# Community Network Analysis: understanding the contexts and content of community communications

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### Introduction

Attempts to ameliorate social inequalities through public access computing and Internet programmes, with few noticeable exceptions, often prove ineffective in making sustainable impacts on improving quality of life, promoting social inclusion or building healthy communities. Information communication technologies (ICT) alone can not provide the material conditions necessary to address the diverse and often competing social needs found in geographic communities. Indeed, in policy and funding circles there has been a lack of contextualised consideration of how ICT might be used to address social needs and wants in an empowering sort of way. Short-term project funding for public access computing parachuted into local communities (Day & Harris, 1997) combined with technologically deterministic ignorance among policy makers (Day & Schuler, 2004; Schuler & Day, 2004) and their advisors have frequently combined in recent decades to miss opportunity after opportunity for developing effective ICT strategies and policies in support of community empowerment and capacity building.

In the midst of this community technology policy/practice impasse the occasional encouraging indicator of an alternative way of understanding community information and communication needs in network societies appears. A report from the Community Development Foundation (CDF) commissioned by the Home Office for example, underlined the significance of social cohesion through inclusive initiatives (Chanan, 2004). The report proposed that understanding healthy communities depends on establishing what is 'going on' in the communities and what is needed. Flourishing communities, it argued, require good connectivity within and beyond the locality. The connectivity referred to in this instance was between people, however, supplementing this view, the Performance and Innovation Unit in Whitehall has recognised the potential of ICT in sustaining local community social capital and connectivity (Aldridge *et al.*, 2002).

With this in mind, this paper discusses the 'Community Network Analysis (CNA) and ICT: bridging and building community ties' research project. CNA aimed to: 1) evaluate social cohesion in the Portland Road and Clarendon Neighbourhood Renewal area by analysing the information flows, communication patterns and social network ties of the community infrastructure; and 2) investigate the potential of

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<sup>&</sup>lt;sup>1</sup> Funded by the Economic & Social Research Council (ESRC) – RES-328-25-0012

<sup>&</sup>lt;sup>2</sup> The Portland Road & Clarendon Neighbourhood Renewal area is located in the City of Brighton & Hove on the south-east coast of England, UK.

network technologies as tools for building and sustaining community social capital. The project's community development oriented methodology is discussed briefly before consideration is given to the project's findings. These are presented against the backcloth of a community engagement and partnership building strategy.

## **Background**

Drawing on theories of community practice in the network society (Day & Schuler, 2004; Schuler & Day, 2004), the CNA project was based on the proposition that the planning, implementation and sustainable development of effective community ICT initiatives must be grounded in the assets and needs of the community environment if they are to contribute to the building, strengthening and sustaining of community network ties, social cohesion and social capital. The project rationale considered communication technologies as innovative community development tools, media (spaces) and processes that can be utilised to support ways in which the community infrastructure<sup>3</sup> engages in and shapes the relationships and activities of local community environments.

In order to achieve this we sought the active involvement of the community in the planning and implementation of the project from the outset. Encouraging community involvement in the building an active community research partnership facilitated the grounding of the research and the research team as active and contributing stakeholders in the community ecology. Developing partnership relationships in this way provided access to insights into the social fabric of community life that would otherwise have been hidden from researchers from outside the community. However, building the relationships of trust and respect necessary between community and research team requires patience and the level of attention and time required to do this effectively and honourably should not be underestimated.

The population of the Portland Road and Clarendon Neighbourhood Renewal area is just under 11,000 (Neighbourhood Renewal Unit, 2003) of which circa 54% are women and 46% men. 56% of the local housing stock is owner-occupied. An increasing proportion of this stock is being bought by London-based commuters, forcing house prices beyond the reach of many locals – ironic in an area where the majority of accommodation was originally built for artisans and factory workers and at one stage was condemned and earmarked for redevelopment. However, the recent construction of 'social housing' and a fairly large sector of privately rented accommodation (29%) means that the socio-economic profile of Poets Corner ranges from comfortable affluence to social deprivation and poverty. West Hove is a multiethnic neighbourhood that is characterized by its social and cultural diversity. Once connections to the local social networks are made, is a vibrant and interesting neighbourhood.

Notwithstanding implementation of the Neighbourhood Renewal Action Plan, many community infrastructure groups simply do not have the resources to identify what the community really wants and needs in terms of services, activities and support for local projects and activities. Even with significant community building activities – such as reclaiming Stoneham Park and the annual summer festivals and family fun days – driven by local people and the best efforts of community

<sup>&</sup>lt;sup>3</sup> The term 'community infrastructure' is used to describe the community groups, clubs, associations, organisations that form the foundation of the community ecology. 'Community network' is also sometimes used with reference to the community infrastructure, although 'community network' is usually used in a socially broader context (Schuler, 1996).

<sup>&</sup>lt;sup>4</sup> See <a href="http://www.neighbourhood.gov.uk/page.asp?id=3">http://www.neighbourhood.gov.uk/page.asp?id=3</a> for an introduction to Neighbourhood Renewal in the UK.

development agencies, the grass-roots community and voluntary sector has witnessed a weakening of social relationships between organizations along with an apparent growth in territorial tensions. Priorities within the community are often unclear and some local residents and community groups have been critical of the work of a number of more visible local community groups – perceiving them as 'closed'. Whilst in the main, we found these perceptions to be unfounded, it is fair to say that most problems, perceived or otherwise, arise from poor communications within the community infrastructure. Shrinking resources have meant that community dialogue is often limited to core players but it is also true to say that some community organizations are inward looking and inimical to new ideas and new people.

However, there are also positive narratives and arcs emerging from this local story. The old community forum (West Hove Forum) which became moribund due to political infighting and factionalism, has been re-launched as the Portland Road and Clarendon Forum under the auspices of a community development agency—the Trust for Developing Communities and there appears to be a desire to bridge division within the community infrastructure and collaborate for the collective good. A recent needs assessment research conducted by CNA – in which local people were asked to list the 3 best and worst things about the area and how things might be improved – also pointed to an emergent sense of community and belonging.

There is a growing interest in establishing cross-community relationships and ties. Groups who hitherto have felt excluded from the community infrastructure, such as the 'Bluebird Society for the Disabled' and the 'Switched On' club, which helps teenagers with special educational needs gain IT and creative skills, together with a growing number of ethnic and cultural groups, are now expressing an interest in engaging in dialogic communications and community networking. We do not wish to overstate the situation at the moment because in some cases it is no more than an expression of interest. However, the fact that growing numbers in both the community infrastructure and the community at large understand that open and dialogic communications are central components of developing and sustaining healthy community network relationships is, in our opinion, a step in the right direction and something to be supported at policy level.

# Methodological approach

The CNA methodology, which adapts an ethnographic action research approach, (Tacchi, Slater and Hearn, 2003) was used to embrace a duality of community research and community development foci. Contributing to the organisation and activities that characterise the community ecology of West Hove, the project's community research/development methodological approach facilitated an investigation of the information and communication needs and assets of the neighbourhood renewal area, along with community nodes or social actors, the ties connecting them (or not) and the nature of the relationships that exist in these social networks, which contributed to the participatory planning, design, development and sustainability of a community network or what we term a community communication space.

#### **Mixed Methods**

A fuller account of CNA methodology and methods has been prepared elsewhere (e.g. Whitworth & de Moor, 2008). To summarise however, the CNA project adopted a mixed methods approach designed to facilitate a multi-dimensional understanding of the social complexities and diversity in the West Hove community

[This] means that instead of ultimately producing one integrated account or explanation of whatever is being researched (integrative logic), or a series of parallel accounts

(parallel logic), one imagines instead 'multi-nodal' and 'dialogic' explanations which are based on the dynamic relation of more than one way of seeing and researching.

(Mason, 2006, p.10)

The four method phases were designed to operate sequentially in the first instance. Subsequent blending of community research and community development tools and techniques led to a gradual building and interlinking of nodes of understanding within the research partnership. The distinct yet inter-related investigation and community network development phases were as follows: 1) community profiling; 2) social network analysis (SNA); 3) participatory learning workshops (PLWs); and 4) community communication space (CCS) – an open source web-based community communications platform or community network (Schuler, 1996).

The investigation started by mapping the information and communication assets, needs and wants of the community infrastructure through an extensive, multi-layered community profiling exercise. Communication practices within and beyond the community infrastructure were examined using social network analysis techniques in order to better understand the communication patterns existing in the community infrastructure; facilitate critical reflection of communication behaviour; and encourage dialogue about the effectiveness of extant community communication strategies. The research also explored ways in which community infrastructure communications contribute to community building and social cohesion processes. Community learning and participatory design techniques were employed in the development of a prototype CCS designed to address the communication needs identified by the community.

#### Results

The following section presents a number of key findings through a synthesis of data collected through the four phases of the methodology outlined above. A participatory approach to data analysis stimulated dialogue among research partners at regular, usually weekly, meetings. The critical and reflective discussions informed the planning of subsequent research actions up to and beyond the ESRC funded phase of the project.

# The CNA community profile

A multi-faceted and multi-levelled approach to community profiling, drawing on a range of research tools and techniques, was adopted. These included: 1) exploiting existing information sources<sup>5</sup>; 2) mapping; 3) in-depth interviews; 4) reflective and scenario workshops; 5) story-telling interviews; 6) observation; 7) transect walks; and 8) social network surveys. Data analysis using as qualitative research software package was rejected because the time and resources necessary to train community partners in what was already a tight project timetable could not be justified. Manual thematic analysis identified 39 'themes' to represent the research focus and priorities of the project, which included:

- Community
- Neighbourhood
- Community communications and information
- Networks and relationships
- Technology

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<sup>&</sup>lt;sup>5</sup> Through secondary analysis of census data and other local government statistics.

- Participation, involvement and volunteering
- Activities and resources
- Multi-culturalism
- Friendship and family
- Funding

It is not the purpose of this paper to provide a detailed consideration of the findings and contribution of each tool or technique to the production of the community profile these are considered elsewhere (Day, Farenden & Goss, 2006, 2007; Day & Farenden, 2008). The results were however, presented as a set of PowerPoint maps at a community workshop in West Hove. Residents were asked to reflect collectively on the presentation and provide critical feedback. This feedback enabled us to amend and augment the profile and the results were used to create a community database of community resources and businesses, which was subsequently utilised by a community development agency to relaunch a moribund community forum. The profile data will also be used as the basis for a layer of online resources maps, which will eventually be used for digital story-telling activities on the CCS.

## Social network analysis (SNA)

The motivation behind using SNA in a community technology research project was to introduce our community partners to the concept of social networks and the significance of networks and communications to community development activities (Gilchrist, 2004 & 2006) through an analysis of network ties and the nature of community relationships. The first survey focussed on communication patterns within the summer festival organising committee. The second collected data on network relationships and communication exchanges within the community infrastructure. This survey was supported by semi-structured interviews collecting qualitative attribute and ideational data types.

Network density in the organising committee was fairly evenly distributed because most members were connected with each other. At first glance it appeared that centrality – corresponding power distribution across the network – was also relatively equal. In theory, where network centrality and density are similar, the removal of individual nodes in a network has little impact on the effectiveness of network communications. However, in this committee, network effectiveness depends upon actions resulting from external, as well as internal, network communication and centrality measurement was problematic. We observed that festival planning – internal network communication, had equitable centrality but when planning became action oriented, the introduction of external links, that is to say when communication and action depended on non-members of the committee, a less even distribution of network power was witnessed with one or two key activists taking on roles of central significance in order to get things done. Network ties between the festival committee and the community infrastructure were much less cohesive and robust than within the committee structure. Whilst committee communications were inclusive, open, regular and stimulated trust, external communications all too often depended on 'star' members (Milgram, 1967) acting as community communication hubs.

Star intermediaries can influence communities positively, however where community leadership roles and activities are assumed by a few individuals, dependency on 'stars' can also have unintended negative influences. For example, during the 2006 festival planning, two such committee 'stars' were forced to drop out of activity for some time. Their removal from the network resulted in network atrophy. Responsibility for communications was assumed by well intentioned volunteers but was conducted by letter, despite the normal custom and practice of face to face communications. When potential helpers/contributors did not reply no follow-ups were attempted and contact was lost, resulting in increased tension across the network. These tensions were the source of much anguish within the network

and tested the strength of ties built up over years of collaborative interaction as some members resigned. However, the return of the network 'stars' led to a restoration of personal communication links and the festival went ahead, albeit in a somewhat reduced format.

In this instance, the negative effects of 'star' centrality were exacerbated by the absence of 'weak' network ties (Granovetter, 1973) in the community infrastructure network – an underlying problem within the community network as a whole. The festival committee, run mainly by PCCS, was in danger of becoming a fragmented clique, unable to activate support and sustain the communications needed across the community to effectively organise and plan the summer festival without superhuman efforts by the network 'stars'. Granovetter argues that the more 'local bridges' or weak network ties in a community the more cohesive and more capable of acting together it will be (1973). The committee, informed by the CNA project and supported by the community development worker, has since reviewed its communication processes and is working hard to re-establish many of the lost links within the community utilising a wide range of media forms, including embracing modern network technologies. As a result, last year's organising committee was more vibrant with a growing network of volunteers. All the indicators are that, weather permitting, 2008's festival will be a success.

As with the festival committee, the community infrastructure survey found evidence of bonding social capital among clusters of active community groups. Some 83 groups make up the community infrastructure which is organised into four main clusters – Talkshop/PCCS; Vallance Community Centre; YMCA and Hove Methodist Church – and five smaller clusters – St. Peter's; St Barnabas; Holy Cross; Stoneham Road Baptist churches and the Salvation Army. These clusters, or affiliation networks, tend to be organised around parent organisations, e.g. the YMCA, community centres and places of worship and affiliation is based on organisational support mechanisms, and/or the availability of physical space to support activities.

Network density was strongest in community centres and residents groups who connect across the infrastructure and network 'stars' (see above) were usually employed by the parent organisation of affiliation networks, PCCS, Vallance and YMCA. However, some activists act as 'stars' through their enthusiasm and drive – engaging and encouraging locals to engage with projects and other community activities.

Some small not-for-profit groups establish weak network ties with similar not-for-profit groups forming cohesive sub-groups within the network. Small, specifically targeted groups have fewer ties in the wider community, Clarendon & Ellen Residents Association, for example, has few connections in the neighbourhood; dealing mainly with the council on behalf of residents. Among the most isolated groups are small not-for-profits and faith organisations that do not engage beyond their target audiences – communicating less often and using fewer media to communicate than other network groupings.

Information sharing was identified as the most frequent network transaction, especially among community centres and religious organisations (although the flow of information tends to be towards the religious groups rather than from them). Other reasons identified included: joint working, friendly contact, volunteers, funding, practicalities and strategy development.

Selection of media for the sharing of information and other communicative interactions tends to be context dependent. Face to face meetings are chosen when detailed and/or sensitive content is to be exchanged, whereas e-mails are used for sending documents or making meeting arrangements. However, some network members read email infrequently and often require a follow-up phone call.

Multiple media use is common (averaging four media-types across the network) but religious organisations tend to use less e-mail and mobile telephone/texting. Groups and organisations engaging in less networking activities tend to use fewer types of media, such as Bluebird Society for the Disabled and St Barnabas Church use two types of media for communicating with others; Clarendon & Ellen RA uses three, and are the most isolated groups in the network. At the other end of the scale, organisations with high network density, e.g. Hove YMCA and Vallance use five different media and PCRS uses six. An exception is Marmion Road Resident's Association (MRRA) using six different media. They have strong internal network ties, use communications very effectively internally but have low network density because they are a clique.

Media selection decisions are complex and varied. Key group actors, especially network 'stars', often take responsibility for network communications or delegate tasks to others. Historically, communication media types have not been considered strategically and practice is often shaped by what worked last time and what is practicable. However, this is beginning to change as interest in digital communications grows among some groups. For example, despite the focus on traditional communication media, 79% of the summer festival organizing committee expressed an interest in learning how to use a range of digital media and 87% of these said they would be willing to share their knowledge within the community – providing an illustration of the nature of and scope for network relationships within the community infrastructure. Multiple communication links, mutual trust and a desire to collaborate and contribute to the network facilitated bonding social capital in the network and enabled effective festival planning.

We found that strong network ties usually exist within internal group membership and clusters of collaborating groups. Strong ties provide a sense of solidarity and collective identity which contributes to the development of bonding social capital but which can also lead to fragmentary and clique-based structures, as was evidenced in the festival committee for a short period, some faith-based organisations and MRRA. Weak network ties, on the other hand, promote social cohesion through information and resource sharing and knowledge exchange which can contribute in the longer term to friendship building and trust development, mutual understanding and tolerance. Building and sustaining weak network ties are a significant component in the development of bridging social capital in the community.

A recent report from ESRC argued that community social capital consists of bridging and bonding links (Anderson & Cravens, 2006). Building on this report, we identify the significance of linking social capital as a third component of active community networking. All groups in our survey possessed external network ties, i.e. ties extending beyond the geographic boundaries of the community. Affiliation networks possessed most – linking to council departments, local councillors, the neighbourhood renewal team, community development agencies and local voluntary and community sector strategy groups. Faith-based organisations connect to external faith nodes. Not-for-profit groups connect to the voluntary and community sector, volunteer bureau, local councillors or council officers, depending on project engagement. External links are of great significance to the structure, organisation and operations of community networks, facilitating access to resources and support – financial, advisory and knowledge-based or spiritual. It is clear that building healthy communities is as dependant on linking ties, as it is to the levels of bonding and bridging ties.

# Participatory learning workshops (PLWs)

In addition to generating and sharing knowledge of the relationships that connect the people, organisations and networks of the local neighbourhood a hallmark of the CNA research partnership has been a commitment to community engagement, dialogue and partnership. As elements of the situated

environment (Lave & Wenger, 1991) in which community learning occurs, the main purpose of PLWs was to facilitate and provide evidence of how community networking and creative knowledge exchange can stimulate and promote community learning, in a community technology context, and how this learning can support community development.

A number of introductory brain-storming workshops were organised to explore and identify the communication interests and needs of community participants – among the most popular initially were digital photography, digital video and, among youth, podcasting using mobile (cell) phones and iPods. Workshops were designed to stimulate critical reflection of the social appropriation of technologies being used and encourage community networking. To achieve this we: 1) employed more participatory and interactive techniques than the didactic approach of traditional public-access ICT training, 2) worked at a pace set by the community themselves, 3) worked with technologies and applications that the community wanted to learn, and 4) wherever possible, used content generated by workshop participants as learning materials.

Initially workshops were run at the Talkshop<sup>6</sup> ICT suite. Initially, most participants knew one another, but as time progressed and more people attended, this changed and very often participants were interacting with one another for the first time. Community participants, many with no prior knowledge or experience, learned how to upload content they themselves had created previously (community [user] generated content) and actively learned how to develop community group pages — creating online spaces representing and reflecting the activities and contexts of the community ecology. To achieve this we: 1) employed more participatory and interactive techniques than traditional ICT training, 2) worked at a pace set by the community themselves, 3) worked with technologies and applications that the community wanted to learn, and 4) wherever possible, used content generated by workshop participants as community learning materials. As the workshops progressed and technical skills and knowledge developed participants were encouraged to reflect collectively on how their learning might be applied to support the activities of community groups and community networking beyond the confines of the workshops.

The location and timing of the early PLWs proved difficult for some people/groups. Rather than risk excluding willing participants, we complemented the provision of the early static workshops by developing mobile equivalents. Wifi enabled laptops and portable technologies enabled us to support community learning activities at locations and events suitable to the group's activities and/or resources. For example, we worked with a range of community groups to develop their skills and capacities to record and archive summer festival activities and other community events, such as local history walks, holistic health days, tai chi, poetry, art and music. Digital video, photography and podcasting continued to prove popular activities and plans to work with interested parties to create digital community story maps for the CCS<sup>7</sup> are underway.

As community technology learning strategies developed so did our approach to PLWs. Although not originally part of the CNA remit, scenario PLWs were developed whilst working with community eforums in and around Cape Town and were subsequently adopted in West Hove. Scenario-based PLWs promote problem solving through coalitional network thinking. The Cape Town workshop required participants to work in groups to identify the social networks that they identified with in their

<sup>&</sup>lt;sup>6</sup> The Talkshop is a self-managed community centre located in Stoneham Park.

<sup>&</sup>lt;sup>7</sup> The digital story mapping activities are planned to start in April 2008 and will form part of a community-based (service) learning module run by the authors for information and media undergraduate students at the University of Brighton.

communities. The groups then listed and prioritised the communications media they use within their different networks, reflecting critically on their selections. A community communication problem scenario was then presented to participants who, still in their groups, collaborated to find a solution. These were then presented in plenary session where further critical and reflective discussions occurred. Scenario PLWs have also been used in other problem solving contexts, e.g. setting-up and sustaining community newsletters, and in a community health research project on obesity and ICT (Guy, 2007).

Whatever their format, PLW schedules should always provide time and space for activity, reflection and knowledge sharing among participants. By adapting a constructivist approach to learning with technologies (Jonassen, Peck & Wilson, 1999), PLW knowledge acquisition is:

- Constructed by the learner
- Emergent resulting from activity, and
- Shaped by the contextual environment in which the learning takes place.

In this way PLWs facilitate community networking and relationship development. By enabling community groups to identify and collaborate around common goals, often for the first time, knowledge acquisition is grounded in the context of social relationships within the PLWs. As workshops matured we noticed that social relationships were being shaped by the acquisition and sharing of knowledge. The critical and reflective communications of the PLWs, initially occurring around the community technology activities and intended to contribute to the planning, design, implementation and development of the CCS prototype, started to evolve becoming more personal and socially interactive in nature. We observed that not only do ICT provide tools and space for supporting community networking and community development activities but they can also be understood as a process of community learning that assists in building and reinforcing social network ties, relationships and trust. In so doing, we assert that when used as inclusive tools and spaces for community development and networking, ICT becomes a process or processes that stimulate community learning and contribute to building social capital.

# Community communications space (CCS) – a prototype

The project team adopted what the UK Community Development Foundation (CDF) call an 'involvement ready' approach (Chanan, Garratt & West, 2000) to identify potential partners to engage with the prototype CCS. Preliminary interviews with key stakeholders in the community infrastructure identified an initial group of interested volunteers. Snowball sampling techniques enabled us to expand the list of partners capable and interested in participating grew. Networking in the community infrastructure in this way – communicating with and getting to know people suggested by previous contacts – enabled us to develop a broader understanding of the structure and organization of the community ecology. It also assisted us in building the all important relationships of trust and mutual respect.

Neighbourhood communities are diverse and often contested spaces in which the relationships of individuals, families, groups, organisations and networks; their norms, values and belief systems; together with the ties and exchange transactions that characterise the nature of the connectivity between the community network nodes, creates what can at times be extremely complex and dynamic ecologies. If ICT are to support the diversity of social realities that exist in community networks they must provide spaces for community voices to be heard and needs to be met. Enabling people to tell their stories and interact in ways that are meaningful to them, and in environments in which they are comfortable is an important part of the valorisation of diversity underpinning effective community networking. In the CCS prototype we attempted to provide ICT based support for community networking activities by creating both public and private spaces for the West Hove community.

The prototype supported video and audio podcasting, digital story-telling, digital art, poetry and music. Local communication forums have been established to support community development/building processes currently underway and it is anticipated that these forums will spread as community members learn to use them. The CCS, now released as a live site<sup>8</sup> (albeit a skeletal one) provides spaces for local web pages, notice boards, visitor pages and a growing range of social networking applications are under consideration and will be added as demand requires.

#### Conclusion

Since our first day in West Hove, we sought to develop a community research partnership grounded in mutuality and reciprocity. Mutuality because the research aimed to benefit all participants, and reciprocity because the project was founded on principles of trust, openness, accessibility, honesty and knowledge exchange between partners.

Our experiences suggests that the CNA methodology has great potential as a means of empowering local neighbourhoods, supporting community development and informing local policy as well as supporting community technology research partnerships. One of the most interesting challenges of the project was to facilitate an understanding of how ICT might contribute to real world community contexts, e.g. bridging traditional and modern community communications. In order to understand the social significance of community communications and investigate the potential opportunities afforded by digital technologies, it is necessary to understand the processes of community communication and the media appropriated.

As participants in the project reflected dialogically on opportunities afforded by community media, social capital in the community was strengthened. However, community technology development is a slow and uneven process. Communities select the communication technologies they feel comfortable with and this sense of comfort is shaped by the socio-cultural and technological environments in which they exist. For example, among a group of elderly people at Hove YMCA, we found evidence of hostility toward ICT, which were perceived as having detrimental effects on society – "the root of all evil" as one OAP put it. Although we had been invited to attend the OAP activity, most of those present had no interest in ICT because they could not understand its relevance to their lives. At another community meeting – the Memories Group – attended by seniors from the same community, the potential of ICT to support their activities was acknowledged, if at times somewhat suspiciously. It was not uncommon to hear the question "why would you want to do this [digital story-telling] with us?" but now a programme of digital story-mapping is being planned.

By blending methodological and community development techniques the research has remained rigorous but accessible, relevant and useful to the project's community partners, which was and remains a fundamental aim of our research. The mixed-methods approach of community profiling, social network analysis, community learning and participatory design provided us with networked perspectives of the community ecology. By encouraging dialogue, critical reflection and participative action in ways that facilitates empowerment and community development the CCS can evolve in a way capable of meeting the communication needs of a socially diverse multi-cultural community such as West Hove.

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<sup>&</sup>lt;sup>8</sup> http://westhovecommunities.net

Stimulating the interests of community partners and providing hooks that hold their interest is paramount to successful community technology development. Many participants in the early days of the project were unresponsive to the idea of developing an online space for community communications. They wanted to know how to use their digital cameras, camcorders and mobile phones and were happy to be creative and innovative in that use – generating content that codified their lives in their community. It wasn't until they reflected on what they'd learnt and how it might be applied to community activities that interest in the potential of a community communication space strengthened.

However, it is important to acknowledge that limited resources often mean that information and communication strategies are a luxury many communities and groups cannot afford. Despite the interest in utilising ICT in support of community activity, organisation and networking, few groups can sustain the resources required to do so. Acquiring the level of technical knowledge, and resources, required to run and support a community server, populate the CCS with community generated content and ensure that content reflects the social and cultural diversity and needs of community life is a desirable but problematic community goal at this moment of time. It is to the goals of community diffusion, sustainability and development that we now turn.

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