A wired community for low–income public housing tenants has been established on the Atherton Gardens estate in Melbourne, Australia. It was created by Infoxchange, a non–profit technology company with the slogan ‘Technology for social justice’. This paper summarises the results of a four–year evaluation of the social impact of the e–ACE network.

Introduction

This paper describes the genesis of e–ACE, a wired community initiative at a public housing estate in the Melbourne inner city suburb of Fitzroy. As described in an earlier contribution to this journal (Meredyth, et al., 2002), the initiative involved an entrepreneurial social partnership, linking cash and in–kind support from government, business and community groups to recycle surplus and superseded computers. Eight hundred households on the estate have been given free, networked computers, training and resources. All Atherton Gardens residents are offered a refurbished computer in their flat, access to free training (provided by volunteers and supported by government grants), and use of equipment in a training room on the estate (donated by businesses). The machines come with free software and residents have access to e–mail. All the flats are connected to a local network, which carries forums, residents’ own Web pages, community information and useful links. For a small charge, residents can also surf the Web or upgrade their equipment and connection. The idea, according to Infoxchange and its patrons, is that eventually Atherton Gardens residents will run the network themselves, making e–ACE sustainable as a resident–run business in the local service sector.

Our earlier research on e–ACE described the early stages of the initiative, before the network was established. Drawing on early interviews with the organisers, and on an initial survey of residents at the point where they received the donated computers, we drew out the difficulties
inherent in claiming that building a computer network would build a more cohesive community on the estate, by generating social connectedness and social capital (Meredyth, et al., 2002). Having completed our research on how this low–income and multi–ethnic resident population used the network, we are now in a position to offer a broader analysis of the impact of e–ACE as an example of a public–private intervention into information poverty and social exclusion. We do so making selective use of our findings, which are available online in our final report (Meredyth, et al., 2006).

The e–ACE story parallels the narrative of social policy debate in Australia and elsewhere over the last decade, as diversified community sectors adapted to market liberal emphases on consumer choice, self–help, competition and public–private partnerships. In this case, a social partnership of government, community and non–profit agencies developed a creative way to find affordable and sustainable communications solutions for low–income people, drawing on public and private funds, volunteer labour, skill–sharing and community liaison. The example shows both the scope and limits of efforts in the early 1990s, at the height of enthusiasm for a third way of policy thinking, to link digital divide interventions to the social policy agenda of community–building and neighbourhood renewal.

Here, we tell the story of e–ACE, and of how it was conceived, pitched, supported and sustained. This article summarises research on the social impact of the e–ACE network: research that accompanied and supported the initiative as it developed between 1999 and 2004 (see Meredyth, et al., 2006). Drawing on interviews with organisers and partners, we describe expectations associated with the scheme and the extent to which they were borne out in practice. Using findings from focus groups, on–site observations, surveys and the analysis of network data, we outline what residents expected from getting access to a computer in the home, what they used it for and what they looked at online. Through these sources, we built a picture of how the low–income and multiply disadvantaged people on the estate used the computers and online resources as they became available. We were interested in a number of factors: how the e–ACE network affected patterns of social connection on and around the estate; whether it could be said to have built community online or offline; whether or not the network facilitated better connections between residents and social service providers, through the use of online information on housing, health and education; and, how the network affected residents’ patterns of communication with friends and family, as well as their patterns of media and news consumption. In other words, we were interested both in the community–building capacity of the network and in the extent to which the network helped residents to make connections outwards from the estate, to news and communication sources, to education, training and jobs.

The network may have built connection on the estate but, more importantly perhaps, it also enabled people to seek connections outside and beyond it.

We argue that the e–ACE network can be discussed as a successful instance of a social enterprise in community–based technology, which aimed to encourage and enable people, at a local level, to take responsibility for seeking opportunities and re–entering the workforce. To begin with, the e–ACE network gave low–income, multilingual and immigrant population on
the estate access to computers and training; few of them could have afforded these resources for themselves and their children otherwise. It also gave people access to local information and resources in their own languages. E-mail and Internet access made it possible for residents within diasporic networks to contact family and friends overseas more affordably and reliably. Finally, affordable access to the Internet in each flat made it possible for residents to seek information on services (housing, health, schooling and welfare) and to look for opportunities online. Investment in community technology changed the ways in which people accessed and used social services [1]. The network may have built connection on the estate but, more importantly perhaps, it also enabled people to seek connections outside and beyond it.

This is a positive story, but it is different from the vision that the e–ACE organisers offered in the late 1990s, when their arguments for funding support were framed in terms of the potential for e–ACE to build the cohesion of the community on the housing estate (Infoxchange, 1999). Early on in our research, though, it became clear that it was unrealistic to think of Atherton Gardens as a place that could or should be a single, organic “community” (see Meredyth, et al., 2002). Instead, it is a place crossed by interest groups and advocates with different agendas. It is a place where social and cultural connections cross over, where there are many communities, not virtual but both local and remote. It is also a place with a complex history, as a locus of ambitious social planning efforts that have tried to use technology to modernise and rationalise this pocket of poverty. To explain this, we place Atherton Gardens in the frame of forty years of frustrated social planning and policy intervention.

Renovating Atherton Gardens

Atherton Gardens has four twenty–storey towers, with ten flats a floor; over two thousand residents live there. It was built in the 1960s and 1970s, a late instance of a classically liberal urban intervention. The estate was intended to be a modern, affordable, healthy inner city community, close to jobs, schools and transport. It was supposed to offer a dramatic improvement over the existing neighbouring housing, with sunny interiors, up–to–date plumbing and electricity, and lots of outside space for children to play. It was built by what was then the Victorian housing commission, using precast concrete slabs manufactured offsite. At some point in the life of the estate, probably quite early, it ceased to offer cheaper and better housing than was available nearby. Instead, it was cheaper and worse. Atherton Gardens is now an isolated, disadvantaged pocket in a gentrified suburb, surrounded by welfare agencies. Most of its residents depend on income support from government — child support, sickness benefit or unemployment. The estate has an unemployment rate more than seven times the Melbourne average. The level of cultural diversity amongst residents would have been impossible to foresee forty years ago. Over sixty per cent of the residents were born in Asia. Chinese and Vietnamese are the main languages used on the estate apart from English, but there are smaller communities of speakers of dozens of different languages, particularly among the African population, which is the fastest growing group on the estate.

A visible and conveniently accessible outcrop of urban poverty, the estate has been extensively studied by academics, social welfare organisations and governments. It also has wider notoriety; the estate was famously described by a local tabloid as the ‘flats of fear’; as a source of crime, noise and drugs spreading out across now–prosperous Fitzroy. While the estate’s reputation is exaggerated, it is clear that by the late 1990s the estate had become a centre for the drug trade. Common areas, the stairwells, laundries and gardens, had become sites for drug–taking and violent confrontations. Domestic violence was rife and levels of distrust and insecurity were high. Tenants’ meetings had been discontinued; social workers reported that although residents wanted more information and training, especially in English and in
information technology, they were unable to get to training and information sessions on the estate, either because they were isolated with carers’ responsibilities or because they were too intimidated to move freely around the estate (see, for example, Guinness, 2000). Residents’ meetings were in abeyance and community agencies such as Jesuit Social Services had become the mainstay of community organization. But despite the archipelago of agencies around the estate, it was still hard to know who lived there. Telephone lists were known to be unreliable, given transience and turnover. Meetings, notices, pamphlets and doorknock visits were also ineffective, partly because of the level of distrust linked to insecurity on the estate. Information was not integrated effectively.

The estate has since seen several years of government intervention and investment, which has substantially improved conditions on and around the estate. Atherton Gardens is now one of a number of Victorian government neighbourhood renewal sites. Following a process of community consultation and planning, various initiatives have been unrolled. The lifts, common areas and apartments have been renovated. Security measures have been introduced: access to the buildings is now controlled by a concierge, guards patrol the estate around the clock and police have a strong presence on the estate. Landscape architects have redesigned and reconstructed the area around the buildings. Through the e–ACE initiative, finally, the estate now boasts a computer network, a technology centre, training initiatives and a reputation as a site of community experimentation and innovation.

Just like the experiment of constructing the housing estate itself, e–ACE is an effort to modernise public housing and social services, finding technological solutions to long–term problems. And like the towers themselves, this ambitious construction was not organic to its environment: it was a hybrid made as social entrepreneurs adapted the materials provided by the welfare networks around the estate.

The social policy templates over-writing the Atherton Gardens estate have changed many times since the estate was first built. State government attention, and the money that follows it, have periodically moved elsewhere and then returned. The language of social policy debate has developed rapidly. The impulses for positive change are now expected to flow from the community itself, rather than from government planners and engineers — even when the community and its environment are the creations of government. Policy–makers are now concerned about managing the risks of social exclusion, about the problems information poverty poses for electronic government, and about building and sustaining social capital.

Reach for the clouds: The idea in its time and place

The e–ACE scheme was the brainchild of Andrew Mahar, the Director of Infoxchange, a community–based ISP specialising in the community service sectors [2]. Infoxchange began in 1988 as an online coordination system for emergency accommodation, providing a welfare support services database and a weekly infocast of material for health and welfare workers. It also developed GreenPC, a scheme which involved taking obsolescent hardware donated by public service departments and reconditioning them, drawing on volunteer labour and training positions for long–term unemployed people, and drawing on state government Community Jobs Program funding [3]. The reconditioned PCs were then either donated or sold cheaply to community agencies and low–income households.

From 1996, Infoxchange embarked on various efforts to secure state government support to install donated networked computers in community centres on high–rise housing estates in Melbourne, offering multilingual information on housing and welfare policy. By 1999, these efforts were redirected to a new idea: wiring all the flats at Atherton Gardens and giving each
household a reconditioned Green PC computer in their home, linked to an intranet offering local content, including information on health, housing, training and employment services (Infoxchange, 1999) [4]. The idea was to take advantage of the latest scheme, on the part of the Victorian Department of Human Services to renovate the housing estate, to rewire the four towers and link them to a concierge security system, in which all tenants would be able to communicate electronically with a security officer at the entrance to the estate. The Infoxchange intervention sought to convince the Office of Housing to rewire the high-rise towers, using existing telecom cabling and high bandwidth communication controllers and putting coaxial cable wiring in each tower; once there was a PC in each flat, then they could all be linked to a local server. The computers and basic software would be donated, the intranet would be free and universal and if funding was found, then Internet access would be very cheap (AUD $5 a month). The estate would have a technology and training centre and help desk; Infoxchange would work with local volunteers and residents to give basic training and in turn, these people would train others. As the enterprise built, people would create ways to share or sell both their existing linguistic and cultural skills and their new technical know-how. Young people were the catalyst: their energy would involve older people who were leaders of the different cultural groups on the estate. With the community behind it, the network could become a resident–run and resident–owned enterprise. At that point, Infoxchange and its collaborators could step back and leave people to it.

In December 1999, Infoxchange established a small group, made up of local government and a number of not–for–profit organizations. With the Office of Housing, they secured seed funding from Multimedia Victoria to develop a business plan for an initiative dubbed ‘Reach for the Clouds’ (Infoxchange, 1999). During 2000, other partners, including Hewlett Packard, Microsoft, Lucent Technologies, BYTE Technologies and the Brotherhood of St Laurence, pledged support. Meanwhile, the initiative sought contributions from various state government agencies (Infoxchange, 2000, 2001). The proposals used the vocabulary of community–building and neighbourhood renewal. The aspirational language was about self–help and initiative, enabling people to look above and beyond the estate towers. However, the proposals also promised that the network would open the estate to government and make it more transparent. The intranet, e–mail and Internet access would help residents to get more information about housing, health and other entitlements, but it would also help social service providers to get more information about the people on the estate, to track individuals, to target services and to promote their programs. Schools would be able to stay in touch with parents; health services could identify the aged and those with disabilities. More integrated information about residents would address the security problems on the estate, leading to lower repair and maintenance costs for human services.

It took some time to secure sufficient funding to wire the estate and install the personal computers. In July 2001, the Office of Housing agreed to wire the buildings: the job was put out to tender in August and begun in October. By November, core wiring had been installed in the towers, 75 computers had been given out and 200 residents had participated in information technology training. The rollout of computers and cabling continued throughout 2002; by May, servers and routers had been installed in each building. By this time, the organisers had been successful in winning substantial recurrent funding from the Victorian Department of Premier and Cabinet (AUD $820,000 over three years) through the Community Support Fund, a scheme designed to put state taxes on gambling to community use. In securing this funding, Reach for the Clouds (now retitled e–ACE) was plugged into a series of state government funded Neighbourhood Renewal programs across Victoria.

The wired community was to be accompanied by extensive community consultation. It would also have a research and evaluation component, supplied by our research team from Swinburne University of Technology. Our team had developed a partnership with Infoxchange and its collaborators early in the genesis of e–ACE, and had worked with them since 1999 develop a Linkage research grant proposal to the Australian Research Council, drawing on support from
the Department of Human Services. Funded for three years from 2001, this grant enabled us to track the development of e–ACE in the early stages.

The e–ACE initiative was officially launched by the Victorian Minister for Human Services on 23 June 2002. Wiring was connected to all apartments during 2003; Internet access was available by September that year. By mid–2004, over 500 households had been given a reconditioned computer. The machines were at minimum Pentium 133 to 166, running Windows 98/Office 97, and generally had a floppy disc drive but no CD–ROM drive. Upgrades were available at a cost to the resident. Most of these 500 households had a network connection, which meant they had a cable connecting their computer to the Atherton servers, giving access to an unrestricted e–mail account and to the Atherton Gardens intranet, which contained local news, chat pages, a resident forum, language other than English portals and a library of electronic resources, including information on local events, agencies and services, photographs, reports and minutes, newsletters, stories and articles. Content was supplied in a range of languages. Once they were registered as members, residents could access their own free e–mail account, post items in the various forums and on the general noticeboard and access and upload documents to the library. There were also links to a number of external sites, including entertainment sites, newspapers, health sites, and school sites. Residents also had the option of creating an Internet account, getting high–speed access at four cents per MB downloaded. By mid–2004, 273 Internet accounts had been activated.

The computing room, located in the community centre on the estate, also had broadband access, ten public access computers, a printer, scanner and zip drives. The public access computers in the computing room had a CD–ROM drive and ran Windows 98. Two were capable of running multimedia and design programs. All tenants who received a computer took some training in the computer room or training room. This involved self–paced training in basic computer operations, MS Word, e–mail and the Internet, with optional sessions in MS Excel and MS PowerPoint and instruction on using and adding to the estate intranet. Daily training sessions were offered by volunteers and paid trainers and there were regular sessions conducted in Vietnamese and at times in Mandarin, Bahasa Indonesia, Spanish, Croatian, Slovak and Amharic. Training manuals were available in various languages. Infoxchange encouraged residents to volunteer, as helpdesk staff, technicians and e–ACE project workers. A number of residents obtained employment on or around the estate, and more were able to do accredited training, supported by job creation funding. Between 2002 and 2004, the take–up of computers and connections gradually grew. Content on the server also increased, much of it generated by enthusiastic volunteer residents. By 2004, it was clear that residents were using the network. They were also using the computer room; it was especially popular after school hours, both for Internet access and games. A Vietnamese mothers’ group met in the room regularly.

The e–ACE network fused technology with the techniques of consultation and advocacy, fitting community workers, residents and interest groups into the circuit.

A hybrid started to emerge. The e–ACE network fused technology with the techniques of
consultation and advocacy, fitting community workers, residents and interest groups into the circuit. This was not seamless. The machines supplied were often old and slow, and the network could be unreliable. Young people especially were likely to be frustrated by these limits, keen to use music and games applications and conscious of the contrast with what their friends from more prosperous households could access at home. Residents from other housing estates in Melbourne started to feel entitled to affordable technology too, which put pressure on the alliance with the Office of Housing. There were internal debates, within Infoxchange, about the viability of a business model that depended on volunteers and hobbyist adaptation. It was hard to find staff able to manage the sprawling activities on the estate, maintain the network and manage expectations, while trying to raise the cash needed to keep the enterprise going. The looming question, by 2004, was what would happen when the Community Support Fund money ran out and the e–ACE enterprise had to live up to the ideal of making the network sustainable, resident–owned and resident–run. The risk was that the network would collapse once government funding ran out. Money was needed to maintain the infrastructure, to upgrade equipment and to pay salaries; volunteers could not be expected to co–ordinate such a complex range of services from the computer help desk to the overall co–ordination of the network. Residents could be asked to make more of a household investment in the technology, but their discretionary income was severely limited. One hope was that the e–ACE enterprise could spin off into small resident–run businesses; however, these were unlikely to cover the costs of the infrastructure.

Since 2004, Infoxchange has pursued various options for securing follow–up funding, replicating the e–ACE model on other estates, using wireless connections. A similar initiative is now being established at the Collingwood housing estate a suburb away. Once again, government agencies and community groups have provided substantial cash and in–kind support to the project, as an extension of neighbourhood renewal efforts.

The research process

Having recounted the e–ACE story, we turn to the parallel story of the research we did on the e–ACE network as it developed; a story we began to tell in an earlier article in First Monday (Meredyth, et al., 2002). Working in close contact with Infoxchange, but as observers rather than direct participants in creating the network, we needed an economical way to track the social impact of the network over three or four years. In the time it took between 2001 and 2004 to wire the buildings, we spent time on the estate, holding focus groups, talking to resident groups and interviewing partners and stakeholders (see ISR, 2003a and 2003b). We used a sample survey of residents, repeated within two years at the point where the network was up and running, and we also returned to some of our original interviewees. In 2004, we were also able to analyse one month of data on patterns of network usage that had been collected by Infoxchange from the servers in each of the Atherton Gardens towers. Stripped of information that could identify individuals, this data listed hits, from each of the servers, to intranet and Internet sites over monthly periods.

From our first source of information — background research, observations at the estate and discussions with resident groups, community workers and stakeholders — it was clear that the social composition of the estate was complex (see Meredyth, et al., 2002). One of the challenges facing Mahar and his partners was to communicate the e–ACE idea to resident groups and to get support and involvement from the resident community, without promising more than could be delivered at the time. To secure the support of community partners and public sector agencies, Infoxchange had to promote the idea of a community–driven initiative, even as they were still trying to make alliances with leaders amongst the cultural and other
groups on the estate.

Members of the research team attended a number of residents’ meetings on the estate in 2001. We also ran a series of focus groups, organised according to language groups: a translator was available in each case. Briefly, the focus groups helped to flesh out a picture of the complex social networks existing on the estate (see ISR, 2003a and 2003b). They also suggested that there were some recognised tensions between language groups, some of which were regarded as dominating and resource-hungry. There was a risk that e–ACE might look as though it had been captured by the majority ethnic minority (Vietnamese speakers), simply because meetings with this group were easier to organise than those with smaller populations or interest groups, or with the large and more amorphous group of long-term Australian-born residents who were isolated for reasons other than migration or language. Tenants also told us that some groups, such as Turkish families, were concerned about the social and moral dangers of information technology, so were unlikely to be involved. From the beginning, it was clear that there were some groups and households that were resistant to any involvement in communal life. These people were the hardest to reach, both for Infoxchange and for us as researchers. Nevertheless, the focus groups helped us to formulate a series of questions for the surveys, about social exchanges, social capital and trust on the estate; the aim was to see whether the establishment of the e–ACE computer network was accompanied by changes in these patterns (see Meredyth, et al., 2006 for the full final report, survey questions and results).

In 2002, we began a formal interview process, asking Infoxchange workers, their partners, their funders and other stakeholders what their role had been, what they expected from the e–ACE network, and what they would regard as a successful outcome from the initiative. These interviews were recorded and de–identified where possible. From this process, which was repeated in 2004 at the point where the network was established, we developed a provisional analysis of the sometimes competing rationales and expectations associated with the e–ACE initiative, and of the commitments in common that had enabled the partnerships to form and function. Many of our interviewees were extremely committed to the egalitarian and aspirational vision of e–ACE, though some were disappointed that it had taken more time than expected to wire the buildings and set the network up. The main question, in 2002, was about the extent to which Atherton Gardens residents understood the e–ACE idea and would make use of the technology, much less take on ownership of running the network. Some community workers and some representatives of state government partners were worried about raising false expectations amongst residents and losing the momentum of support. A smaller number of community workers were sceptical about the enterprise, commenting that the time and resources invested could have been better spent more directly meeting the expressed needs of residents, through community–based decision–making. For some, e–ACE was still an outside initiative, driven by entrepreneurial outsiders and techno–enthusiasts rather than by dialogue with the community. As one respondent put it, the community network was a ‘space–age solution to stone–age problems’: problems of survival within poverty, violence and struggle. Organic community solutions meant getting people face to face in a circle, not connecting them to a circuit. The biggest risk, according to these sceptics in the community sector, was that the computers, the network, the training and resources would go unused, wasting the energy of donors and volunteers and diluting the goodwill of the community. Others thought the equipment might be abused — sold on, or used for gambling, porn or other undesirable purposes.

As one Infoxchange worker put it:
“Technology is not the be
Infoxchange’s response was robust. The main point was to give these people computers, connections and basic skills. This need not be tied to moralistic campaigns. Opportunity and choice were key: given the skills and basic resources, Atherton Gardens residents could work out what they wanted, as consumers and service users. If they wanted to pay a modest amount to get Internet connections or upgrade equipment, they could; they could also start to create their own content and pursue ideas about how to make some money and make the enterprise sustainable in the long run. The main point was to give them the chance to make the choices about technology, information and communication that were available to their middle–class neighbours. As one Infoxchange worker put it: “Technology is not the be all and end all, it is only a tool for access to what the communities need — education, training, employment.”

Community–building might be one outcome from the scheme, especially if e–ACE was able to give people on the estate jobs. But communication and contacts would spread out beyond the local: “People [will] have the opportunity to communicate directly with one another. They also want to communicate with friends and relatives overseas via e–mail and to access foreign language newspapers and news services.” Over the longer term, the project “involves employment and training, creating a self–sufficient enterprise. There is no one point where it can be seen to be finished and successful.”

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Atherton Gardens residents: Attitudes, abilities, habits

Our problem, as researchers, was that although we were working in close partnership with Infoxchange, we were also positioned as independent observers, with a responsibility to stakeholders, including government agencies that had invested in the network. Arbitrary as it may have been, the cut–off point for our assessment of the social impact of the e–ACE network was the end of 2004; as it turned out, a point not far beyond the establishment of the network. In order to get a snapshot of tenants’ attitudes, expectations and habits before and after the computer network was established, the research team conducted two sample surveys of residents, in mid–2002 and repeated with modifications in mid–2004. In framing the questionnaires, our aim was to find indicators of the impact of the e–ACE network: on residents’ technology skills and use; on access to news and information in different languages; on patterns of educational, health and housing information–seeking; on social networks, patterns of communication and social capital. The questions were informed by social capital formulations assuming that increasing social exchange, online and offline, would change the pattern of networks, norms and trust (see e.g. Granovetter, 1973; Kavanaugh and Patterson, 1998; Hampton, 2002 and 2003; Kavanaugh, et al., 2005). In this case, with a site–based study where there were already some identified groups and some isolates, we expected to see a pattern where the e–ACE computer network (and the training and organization associated with it) increased contact between individuals and groups on and around the estate, fostering bridging and linking connections as well as bonding (see e.g. Hampton and Wellman, 1999 and 2003). This was only one of the hypotheses informing the survey design however. We were also interested in what place the network might have in patterns of diasporic media use, in formal and informal learning, in search and in the use of online social services and other e–government resources.
For the 2002 survey, we asked whether residents had used computers and the Internet, where they had done so, whether they wanted one or not and why and how they thought they would use one. Along with a series of questions about household characteristics, income, education, employment and health, we also asked them a set of questions drawing on research on social capital. These included questions about how frequently they contacted friends and family, either face-to-face or by phone, e-mail or post mail, as well as questions about their patterns of involvement in local sporting, associational and community contacts, their attitudes to life on and around the estate, the extent to which they trusted immediate neighbours, those in the same building and residents on the estate more broadly, the extent to which they were confident to speak up in residents meetings or to deal with banks, government agencies and other bodies (ISR, 2003a, 2003b). We also asked detailed questions about their patterns of media and communication use: newspapers, radio, television, phone and e-mail.

The first survey was undertaken over six weeks starting 27 May 2002 (ISR, 2003b). Of the 800 households on the estate, 269 were contacted by phone, doorknock, fliers and word of mouth. Seventy declined to be interviewed, resulting in a total of 199 responses, or a 74 percent response rate for those households contacted. Questionnaires were administered in face-to-face interviews in residents’ homes, or in either the community centre or the computer training room on the estate. Where possible, the survey was conducted in the language of the residents’ country of origin; we employed interviewees who were native speakers of the majority languages spoken on the estate: English, Vietnamese, Cantonese, Mandarin, Macedonian Turkish and Arabic. However, we were unable to provide interviewers who were native speakers of a number of languages spoken on the estate: these included Spanish, Laotian, Khmer, Somali, Dutch, Greek, Afrikaans, Dari, Polish, Russian, Farsi and sign language. It is also likely that since our attempts to contact tenants by phone and doorknock were largely made during the day, our respondents were unlikely to have daytime employment. Our sample may also exclude those who did not have phones, who did not speak the languages we spoke on the team, or who were unwilling to respond to either the phone or a knock on the door. Nevertheless, our sample is representative enough to give us a profile of a diverse population, including both long-term non-migrant residents, many with multiple health needs, and new arrivals. In terms of ethnicity our sample broadly accords with the Office of Housing’s record of the population as a whole. Survey respondents were born in at least 31 different countries. As expected, a high proportion were unemployed or dependent on social welfare payments, including sickness benefits, and many fitted the category of high need users of social services. The great majority were living on below AUD $20,000 a year. A third of them were in sole parent families; nearly half had children; a quarter lived alone. The majority had lived at Atherton Gardens for less than five years and about 15 percent for less than a year. Just under half said they spoke English ‘not well’ or ‘not at all’.

Asked how they felt about living at Atherton Gardens, most respondents were positive about the estate, its governance and their ability to participate in resident meetings; they were concerned about security, however. Few were likely to say that they trusted other residents in general, though many did know and trust their next-door neighbours and those on the same floor. Many were actively involved in cultural, sporting and faith-based activities in and around the estate. There was extensive involvement in local places of Christian, Buddhist and Muslim worship. Most indicated a heavy reliance on international phone calls to stay in touch with friends and family; they also expressed low levels of satisfaction with the news available, especially from their country of origin. Many were seeking education and training opportunities; those with children in particular were likely to say they intended to use their new computer to help their children with homework, or to extend their own schooling.

We supplemented this early research, before the network was fully established, by observations on the estate, particularly in the community centre and the training centre (ISR, 2003a). Spending time watching and talking to residents who were doing the training, or just experimenting with the computers in the communal training room on the estate, it was clear
that what people wanted to do first was to use e-mail to contact relatives and friends overseas, or find news, information and entertainment from their country of origin. This was confirmed by interviews we held with the volunteer trainers and with Infoxchange staff, who said they had largely abandoned the idea of structured lessons in information technology and computer use, choosing instead to help people learn in a self-directed way.

The second survey of tenants was conducted between 3 May and 29 June 2004, at the point where the e–ACE network was fully established (see Meredyth, et al., 2006). Interviews were conducted in English, Vietnamese, Cantonese, Mandarin, Somali and Arabic. The questionnaire was similar to the one used in 2002, but with additional questions on the use of the computers and the network. The final sample size was 159. While some respondents had taken part in the earlier survey, the high turnover of tenancies meant that many respondents answered the questions only in 2002 or only in 2004. Respondents included those with computers only, those with computers and network access and those without computers. A broad cross section of household types participated, including two–parent families with children, single–parent families, young singles, older couples and older singles. More than a dozen countries of origin were recorded, but almost half the questionnaires were completed by Vietnamese speakers. The 71 English–speaking respondents came from a number of ethnic backgrounds and included speakers of English as both a first and second language.

What residents said about how they used the e–ACE computers and connections confirmed that the network was being used and that it had demonstrable benefits in offering access to services and information directly relevant to residents’ housing, health and educational needs. By mid–2004, Internet use on the state was consistent and diverse. Residents reported that they had used the computer in their home, and those in the training rooms, to seek entertainment, news, information and contact with friends and family, to find information on social services such as health and housing, and to look for educational and employment opportunities.

Over a quarter of respondents with an e–ACE connection had used the Internet to investigate available courses, with over a fifth using it to contact an educational institution. A quarter of those who had undertaken the training element of e–ACE said that it had made them more likely to participate in further education. In 2002, a high proportion of those surveyed said they thought having a computer in the home would help them in job search. By 2004, half of those in our sample who were unemployed and who had a computer had used it to type a CV; the same proportion had used the Internet to look for information about jobs. Overall about two thirds had used the e–ACE computer, network and training to help them re–enter the labour market. Nearly a third of those with a home Internet connection had used it to investigate health issues. Those who reported at least one serious health condition and who had an e–ACE connection were highly likely to have used the Internet to search for health–related information; far more likely than those with a serious health condition who did not have Internet access in the home. The great majority of those with an e–ACE connection had used it to access government services or communicate with a service agency. Over a quarter had used their computer to type a letter to a government service, nearly one in five had contacted a government office by e–mail and nearly a third had used the Internet to find information about a government service. Over half of those with e–ACE computers and Internet connections had used them to communicate with the Office of Housing or to find housing information. More than a fifth had contacted the Office of Housing by e–mail and a third had used the Internet to find information about public housing. Respondent indicated that they were using the Atherton Gardens Community Network. Almost half the 2004 survey respondents had visited the news page, with more than a quarter using the network library, accessing housing information or contacting the help desk.

Data from the Atherton Gardens server confirmed this broad indication that residents were using the network. In the month of November 2003, there were 17,413 hits recorded to the Atherton Gardens intranet. The Noticeboard, which is the main news page and the first page...
that comes up on entering the intranet, had 11,899 hits. There were 1,279 downloads, 607 hits on the library, 558 on mail, 376 on homepages, 313 on links, 221 on the training section. The hits give some indication that residents were using the intranet for language-specific needs: in that month, there were 292 hits to the Chinese language section, 73 to the Vietnamese, 20 to the Arabic and seven to the Macedonian and 16 to language help. Sites oriented to community exchange and connection were also well used: there were 86 hits on the ‘phorum’ site, 84 on the chat section, 55 to the section for children and 49 to the Atherton Gardens Residents Association. Agencies with a presence on the intranet also attracted visits: 17 to the Office of Housing information section, 15 to the National Australia Bank alone, and the same number to other agencies. These results indicate that e–ACE enabled many residents to find information in their own language, to make connection with others, to contact government agencies and to use online goods and services such as banking.

Having established this, in broad terms, we were interested in more fine-grained information on what sites, or what types of sites, residents were visiting when they explored online resources. We drew on a study of one month of data from the Atherton Gardens servers, collected by Infoxchange throughout June 2004, some eight months after network connections were first made available in residents’ homes. Making sense of the data required selective sampling. We chose first of all to look at the data at the level of domain rather than by individual URLs. This data was only a slice, but it gave us some indication of what people on this estate were looking for, once they had access to the Internet.

In June 2004, nearly half a million hits were made to Web sites from computers linked up to the Atherton Gardens network, whether in people’s homes or in the training room. Over 9,000 domains were accessed during this month. The most frequently visited site on the Web in June 2004, by far, was neopets (http://www.neopets.com/), accounting for more than five percent of total hits for the month. The top ten sites by number of hits included: neopets; MSN; MSN Messenger; Yahoo!; Google; three advertisers; one spyware site (netratings); and, one dating site. Almost one third of total hits went to these ten most popular domains.

The results indicated a diverse range of search interests and information sources. Of the 372 domains scoring more than 100 hits, there were nine search engines, eight portals, two mail sites (Hotmail and Yahoo! Mail), five reference sites (telephone listings, public transport, dictionary), and four Australian newspaper sites. Much of the material accessed was in languages other than English and a high proportion of accessed sites contained material relating to news and events beyond Australia. There were 37 Chinese language sites that scored more than 100 hits, eight in Vietnamese, four with African content (Kenya, Somalia and Sudan: mainly newspapers), two with Malaysian content, two with Indian/Pakistani content (both newspapers), one Serbian newspaper and two Arabic news sites. Three faith-based sites were also popular, identifiable as Islamic, Adventist and Buddhist respectively. British news (BBC) recorded 1,479 hits, almost twice as many as abc.net.au, the site for the Australian Broadcasting Commission (791). The site for SBS, the multicultural Special Broadcasting Service (Sbs.net) received 261 hits. There were 490 hits to the Fitzroy Library (the local public library).

The pattern of site visits bore out what residents had told us about their use of online search to pursue education, employment and welfare opportunities, to seek entertainment and to explore. More than a hundred hits were made, in June 2004, on eight education sites (seven of these Victorian, one in Thailand), on six job search sites and on one health site. Government, commercial and non-profit health sites were visited, as were online community sites, including sites for families of children with diabetes, for South Asian women, Iraqis and young people. All levels of government in Australia, as well as some overseas government web sites were accessed. Hits were made to primary and secondary schools, to universities, colleges and private educational providers and to bodies such as the Tertiary Admissions Centre. The commercial sites appearing within the list indicate that people were also interested in shopping.
online, or in finding out more about commercial services. Popular sites, apart from e-mail providers, included Amazon.com and eBay.com, 36 advertising sites (probably hosting pop-ups), 11 banking sites, seven classified advertisement sites and five other Australian businesses (office supplies, a restaurant, an airline, a cinema). There were many hits to sites offering chat and dating services, including matchmaking sites in languages other than English. Numerous visits were made to games sites, both single player game sites and interactive online ones. The types of games sites being accessed included games suitable for primary school aged children and the so-called “cheat” sites, which offered information about online games rather than access to games themselves. The extreme popularity of neopets suggested that children were making frequent use of the Internet. Sites that offered downloadable music, information about music and musicians and film and television news and gossip were also popular, both in English and in other languages or from other countries (particularly India and Hong Kong).

Next, taking a sample of the 8,921 domains that had less than 100 hits during the month of June 2004, we looked at five percent of these (426). Pornography or fetish sites accounted for 100; Chinese language content for 34, IT services for 33, other businesses for 31, education sites for 24, European news and language content for 17, advertising for 14 each, online shopping for 13. Below this frequency, there was considerable diversity in the sites visited, including in this sample visits to twelve online communities of interest (teens, women, Iraqis, fans of HK artistes, south Asian women, graffiti artists, cooking, college students), 11 sites each of African news and language content and of United States and Canadian news, 10 Vietnamese language content sites and eight other Asian news and language content sites, five sites of Arab/Middle East news and information. Special interest sites accessed included: travel, religion, aviation, military, golf, bodybuilding, cars, model aeroplanes, Bruce Lee fan site, cartoons, men’s issues, Indian movies, gardens, computers, the oil industry, people called Phil, psychology, personal Web sites, wine, singles' sites, music, sports and resources for school work of children.

A more qualitative inspection of those domains that received more than one but less than 100 hits indicated that people were making regular use of education, health and government information sites. Education sites accessed on the estate during June 2004 included local schools, universities (local, interstate and international), private schools and colleges, and the Victorian Tertiary Admissions Centre. A range of Australian government sites were accessed: the Australian Bureau of Statistics and the Departments of Education, Science and Training (DEST), Family and Community Services (FaCS), Defence, Foreign Affairs and Trade (DFAT) and Environment and Heritage, as well as the Australian Tax Office, ATSIC (the former Aboriginal and Torres Strait Islanders Commission), the Australia Council, ASIC (Securities and Investments Council), the Fisheries Management Authority, Parliament House, the Australian Greenhouse Office, AusAID, Austrade, the Health Insurance Commission, CSIRO, and various government sites dedicated to small business, job search, customs, agriculture, immigration, family assistance, public service entry and employment, health statistics and workers’ compensation.

Victorian state government sites were also accessed, ranging from the Victorian Parliament to the agencies responsible for sustainability and environment, health, justice, police, agriculture, consumer information, roads and traffic, business, legal aid, training and tertiary education, food safety, sport and cultural affairs, the arts, small business channel, problem gambling, workers’ compensation, multiculturalism and multilingual library resources, land and property information, adult and further education, and graduate recruitment to the public service. Hits on local government sites (49 hits for the City of Yarra) showed a similar diversity of interest. The range of inquiry about government agencies and services spread internationally as well, with hits to government sites in the U.S., Canada, Vietnam and the U.K.

By mid 2004, it was clear that the e–ACE initiative had met many of the aims articulated by progenitors and partners, even if it had not yet realised their more ambitious goal of creating a
resident-run network. The e–ACE network did seem to have changed the way these low-income and multiply disadvantaged people were using information, seeking entertainment and social contact and staying in touch with friends and family. Residents were seeking information and resources related to employment, education, health and social benefits. They were encouraging their children to become computer literate and to solve problems by making use of the full range of information available online. The intranet and Internet resources made available were also being used for other purposes: for entertainment, for curiosity-driven Web surfing, for staying in touch with friends and families, for making social and/or romantic contacts, and for pursuing personal interests, often related to language, religion or country of origin.

Conclusion

We began by remarking Atherton Gardens has been positioned as a totemic site of aspiration, invention and social design. Some of these aspirations have been frustrated; others now look vainglorious. It is easy enough to draw the contrast between the state–financed, controlled and managed construction of the Atherton Gardens environment in the sixties, and the apparently community–driven agenda of ‘neighbourhood renewal’ in the new century. But both projects also have substantial points in common. They are both ambitious, technically inventive attempts to reconstruct a specific community and place around a new set of relationships. Despite the central role of the residents and their various associations in the Atherton Gardens Network, the online community was and remains the inspiration of highly technically capable external experts with a reforming vision. Andrew Mahar and the Infoxchange people are in some ways the descendants of the housing commission engineers who first imagined a modernised, transformed community inhabiting the spaces of Melbourne’s ‘slums’. Each had their own simple idea with complicated consequences. Thirty years apart, both projects revolve around the endemic problems of liberal government: identifying disadvantaged populations, and intervening to provide the opportunity and skills to access important services and to participate in civic, social and economic life.

That said, the network stands also as a remarkable example of an emerging form of social policy. Writing in the Australian Financial Review, Vern Hughes has described Australian social policy as having “stood still for three decades”, fixated with the false idea that government spending is the “primary determinant of good policy and good outcomes.” In terms which will be familiar to students of public policy around the western world, Hughes describes the “service delivery paradigm” as follows: “a plethora of agencies dispense services to disconnected, passive and disempowered ‘clients’ using standardised programs and resources for which the agencies are accountable not to their ‘clients’ but to their funders.” Hughes describes a number of small–scale community–based initiatives that attempt to break out of the old paradigm. He talks about community services which are built around and directed by the needs of the consumers rather than the funders: an integrated primary health care centre in Melbourne’s west, run by its patients; an indigenous credit union in Cape York; a “charter school” on Queensland’s sunshine coast (Hughes, 2003; see also Hughes, 2006b).

In ways that have both helped and hindered, the Atherton Gardens project is closely aligned to the spirit of consumer empowerment in Vern Hughes’ article. Yes, it will help government agencies to communicate more easily, more economically and more directly with the residents. But it does this by attempting to place the residents themselves in control, not only of their own computers but of the whole network, including the infrastructure, training, support and management systems which must support it. The residents are supposed to end up with some degree of control over how services are provided. The network functions by using associations
and contacts among the cluster of community agencies already existing around the estate — it is an evolution of already existing networks. And it draws heavily also on new resources: volunteer labour and corporate philanthropy. Whether it will succeed in finally or completely placing the network in the residents’ hands remains to be seen.

Hughes remarks that two things have prevented the Australian social policy debate moving forward: the lack of a consumer voice in public discussion; and the failure to connect questions of social capital formation to social policy reform. On this second point community networks such as Atherton Gardens may eventually be judged [5]. Will the network break down isolation and exclusion? To what extent will it extend or deepen residents’ existing social connections? To what extent will it enhance communication inside the estate, across cultural and religious boundaries as well as within them? Will it improve access to information about public affairs as well as public services? Will it contribute to a sense of greater trust or security?

The network is still too new for us to be sure about the answers to these questions. But the early indications are that the residents do see the network as a useful alternative communications system. Content from the residents is slowly accumulating on the local servers. They are using it to contact their families in other countries, to find out about useful services and community events and to read foreign newspapers. The network gives them a kind of informational mobility. They are using it to host forums where residents chat about what is happening on the estate. They are using it to help their children with schoolwork.

Not all of what happens is going to follow the new social policy script. Some of the things the residents want to do seem to fall within the vision of the local network. Some of them are more about using the technology to make existing personal and familial connections stronger, deepening affiliations that already exist. Some seem to be about extending communication across established cultural and linguistic boundaries; all these uses can be interpreted as building social capital. But the social capital calculus can also distract from the more mundane, perhaps old-fashioned, benefits of the computers, such as helping children do their homework or helping someone find a job. On these criteria, e–ACE is still an effective model for creative efforts to solve long-standing social planning problems.

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Notes

1. This paper draws selectively on the findings from a substantial report summarising the complete research process and its outcomes. The research was conducted with Liza Hopkins and Scott Ewing, with assistance from Liss Ralston in statistical analysis (see Meredyth, et al., 2005 ay http://www.sisr.net/). We would like to thank the Australian Research Council, the
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Victorian Department of Human Services for the grant that supported the research. Our sincere thanks also go to the Atherton Gardens residents, to Infoxchange for their collaboration and to the many community members, stakeholders and agencies who contributed to the study.


5. The initiative and our initial research have already had policy impact of this sort: see e.g. discussion of e–ACE in Australia in DCITA, 2005 and Muir, 2004.

References


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**Editorial history**

Paper received 14 August 2007; accepted 25 August 2007.