

Social capital and wired communities: a case study

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Introduction

This paper discusses the first stages of research on an innovative social enterprise called Reach for the Clouds (RFTC). RFTC is an initiative of InfoXchange, a not for profit Internet Service Provider and web developer. It entails establishing a 'wired community' in Atherton Gardens, a high rise public housing estate in Fitzroy, Melbourne. Our research aims to gauge the benefits of the RFTC network. We are concerned with understanding its contribution to promoting social and economic participation, building community, and enhancing the social capital of Atherton Gardens. The research has been funded through the Australian Research Council's Linkage programme, in partnership with InfoXchange, the Office of Housing, and the Community Health Branch of the Department of Human Services.

This paper provides a brief account of the RFTC project, its social setting, and our research. We begin with the aims and context of RFTC, and describe progress on rolling out the network to date. We then outline how our own research and evaluation will proceed, before explaining our approach to two of the key problems RFTC aims to redress: the digital divide and social exclusion. We go on to describe the complex profile of the Atherton Gardens population, drawing on a survey of the Atherton Gardens residents, a study designed to provide a detailed baseline against which we can judge the future impact of the RFTC network. We conclude with some preliminary hypotheses on the social impact of the network.

The Reach for the Clouds project

InfoXchange is the primary agency involved in RFTC, in collaboration with local and state government departments (Department of Human Services, City of Yarra), private companies (Microsoft, Hewlett-Packard) and not for profit agencies (Brotherhood of St Laurence, Outreach Victoria, Jesuit Social Services). The project involves installing a free refurbished computer in each willing household among the approximately 800 apartments on the Atherton Gardens estate in Fitzroy, and connecting them to a community Intranet. The computers will have word processing, database and spreadsheet software installed, will be upgraded and maintained, and will be fully capable of accessing the Atherton Gardens network. These computers are typically end of lease machines donated by government and business. They have been refurbished through the Green PC scheme, another project devised by InfoXchange, and partially funded by the Community Jobs Program. Green PC trains long-term unemployed people to undertake the renovation and refurbishment of discarded computers. They are then sold at low cost to community groups and individuals.

The RFTC project will provide households in Atherton Gardens with one of these free refurbished computers, with a broadband connection to a local intranet and the option of low-cost Internet access. Access to the Atherton intranet and email will be free, following a \$5 registration fee. The network server will allow the storage of a wide range of information provided by partner agencies. A number of community agencies, including Outreach Victoria, the North Yarra Community Health Centre, the Fitzroy

Learning Network and the City of Yarra are potential content providers, as are State and Commonwealth agencies. It is intended that ultimately the network will be owned and operated by residents.

Residents of the estate will have access to extensive training and support, which will be free of charge during the set-up phase. Twenty-four-hour access with support will be available. Initially, the aim was to draw on the labour of residents, in association with Work for the Dole programs run by Recruitnet and co-ordinated by Outreach Victoria. The project has provided a computer room with additional equipment such as zip drives and printers. This is available to tenants between 9am and 5pm on weekdays, with additional training sessions and access from 5:30 – 7pm. Residents are also offered training in computer and internet skills, through the involvement of volunteers, including some from the estate itself.

The initiative has been developed in close collaboration with the Atherton Gardens Residents Association (AGRA) and local community groups. The project will make special provision for people with disabilities and people from language backgrounds other than English. Expected benefits for the resident community include: improved access to services from government and other agencies; increased computer skills and literacy; facilitation of access to employment, education and training; potential for development of online community enterprises; and greater access to information and communication, around which community building activities can take place.

According to the earliest formal outline of the project, a Project Implementation Document (PID) produced by InfoXchange in November 2000, the longer-term aim of RFTC was to develop a self-funded, tenant-focused and managed computer network on the Atherton Gardens estate within two years. InfoXchange's stated aim in that document was to enable the resident-run network to become self-sustaining and at that point to hand over maintenance and ownership of the network to residents. Sustainability, the document noted, depended on many factors, including a sufficient take-up rate on the estate, developing community enterprises online, and continued funding and support from the various stakeholders in the project.

The idea for RFTC grew out of a previous collaboration between InfoXchange and the Office of Housing establishing a computer centre on a housing estate. By 1999 a proposal had been developed requesting \$20,000 from Multimedia Victoria to prepare a PID. Atherton Gardens was chosen as the site for the project as the estate was to be wired as part of an electronic concierge initiative, which was later moved to the Collingwood estate. Multimedia Victoria provided \$10,000 for the PID, which canvassed the various options for creating a network on the estate and estimated the first year cost of the project to be \$677,000 of which around \$250,000 would be the cost of wiring the buildings. In March 2001 the Office of Housing agreed to fund the wiring and a contract was awarded in September 2001. By early 2002 the initial wiring work was completed. Computer training for residents began in August 2001 and the first computer was given to a resident at a ceremony in the community centre in November. Resident training continued throughout 2002 and into 2003. Three year funding for operational costs was secured from the Community Support Fund in June 2002 and an official launch held on the estate on 23 June.

At the time of writing, in early February 2003, 382 RFTC computers have been distributed to Atherton Gardens residents, and 361 residents have attended the training programs, including some who have been trained as trainers for other residents. The network is operational in one tower and connection of the towers (which was not part of the original wiring work) should be completed by mid-February. Meetings to launch particular stages of the project (for example the handing over of the first computer to a resident) or provide updates on the project have been well attended and provide a useful indicator of the appeal of the project for residents.

Evaluating the network

The aim of the Wired High Rise research project is to conduct an independent evaluation of RFTC. Our objectives are:

1. To study the impact of free domestic access to computers and the RFTC network on a low-income high-rise residential community;
2. To identify ways in which RFTC may enable low-income communities to use new technologies for their own economic and social benefit;
3. To assess the extent to which the RFTC network enables service providers to tailor services more directly and effectively to meet client needs.
4. To investigate the implications of the RFTC network for broader debates in information and social policy.

The research has been divided into four stages:

1. Contextual research on the rationales, aims and expectations informing RFTC, in the context of debates on social policy, social partnerships, information poverty, the digital divide, community-building and social capital. This involves interviews with participants and stakeholders in the RFTC project, attendance at InfoXchange and residents' meetings and a continuing literature review.
2. Research on the social composition of the Atherton Gardens estate before the establishment of the computer network. This involves focus groups with residents, interviews with workers on the estate and a survey of residents, involving face-to-face interviews using translators and designed to be repeated in two years' time, when the network is well established. A control group for the survey has been established on the Collingwood estate.
3. Interviews with households on the estate on how they are using the computers and computer network, and the collection of data on patterns of use, drawn from the Atherton Gardens server. Follow-up survey designed to track residents' changing patterns of computer use, linked to social indicators. Follow-up interviews with project participants and stakeholders indicating the extent to which the initiative has met expectations.
4. Evaluation of the impact of the Atherton Gardens computer network on residents' ability to seek information, to communicate with others and to make use of social services, including housing and primary health services.

The research is currently at the end of the second stage. Interviews, literature reviews, focus groups and the first survey have all been completed. This has provided the basis for the longer-term evaluation of the social impact of the network. We have adapted our research program to take into account the changing timeline for the RFTC network roll out.

Two critical issues lie behind the RFTC initiative: how governments and communities can or should respond to the emerging problem of the digital divide; and how electronic networks may help reduce social exclusion by facilitating communication and participation.

The digital divide and information poverty

In Australia as elsewhere, there are disparities in access to information and communication technologies: this is the problem referred to as the digital divide. There is no doubt that personal computers and Internet connections have become more affordable in recent years, and previously marginalised groups are rapidly gaining Internet access at home. However, educated urban and high-income individuals are still the group most likely to have access to computers and the Internet. Those in isolated and rural areas are likely to have lower rates of access, as are indigenous people and those with little English or poor literacy. Other disparities in technology access and use are related to gender, occupation, family type and disability. According to the ABS, in 2000 only 24 per cent of Australian households earning less than \$25,000 had a computer at home while only 10 per cent had home access to the internet. This disparity is exacerbated for adults by the impact of work. Only 14 per cent of those earning less than \$40,000 were able to access the internet at work, compared to 48 per cent earning \$40,000 to less than \$80,000 and 68 per cent of those earning \$80,000 or more.

Recent research and policy documents identify access to computers and connectivity in home and school as critical to information technology skills, school performance and life chances. The context for this is that ICTs are seen as key learning resources for school students, and the cost of providing them is increasingly being pushed onto individual families. School-aged children appear to be educationally disadvantaged by lack of access to both computers and Internet connections in the home. Households with low incomes and in the most disadvantaged areas are less likely to have computer access, as are one-parent households. Home owners appear to be more likely to own computers and have internet access than are private renters or those in public housing. The link between education, social exclusion and information poverty is also important due to the increasing use of online services by government, community and business agencies. Consumers and citizens are now encouraged to bank, manage tax and find social services online, but many are either unable or reluctant to do so. For many, low levels of literacy and English-speaking ability remain barriers.

Existing research offers some evidence that computer use and connectivity can reduce social isolation and address social needs. The internet, chat groups and email can assist in forming communities of interest and in helping socially isolated people to find support and resources. They may help to sustain contact between individuals, groups and families separated by distance and migration. They may also atomise communities, by promoting interaction with screens rather than face-to-face contact or civic participation. One way to interpret such patterns is in terms of the relationship between communication technologies, social connection, community-building and social capital.

Communications and social capital

Communication plays a primary role in the maintenance of social networks. In recent years, as local governments, commercial developers and others have invested in creating local networks and 'virtual cities' (Web-based versions of place-based communities), increasing attention has been paid to the creation and effects of online communities. The question is whether virtual communities enhance and extend 'real' ones. The existing research suggests that successful online communities tend to build on existing patterns of social contact. Without pre-existing face-to-face contact, online communication may not engender high levels of trust, honesty and responsibility, though it can create communities strongly linked by interest. This means that it is important to understand the patterns of social interaction that pre-exist the establishment of the network or online community.

The starting point for many social researchers is Putnam's concept of social capital as the 'features of social life – networks, norms and trust – that enable participants to act together more effectively to pursue shared objectives'. According to this model, communities become prosperous and successful where people are civic minded: when they bond with others outside the family, know their neighbours, volunteer and inform themselves about politics. This has informed various empirical assessments of the effectiveness of community development programs by organisations ranging from the World Bank to the Australian Institute of Family Studies. By incorporating indicators developed by other field researchers (Bullen and Onyx, 1999; Stone and Hughes, 2001; ABS 2000), we hope to make WHR comparable with other projects. It is possible to adapt models used to assess levels of social capital in a particular place, using indices such as the following, derived from existing and comparable projects:

- Social networks and support structures;
- Economic and civic participation;
- Participation in education and learning;
- Employment and job seeking activities;
- Involvement in local activities;
- Awareness of political and public affairs;
- Trust and tolerance.

Social capital research in Australia has generally concentrated on largely positive interactions in small, culturally homogeneous rural towns or urban districts. Community is understood as a geographically co-located group using shared facilities (schools, hospitals, parks), participating in the same political process (local council area) and sharing an interest in local issues and amenities. However, communities can be understood more pluralistically, as groups of individuals linked by shared interests and concerns. These groups are not limited to place: they can co-exist and are not mutually exclusive. They may be more or less exclusive, allowing individuals to enter and exit identifications and affiliations. Within such groups, there may be different kinds of social exchange and different dimensions of membership.

The difficulty is to distinguish between the shared interests that bind narrow and exclusive groupings based on loyalty to kith and kin from those that foster the general good. The literature makes a useful distinction between 'bonding' capital (or strong ties within small groups) and 'bridging' capital (or weak relationships between numerous people). Bonding social capital built up in small tightly knit groups can

be of direct day-to-day value to members. Bridging social capital, held by more loosely aligned groups, offers members access to resources beyond their immediate social circle.

Combining this distinction with that between informal and formal ties, we can start to map different kinds of associations and social resources on the estate. Atherton Gardens residents cannot be regarded as part of a single ‘community’, but as a complex set of associations. People and households are linked in different ways: by language, by gender, by faith and recreational interest. Many of these groups show high levels of bonding capital. Bridging does take place between groups, but there is limited communication.

Table 1 Examples of social capital at Atherton Gardens

	Informal relationships	Formal relationships
Bridging	Community gardening Sausage sizzles Conversations about children, childcare etc Meeting in the shop, community centre, lift or lobby Participating in others’ customs e.g. Chinese New year celebrations Putting or answering notices in foyer	AGRA Training activities Jesuit Social Services-organised excursions Community art projects Library group Interactions with social services Relations with local schools Relations with local library
Bonding	Shared meals. Shared shopping trips. Speaking to neighbours Shared religious observance	Language classes Language and ethnicity-based associations e.g. Fitzroy Chinese Residents Association and Mandarin Social Support Group Vietnamese Mothers Support Group Faith-based groupings

It is possible to adapt this matrix to the pattern of online communication and exchange that we expect the network may engender. Potential uses of the computer network are set out below.

Table 2 Networked social capital at Atherton Gardens: hypothetical examples

	Informal relationships	Formal relationships
Bridging	Atherton Gardens newsgroups, web pages, email lists Online games	The Atherton Gardens Network: Management, operation and organisation Online employment and educational services
Bonding	Instant messaging Email Family home pages	Language and ethnicity-based newsgroups, web pages Online community services, government information

The social setting

In this section we describe in more detail the setting for RFTC. An understanding of the problems of the estate and its complex social profile is essential to any assessment of the future outcomes of the RFTC network.

Atherton Gardens consists of four twenty storey tower blocks, with ten flats on each floor, comprising a total of 800 dwellings, housing some 2000 individuals. While a significant minority of residents on the estate have arrived in Australia from Vietnam and speak Vietnamese as their preferred language (~40%), residents belong to more than 30 different language groups and come from countries as diverse as Turkey, the former Yugoslavia, Spain, Greece, Iran, Iraq, Chile, China, Laos, the Philippines, Somalia, Eritrea and Ethiopia. Less than 30 per cent of residents were born in Australia. Located in the inner city suburb of Fitzroy, the estate has good access to public transport, major retail, entertainment, education and employment centres and is in the centre of the largest cluster of welfare and community agencies in Melbourne. Originally constructed as part of Melbourne's slum clearance program, the estate has become increasingly differentiated from its surrounds as Fitzroy has gentrified.

Social problems facing Atherton Gardens in particular, and high rise estates in general, are widely understood. A report prepared by Jesuit Social Services in 2000, before the commencement of the research, noted that at that time the Atherton Gardens estate had a reputation for being a centre of crime, drug use and domestic violence; a reputation fed by tabloid profiles. As pointed out in a report undertaken by Ecumenical Housing in 2001, this situation is common to a greater or lesser degree to all high-rise estates. The report identified residents' concerns including the following:

- Negative community attitudes;
- Tenants feeling like second class citizens;
- Constantly being confronted by anti-social behaviour;
- Easy access by outsiders to common areas;
- Breakdown of social interaction among residents.

In the last few years, governments have directed considerable resources towards the renovation of public housing estates, both in Victoria and in other states. Through its

Neighbourhood Renewal program the Victorian Office of Housing has been very active on the estate. These activities have included:

- Improving security with a 24 hour guard booth in each tower;
- The establishment of Neighbourhood Advisory Board comprising resident and agency representatives. This board will influence the distribution of funding and services to the estate and develop a Community Plan, which will become a blueprint for service delivery and physical planning on the estate;
- A capital improvement project, including comprehensive internal housing upgrades. A range of options is being discussed with the community including providing new landscaped areas, security and recreational facilities within a significantly improved living environment;
- Introduction of tower based management, which has the potential to provide residents with employment opportunities in cleaning and maintenance.

The RFTC project is considered by the Office of Housing to be an important component of the Fitzroy Atherton Gardens Neighbourhood Renewal Project.

Currently, the community centre on the estate acts as a hub for activities. AGRA runs the community room, and is affiliated with a number of language and ethnic groups. Understandably, though, the office bearers tend to be English speaking residents who have lived on the estate for a long time. Much of the activity that takes place in the community centre is facilitated by a community development worker, Rosalind Vincent, who is employed as part of the Jesuit Social Services 'Communities Together' program.

Developing a profile of residents

There are limits to how much is known about life on the Atherton Gardens estate, or about the social profile of the residents. Some information is available through census data. At the last census, two collector districts (the smallest areas for which aggregated data is available) were exclusively based on Atherton Gardens, providing information on some 882 residents (roughly half the population). The rest of the estate is included in collector districts that are not exclusively the estate. The information from the two Atherton Gardens' collector districts is valuable in its own right and also as a means to verify the results from our own survey.

The Office of Housing has also been able to provide data on households. It is difficult to find accurate and current information, however, given the rapid turnover of tenancies on the estate and the range of languages spoken. Tenants may also be reluctant to provide information to authorities or researchers. In this instance, the Atherton Gardens tenants have been extremely co-operative, for which we are very grateful. Key factors here may have been the goodwill associated with the RFTC initiative, the support of community workers and of the tenants' association, and the role of translators in focus groups and interviews.

In late 2001, the study team in conjunction with Project Partnerships, a private consultancy firm, held a series of focus groups with residents from the high rise public housing estates in Fitzroy, Collingwood and Richmond. We chose to talk to

groups who were already meeting on the estate including the Mandarin Social Support Group, the Elderly Chinese Residents Group and the Vietnamese Mothers Support Group. The focus groups indicated that at that time, only limited mixing took place on all the estates between members of different language or ethnic groups. Drawing on tenants' own perceptions of the patterns of social association on the estate, we developed the social capital matrix outlined above and adapted it into social indicators built into the major survey.

The survey was designed to provide the study with baseline data which could help us to quantify the social impact of the RFTC project. Given the language and literacy issues it was decided to use face-to-face interviews to administer the survey. The questionnaire developed for the major survey (included as an appendix to Industry Report 2) covered the following topics:

- Basic household demographic information;
- Current media and technology consumption;
- Labour market and education information;
- Patterns of communication with family and friends;
- Involvement in groups and activities on and off the estate;
- Attitude to living on the estate including relationship with other residents.

The questionnaire was designed to be completed by one member of each household with the respondent answering questions about themselves, other individuals in the household and the household itself. A control estate was chosen (Collingwood) to provide a basis for comparison. The survey was undertaken over six weeks starting 27 May 2002. Interviewers who could speak Vietnamese, Cantonese, Mandarin, Macedonian Turkish and Arabic were employed to administer the survey. This left a number of languages spoken on the estate not covered, including Spanish, Laotian, Khmer, Somali, Dutch, Greek, Afrikaans, Dari, Polish, Russian, Farsi and sign language. One of the computer training rooms on the estate was used to conduct interviews with residents, with some residents preferring to be interviewed in their homes. Interviews were generally arranged during daylight hours.

Two hundred and sixty-nine households were contacted, with around 70 declining to be interviewed, resulting in a total of 199 responses. The response rate to the questions was high: 74% for those households contacted. Most respondents answered most of the questions (respondents were advised by the interviewers that they could choose not to answer any or all questions). The only questions not commonly answered were those regarding personal income level and personal health. Some of the respondents were also reluctant to provide details about computer use by other members of their household.

In terms of ethnicity our sample broadly accords with the Office of Housing's record of the population as a whole. Although we did not have interpreters for all of the languages spoken on the estate the sample did include people born in 31 different countries. Some bias in the results is to be expected, however. Respondents were mostly female (62.3%) which is to be expected given the large proportion of female headed households on the estate and the time of day that most interviews took place.

It is also likely that the respondents in this survey have a higher rate of computer use and knowledge than the population of the estate generally. Willingness to participate

in the survey at Atherton Gardens was certainly affected by involvement with RFTC. The response rate slowed dramatically after the list of contacts provided by InfoXchange had been exhausted. This was also an issue in the control group survey on the Collingwood estate, where no project like RFTC is being implemented. To provide an incentive to participate in this survey, it was decided to arrange a raffle draw offering a chance to win one of three refurbished computers from Green PC. This produced a bias in the composition of the control group, favouring those who already had some experience with computers and hoped to obtain one through this process. Nevertheless, we are confident that together, our observations, focus groups and survey assist us to develop a social profile of Atherton Gardens residents.

Atherton Gardens in brief

Most Atherton Gardens residents have low incomes. 58% of survey respondents are from households living on less than \$20,000 p.a., while about a quarter (27%) live on less than \$10,000 p.a. This accords with our census data for the estate that shows a median household income of between \$15,000 and \$20,000

As would be expected, most respondents are in the middle age cohorts.

Table 3 Age of respondent, 2002

Age cohort	No	%
0-14	1	0.5
15-19	5	2.5
20-24	9	4.5
25-34	43	21.6
35-49	73	36.7
50-64	42	21.1
65-74	17	8.5
75-84	2	1.0
85+	1	0.5
Not stated	6	3.0
Total	199	100.0

Source: ISR unpublished data

A third of households interviewed were sole parent families, with a quarter of respondents living alone. Respondents living alone were mostly working age adults with few under 24 (5 or 10%) and six older than 65 years. Nearly half of the households interviewed had children (48.3%). A comparison with census results shows that our sample may under represent lone person households (30.2% from census). From the census the median age of residents on the estate is 30.

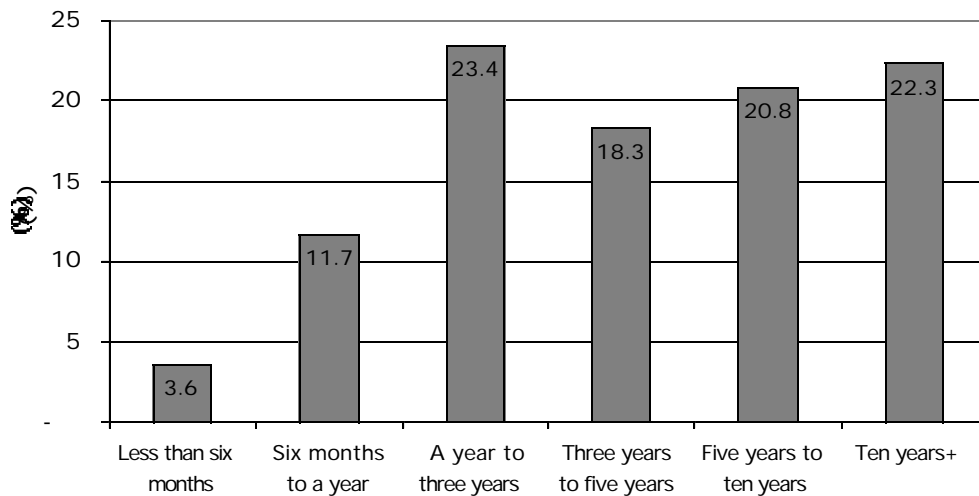
Table 4 Household type, 2002

	No	%
Couple only	30	15.1
Couple with children	29	14.6
Sole parent	67	33.7
Lone person	51	25.6
Group household	8	4.0
Related household	10	5.0
Parent(s) with adult children	4	2.0
Total	199	100.0

Source: ISR unpublished data

Figure 1 shows that most households (57%) have lived at Atherton Gardens for less than five years with over fifteen per cent less than a year. These figures are consistent with the census.

Figure 1 Length of residence on the estate, 2002



Source: ISR unpublished data

Residents on the estate include people born in at least thirty one different countries. Comparing country of birth of respondent (Table 5) with that of all residents in our census data shows that our sample is representative of the various ethnic groups although it under represents the Turkish population.

Table 5 Country of Birth of Respondent, 2002

	No.	%		No.	%
Vietnam	87	43.7	England	1	0.5
Australia	25	12.6	Scotland	1	0.5
China	23	11.6	Greece	1	0.5
Macedonia	11	5.5	Belgium	1	0.5
Eritrea	9	4.5	Cambodia	1	0.5
Malaysia	4	2.0	Croatia	1	0.5
Ethiopia	3	1.5	Holland	1	0.5
Somalia	3	1.5	Krani	1	0.5
Turkey	3	1.5	Laos	1	0.5
Yugoslavia	3	1.5	Lebanon	1	0.5
Chile	2	1.0	Morocco	1	0.5
Hong Kong	2	1.0	Nauru	1	0.5
India	2	1.0	New Zealand	1	0.5
Iraq	2	1.0	Romania	1	0.5
Pakistan	2	1.0	Samoa	1	0.5
Philippines	2	1.0	Didn't answer	1	0.5
			Total	199	100.0

Source: ISR unpublished data

Just under half of the respondents to our survey said they spoke English 'not well' or 'not at all'. This is consistent with census data.

Residents see themselves as belonging to small, generally ethnically based community groups such as the Cantonese speaking group or the Turkish group. In some respects, residents are linked by religion as well as, or perhaps in spite of, country of origin or language spoken. Results from the survey indicate high rates of participation and active involvement in local places of Christian, Buddhist and Muslim worship. From the census, Buddhism is the nominated religion for 36.2% of residents followed by Christianity (29.0%) and Islam (17.2%).

Table 6 Religious affiliation, 2001

Religion	No.	
Buddhism	266	36.2%
Christianity	213	29.0%
Islam	126	17.2%
No religion	107	14.6%
Other Religions:	19	2.6%
Hinduism	3	0.4%
Total	734	100.0%

Source: ABS, Census 2001

Computer access in the home

Reach for the Clouds has made computer ownership possible for many Atherton Gardens households. Twenty eight percent of Reach for the Clouds respondents said

that one of the reasons they requested a computer was that it was free. Of these respondents nearly half nominate education as a key use for the computer with eleven percent using the computer for work related activities. Over half of these households had children (55.2%). Census data indicates that, within the collection district that covers almost half of the Atherton Gardens estate, there have been low rates of computer use in the home. In 2001 the rate was 21.6%, compared to 49.4% for the surrounding area and 46.6% for Melbourne. The least disadvantaged age group at Atherton Gardens was the 15-19 years but all other age groups had significantly lower rates of computer use at home.

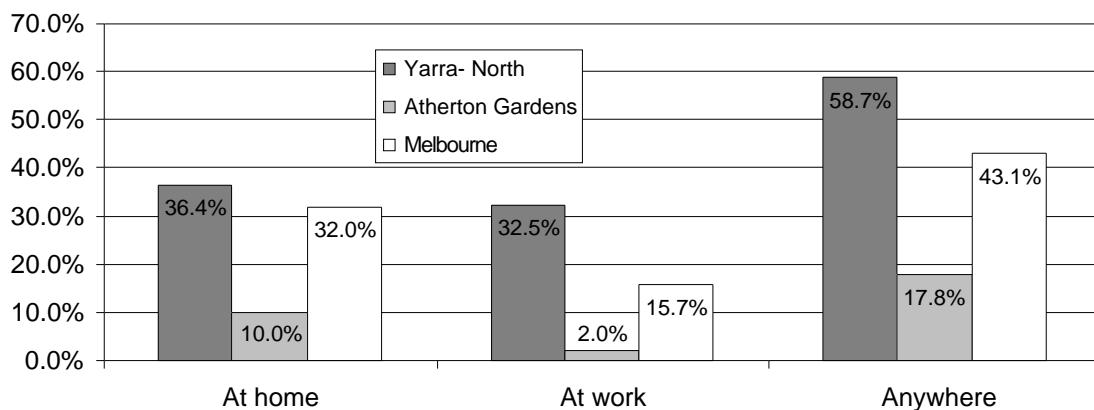
Table 7 Computer use at home, selected areas, 2001

Age group	Yarra- North	Atherton Gardens	Melbourne	No. of AG residents
0-9 years	31.1%	10.1%	37.6%	158
10-14 years	72.4%	48.5%	77.9%	68
15-19 years	70.3%	61.5%	77.1%	52
20-24 years	59.0%	34.5%	60.3%	55
25-34 years	56.2%	27.1%	51.1%	144
35-44 years	57.5%	13.9%	54.5%	122
45-54 years	52.1%	11.3%	46.2%	80
55-64 years	35.9%	12.5%	29.3%	48
65-74 years	11.7%	5.9%	14.2%	51
75 years and over	5.6%	0.0%	5.7%	26
Total	49.4%	21.6%	46.6%	804

Source: ABS, Census 2001

Examining internet use shows that *Atherton Gardens residents are three times less likely to access the internet at home than Melbourne residents as a whole.* A negligible proportion access the internet at work. Only 17.8% access the internet at all compared to 43.1% of Melbourne residents and 58.7% of Yarra- north residents.

Figure 2 Internet use by location, selected areas, 2001

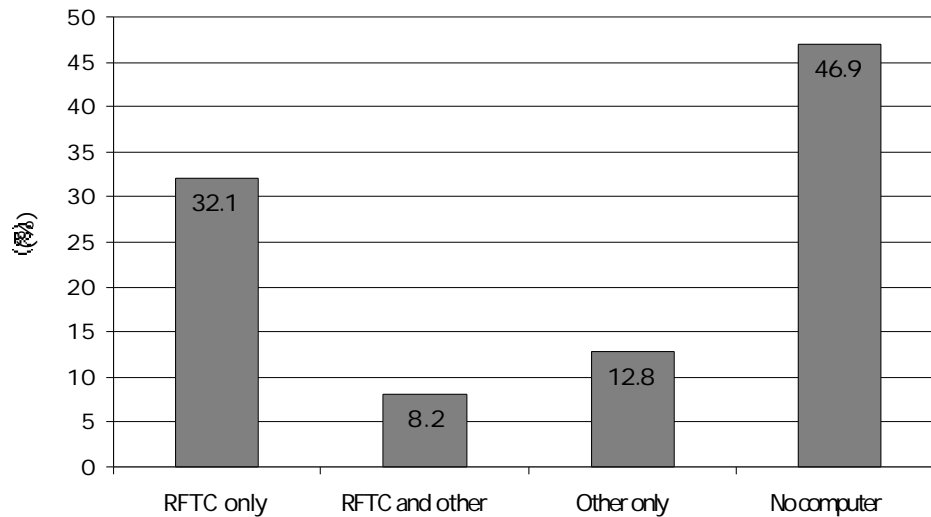


Source: ABS, Census 2001

Results from the survey are consistent with this. Only 21.0 per cent of our respondents have a computer that is not part of the RFTC project. Eight per cent of households have both an RFTC computer and one that is not part of the enterprise. Almost a third

of those households without a computer who did not have one in the home did access the internet elsewhere (31.5%) with the most popular location being school and library. Most respondents had heard of the RFTC project (64.6%) with 40.3% having already received a RFTC computer. Figure shows that for 32.1% of households the RFTC computer was their first. A further 8.2% received an RFTC computer although they already had a computer. Twelve percent of households have a computer but have not received a RFTC while 46.9% of households do not have a computer.

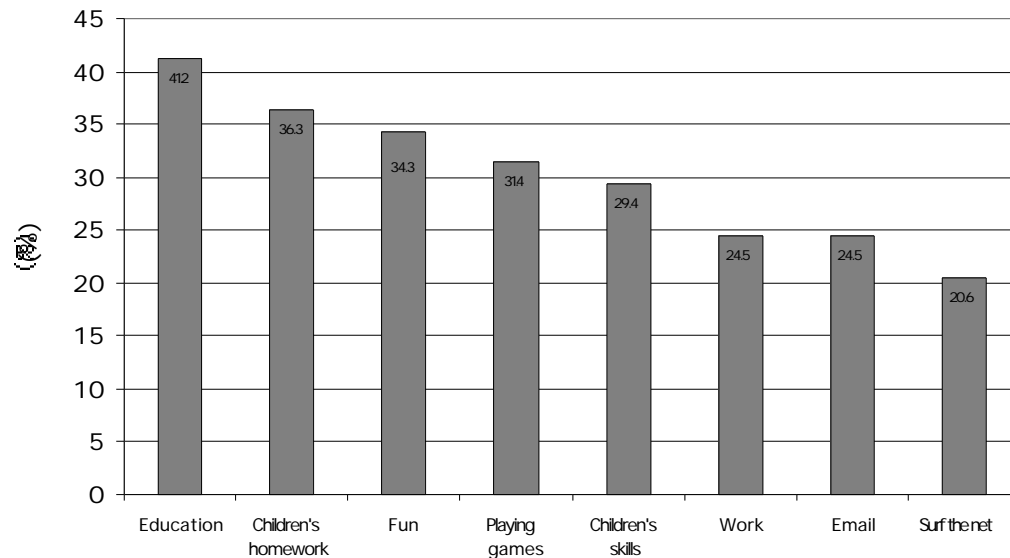
Figure 3 Computer in home by source, 2002



Source: ISR unpublished data

Those respondents who had computers appeared to be using them for educational purposes, as well as for entertainment and general browsing as set out in Figure .

Figure 4 Main uses of computer, 2002



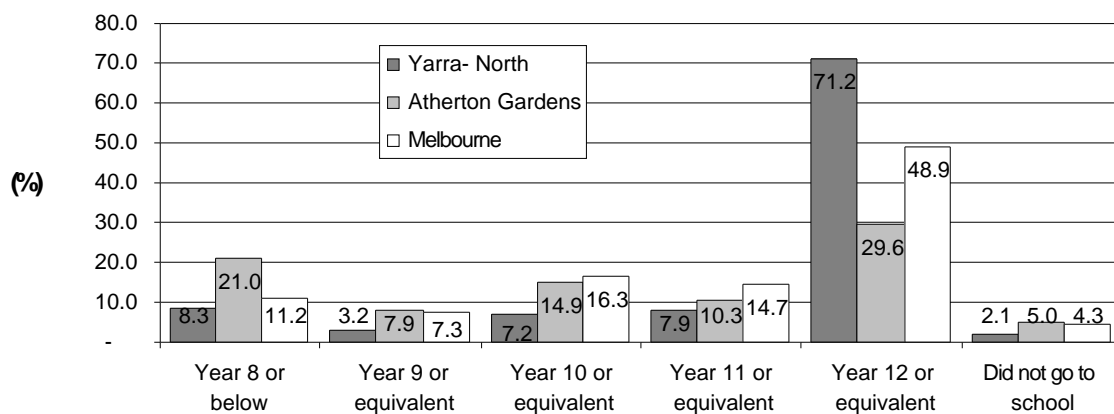
Source: ISR unpublished data

Education

The Reach for the Clouds initiative offers some important educational resources and opportunities to a population with high education and training needs. The residents

have a strong interest in learning new skills, in helping their children with school work and in seeking training and qualifications for themselves. They see access to computers as an important element of this, and this is one of the main reasons why they are interested in having a computer in the home. A high proportion of residents have low levels of education. Less than a third of residents had completed secondary school compared to over seventy percent for Yarra-North and just under a half for Melbourne. More than a fifth of residents had not completed more than Year 8. Many of those who were born outside Australia say that their qualifications are not recognised in this country.

Figure 5 Highest level of schooling completed for those not currently studying over 15 years, selected areas, 2001



Source: ABS, Census 2001

The respondents are eager for educational opportunities, formal and informal. The overwhelming majority agree that they enjoy learning new skills. More than a quarter of respondents are currently studying (15% full-time 13% part-time). Of those who are not studying, a significant proportion report barriers that prevent them from pursuing further formal education. The most important of these is responsibility for children and caring for family members (28.7%). Only 22.6% said that they had no need for study. Others report that they have no time (23.5%); lack of either literacy or English is a barrier (12.2%) and financial concerns (9.6%).

Asked why they wanted a computer, residents were overwhelmingly likely to nominate educational reasons, particularly those households with children. Forty per cent say that they are interested in using computers for education purposes and nearly half of those in households with children envisaged using them to help children with homework. Forty-one per cent said that they were currently using the computer for educational purposes, while more than a third (36%) were using it to help children with homework.

These initial results lead us to expect that educational use of computers will be an important element of the social impact of RFTC. First, we expect that use of the computers in the home will foster informal learning for both adults and children, both alone and with family members or friends. One of the possibilities is high levels of self-education and experimentation, combining curiosity-led learning, recreation, entertainment and game-playing. We will be interested in the extent to which people

share their skills and help each other solve problems, given that the literature suggests this is the pattern with informal learning on computers, especially in the home. We will also be interested in whether acquiring these skills informally is seen by the residents as effective in helping them find work.

Second, we expect the RFTC computers to have effects on the tenants' formal involvement in education and training, in a variety of ways. There may be direct and immediate effects on children's schooling, if they are better able to complete schoolwork and if parents become more involved in homework and school-related projects and experimentation. It is possible that the children's educational performance will improve, though this is difficult to register in a relatively short-term project. Computers at home may also raise the level of adults' educational participation; we hope to establish whether both self-reported levels of information technology skill and levels of participation in study have increased. We will be tracking the extent to which residents are studying from home, or are interested in doing so. We will also be interested in the extent of variation in patterns of educational participation according to gender, age, language group, English speaking ability, household type and disability.

Finally, we expect to be able to track the extent to which the use of Internet and other online resources affects educational participation and attitudes. This will include asking residents whether they or their children use the Internet for formal and informal educational searches, whether email is used to communicate with teachers or other students, whether the Internet is a useful resource for finding out about educational opportunities and whether other skills associated with effective use of online resources, such as problem-solving or creative skills, have been important to pursuing employment opportunities.

Training and employment

Census data shows that Atherton Gardens has an extremely high rate of unemployment at more than seven times the Melbourne average. The unemployment rate for people aged 15 to 24 years is, at 64.9% nearly five times the Melbourne rate. The labour force participation rate 40.9% compared to 64.6% for Melbourne and 71.8% for the Yarra-North. In addition of those people employed a higher proportion of Atherton Garden's residents are working part-time.

Table 8 Employment indicators, selected areas, 2001

	Yarra- North	Atherton Gardens	Melbourne
Unemployment rate	8.1%	46.2%	6.6%
Youth unemployment rate (15-24 years)	14.2%	64.9%	12.2%
Participation rate	71.8%	40.9%	64.6%
Proportion part-time	30.7%	40.5%	32.1%

Source: ABS, Census 2001

The respondents show high rates of unemployment and underemployment. Nearly a quarter of our respondents were looking for work (23.1%). The unemployment rate amongst our sample was 55.8%. Twenty eight percent of those not working are

unable to look for work due to family commitments. A further twenty two percent aren't looking because of ill health or disability. Nineteen percent are concerned that their government payment or pension may be effected.

The inability to speak English well is one barrier to employment: 49% of respondents said they spoke English 'not well or not at all'. Unsurprisingly only 11% of those unable to speak English at all were working compared to 18.4% overall. Some residents see having a computer in the home as an aid to seeking employment. Twenty per cent of those currently unemployed said that they acquired a computer for work related purposes.

Our initial supposition is that RFTC may help Atherton Gardens residents find employment opportunities. They may be able to build information technology skills or other associated skills. Online resources may provide better information about job vacancies. In the longer term, some residents may be able to work from home, either by using the computer as a workstation or by using email and the Internet. More speculatively, if RFTC achieves its aim of becoming resident-run and self-sustaining, those residents who are directly involved may improve their employment opportunities significantly. RFTC may become an enterprise that is able to generate employment. More indirectly and immediately, involvement in training, in refurbishing and maintaining computers and in managing the network may enable residents to build information technology skills, or become creators of content.

Within the scope of this research project, however, it will be important to register the extent to which patterns of employment on the estate have varied in the period concerned, and whether residents' perceptions of the barriers to employment have changed. We will be able to ask residents whether they are now using the computers for work and whether they are seeking work using the Internet. We will also be able to ask about the use of email, messaging and other means of communicating about employment prospects.

Communication

We know from participation in the training sessions that one of the main reasons why Atherton Gardens residents were keen to have networked computers was to contact people overseas. The survey results indicate that respondents use interstate and international phone calls to stay in touch with friends and relatives. Many have face to face contacts with friends and family rarely (a quarter, less than yearly). About half of them make phone contact with parents monthly or weekly; the same pattern occurs in contact with siblings. Few residents report making use of personal visits or letters to stay in touch with either family or friends.

Table 9 suggests the degree to which access to email will be of benefit to those residents with family and friends overseas. It appears that telephone charges inhibit contact between respondents and their parents. Over half of respondents with parents in Melbourne have daily contact with them (no resident with parents either interstate or overseas has this level of contact). Interestingly only five percent of residents with parents living overseas make fewer than one telephone contact every six months.

Table 9 Frequency of telephone contact with parents by location of parent

	Daily	Once a week	Once a month	Every six months	Less often	(n)
Melbourne	52.9%	23.5%	5.9%	5.9%	11.8%	17
Interstate	0.0%	42.9%	28.6%	14.3%	14.3%	14
Overseas	0.0%	18.5%	61.7%	14.8%	4.9%	81

Source: ISR unpublished data

These findings indicate a high degree of dependence on telephones, particularly on higher cost telephone services. However, not all residents have a phone in their dwelling (89.7% do have a phone). This may be for cost reasons; interviews may determine this.

We expect the computer network to be used to supplement tenants' existing ways of staying in touch with friends and relatives locally, nationally and especially internationally. It is likely that residents will make extensive use of email for these purposes and we will be able to track the volume of email through the aggregated data available in monthly reports from the servers, supplementing this with interviews with residents. It is possible that some residents will also make use of messaging, chatgroups and other online forums. Email and other forms of internet messaging offer substantially cheaper alternatives to the telephone, especially for long distance and international communication. However, while the pattern of phone use may change, it is unlikely to be replaced. And while savings may be at the margins, the volume and frequency of communication are likely to significantly increase. We will be able to track these changing patterns in communication.

Information: news

Residents of the Atherton Gardens estate have a number of information needs. Some are seeking local information with over half of respondents reading the local paper. Local papers were a particularly important source of news for those respondents who did not speak English well. Radio is another important source of news and information. A high proportion of respondents listen to SBS radio or NESB radio (more than a third). Tenants report dissatisfaction with the news available to them, especially with international news. Not surprisingly, they are least satisfied with the amount of news available from their country of origin.

Table 10 Overseas born residents satisfaction with access to news and current affairs, selected topics, 2002

	Satisfied	Not satisfied	Don't know
Australian	72.3%	17.3%	10.4%
International news	48.3%	25.0%	26.7%
Home country	35.3%	36.5%	27.1%

Source: ISR unpublished data

We expect the RFTC network to offer residents new ways of accessing news and information about current affairs, both locally and internationally. We will be tracking the extent to which email and the internet are used as sources of news, and the extent

to which residents report changing patterns of media consumption. Aggregated data from the RFTC servers will also assist in tracking this.

Information about the estate activities

Only ten percent of respondents felt that there wasn't enough information about the estate. In addition very few residents (13.7%) said that they weren't confident in their ability to deal with government agencies and even fewer (7.1%) answered that they weren't confident to speak their mind at estate meetings. Only a small proportion of residents (12.2%) didn't agree that the estate was well run and fair. Taking these results at face value would suggest general satisfaction with the current information and consultation practices on the estate. Given this apparent satisfaction it will be interesting to monitor the interest of residents in using the network to access information on the estate and communicate with the Office of Housing.

Our working supposition is that the network, as it develops, may offer residents new ways of accessing information on estate activities and on social services. Use of the training room computers for sending emails and accessing the world wide web has already begun extending access to information and new communication channels. As the intranet and RFTC website develop, new information resources will become available, in a number of languages, from the Office of Housing, from local, state and federal government agencies, from community groups and not for profit agencies and from local businesses. Which residents use this information, for what purposes and with what effects remains to be seen.

One possibility is that the availability of information online engenders a stronger desire for information. This may have an effect on how residents perceive their own degree of competence and confidence in obtaining services. Some may become more satisfied with the information available; others may become less so, as expectations rise. We will be able to track some changes in patterns of information seeking through the aggregated data available in monthly reports from the servers. We will be particularly interested in the extent to which residents seek information on housing services and on local health services.

Social connectedness

Our initial findings indicate that *residents tend to be isolated from their immediate and extended families*. As noted above, many depend on international or interstate phone calls to stay in touch. Some residents have friends and relatives who live locally. They may however see them rarely. Twenty nine percent of respondents did not know an immediate neighbour at all. On the other hand 23.4% of respondents knew at least one neighbour very well. The remaining households knew at least one of their immediate neighbours 'slightly'.

However, many residents appear to have strong local connections. Exactly half agreed that Atherton Gardens is an active community, just under a half thought that people were friendly and helped each other (49.0%) and that there were a wide range of community and support groups to assist or be involved in (48.2%). Few people disagreed with these statements but chose the 'neither agree nor disagree' option. When asked directly if they felt part of the local community, 46.2 per cent agreed with nearly one in five disagreeing (19.8%).

A primary associational link is religion. Survey questions about membership of clubs and organisation established that half of the respondents attended a place of worship (47.2%). From census data we know that Buddhism is the most frequently nominated religion on the estate (36.2%), followed by Christianity (29%) and Islam (17.2%). Around a third of respondents were involved with a sporting or leisure club. Just over twenty percent of those surveyed were not involved in any organisation or club.

As expected, survey findings indicated that the patterns of social interaction on the estate itself are complex, undermining any assumption that Atherton Gardens is a single community, consisting rather of a variety of groups and associations, with a number of isolated individuals and households. Clear majorities agreed that the estate was a good place to live (66.2%) and that it was a pleasant living environment (64.1%). Residents recognised that Atherton Gardens is in a high amenity location with 92% of respondents agreeing that there are good local services or facilities. The vast majority (86.4%) agreed that the estate had a good mix of people of different backgrounds.

More direct questions regarding the estate elicited less positive responses. The issue that most polarised residents was predictably safety and security. While nearly half of the respondents agreed that people feel safe and secure (48.2%) a significant majority disagreed. More than half said they trusted none of their co-residents in the same tower. They were even less likely to trust those in other towers. Despite this, residents generally seemed positive about the running of the estate with 57.2% agreeing that the estate was well run and fair (12.2% disagreed) and the majority agreeing that people have the opportunity to participate in the running of the estate (57.4%). An even greater majority felt that there was enough information about the estate (67.7%).

Nearly seventeen percent of our sample said that they attended AGRA meetings (16.8%) with 6.2% involved in the organisation of the group. Those who had lived on the estate for more than ten years were much more likely to say that they attended AGRA meetings or helped organise the association. Interestingly, residents of less than a year were likely to have attended an AGRA meeting. However, this falls away for those residents who had lived on the estate for more than a year but less than five.

Table 11 Residents' participation in AGRA by length of residence

	Attend (%)	Organise (%)	Number
Less than a year	20.0	0.0	30
A year to less than three years	8.7	1.4	46
Three years to less than five years	11.1	3.7	36
Five years to less than ten years	17.1	5.2	41
Ten years or more	27.3	8.2	44

Source: ISR unpublished data

The rationales for RFTC emphasised its potential to build community on the Atherton Gardens estate. One possibility is that the network will build greater contact between residents, both offline and online. In turn, this could be expected to engender trust and co-operation; it could also build greater participation in activities on the estate, including decision-making and involvement in tenants' groups

Our own research has led us to avoid simple models of ‘community-building’ based on a causal chain between contact, trust, participation and building stocks of social capital within the one community. As discussed above, we have assumed instead that social connection, online or offline, can affect groups, individuals and a resident population of this sort in a number of ways. We expect that in some respects the network will increase contact between tenants. Use of the intranet and email groups is likely to promote online contact. Activities associated with setting up and sustaining the computer network may also promote greater contact between residents, both online and offline. These include the mixing of residents in the computer training rooms and interaction with volunteer trainers, who come both from the estate and from the wider community.

In turn, increased contact may have positive outcomes such as reducing isolation and building a greater sense of security on the estate. As people come to know their neighbours and co-residents better, they may trust at least some of them more. Trust may build co-operation, so that residents are more confident that they can seek help from neighbours as well as from family or members of the same language group. The activities associated with setting up and running the computer network may also build co-operation and self-help. In some cases, this may promote more willingness to attend residents’ meetings, speak up in public meetings and be involved in estate decision-making.

The results of the interactions associated with the network are difficult to predict, but there are several possibilities. First, it is likely that when residents of the estate use the computer network, they will replicate existing patterns of formal and informal association on the estate, building from language-based, faith-based or ethnic groups. In other words, the network may strengthen existing forms of bonding social capital (with both positive and negative associations), without necessarily promoting bridging forms of social capital.

Second, it is also possible that new formal and informal groups will form as a result of online interactions. These groups may build from looser connections, outside kinship and language group affiliations. They may stem from commonalities of interest based on family type, shared interests such as childcare, gardening, books and so on. Third, it is possible that a number of residents may use the network without significant impact on their patterns of sociability or connectedness on the estate. Some residents may not want to get to know their immediate neighbours or co-tenants any better, although they may find the network useful for other purposes. Others may remain uninterested in using the facilities at all; these people are not necessarily disconnected from other forms of sociability on the estate.

Conclusion

We can highlight some key findings from the research so far. There is a distinct pattern of economic and social disadvantage at Atherton Gardens, reflected in social isolation, high unemployment rates and low levels of education. Further, this pattern of disadvantage clearly extends into residents’ use of communication technologies, their access to information and computers. Residents are three times less likely to access the internet at home than Melbourne residents as a whole. Few have been able

to acquire computers themselves. Residents depend to a high degree on telephones, particularly on higher cost long distance telephone services. They do not find currently available news services satisfactory, especially for international news.

However, Reach for the Clouds has enabled many Atherton Gardens residents to have a computer at home for the first time. And in the light of the information we now have, it is possible to see how RFTC has the potential to make a significant positive difference to residents on the estate. Our survey respondents are eager for educational opportunities, formal and informal. Asked why they wanted a computer, residents were overwhelmingly likely to nominate educational reasons, particularly those households with children. Some residents see computers as likely to help them find work. While several scenarios are possible, the computer network appears likely to increase social contact on the estate, building on existing relationships and associations.