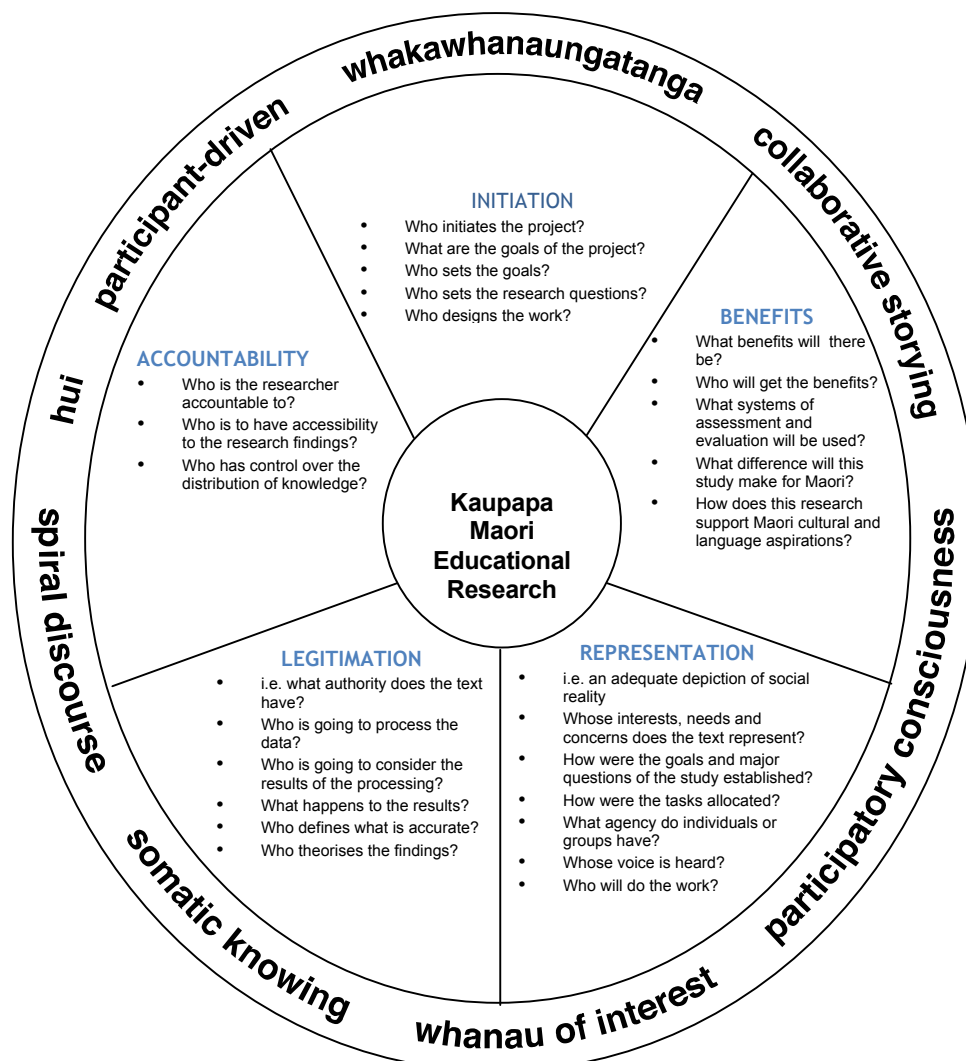
The dilemma is that the type of outcomes usually required by funding and/or government agencies are at odds with what is relevant to the community, however research that is not relevant to the community is unlikely to be successful. There is growing body of literature that challenges traditional approaches to researching on/with minoritized peoples by placing the culture of “an ethnic group at the center of the inquiry.” (Tillman, 2002, p.4, in Bishop, 2005)

Traditional research epistemologies have developed methods of initiating research and accessing research participants that are located within the cultural preferences and practices of the Western world as opposed to the cultural preferences and practices of Maori people themselves

(Bishop and Glynn 1999, p.106) believe that Kaupapa Maori theory addresses, ‘Maori cultural aspirations for power and control over the issues of initiation, benefits, representation, legitimation and accountability’ in educational research. They illustrate how these five issues of power and control could be addressed by a researcher positioned at the centre of the diagram (Figure 2), from a monocultural impositional stance, but the addition of the outer circle of Maori cultural processes requires the researcher to reposition themselves within a very different framework which demands an entirely different approach and outcomes.

³ Taken from material and an interview by Mike Usmar (CEO of Computer Clubhouse NZ) with Michael Gurstein, Ph.D. is Executive Director of the Centre for Community Informatics Research, Development and Training (Vancouver BC)

Figure 2: Evaluation Model: Research in Maori contexts.
(after Bishop & Glynn, 1999, p.129)



Out of the discontent with traditional research an indigenous approach to research termed Kaupapa (agenda/philosophy) Maori research has emerged. Graham Hingangaroa Smith (1992) describes Kaupapa Maori as “the philosophy and practice of being and acting Maori” (p. 1). It assumes the taken-for-granted social, political, historical, intellectual, and cultural legitimacy of Maori people, in that it is an orientation in which “Maori language, culture, knowledge and values are accepted in their own right” (p. 13).

For researchers, this means they are not information gatherers, data processors and sense makers of other people’s lives, but rather they are expected to be able to communicate with individuals and groups, to participate in appropriate cultural process and practices and interact in a dialogic manner with the research participants. Esposito and Murphy (2000) explain that research “methods are geared to offer opportunities for discussion. After all, information is not transmitted between researchers and individuals; instead, information is cocreated, ... data are coproduced intersubjectively in a manner that preserves the existential nature of the information” (p. 182). (Bishop, 2005)

Community Informatics and a Maori World View

Stillman & Craig (2006), researchers at Monash University, Australia, and Victoria University, Wellington, bring these two separate issues together and suggest that Community Informatics would benefit from more attention to articulating its assumptions about the nature of research and action with cultural diversity in its role as a bridge between diverse communities and the design and implementation of Information and Communication Technologies.

In June 2005, a number of community informatics researchers and practitioners came together in the UK to discuss qualitative research issues in Community Informatics (CI). A strong concern was expressed about the power imbalance between the researcher and the researched, including work with minority and Indigenous communities. It was felt that such concerns needed further, in-depth exploration, in order that CI develop a more sophisticated and ethical approach to action and research with non-Western communities, given the history of exploitation of Indigenous people through all sorts of research and practice projects that have frequently benefited the researcher far more than the researched. (Stillman & Craig, 2006)

Salvador and Sherry (2004, cited in Stillman & Craig, 2006) in an account of their ethnographic work for Intel in South America and elsewhere, speak of the need to have a deeper understanding and 'enliven the lived experience' of the 'local' in the intersection between 'people and places' in order that technology design has real meaning in local contexts.

It would seem that we have an ideal scenario in this project to provide a model that brings together a Maori world view, with the emerging community informatics research, and in doing so establish methodology that will not only break new research ground, but earn world-wide interest and attention.

Instead of reporting data about infrastructure, penetration and uptake, individual user competency in using a computer, improved literacy and numeracy or NCEA scores (which could be questioned as to whether or not these are directly attributable to the project alone), we have an opportunity to develop rich collaborative stories about the impact of computer and technology use on our Clubhouse members, school students, and their extended families at all age levels from pre-school to grandparents, and the involvement of the wider community. There is a range of methods for doing this research within the kaupapa Maori research paradigm. In fact this is already well accepted in educational research, an example being the collaborative stories collected from Years 9 and 10 Maori learners which underpin the widely used *Te Kotahitanga* project (Bishop, Berryman, Tiakiwai & Richardson, 2003) in many secondary schools.

The discussion from here.....

Like our approach to community transformation in Otara we sense that we must too own this process of developing what and how we implement research, while ensuring high levels of academic rigor are a part of any evaluation going forward. Moreover our goal must surely be that any research carried out, is consistent with the kaupapa of Clubhouse 274 and its partnering school Te Whanau o Tupuranga, and one that is empowering and **entirely** useful and relevant to the wider community that both entities serve.

Furthermore Clubhouse 274's success to-date is as much about those partners who have contributed to the journey thus far. Each in their own right has expressed a desire to invest in valid research from this point on, and equally are aware of how so called modern research has not lived up to the same levels of innovation seen in the Clubhouse young people. These key stakeholders are:

- NZICT Group
- Te Puni Kokiri
- Te Whare Wānanga o Awanuiārangi
- Department of Internal Affairs
- Microsoft New Zealand
- ASB Community Trust

The Computer Clubhouse Trust is proposing that a joint venture be established between Computer Clubhouse NZ and Te Whare Wānanga o Awanuiārangi, with the goal of establishing the countries first "Institute of Community Informatics" in the first part of 2012. This partnership, through its alignment with a Maori tertiary institute, will give validity and rigour to the development of a research methodology that brings together an indigenous Maori view and community informatics.

An initial period of discussion with the above key stakeholders is occurring from September – November 2010, with the goal of developing a project scope and critical path, including establishing the Institute and hiring of a principal investigator in 2012. Our goal will be to also dove-tail any research occurring into the current regime of Asset Based Community Development presently occurring as part of the Clubhouse Connected Community project in Otara; this in term will become part of a formative approach to on-going strategizing at Clubhouse 274, its community and beyond.

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