

Social capital and community building through an electronic network

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Abstract

This paper describes a social policy experiment that explores current and potential links between trends in Australian public policy. The central example is provided by the implementation of a wired community set up in a low-income public housing estate by an entrepreneurial not-for-profit internet service provider, InfoXchange. 'Reach for the Clouds', the wired community being established at Atherton Gardens in Fitzroy, Melbourne, is attractive to policy-makers and funding bodies, combining community-building, public-private partnerships, self-help and place-based management. However, although the project is promoted as an exercise in community-building through technology, many of the key assumptions are untested. It seems self-evident that low-income people who are socially and economically excluded would benefit from greater 'connectedness' with one another. However, it is not clear that such exchanges, online or off-line, will build 'community'. The paper attempts to establish some distinctions between online communities of interest and place based communities, untangling the relationship between social connectedness and models of social capital.

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Technology is often viewed as a source of separation between people, a barrier. No longer do we meet in person, but we talk on the phone. We watch performances on television, we fax each other, and we communicate using computer modems hooked up over telephone lines.

Argyle and Shields, 1996: 58

Introduction

Despite the extensive rhetoric of governments, business and the not for profit sector regarding 'community', 'community development' and 'community well being', there is little consensus about what 'community' really means, let alone how it might be examined and assessed. Talking about electronic communities or online communities merely adds another layer of complexity to the issue. This paper sets out to examine some of the elements which make up community and communities, and assess the potential for new electronic media to contribute to the health and well being of social groups. We draw on the concept of social capital as a way of thinking about the complex interaction of elements which contribute to the functioning of communities, and explore some implications for the communities which occupy cyberspace.

Social Capital

In her 1995 Boyer lecture, Eva Cox stated that 'social capital should be the pre-eminent and most valued form of capital as it provides the basis on which we build a truly civil society.' (Cox 1995: 17). Cox's contention was that in an age of economic rationalism, the value of a civil society and of the social strengths which underlie such a society tend to take a back seat in political discourse. Nevertheless, researchers perceive an important relationship between stores of social capital and positive outcomes for health (House *et al.* 1988; Baum 1999), education (Coleman 1988; Teachman *et al.* 1997), effective governance (Putnam *et al.* 1993), sustainable development (World Bank 1999), economic growth (Knack and Keefer 1997) and human wellbeing (Bullen and Onyx 1999; World Bank 1998).

Social researchers have recently begun investigating social capital in diverse communities both in Australia and around the world. They have often used Robert Putnam's concept of social capital as a starting point, the notion 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.' (Putnam 1995: 67). By this is meant the invisible bonds that connect people into smaller and larger social groups and allow people to work together cooperatively, for the good of the group rather than the benefit of the individual. An example of social capital in this instance may be the willingness of a parent to attend their child's school council meetings and contribute to decision making about the future running of the school. Such intangible features of social life are easy to describe, but harder to measure.

The measurement of social capital and its use as an analytical tool for assessing the effectiveness of development programs in education, health, civics and economics depends on many factors: the relationships we choose to consider (family, neighbourhood, region, nation); the heterogeneous or homogeneous nature of the

subject group; the role of informal as well as formal networks; and the nature of horizontal and vertical divisions within society. It is a useful framework for understanding community health and well being and for assessing the effectiveness of community development or community building strategies. Such communities include virtual or networked communities, as well as more traditional face to face communities.

We can make a useful distinction between two sorts of social capital: ‘bridging’ capital (or weak relationships between numerous people), and ‘bonding’ capital (or strong ties within small groups). Whereas small, tightly knit groups may function well and assist their own members with practical, emotional and financial aid, they may also be exclusive or even hostile towards perceived outsiders. On the other hand, where groups are more loosely connected and overlapping, bridging social capital may be of little value on a day to day level, but come into play when a member requires resources which are beyond his or her immediate social circle’s ability to provide (Granovetter 1973). The distinction between these two dimensions of social capital is an important one in the context of electronic communities. At first glance, online relationships would seem more likely to contribute to the relatively weak ties that constitute ‘bridging’ capital than to the strong, multifaceted, and highly personal relationships which underpin ‘bonding’ capital. But they may also contribute to bonding capital, not only in situations where families and communities are divided by distance, but also when particular media, for instance instant messaging, make a useful and economical addition to people’s existing repertoire of communications channels.

Recent analysis builds on this basic distinction and provides a broader typology of social capital (Woolcock 1998). Social capital can be located along the axes of embeddedness (bonding) and autonomy (bridging) at micro (informal) and macro (formal) levels. Figure 1 illustrates this matrix.

	Micro	Macro
Autonomy	Linkage (extra-community networks, or bridging capital)	Organisational Integrity (institutional coherence)
Embeddedness	Integration (intra-community ties, or bonding capital)	Synergy (State-society relations)

Woolcock, 1998: 168

The assumption here is that social relationships need to balance each of these elements. For example, embeddedness can be good, but not at the expense of autonomy (individuals should be supported in their local communities, but not restricted from venturing beyond the immediate group as and when required). The problem remains as to where such a balance can be found, but the value of this framework is that it enables us to see social capital as something to be optimised through a balance of relationships (Woolcock 1998: 158), rather than something to be maximised, as so many other writers have argued (for example, Putnam *et al.* 1993; Cox and Caldwell 2000). More is not necessarily better. Indeed, some of the relationships captured by these categories can be destructive of other social resources. Using this model also avoids the problem

of having to locate social capital in particular and exclusive levels, such as family or neighbourhood or society, but rather focuses on the relationships between the individual and the progressively wider social circles in which he or she is located. Most research which is carried out in the Australian context tends to focus on the micro level, looking at informal, local levels of interaction, rather than the macro level, which examines social relationships in the formal, institutional realm.

The Reach for the Clouds project

The authors have been undertaking an Australian Research Council-funded study investigating the benefits of a computer network for a diverse community whose members have not previously had much access to ICTs. The Reach for the Clouds project is an initiative of the InfoXchange, a Melbourne based not-for-profit organisation. The project offers free personal computers to the residents of a high rise, inner urban public housing estate, training in the use of the hardware and software, as well as access to a local network and the Internet. The eventual aim is to build skills and capacities on the estate to the point where the local network can be community-operated and managed.

The Atherton Gardens estate was constructed in the early 1970s as an exercise in slum clearance. More than half of the current tenants were born in Asia (64%), predominantly Vietnam. Other well established ethnic groups include Slavic, Turkish, and Chinese, while newer communities are arriving from the Middle East and East Africa. In contrast, only 14% of residents were born in Australia. Less than 40% of residents have nominated English as their preferred language of communication with the Office of Housing (McNelis and Reynolds 2001: 15). The cultural diversity of the residents reflects urban Australia's recent history of migration. The communities present on the estate can be seen as elements of other communities, now separated by time and space, but connected through culture, language and memory.

A pattern of disadvantage also characterises this community. The residents are generally on very low incomes, with 80% receiving some form of income support from the Government and only 20% having private or other income sources. Weekly incomes vary from \$150 to \$399 per week. Problems around the estate include a flourishing and visible drug trade, graffiti and vandalism of public areas and fear of personal violence.

In the light of all these factors, we think of Atherton Gardens as a 'complex community', connected by the architecture of the estate and the burden of shared problems, divided by experience, language and ethnicity, and joined by history and communications to numerous other, otherwise remote communities.

The Reach for the Clouds project aims to deliver a range of benefits for the residents: enhanced communication between the diverse groups on the estate, increased opportunities for individuals to improve their IT skills, better access to information and communication channels, and greater civic, political and economic participation. As researchers, we are attempting to trace these uses of the network to evaluate its effects on the health of the community, using the concept of social capital. We can see that some sections of the estate population are closely knit within language and sometimes gender lines: they have high levels of bonding capital. It is also clear that bridging capital

is low, with major fault lines along language divides, and limited communication between individuals belonging to different groups.

We are still in the process of gauging the resources of social capital existing on the estate, but we do have some idea of the diversity of the social resources there, as well as the deficiencies. Mapping examples of these Atherton Gardens resources onto Woolcock's matrix looks something like this:

	Micro	Macro
Autonomy	Community gardening. Sausage sizzles. JSS-organised excursions. Community art projects.	Residents' Association.
Embeddedness	Shared meals, shopping trips.	Language and ethnicity-based groups and associations

From offline communities to online communities

Assessing the health of online communities is a very different proposition from assessing community health using traditional indicators. As a tool for expediting communication and information flows between individuals and groups, ICTs perform a similar function to other kinds of human interaction, but in very different ways. It is essential for our understanding of the impacts of new technologies that there are appropriate models in place to aid in the assessment of such fuzzy concepts as 'community', 'connectivity', and 'social networks'. Analysis of the existence and functioning of interpersonal relationships both in the real world and in cyberspace is crucial, and in particular the differences which might exist between such relationships as they are traditionally understood to function and as they have evolved and continue to evolve on the screen and over the airwaves. Nonetheless 'online networks [do] reflect the essential features of real-life communities' (Denison *et al.* 2002). Using social capital to assess online community health is one way of addressing such complexity.

Why does it matter what the social effects of Internet connectivity are? In part it matters because the growth in network computing is occurring in a policy vacuum. And in part it matters because governments, companies and private consortia are putting large amounts of money into the provisions of computing hardware and software to increase public access to the Internet and World Wide Web (e.g. Federal Government's Networking the Nation project), as well as to increase the level of computing skills in non-networked applications in the wider community.

The Reach for the Clouds project is an example of a social partnership between local and state government departments, private companies and not for profit agencies, working together to increase the access of a low-income, socially-disadvantaged community to ICTs. Whilst the provision of computers, software and appropriate training can be seen as beneficial for such a community in terms of increasing skills which might lead to greater opportunities for broad economic and civic participation, there is also a strong sense that networking computers across the 800 dwellings which make up the estate will

somehow contribute to the strengthening of real world community bonds and social networks. The task of plugging households in is only the first step in the creation of online communities, leading to the larger challenges of building literacy, creativity and civic skills, assisting marginalised communities to find the content that they need online, to generate content of their own, and to seek employment in the new economy (Digital Divide Network 2001).

But how is the impact of creating or increasing online networks and communities to be measured and assessed? The social capital model used in assessment of face to face communities (e.g. Bullen and Onyx 1998, 1999, Stone and Hughes 2001, ABS 2000) can be adapted for use with an online community. Indicators such as levels of trust, reciprocity, communication strategies, participation and altruism can be examined amongst members of an online community in exactly the same way as among more traditional communities (e.g. focus groups, survey, questionnaires and interviews). The difficulty lies, not in choosing the indicators of social capital, or in measuring changes over time, but in identifying the boundaries of the communities and tracing the networks of inclusion and exclusion between people who live in close proximity to each other but who use electronic communication in complex and multi-stranded ways.

Online communities

Discussions about online communities tend to relate to two distinct entities. One is the interactive community of interest, usually taking the form of a chat system, newsgroup or bulletin board. These communities generally take the form of a multi-stranded dialogue between participants around a particular theme or interest, be that music, health, politics, television programmes or personal relationships.

Cyberspace does allow users to overcome place based limitations to communication. Stamp collectors, organic gardeners and knitting enthusiasts in Australia can exchange news, gossip and items of interest with similar enthusiasts in Mexico and Mauritius. Internet dating services lead to relationships and marriages in the real world (Wellman *et al.* 1996: 7). 'Some scholars argue that the Internet is causing people to become socially isolated and cut off from genuine social relationships, as they hunker alone over their terminals or communicate with anonymous strangers through a socially impoverished medium.... Others argue that the Internet leads to more and better social relationships by freeing people from the constraints of geography or isolation brought on by stigma, illness or schedule. According to them, the Internet allows people to join groups on the basis of common interests rather than convenience' (Kraut *et al.* 1998: 1017). A third theory suggests that 'the internet does not embody any dramatic change in behavior but instead exaggerates what we do already: for example, increasing circles of friends for the outgoing and successful among us, and decreasing the circle for the rest.' (Haythornthwaite 2001).

But is communication the same as community? And are shared online activities constitutive of community in the absence of a localised geographic dimension? Is a community of location the same as a community of interest, or as Galston says, are online communities just 'fan clubs' (Galston, 1999: 3) or social venues? The classic sociological definitions of community involve groups which have more than just a single strand of interest to bind members, but consist of a network of people linked

by a shared set of interests and concerns (Bender, 1982, cited in Galston 1999: 8). For anthropologists, the boundaries, both symbolic and real, which are constructed to define communities are highly significant.

In popular understanding, the notion of community usually translates to a geographically co-located group who utilise shared facilities (schools, hospitals, parks), who participate in the same political process (local council area) and who share an interest in local issues and amenities. Thus the community of a single suburb may share concerns around local council decisions on planning, whereas the Australian community as a whole shares concern for issues of national importance. Communities can exist at different scales and are not mutually exclusive (Bryson and Mowbray 1981: 262). The idea of the online community network embedded in place is exemplified by America's Blacksburg Electronic Village. This type of community network is not confined to a single issue or limited range of interests, but instead replicates the on-the-ground make-up of local communities, conveying information about local facilities, local issues and local events.

The problem with applying this model directly to Atherton Gardens stems from the complexity of the Atherton Gardens community: its links with other places and other societies, the way it recombines in one place fragments of many places. But in our view this complexity points to some of the potential benefits of the computer network, which will combine the capacity for long distance communication with an emphasis on local information.

The impact of online communities on offline communities

Two arguments about the effects of online communities are familiar: one positing that computers lead to social isolation and reduced psychological well-being, the other suggesting that online interaction contributes to social connectedness in the real world. Yet comparatively little empirical evidence has been produced to support either argument, suggesting as much as anything that the situation is more complex than this simple dichotomy would allow.

Online connectivity is not the same as offline connectivity. Unless a computer user is communicating with someone that he or she already knows from face to face contact, the relationship does not function in the same way as a real world relationship does. Issues of identity, trust, honesty and responsibility can be subverted in an online environment where, as one cartoon puts it: 'nobody knows you're a dog.' Anonymous or pseudonymous communication allows a sender to deny or evade responsibility for the outcomes of their actions, hence the proliferation of anti-social content in web pages, email messages, bulletin boards and the like.

Some research has demonstrated that access to computers and online communications don't lead to social connectedness and can in fact have negative consequences for social capital and community development. One study of social connectivity in internet users found that 'greater use of the Internet was associated with declines in participants' communication with family members in the household, declines in the size of their social circle, and increases in their depression and loneliness.' (Kraut *et al.* 1998: 1017). Furthermore, 'the most important finding is that greater use of the Internet was associated with subsequent declines in family communication' and 'the evidence is

strong that using the Internet caused declines in social participation and psychological well-being within this sample' (1025, 1029).

A different study was conducted in South Australia in 1995-6, when the City of Salisbury in Adelaide received a grant to study the impact of access to ICTs by 20 residents with a range of disabilities. The study was evaluating impacts on 'social participation', 'access to information', 'family relationships' and 'personal well being'. The computers were 'extensively and enthusiastically utilised', and participants reported improvements in the above fields, but an anticipated benefit of mutual support between participants failed to materialise.

In contrast, a similar project run in the same local government area at roughly the same time, providing computers and internet access to a group of home based carers found that '[t]he support group that developed was significant in enhancing social inclusion for participants. Group cohesion occurred quickly due to the common experience of caring shared by participants. This contrasted to.... [the project discussed above], a similar mini-net comprising of [sic] people with a range of disabilities in which the support group element did not fully develop.'

One explanation for these different results is that the pre-existing role of being a carer enabled the carers to quickly form bonds that the group with diverse experiences of disability (physical, sensory, intellectual and psychiatric) did not. The communication technology facilitated online and offline formation of a supportive community of interest among people who already shared a strong interest. It was less successful for the group with little in common other than a general experience of living with a disability.

The lesson here for the Atherton Gardens project may be that we cannot expect the network to 'fill in the social capital gaps' in a simple way. Instead it is likely to be used most initially as an adaptation of existing channels of communication, in the areas of the social capital matrix which are already well developed. It is too early to know, but it is likely that 'the Internet may be more useful for maintaining existing ties than for creating new ones' (Wellman *et al.* 2001: 440). To put it another way: 'unless social connections online are supported by pre-existing social and cultural networks offline, there long-term prospects are probably not that great' (Matei and Ball-Rokeach, 2001: 561). Figure 3 sets out some potential uses, using our now-familiar matrix.

	Micro	Macro
Autonomy	Atherton Gardens newsgroups, web pages, email lists. Online games.	The Atherton Gardens Network: Management, operation and organisation. Online employment and educational services.
Embeddedness	Instant messaging. Email. Family home pages.	Language and ethnicity-based newsgroups, web pages. Online community services, government information.

Conclusion

'Community' and 'social capital' are now key terms in Australian social policy as elsewhere. Each of these terms is also slippery for service providers and for funding agencies, given that it can be difficult to specify observable outcomes from investment. But from a research perspective, one of the most interesting aspects of Reach for the Clouds is its potential to test the propositions that computer networks can promote participation in local communities; that participation will build community; and that these outcomes can be monitored and described as 'social capital'. In this respect, the project marks a point of departure from much of the social capital and community-building literature, which sees electronic communications as antipathetic to the resources generated by human contact and collective experience (cf. Nie and Erbring 2000, Doheny-Farina 1996, Stoll 1995, Rheingold 1994).

It is to be expected that complex and unanticipated uses of the hardware and the network will emerge amongst this diverse and fragmented group of residents. Tracking such uses and their effects will form the basis for much of the ongoing research project and monitoring of effects both on individual users and on the resident population as a whole will be a major challenge in completing an effective evaluation of this unique community network.

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