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Does ICT improve Social Interactions?: A case study of Picton Water Neighborhood in Australia

Raj Gururajan

Department of Information Systems

University of Southern Queensland

Toowoomba

Queensland 4350

gururaja@usq.edu.au

Abstract

Governments are increasingly aware of the power of the Internet as medium for communication and social interaction. Using the Internet Technology on broadband provides fact access to information and communication. In Western Australia, a network neighborhood is built on the combination of these technologies as a pilot project. This technology is expected to be used by the Western Australian government in order to provide services that would realize in a better quality of life to the residents of this neighborhood. This paper presents the results of a study conducted to test whether ICT actually improves the quality of life by facilitating social interactions as this appears to be a major cause for concern. The aim of the study is to present evidence that ICT is capable of enhancing social interactions and then to justify the use of this technology for improving the quality of life. For this purpose, after studying the Network Neighborhood by a team of students, a survey was conducted among residents of a small township in Western Australia to determine the positive effect of technology or otherwise. The initial survey administered prior to the implementation of the technology indicated that people in the Picton Waters neighbourhood were socially isolated and needed social interactions to improve the quality of their lives.

"A country that works smarter, that enjoys more efficient, less costly government - guided by a better informed citizenry, that supports job growth through small businesses, that promotes life-long learning - will be a country laced with a high-speed infrastructure for information with civic purpose."

Richard Cívile, JFK School of Government, Harvard University

Introduction

New technology is revolutionizing communications - previous innovations, such as the telephone and television, allowed individuals to communicate on a one-to-one basis, or for powerful, central institutions to speak one-way to the masses. (Burrows 1995). This presents an opportunity and a challenge - the opportunity to harness this new technology as a positive force, to improve the efficiency and accountability of local government, and strengthen communities, and the challenge of keeping up with technological change, being ready for and able to cope with the changes it will bring to society. This requires vision - to be able to actively use technology rather than passively reacting to change. Any advance which is able to significantly empower people, also threatens to entrench the division between haves and have-nots - both as organizations and as individuals (Burrows 1995). Civic networking is beginning to be used around the world - putting towns firmly onto the new virtual maps, opening up the process of government to the citizen, ensuring that those citizens acquire the new network literacy skills and that the less fortunate are not left behind in some new under-class deprived of access and skills (Burrows 1995).

Network Neighborhood

Network Neighborhood is one kind of civic networking helping and improving the cohesiveness and sustainability of the community. Network Neighbourhood is a program designed to enhance the economic, cultural, social and environmental development and deliver better quality of life. Its main aim is to deliver a social dividend while increasing the reach and relevance of Government and significantly cut the cost of Government service delivery (Gill, 2003). Network Neighborhood is about using online technologies to create an environment which "micro network" geographic neighbourhoods so people can communicate with each other when they want to, and develop strong communities of interest to keep them involved and interested in their neighbourhood so they do have a sense of belonging and begin to develop positive community networks (Gill, 2003).

Concept of Social Capital, Quality of Life and Social Indicators

Social Capital

Over the last five years social capital has started to get on the public agenda. But many people are not familiar with the term social capital. In everyday language one speaks about the social fabric rather than social capital (Stone 2001). Stone (2001) goes on to add that Social capital is the term being used in the public discussion because:

- *It puts the social fabric on par with other forms of capital such as financial capital, physical capital and human capital - social fabric has more status as social capital in an economic rationalist world view*
- *Social capital has some characteristics of other forms of capital, for example, it is a resource one can build up and then draw on later*

And also gives the reasons why social capital is being publicly discussed:

- *People in the community can see economic growth and economic well-being are not necessarily building the community fabric and they are looking for alternatives to the current dominant economic ideology.*
- *There is increasing evidence social capital is an essential ingredient in:*
 - *civil society*
 - *economic development*
 - *the health of people in communities*
 - *community development*

Social capital thus refers to the processes between people which establish networks, norms, social trust and facilitate co-ordination and co-operation for mutual benefit (Stone, 2001). Eva Cox has said that “*These processes are also known as social fabric or glue; it invests the concept with the reflected status from other forms of capital. Social capital is also appropriate because it can be measured and quantified so we can distribute its benefits and avoid its losses*” (Bullen, Onyx 1999 What is Social Capital?).

Diagram 1 shows the graphical representation what constitutes social capital.

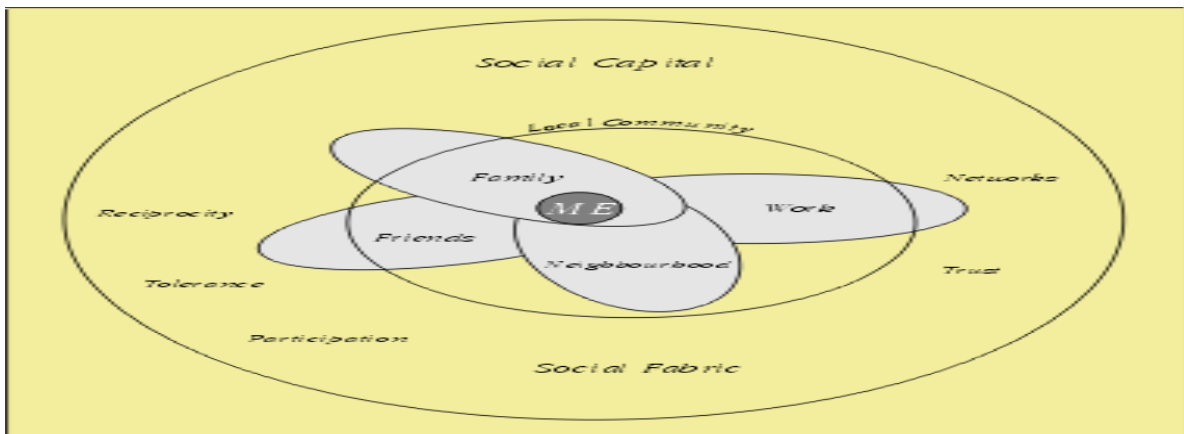


Diagram 1 Social Capital (Bullen, Onyx April 1999)

Thus in communities where there is social capital:

- people will feel they are part of the community
- they will feel useful and be able to make a real contribution to the community
- they will participate in local community networks and organizations
- in times of distress they will pull together for the common good
- people will mind each others children
- they will feel safe and at home in their neighbourhood
- strangers will be welcome
- no one will do everything but everyone will help out with something
- there will be many networks of reciprocal relationships
- people will feel valued for who they are.

Quality of life

Quality of Life (QOL) can be defined as *"The product of the interplay among social, health, economic and environmental conditions which affect human and social development."* (Shookner 2000 p.1)

The purpose of the Quality of Life Index (QLI) is to provide a tool for community development which can be used to monitor key indicators that encompass the social, health, environmental and economic dimensions of the quality of life. The QLI can be used to comment frequently on key issues that affect people and contribute to the public debate about how to improve the quality of life in our communities and our province. (Shookner 2000 p.2)

The following indicators are included in the Quality of Life Index as identified by Shookner (2000):

- Social
- Health
- Economic
- Environmental

Indicator

According to the Institute for Social Research Swinburne University of Technology (2000), an indicator is *"a measurement that tells us about the present state of something that is important. At the most general level, indicators can tell us about progress or well being for whole nations, or the status or condition of a social, economic or environmental problem, issue or system and at the most specific 'micro' level, about whether the annual goal of a government program or a small business has been achieved. An indicator can be a statistic expressed in dollars."*

Social Indicators

According to the Institute for Social Research Swinburne University of Technology (2000) social indicators are “*statistical measures that represent an element of some significant social phenomenon. Indicators can either be measures of broad issues (such as the percentage of the population in poverty) or narrow issues (such as the participation rate in voluntary organizations in small communities).*”

Connection between Network Neighbourhood, Social Capital, Quality of Life and Indicators

Network neighbourhoods develop healthy and supportive communities through making individuals feel they are valued and included. It is based on the premise that sustainable communities are those that:

- Foster communication and interaction between local residents
- Have an ethos of supporting local business
- Encourage participation in community organizations.

Online technologies can create social, cultural and economic development opportunities that will actively enhance the quality of life in the suburbs and country towns and create vibrant, sustainable and supportive communities which offer quality lifestyle choices.

Thus a community with strong social capital is a healthy community with a foundation of mutual trust and generosity. It is a community which promotes civic and civil participation between citizens and encourages discussion, dialogue and relationship building.

“Due to the importance given to the above issues neighbourhood level information on social capital is becoming increasingly recognized as vital for planning for the government and other local authorities. Example: Community policing. Police departments need to know a great deal about the characteristics of individual neighbourhoods — social, economic and physical circumstances as well as trends in crime—to deploy resources effectively” (Kingsley 1999 p.18).

It is self-evident that knowledge of characteristics of neighborhoods and their populations is also critical to the cost-effective deployment of many other city-wide programs, such as health services, code enforcement, and fire prevention etc. Knowledge of neighborhood-level conditions is even more obviously essential for developing effective strategies for improving individual communities.

A growing body of literature has confirmed that social capital is correlated with positive individual and collective outcomes in areas such as better health, lower crime, better educational outcomes, economic development and good government. (Carroll 2002 p.647)

According to Bullen, Onyx (1999) it is possible to measure social capital in network neighbourhood. There is a general social capital factor. They define at least eight elements of social capital:

- Participation in local community
- Neighborhood Connections

- Family and Friends Connections
- Work Connections
- Proactivity in a social context
- Feelings of Trust and safety
- Tolerance of Diversity
- Value of life

One is also keen to identify those indicators which bear on social capital and hence the quality of life. The measurement of social capital is most effective when questions relate to different levels of the social environment. The diagram below demonstrates these levels.

Communities in the social environment

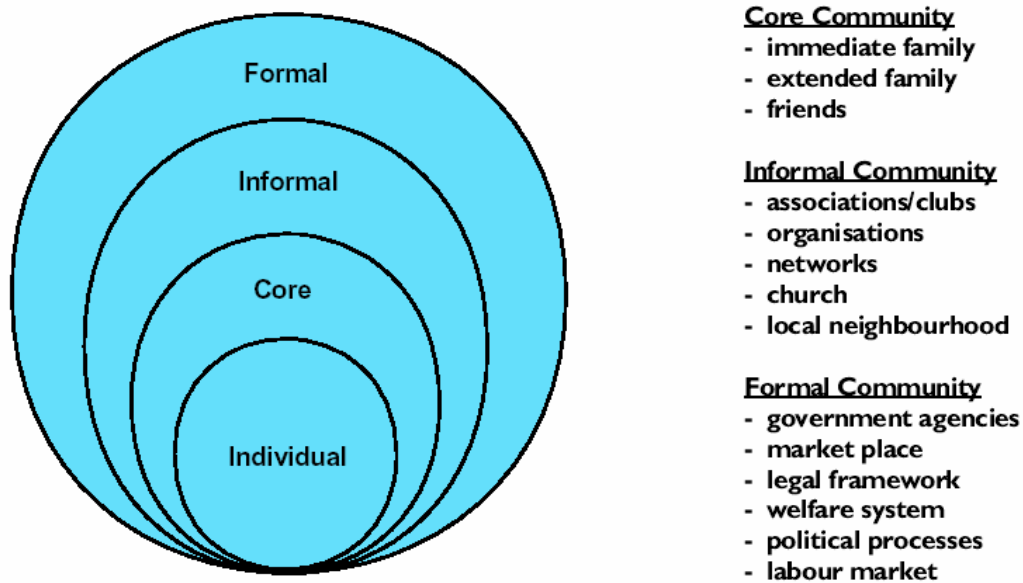


Diagram 2 Communities Levels in the Social Environment (Australia Bureau of Statistics 2000)

In a neighborhood context, indicators thus help evaluate whether local actions are having the effects desired. A neighborhood can use indicators to help determine what conditions exist and whether the direction the neighborhood is headed is consistent with community goals. Indicators can allow a group to hold itself, its public officials, its funders and supporting institutions accountable to neighborhood goals. Finally, indicators can also be used as a reporting tool that can help build consensus for an action strategy (Urban Ecology Coalition 1999).

Objective of the project

Picton Waters Network Neighbourhood project is one such network neighbourhood project developed by the as an Internet-based software application in Western Australia to see if Internet can help make stronger communities and better neighborhoods. It is part of a program called Connected Communities which is aims to get WA, get the greatest benefit from the opportunities the Internet offers their communities.

Network Neighbourhood's claims to help develop local geographic networks between individuals, and link people to businesses, community groups and government services. It also claims that people will be able to see what is happening in their area, be encouraged to participate in neighbourhood events, share events, trade locally, make friends and increase their sense of belonging and amenity (Gill 2003).

Thus the main aim for this study is to test the above claim with the Picton Waters Network Neighbourhood which currently is under a pilot test with the community members and then justify the use of this technology for improving the quality of life of the neighbourhood community.

The above discussion leads us to the following objectives of this project:

1. To identify quality of life indicators for the Picton Waters Network Neighbourhood project
2. To establish an indicator by which an indicator framework can be developed, periodically reviewed and refined
3. To implement the above stated process and develop a set of indicators
4. To establish a process of measuring the set of indicators
5. A final report on the measurement of the indicators.

The Survey as a Vehicle for Social Capital Research for the Picton Water Network Neighbourhood (Adapted from Stone 2001)

The use of the survey as a vehicle for measuring social capital in family and community life means that the data collected is at the level of an individual. Key advantages of the approach are that one is able to gather detailed maps of individual networks, as well as judgments about the quality of each of these network based relationships.

Although individuals might be asked questions about the community, region, or nation they are part of, the social capital of communities (or regions or areas) is then measured by collating information gathered from individuals within those communities, rather than by examining a particular community more directly. This approach provides an indication of the level and distribution of social capital and as an indicator of the quality of life within an area, as well as a detailed picture of social capital in the lives of individuals and families.

The survey brings broader national and community attention to the importance of social capital. It provides a tool to help communities identify how much social capital they have currently and thus measure progress going forward. It also helps communities identify particular areas of strength they can build upon or areas of weakness to address (e.g., informal neighborliness, political engagement, volunteering/philanthropy, etc.).

Selection of Indicators

The quality of life indicators have been selected using the following criteria (Adapted from Kingsley 1999):

Timely and routinely gathered: Is the indicator readily available at least annually? Is the indicator current?

Reliable and stable: Can we be confident that the statistic will be compiled using a systematic and fair method, and that the same method will be used each year?

Understandable: Is the indicator simple enough to be interpreted by the general user and the public? Information that no one understands contributes nothing.

Relevant: Does the indicator reflect community realities and history? Is it capable of small-area analysis?

Useful: Does it tell us something important? Is it possible to do anything about it? Is the indicator usable for policy and planning decisions? Does the indicator respond quickly and noticeably to real change?

Simple: Is the indicator relatively easy to obtain, or do complex confidentiality agreements have to be negotiated? Is it in a format that we can read and use?

Honest: Does the indicator accurately portray the issue? Is it capable of misinterpretation? Don't set out to prove a fact but, rather, to find the truth.

Questionnaire Scale

Likert Scale

Questions in the questionnaire are measured on the basis of the Likert scale. The Likert scale presents the respondents with a set of statement about a person, thing or a concept and has the respondents rate their agreements or disagreements with the statements on a numerical scale that is the same for all the statements. The Likert type scaling involved here has respondents ranking their responses to a set of items on a range of numbers, from 1-5. The Likert scale has been used basically to ascertain the correlation between the positive and negative halves of the answer to the question. The Likert has been selected because it is easy to construct, tends to high reliability, is flexible and is the best in scaling people on attitudes, perceptions, personality characteristic and for the assessment of multidimensional constructs.

Discussion of hypotheses

The social indicators and possible survey questions that can be identified through the hypothesis for studying the quality of life developed by studying the network neighborhood project of Picton Waters are:

Hypothesis 1

Hypothesis 1 a

The use of the network neighbourhood technology helps in the decrease of Stress levels through the increased use of making friends & allies through chatting and email

Hypothesis 1 b

The use of the network neighbourhood technology helps in the decrease of Depression through the increased use of making friends & allies through chatting and email

Hypothesis 1 c

The use of the network neighbourhood technology helps in the decrease of Social Isolation of a community member through the increased use of making friends & allies through chatting and email

Depression

“Depression also referred to as unipolar or major depressive disorder is not just feeling blue. It is more than being sad or feeling grief. Depression is a major medical disorder, just like high blood pressure or heart disease is medical disorders. Depression influences people day after day, affecting thoughts, feelings, physical health and behavior” (Cleveland Clinic 2001)

Stress

Stress is defined as “a feeling of tension that can be both emotional and physical. Stress in humans results from interactions between persons and their environment that are perceived as straining or exceeding their adaptive capacities and threatening their well-being. The element of perception indicates that human stress responses reflect differences in personality, as well as differences in physical strength or general health. In this study we only take emotional stress into consideration” (New Policy Institute, 2002).

Social Isolation

“Social isolation here is seen as a blockage of social interaction and communication with other people. People who are living alone, who have no close friends and are without family, are regarded as socially isolated” (Halvorsen 2002 p.4).

The New Policy Institute (2002) identifies depression and stress as one of the most common forms of mental illness. They further add that the effects can spread into all dimensions of a person’s life including their work, home and social environments. Possible triggers identified for development of this illness include unemployment, redundancy or the threat of it, and financial difficulties with social isolation being the most important factors which heighten the risk of depressive illness.

Scheepers P., Te Grotenhuis M. and Gelissen J. (2002) say that *“People who are socially isolated by objective criteria and who feel lonely are potentially subject to social exclusion. They lack the necessary social capital that is crucial when one is need of social support” (Halvorsen 2002 p.1).*

NIMH research indicates that stressors in the form of social isolation or early-life deprivation may lead to permanent changes in brain function that increase susceptibility to depressive symptoms (NIMH 2002).

“A 1998 study of patients with heart disease found that 50 percent of the patients who reported feeling very isolated were not married and had no one in whom they could confide died within five years. During the same time span, only 17 percent of those with either a spouse or confidant die” (Eure 2003).

“In addition, increased social fragmentation, family breakdown, and isolation have been noted over recent decades and linked to high depression rates” (Psychological Services Center, 2003).

Social support helps give people the emotional and practical resources they need. Belonging to a social network of communication and mutual obligation makes people feel cared for, loved, esteemed and valued. This has a powerful protective effect on health (World Health Organization Regional Office for Europe). Through the use of network neighbourhood the members of the community can interact with each other through mail or being part of the various communities that available through the network site. The network neighbourhood helps in bringing the physical proximity of family and friends together and one needs to measure the degree to which a person is socially integrated, or is there any availability of social support networks being developed through the use of network neighbourhood for the overall social well being of the community member. Social well being here is being defined as including interactions among the members of the Picton Waters neighbourhood community.

The questions basically take into account the following issues:

- Frequency of contact with family and friends (outside of the household)
- Whether someone can be called on in times of sickness
- Frequency of visiting neighbours
- Degree to which individuals know other people in their neighbourhood
- Active involvement in community projects, groups or networks
- The relation between loneliness, stress and depression.

Hypothesis 2

The use of the technology of network neighbourhood helps in the feeling of mental and physical security when in crisis and hence creates a sense of safety

Safety is defined here *“as a state in which hazards and conditions leading to physical, psychological, and material harm are controlled in order to preserve the health and well-being of individuals and communities” (YASA)*. Safety is shown here as a dynamic state resulting from the interaction of human beings within their community environment (YASA).

Essential conditions for both physical safety and the perception of safety include (Medline Plus):

- freedom from violence in a climate of peace

- the respect of values of individuals and communities as well as the physical, material and psychological integrity of individuals (Physical and Mental Security)

Safety can be achieved by (Medline Plus):

- sharing information on risk and options for risk control between the public and community groups in the neighbourhood
- concerted actions to maximize levels of safety achievable under the given conditions and
- adequate mechanisms for allocating resources for those in need and for resolution of conflicting interests

The community's perceptions of their neighbourhoods are important as they influence their actions and level of comfort in daily activities. Resident's fear of neighbourhood crime and violence is an important indicator of quality of life. Crime is the most commonly reported problem in people's neighbourhoods, with many viewing it as a problem or as a serious problem. Crime is higher in deprived areas, and residents regard crime as a more serious local problem than any other group, although affluent urban areas, often near council estates, also regard it as the key issue affecting local quality of life.

"In 1999, 34% of Greater Phoenix residents believed that the level of public safety and crime is the most important factor in their regional quality of life" (Morrison Institute for Public Policy 1999).

This indicator thus measures the proportion of individuals expressing dissatisfaction/satisfaction with their neighbourhood. It also shows how the fear of crime varies across different population groups. Therefore, it is important to collect data on community's perceptions of safety as it relates to them and how this may influence the decisions that they make. The network neighbourhood site facilitates the interaction between the members of the community ensuring that members of the community are present for the people in times of crisis. (New Policy Institute 2002)

The questions basically take into account the following issues:

- Experiences of crime in the neighbourhood
- Beliefs about personal safety when walking alone in local area after dark in the neighbourhood
- Beliefs about the potential for becoming a victim of crime in the neighbourhood
- Frequency of doing favors for neighbours in times of emergency.

Hypothesis 3

The prolonged use the network neighbourhood helps in developing and building trust between members of the neighbourhood community

Fukuyama, (1995: p26) has defined trust as "Trust is the expectation that arises within a community of regular, honest and cooperative behavior, based on commonly shared norms, on the part of other members of that community. They encompass secular norms like professional standards and codes of behavior." (Daniel 2002).

Fukuyama (1995) also noted that there is a direct relationship between trust and social capital. Fukuyama distinguished between high trust and lower trust societies. His main argument was that high trust societies tend to develop high social capital and subsequently they enjoy high economic development than low trust societies. (Daniel 2002). Sirianni & Friedland, (1995) have said “*that this argument also suggests that high trust groups and cultures also accumulate greater social capital*” (Daniel 2002 Building Social Capital on Trust).

The norm of trust is thus a key component of social capital as social capital theory stresses the importance of trust for the well functioning of civil society, and for the facilitation of a range of outcomes including civic engagement and democracy.

This concept is relevant to virtual communities. According to Cohen & Prusak (2001) “*Trust is one of the essential lubricants to social activities, allowing people to work and live together without generating a constant flurry of conflict and negotiations and that it is through relationships, communities, cooperation, and mutual commitment that form the essential elements of social capital and these elements are built upon trust.*” (Daniel 2002 Building Social Capital on Trust)

The network neighbourhood helps build trust and this trust enhances the effectiveness of communities, which in turn builds further trust. The increase in heterogeneity of group or network membership of the network neighbourhood influences the levels of trust within networks, the extent to which “trust of familiars” translates into generalized “trust of strangers”, and the extent to which norms within networks are shared.

The questions basically take into account the following issues:

- Whether one feels that most people can generally be trusted in their neighbourhood
- The extent to which people in the neighbourhood can be trusted.

Hypothesis 4

The use of network neighbourhood helps local small businesses with increased opportunities to exchange skills, goods and services

Although members of the neighbourhood community may on average have improved opportunities than before to do business they have in the past, this rising average does conceal a large minority who has no or little opportunities to do business.

The NewLinC project funded by NSW Department of Women Grants 2000-2001 was designed to increase the number of rural and remote women in New England Region who have an understanding of, participate in, the development of an information technology economy. The survey undertaken to find the outcome of the NewLinC project showed that 47 % of the attendees believed that e-commerce skills would be valuable at a later date when they had acquired the basic skills of the Internet and 9% of the women after acquiring basic knowledge of the Internet had started using the NewLinC networked community for e-commerce activities (Urban Ecology Coalition 1999).

Network Neighbourhoods are thus a good means of finding new opportunities and customers for small business in the neighbourhood. A lack of contacts results in the business reaching stagnation. The long term stagnation in business often means that those families often have low levels of social engagement beyond their immediate families.

The questions basically take into account the following issue:

- Whether the people feel comfortable to carry out trade using the Network Neighbourhood Technology.

Hypothesis 5

The use of network neighbourhood site promotes a sense of equality among members.

The main objective of the government is to give individual, voluntary and community group member's fair and equal access to the information which extends to social justice and human rights to all. This includes fairness and equal access to services by all members of the Picton Waters community.

In 1999, 4% of Greater Phoenix residents believed that a sense of diversity within community is the most important factor in their regional quality of life. This indicator was taken into consideration for the first time in the survey and showed that people were considering a sense of diversity in their community as part of their quality of life with people from various cultures and races shifting their base to Phoenix (Morrison Institute for Public Policy 1999).

The Diversity and Equality of Opportunity Race Equality: Initial Action Plan of the University of Liverpool also found that to move the emphasis from Equal Opportunities to Equality & Diversity with specific emphasis on the profile of Race Relations within the institution, a meaningful cultural development through effective communications and consultation is needed and communication and widening participation have thus been their main institutional strategy to achieve this goal (Eure 2003).

The network neighbourhood technology thus provides this means of communication which does not distinguish between the members of the community in terms of caste, creed, gender and class. All communities members who want to make use of the service can get registered and use the facilities offered by the site. This enables the members of the community to participate fully in decision-making for the neighbourhood community and creates a sense of equality among the members.

The questions basically take into account the following issues:

- 1) Tolerance towards multiculturalism.
- 2) Gender Equality
- 3) Equality in Opportunities
- 4) Equality and Diversity of the neighbourhood in terms of social divide.

Results

Method

The questions were handed over to the client who re-worded the questions and administered the questionnaire to the residents of Picton Water Community who were under the pilot study. The Questionnaire was sent to a total of 39 households and the total valid responses received were from the 39 households. Since the questionnaire was re-worded it has been found that the questions only correspond to the indicators found in the hypothesis no 1 and no 3. hence only those corresponding questions have been chosen for analysis.

Procedure

The questionnaire has been validated by the client the Department of Premier Cabinet. The draft questionnaire was also read and examined by our lecturer who provided the valuable feedback and improvements, which were added accordingly. The sample was then obtained and a house to house survey was conducted. The same questionnaire was administered to all the 39 households and received valid responses from all 39 households.

Pre- Use of Network Neighbourhood Study

Question No	Mean Values	Standard Devaiation	Result
1SI01	5.64	1.690	People often know the first name of a neighbour if they met them in the neighbourhood
2SI02	5.63	1.606	People rarely socialize with people within a close distance of their home.
3SI02	6.50	0.707	People always attend to community, service groups or voluntary activities.
4SI03	5.64	1.690	People often attended social activities with people who share a common interest.
5SI03	5.44	1.632	People rarely share interest with people outside of their close family members.
6SS01	5.28	1.870	People always feel safe performing outdoor activities at night in the neighbourhood
7SS02	5.86	0.900	People often had a often had a general feeling about safe and secure in the neighbourhood.

8SI06	6.50	0.577	People rarely talk to the people in the local area.
9SI07	6.50	0.707	People always participate at local events
10SI08	6.50	0.707	People always welcome new neighbors into their house.
11SI09	6.50	0.707	People always participate in group or community activity in the neighbourhood
12SB01	5.63	1.506	People frequently made new friends at function they participated in.
13SI10	5.64	1.550	People rarely meet or interact outside of the community group meetings or planned events.
14SI11	5.13	1.893	People often had social interaction with family members than people in the community.
15SI12	5.22	1.202	People often eager to participate in community events that are advertised locally even if they are not personally asked or invited to do so.
16SB02	5.33	1.806	People rarely participate in community events because they are afraid they wont know anyone, or wont be accepted.
17SB03	6.00	1.414	People rarely participate in community events even if they receive an invite.
18SB04	6.00	1.000	People rarely have a sense of belonging in the neighbourhood.
21SB07	5.70	1.342	People often had a sense of respect for the community and for each other.
26SI13	5.47	1.744	People frequently thought that if they knew more people in the community they would be more likely to socialize and do more community work together.

Pearson's r (correlation coefficient) was calculated for the different phenomenon investigated in the study. The following was found:

Pearson's Coefficient Analysis

Question	Significant Correlation to Question	Pearson's Value	Where Alpha Level
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S1	S2	0.667	<.01
S2	S1	0.667	< .01
	S8	0.621	< .01
	S9	0.364	< .01
	S10	0.554	< .05
	S11	0.403	< .01
	S13	0.484	< .05
	S15	0.370	< .05
	S17	0.394	< .05
	S18	0.327	< .05
S3	S4	0.377	< .05
	S9	0.719	< .01
	S10	0.436	< .01
	S11	0.816	< .01
	S12	0.485	< .01
	S13	0.580	< .01
	S14	-0.326	< .05
	S15	0.587	< .01
	S17	0.354	< .05
S4	S3	0.377	< .05
	S8	0.348	< .05
	S9	0.371	< .05
	S11	0.447	< .01
	S18	0.550	< .01
S5	NIL	N.A	N.A
S6	S7	0.633	< .05

	S21	0.405	< .01
S7	S6	0.633	< .05
	S12	0.425	< .01
	S21	0.327	< .05
S8	S1	0.535	< .01
	S2	0.621	< .01
	S4	0.348	< .05
	S9	0.415	< .01
	S10	0.479	< .01
	S11	0.53	< .01
	S12	0.396	< .05
	S13	0.397	< .05
	S15	0.448	< .01
	S18	0.548	< .01
Question	Significant Correlation to Question	Pearson's Value	Where Alpha Level
S9	S2	0.362	< .05
	S3	0.719	< .01
	S4	0.371	< .05
	S8	0.415	< .01
	S10	0.51	< .01
	S11	0.807	< .01
	S13	0.529	< .01
	S15	0.688	< .01
	S17	0.544	< .01
	S18	0.372	< .05

S10	S1	0.476	< .01
	S2	0.554	< .01
	S3	0.436	< .01
	S8	0.479	< .01
	S9	0.51	< .01
	S11	0.56	< .01
	S12	0.359	< .05
	S13	0.555	< .01
	S15	0.353	< .05
S11	S1	0.336	< .05
	S2	0.403	< .05
	S3	0.816	< .01
	S4	0.447	< .01
	S8	0.53	< .01
	S9	0.807	< .01
	S10	0.56	< .01
	S12	0.485	< .01
	S13	0.554	< .01
	S15	0.602	< .01
	S17	0.514	< .01
S12	S3	0.485	< .01
	S7	0.425	< .01
	S8	0.396	< .05
	S10	0.359	< .05
	S11	0.485	< .01
	S13	0.467	< .01
	S16	-0.615	< .01

S13	S2	0.484	< .01
	S3	0.58	< .01
	S8	0.397	< .05
	S9	0.529	< .01
	S10	0.555	< .01
	S11	0.554	< .01
	S12	0.467	< .01
	S15	0.505	< .01
	S26	0.359	< .05
Question	Significant Correlation to Question	Pearson's Value	Where Alpha Level
S14	S3	-0.326	< .05
S15	S2	0.37	< .05
	S3	0.587	< .01
	S8	0.448	< .01
	S9	0.688	< .01
	S10	0.353	< .05
	S11	0.602	< .01
	S13	0.505	< .01
	S17	0.548	< .01
	S18	0.401	< .05
	S21	0.433	< .01
	S26	0.357	< .05
S16	S12	-0.615	< .01
	S17	0.35	< .05
	S21	0.328	< .05

S17	S2	0.394	< .05
	S3	0.354	< .05
	S9	0.544	< .01
	S11	0.514	< .01
	S15	0.548	< .01
	S16	0.35	< .05
	S21	0.497	< .01
	S26	0.485	< .01
S18	S1	0.336	< .05
	S2	0.327	< .05
	S4	0.55	< .01
	S8	0.548	< .01
	S9	0.372	< .05
	S15	0.401	< .05
S21	S6	0.405	< .05
	S7	0.327	< .05
	S15	0.433	< .01
	S17	0.497	< .01
	S26	0.47	< .01
S26	S13	0.359	< .05
	S15	0.337	< .05
	S17	0.485	< .01
	S21	0.47	< .01

11. Discussion

Of the 39 questionnaires distributed, all responses have been considered valid and have been received in time for analysis. The data from the valid responses were entered by the lecturer into and analysed using the SPSSTM, a computerised statistical package.

Participants Demographics

As can be seen from the analysis the majority of the respondents have been living in the neighbourhood for a period of 3-10 years (33.3%). The majority of the respondents were in the age group 30-36 years (15.4%). The majority of the respondent had a tertiary qualification (51.3%) and were currently employed (74.4%). All of the respondent used the Internet (100%). And the average number of people in the household were four people. The data on location of Internet usage and intention for use had missing values and could not be thus quantified.

Deductions

The following deductions can be made after analyzing the pretest results:

The pre-use network neighbourhood survey clearly shows that people in the Picton Water community lead their lives mainly within their own household.

The majority of the respondents generally do not know the name of their immediate neighbours and the majority of them often/rarely/never socialize with friends who live within a close distance of their home. This suggests that because the people in the Picton Water neighbourhood, do not socialize with people of their neighbourhood community, they rarely talk to the people in the neighbourhood.

A surprising factor that emerged was that if there is a community or service group activity in the neighbourhood the majority of the respondents always participate in the event and also always attend events in the local area. They may attend even if they are not personally asked/invited or even if they are afraid they do not know anyone or won't be expected. This is a good way of socializing because a majority of the people feel that if they socialize more and do more community work together they may get to know each other and a majority of them are confident of making new friends/acquaintances if they attend a function.

But more needs to be done about increasing this social interaction outside of these events because the results show that at this point of time socialization and interactions in community events is limited only to these events. The majority of respondents do not meet outside these local events.

The results also show that the majority of respondents do not have a sense of belonging to their neighbourhood and this can be attributed to the fact of them not knowing their neighbours and not socializing with people close to their home.

The survey had also measured the safety factor in the neighbourhood and the results show the majority of the respondent felt a general feeling of safety in the neighbourhood and this feeling of safety was better in the night. This feeling of safety has been strong because a majority of respondents felt people in the community have a respect for their community and each other and because of this respect they participate in local events even if they are not personally asked or invited to do so and are not afraid to participate even if they do not know anyone or won't be accepted.

12. Conclusion

This research has made a number of findings about the social behavior of people of Picton Waters and has documented a number of issues in the use of network neighbourhoods.

Objective 1

The first objective was successfully completed, about accessing the social behavior (through the measurement of the social indicators indentied) of the people in Picton Waters through the introduction survey. The results do show an indication/collaborations towards the hypothesis.

Objective 2

Even though the post introduction survey was prepared there were some unanticipated problems in administrating the same to the same set of respondents and the results of the same were not available in time to prepare this report. Hence the hypothesis with the use of network neighbourhood technology could be measured.

In conclusion it can be said that there are indications that the network neighbourhood technology could help in improving the quality of life of the people in the Picton Waters community as it could be excellent way of improving the social interactions between the commmunity members and the indications are that the results could prove this fact.

7) How many people did you chat with yesterday?

[1-5/5-10/10-15/More than 15]

8) How comfortable are you with using the facility of the community building module offered by the network neighbourhood?

Very Uncomfortable

Very Comfortable

1 2 3 4

9) How many memberships in different communities have you obtained through the use of the network neighbourhood?

[0/1-5/5-10/10-15/more than 15]

10) Has it been helpful to you to establish and sustain a community of interest to you?

No, not at all

Yes, several

1 2 3 4

11) Have you attended a local community event of which you have become a member through the network neighbourhood?

No, not at all

Yes, several (at least 3)

1 2 3 4

12) How comfortable are you with using the facility of email offered by the network neighbourhood?

Not at all Comfortable

Very Comfortable

1 2 3 4

13) When you think of the different types of connections you have developed with people through the membership of various communities in the network neighbourhood:

What do you think you get out of those connections? What are the benefits for you? Reasons some people have given us include: (Choose 2)

Has helped me to get relaxed

Has helped me to relieve stress

Has helped me overcome depression
Has helped to get away from isolation
Helped me mix with people interested in similar hobbies, etc
Develop friendship
Given me something to do with my life

14) Do you use the network neighbourhood when you are:

Upset or worried about things [Yes/No]
Alone in the house [Yes/No]
Want to relax [Yes/No]
Feel the urge to talk [Yes/No]
When you feel lonely [Yes/No]
When you are depressed [Yes/No]
Other _____

15) If you have answered yes to the above question, do you have anyone on your friends and family list who you can talk to in the neighbourhood?

[Yes/No]

16) Do you agree that the network neighbourhood have helped you feel better after use?

No, not at all

Yes, very much

1 2 3 4

17) Do you believe the facilities of email and chat has helped you in improving the quality of your life?

Strongly disagree

Strongly agree

1 2 3 4

Questions on Hypothesis 2

1) In your opinion do you feel safe walking down your street after dark?

No, not much

Yes, very much

1 2 3 4

2) Does your neighbourhood have a reputation for being a safe place?

No, not much

Yes, very much

1 2 3 4

3) Only in connection with the network neighbourhood please tell me whether in general you agree or disagree with the following statements:

People are always interested only in their own welfare

[Agree/Disagree]

If I have a problem there is always someone to help [me]

[Agree/Disagree]

I do not pay attention to the opinions of others in the neighbourhood

[Agree/Disagree]

Most people in this neighbourhood are willing to help if you need it

[Agree/Disagree]

I feel accepted as a member of this neighbourhood

[Agree/Disagree]

4) Do you turn to anyone on your list of family and friends on the network neighbourhood for help in times of emergency and crisis?

No, not much

Yes, very much

1 2 3 4

5) If you are to send a distress message to the list of your family and friends on the network neighbourhood can you get help when you need it?

No, not much

Yes, very much

1 2 3 4

6) If somebody on your list of your family and friends send a distress message on the network neighbourhood can you go out help when they need it?

No, not much

Yes, very much

1 2 3 4

7) In the past 6 months, have you done a favor for a distressed neighbour on your list when they were in distress?

No, not much

Yes, very much

1 2 3 4

8) In the past 6 months, has your neighbour on your list done a favor when you were in distress?

No, not much

Yes, very much

1 2 3 4

9) If you need information to make a life decision, do you think the network neighbourhood site is the place to find the information?

No, not at all

Yes, definitely

1 2 3 4

10) Do you believe that the network neighbourhood helped in increasing the safety factor of your neighbourhood?

No, not much

Yes, very much

1 2 3 4

11) If yes do you believe the use of the network neighbourhood has helped you to improve the quality of your life?

Strongly Disagree

Strongly Agree

1 2 3 4

Questions on Hypothesis 3

1) Please tell me whether in general you agree or disagree with the following statements:

Most people in this village/neighbourhood are basically honest and can be trusted

Members in this village/neighbourhood are always more trustworthy than others

In this village/neighbourhood one has to be alert of someone who is likely to take advantage of you

2) If a stranger, someone different, moves into your community, would they be accepted by the neighbours?

No, not easily
1 2 3 4

Yes, definitely

3) Have you made any friends with neighbours using the network neighbourhood?

No
1 2 3 4

Yes, definitely

4) Can you think of any relationships or links you have made with people through the community list on your network neighbourhood that have gone beyond the initial reason you got to know them (e.g. someone you have met at AFL community or pre-school community with whom you and your family have become good friends and now perhaps go away on holidays together occasionally)?

No, not easily
1 2 3 4

Yes, definitely

5) Would you say that most people on your friends and family list can be trusted, or that you can't be too careful in dealing with people?

No, not easily
1 2 3 4

Yes, definitely

6) Would you say that most people on your community membership list can be trusted, or that you can't be too careful in dealing with people?

No, not easily
1 2 3 4

Yes, definitely

7) Do you believe that the network neighbourhood helped in increasing your trust of your neighbourhood?

No, not much *Yes, very much*
1 2 3 4

8) If yes do you believe the use of the network neighbourhood has helped you to improve the quality of your life?

Strongly Agree Strongly disagree
1 2 3 4

Questions on Hypothesis 4

1) Have you built a community on the network neighbourhood that helps you further your business in your neighbourhood?

No, not at all *Yes, several*
1 2 3 4

2) Have people in your neighbourhood responded by transacting business with you via the use of network neighborhood?

No, not at all *Yes, definitely*
1 2 3 4

3) Do you believe the network neighbourhood facilitates people with the same occupation, skills or knowledge to meet weekly or more often to discuss business issues?

No, not at all *Yes, definitely*
1 2 3 4

4) In your opinion does the network neighbourhood community building module help you build more contacts for your business?

No, not at all *Yes, definitely*
1 2 3 4

5) If yes, does the network neighbourhood provide a potential for increased revenue via increased use?

No, not at all *Yes, definitely*
1 2 3 4

6) Do you believe that the network neighbourhood has helped you increase your level of income?

No, not at all

Yes, definitely

1

2

3

4

7) Do you believe that the network neighbourhood has helped in increasing the opportunity in business for your neighbourhood?

No, not much

Yes, very much

1

2

3

4

8) If yes do you believe the use of the network neighbourhood has helped you to improve the quality of your life?

Strongly Agree

Strongly disagree

1

2

3

4

Questions on Hypothesis 5

1) There are often differences that exist between people living in the same village/neighbourhood. To what extent do differences such as the following tend to divide people in your village or neighbourhood:

Differences...

In education in wealth/material [Yes/No]

Possessions in landholdings [Yes/No]
 Between men and women [Yes/No]
 Between younger and older generations [Yes/No]
 In religious beliefs [Yes/No]
 In ethnic background [Yes/No]
 Other differences in political party affiliations [Yes/No]
 Between old inhabitants and new settlers [Yes/No]
 Others _____

2) Do you think that multiculturalism makes life in your area better?

No, not at all *Yes, definitely*
 1 2 3 4

3) Do you enjoy living among people of different life styles?

No, not at all *Yes, definitely*
 1 2 3 4

4) Only with respect to the network neighbourhood site do you agree/disagree with the given below statements:

Provides an equal opportunity to participate to the full extent your capability [Yes/No]
 No discrimination in becoming a member to the Network Neighbourhood site [Yes/No]
 No discrimination in becoming a member of a new community [Yes/No]
 No discrimination in communicating with other members/neighbours using the email/chat [Yes/No]

5) Do you believe that the network neighbourhood has helped in increasing the equality among members of your neighbourhood?

No, not much *Yes, very much*
 1 2 3 4

6) If yes do you believe the use of the network neighbourhood has helped you to improve the quality of your life?

Strongly Agree

Strongly disagree

1

2

3

4

Appendix – B Administered Survey

A SURVEY OF YOU PARTICIPATION IN YOUR LOCAL AREA

PLEASE ANSWER AS HONESTLY AS POSSIBLE. THE RESULTS OF THIS SURVEY ARE ANONYMOUS AND TOTALLY CONFIDENTIAL.

(EACH HOUSEHOLD MEMBER TO FILL IN A SURVEY)

SECTION 1

Place a tick ✓ in the appropriate box

Mr/Mrs/Miss/Dr	Family Name (Surname):	Given Name:
<p>How long have you been in the neighbourhood?</p> <p>Under 2 yrs <input type="checkbox"/></p> <p>3 – 10 yrs <input type="checkbox"/></p> <p>over 10 yrs <input type="checkbox"/></p>		<p>What is your age range?</p> <p>Under 9 <input type="checkbox"/> 9 – 15 <input type="checkbox"/> 16 - 22 <input type="checkbox"/></p> <p>23 – 29 <input type="checkbox"/> 30 - 36 <input type="checkbox"/> 37- 43 <input type="checkbox"/></p> <p>44 & over <input type="checkbox"/></p>
<p>What is your highest educational qualification:</p> <p>Secondary <input type="checkbox"/> Post secondary <input type="checkbox"/></p> <p>Tertiary <input type="checkbox"/></p>		<p>Are your currently employed?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>

<p>Do you use the internet?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>If no, can you explain why not? _____</p>	<p>If yes, where do you use it?</p> <p>Home <input type="checkbox"/> Work <input type="checkbox"/> Other eg library <input type="checkbox"/></p> <p>Other (please specify) _____ _____</p>
<p>How many people in your household? _____ _____</p>	<p>What do you use the internet for? (<i>research eg finding information, games, music, video, communicating eg email, chat, shopping</i>) _____ _____</p>

Office Use Only	TGI

SECTION 2

Place a tick ✓ in the appropriate box.

		Always	Frequently	Often	Rarely	Never
1SI01:	Would you generally know the first name of a neighbour if you met them in your local neighbourhood or community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2SI02:	When you socialise, is it with friends who live within a close distance of your home (say 1 kilometre)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3SI03:	How often do you attend community, service group or volunteer activities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4SI04:	How often do you attend social activities with people who share a common interest with you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5SI05:	How often do you share interests with people outside your local area, because you can't find anyone close by to share your interests?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6SS01:	Do you feel safe when you perform outdoor activities at night (eg walking dog, taking bin out)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7SS02:	Do you generally feel safe and secure living in the area in which you live?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8SI06:	Do you talk to the people in your local area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9SI07:	Do you attend events in your local area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10SI08:	Do you make a point of welcoming new people to your neighbourhood?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11SI09:	Do you participate in group and/or community activity in your local community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12SB01:	Are you confident in making new friends / acquaintances if you attend a function?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13SI10:	Do you socialise with community group members outside of group meetings or planned events?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14SI11:	Is your socialising mostly with family members?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Place a tick ✓ in the appropriate box.

		Always	Frequently	Often	Rarely	Never
15SI12:	Do you participate in community events that are advertised locally if you are not personally asked or invited to do so?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16SB02:	Do you sometimes not participate in community activities because you are afraid you won't know anyone, or won't be accepted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17SB03:	Do you think you would participate more in your community if you were specifically	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	invited to do so?					
18SB04:	Do feel a sense of belonging to your neighbourhood?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19SB05:	Do you feel valued if you're nominated to participate in a particular community or club?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20SB06:	If you are/were eligible to vote in local government elections, would you vote in a local government election?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21SB07:	Do you consider people in your community have respect for their community and each other?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22SB08:	Do you think that people in your local community are interested in improving the quality of life in the area for everyone?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23SB09:	Do you use locally available community facilities and services (within ten minute drive distance from your home) such as parks and recreation centres?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24SB10:	Do you make use of Government services and information?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25SB11:	Do you personally feel willing to work towards making your community a better place to live?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26SI13:	Do you think people within the community would be more likely to socialise and do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	community work together if they got to know each other better?					
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Thank you for your participation

The participants and results of these surveys will remain anonymous and will not be recorded with any identifying factors.

Appendix – C Detail Analysis of Survey Results

The detail analysis of the pre-use network neighbourhood survey

S1: Firstly the knowledge about the names of the neighbours was examined. S1: Firstly the knowledge about the names of the neighbours was examined.

The highest score was S1 3 (N=39) mean = 5.64 with SD = 1.69 and median = 7.00 for this question. The small standard deviation suggests that the mean is representative of the score. This shows that people in the neighbourhood often know the first name of a neighbour if they met them in the local neighbourhood.

S2: The physical distance of friends was measured.

The highest score was S2 4 (N=39) mean = 5.63 with SD = 1.606 and median = 6.00 for this question. The small standard deviation suggests that the mean is representative of the score. This shows that people in the neighbourhood rarely socialize with people within a close distance of their home.

S3. The socialization aspect via attendance to community service group or volunteer activities was measured.

The highest score was S3 1 (N=39) mean = 6.50 with SD = 0.707 and median = 6.50 for this question. The small standard deviation suggests that the mean is representative of the score. This shows that people in the neighbourhood always attend to community, service groups or voluntary activities.

S4. The participation in common interest groups was measured.

The highest score was S4 3 (N=39) mean = 5.64 with SD = 1.69 and median = 6.00 for this question. The small standard deviation suggests that the mean is representative of the score. This showed that people often attended social activities with people who share a common interest.

S5. The sharing of interest with people in the neighbourhood other than home was measured.

The highest score was S5 2 (N=39) mean = 5.75 with SD = 2.315 and median = 7 for this question. But the high standard deviation suggests that the mean is not representative of the score. The next best score S5 4 (N=39) mean = 5.44 with SD = 1.632 and median 6.00 is more representative because of the low standard deviation.

This shows that people rarely share interest with people outside of their close family members.

S6. The feeling of safeness at night in the neighbourhood was measured.

The highest score was S6 4 (N=39) mean = 5.50 with SD = 2.12 and median = 5.50 for this question. But the high standard deviation suggests that the mean is not representative of the score. The next best score S6 1 (N=39) mean = 5.28 with SD = 1.87 and median 6.00 is more representative of the data because of the low standard deviation.

This shows that people always feel safe at night in the neighbourhood.

S7. The feeling of general safety in the neighbourhood was measured.

The highest score was S7 3 (N=39) mean = 5.86 with SD = .900 and median = 6.00 for this question. The small standard deviation suggests that the mean is representative of the score. This showed that people often had a general feeling about safe and secure in the neighbourhood.

S8. The interaction of the people of the neighbourhood was measured.

The highest score was S8 4 (N=39) mean = 6.50 with SD = .577 and median = 6.50 for this question. The small standard deviation suggests that the mean is representative of the score. This showed that people rarely talk to the people in the local area.

S9. The participation level at local events was measured.

The highest score was S9 1 (N=39) mean = 6.50 with SD = .707 and median = 6.50 for this question. The small standard deviation suggests that the mean is representative of the score. This showed that people always participated at local events.

S10. The trust level of the people in the neighbourhood towards strangers was measured.

The highest score was S10 1 (N=39) mean = 6.50 with SD = .707 and median = 6.50 for this question. The small standard deviation suggests that the mean is representative of the score. This showed people in the neighbourhood always welcomed new neighbours into their house.

S11. The participation in group or community activity in the neighbourhood was measured.

The highest score was S11 1 (N=39) mean = 6.50 with SD = .707 and median = 6.50 for this question. The small standard deviation suggests that the mean is representative of the

score. This showed people in the neighbourhood always participated in group or community activity in the neighbourhood.

S12. The confidence of making new friends at function was measured.

The highest score was S12 2 (N=39) mean = 5.63 with SD = 1.506 and median = 6.00 for this question. The small standard deviation suggests that the mean is representative of the score. This showed people in the neighbourhood frequently made new friends at function they participated in.

S13. The social interaction with group members outside of community group meetings or planned events was measured.

The highest score was S13 4 (N=39) mean = 5.64 with SD = 1.550 and median = 6.00 for this question. The small standard deviation suggests that the mean is representative of the score. This showed people in the neighbourhood rarely meet or interact outside of the community group meetings or planned events.

S14. The social interaction within the community was measured.

The highest score was S14 2 (N=39) mean = 5.33 with SD = 2.121 and median = 6.00 for this question. But the high standard deviation suggests that the mean is not representative of the score. The next best score S14 3 (N=39) mean = 5.13 with SD = 1.893 and median 5.50 is more representative of the data because of the low standard deviation.

This shows the people often had social interaction with family members than people in the community.

S15. Eagerness to participate in community events was measured.

The highest score was S15 3 (N=39) mean = 5.22 with SD = 1.202 and median = 5.00 for this question. The small standard deviation suggests that the mean is representative of the score. This showed people in the neighbourhood often eager to participate in community events that are advertised locally even if they are not personally asked or invited to do so.

S16. The skepticism about participation in events because of not knowing anyone is measured.

The highest score was S16 4 (N=39) mean = 5.53 with SD = 1.806 and median = 6.00 for this question. The small standard deviation suggests that the mean is representative of the score. This showed people in the neighbourhood rarely participate in community events because they are afraid they wont know anyone, or wont be accepted.

S17. The eagerness to participate in a community event after receiving an invite was measured.

The highest score was S17 4 (N=39) mean = 6.00 with SD = 1.414 and median = 7.00 for this question. The small standard deviation suggests that the mean is representative of the score. This showed people in the neighbourhood rarely participate in community events even if they receive an invite.

S18. The sense of belonging to the neighbourhood was measured.

The highest score was S18 4 (N=39) mean = 6.00 with SD = 1.0 and median = 6.00 for this question. The small standard deviation suggests that the mean is representative of the score. This showed people in the neighbourhood rarely have a sense of belonging in the neighbourhood.

S21. The sense of respect for the community and each other was measured.

The highest score was S21 3 (N=39) mean = 5.70 with SD = 1.342 and median = 6.00 for this question. The small standard deviation suggests that the mean is representative of the score. This showed people in the neighbourhood often had a sense of respect for the community and for each other.

S22. The sense of improving the quality of life for the neighbourhood was measured.

The highest score was S22 4 (N=39) mean = 6.00 with SD = 1.732 and median = 7.00 for this question. But the high standard deviation suggests that the mean is not representative of the score. The next best score S22 3 (N=39) mean = 5.63 with SD = 1.500 and median 6.00 is more representative of the data because of the low standard deviation.

This shows that people in the neighbourhood often try to improve the quality of life for the neighbourhood.

S26. The sense of knowing more people in the community to increase social life and do more community work was measured.

The highest score was S26 2 (N=39) mean = 5.47 with SD = 1.744 and median = 6.00 for this question. The small standard deviation suggests that the mean is representative of the score. This showed people in the neighbourhood frequently thought that if they knew more people in the community they would be more likely to socialize and do more community work together.

The highest score was S1 3 (N=39) mean = 5.64 with SD = 1.69 and median = 7.00 for this question. The small standard deviation suggests that the mean is representative of the score. This shows that people in the neighbourhood often know the first name of a neighbour if they met them in the local neighbourhood.

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