

# **Empowerment for the West: Community Information, Knowledge Management & Technologies for community service providers in Melbourne's Western region: A Prospective Report.<sup>1</sup>**

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## **Abstract**

This paper reports upon the background to an action research project to take place in mid-2004 with a network of government-funded community-based organisations in the Western Region of Melbourne, Australia. The region is an area of high social-economic need, and at the same time, contains a major growth corridor. Many small to medium sized-agencies do not have the resources to develop the people-centred information systems to realise the potential of technological infrastructure, despite considerable investment by centralised government agencies in electronic hardware. This lack of support compounds the social disadvantage for many in the population.

It is expected that project outcomes will be reported on after the conclusion of the project in September 2004.

There are two key purposes to the research project:

1) to engage community-based organisations, through participatory action research techniques, to develop information and knowledge management plans for an electronic community network to strengthen bridging and bonding links between welfare

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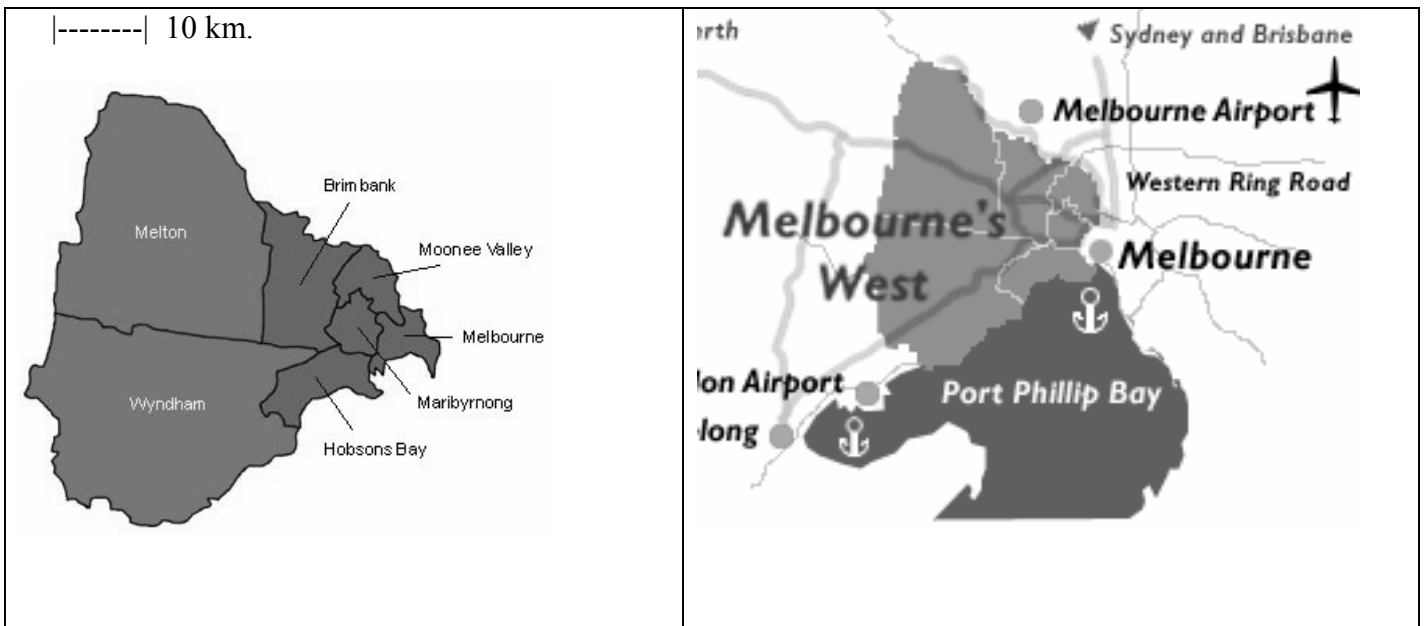
<sup>1</sup> Funding for the project has been provided through a Monash Faculty of Information Technology Small Research Grant in December 2003, with additional support from Network West, Inc. The named principal researcher for the grant is Kerry Tanner, with Dr Graeme Johanson as Mentor. Professor Stoecker is part of the Monash research team. Stillman was responsible for the Introduction, and sections on Structuration Theory & Technology with Stoecker preparing the sections on Gender & Technology and Participatory Action Research.

organisations and their client populations in community support, welfare and social development activity.

2) to integrate four theoretical and analytical frameworks: structuration theory, theories concerning the social construction of technology, feminist community development theory, and theories of participatory action research, in order to provide a new context for understanding how ICTs can be used with community-based organisations. It is also hoped that the research will broadly inform the study of electronic community networking within the domain of studies of new technology.

## Introduction

### Melbourne's Western Region



[sources: <http://www.melbwest.com.au/investwest/region/location.html> - better map to be provided]

Community West, Inc., Brimbank, as a significant community-based organisation in the region, partnered with Monash University in order to conduct action research about the knowledge and information culture of community-based organisations in the Western Region of Melbourne. The reason for this is to set in place more effective uses of community information through online technologies.

The project is the outcome of many years of discussion between Community West's director, Mark Samuel-King and Larry Stillman about the difficulties which many small community organisations appeared to have in making effective use of ICTs, despite the

numerous technology plans developed by funding agencies in government. Both Samuel-King and Stillman had worked in a variety of community-based organisations since the early 1990s and had observed the frequent difficulties of change management involving new technologies. A number of proposals to pilot ways of working with community and non-profit workers had been written with this issue in mind, but none, until this time, had been submitted for funding. An unfunded attempt to revive a state-wide community information support network had failed in 2000<sup>2</sup>. In addition, Randy Stoecker had developed a relationship with Samuel-King and Stillman through a number of visits to Australia, most recently in 2002 (Stoecker 2004, Chapter 4) to present at conferences about the potential for collaborative university –community partnerships for ICT development. Stoecker had also become familiar with the Neighbourhood House movement during visits.

The Western Region of Melbourne is the largest region supported by the State of Victoria Department of Human Services, and covers a substantial geographic area of Melbourne, including 7 local government areas with a regional population of 650,000. The region covers 1,330 km<sup>2</sup> or 513<sup>2</sup> miles, approximately 1/3 of the geographic area of greater metropolitan Melbourne. London in the UK is 1,600km<sup>2</sup>.

The Western Region is at the high end of every statistical index of social disadvantage (eg unemployment, failure to complete school, poverty), and despite some revitalisation and pockets of middle-class affluence in the growth corridor, can be characterised as part declining rust belt, and part rural, including market gardens and on the fringe, cattle and sheep grazing. The city of Brimbank is the area with the highest number of new immigrants in the State (particularly from Africa), and Melton, on the metropolitan outskirts is the fastest growing city in the state. The region is also drier and hotter than the rest of Melbourne, and its flatness and lack of green vegetation are in contrast to the more verdant parts of the metropolitan area (Department of Human Services (Victoria) 2002).

In the Western Region, anecdotal evidence drawn from discussions with service agency staff, and a preliminary review of reports at the Association of Neighbourhood Houses and Community Learning Centres (ANHLC)<sup>3</sup>, leads to the following suggestions about current ICT challenges and gaps:

- Lack of an enacted and meaningful vision for how better use of ICTs will affect sustainable community development, despite policy statements which claim this.
- Lack of a shared information culture concerning principles of information seeking, organisation, classification and management (for example, in the creation of service directories in either printed or online formats).

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<sup>2</sup> See <http://www.webstylus.net/vcin/> for the documentation

<sup>3</sup> The Melbourne 'Age' reported in February 2004 very similar needs in community welfare organisations in New South Wales. 'The typical small business [including community business] in Australia has a few workers with modest IT knowledge and a handful of computers. It also has a mountain of needs and little time or money with which to resolve them.'

<http://www.theage.com.au/articles/2004/02/02/1075570349283.html>

The difference in our project is that infrastructure support is available, but the human needs remain.

- Lack of incorporation of insights about the particular culture of community development organisations such as Neighbourhood Houses and the gendering of community work, particularly part-time work. For example, of the 32 Neighbourhood Houses in the region, only one has a male coordinator in the region.
- Lack of a common technical skills base for problem solving or future planning

These anecdotal findings are supported by the broader research literature. This literature has attested that, for well over a decade-now, small to medium-sized community agencies struggle to develop the people-centred systems which realise the potential of networked technological infrastructure (Stoecker 1993; Stoecker 1996b; Benton Foundation 2001; Pitkin 2001). Particular research prepared for the Neighbourhood Houses in the mid-90s also confirm these findings, and also highlighted the issue of gendered work (Dillon 1995).

Without knowledge and support, the tendency is to import systems and taxonomies of information and knowledge management which are foreign to the culture of human services delivery. Furthermore, the gendered nature of the workplace, compounded by the part-time nature of work for many people, is not taken account of in the development of new information structures (Lie 1997; Henfridsson 2000; Humphries and Camilleri 2002). The long-term sustainability of community networks thus depends upon a better understanding of what technology means to people in particular, particularly feminised work situations.

An approach which seeks to actively incorporate the grounded knowledge of key community development workers in the region will be able to address many of these needs. This approach is based upon the long-standing involvement of both the director of Community West and the CCNR staff member engaged in the project in community information advocacy and development.

## **Goals & Outcomes of the Project**

The objectives of the project have been delineated in submissions made to a number of community-oriented funding bodies:

- To bring together neighbourhood house workers to create effective information networks between themselves through personal and electronic means.
- To develop the capacity of the neighbourhood house workers to use the existing electronic resources as well as a proposed new 'portal' to be developed and maintained by Community West for their use.
- To facilitate a process whereby the neighbourhood house workers identify social and organisational practices/resources needed to support the development of these new networks and the portal.

- To identify key workers who will act as champions and mentors to their peers and thus encourage capacity building for information and knowledge management that is community-organisation based and owned.
- To create and disseminate a practice model integrating ICTs that can be adapted across the social and community services sector.

The proposed outcomes of the project are:

- Creation of a regional human services agency portal whose content will be designed through a participatory process involving agencies and clients, but which will likely include: an online best practices database; an online volunteers skills bank; an online knowledge base; a tool box library for professional communities of practice, and tools for more effective ICT-based inter-agency communication.
- Establishment of a planning template for social service agencies to integrate Information and Communications Technologies (ICT) into their work, including the development of knowledge and skills by workers and their agencies.
- Development of an ICT culture within social service agencies that emphasizes a critical and strategic appreciation of the possibilities of ICTs for improving service delivery and building community.
- Construction and evaluation of a pilot model for use in other projects with government, such as small business development, education, community health care, and others.

## **The Political Economy of Community Information in Victoria**

In the 1970s and 1980s, both conservative and whig governments in the State of Victoria supported community and social development networks through actively subsidizing specialist community information agencies. The close relationship between state and civil society organisations (with a mix of paid and volunteer staff), is characteristic of the practice of welfare support in Australia. In fact, few community welfare organisations exist independent of state funding, and this has resulted in a tension in the relationship between agencies of civil society and bureaucracies concerned with accountability and risk management (Lyons 2001; Lyons 2003).

‘Community Information’, known as ‘information for everyday living’, was a concept developed and promoted by a number of welfare organisations in the pre-internet era (Victorian Community Information Network 1991). It was a people-centred community development activity which sought to improve the life of clients through information empowerment. It was also a resource intensive business that depended on the work of voluntary organisations or non-profits (with a plurality of women workers) along with the support of local government. There was a tradition of ‘accuracy, currency, and comprehensiveness’ for service directories used by both agencies and clients. On a broader scale, a holistic approach to the information continuum responsibilities of government was reflected in reports such as that developed by the Victorian Department of Finance (Clancy, Terrill et al. 1990).

However, aggressive restructuring, amalgamations, and downsizing of local government by the state government in the mid-1990s resulted in the discarding of personnel and information resources, and led to a huge knowledge loss. The traditional community information networks, linked to a particular form of women's work have disappeared. In addition, aggressive cost-cutting by government has meant that community development activity has been circumscribed to meet prescriptive government programs, and knowledge of community development principles within government is increasingly rare or circumscribed by a strongly managerialist culture (Considine 2003). Hierarchical, decontextualized, and inequitable service planning relationships predominate despite the potential of technology for much more equitable forms of service planning that are more sensitive to local contexts. While there has not been reported research in this area, subsequent anecdotal evidence suggests that many community agencies now struggle with managing community information responsibilities.

Where do Neighbourhood Houses sit in this environment? There are over 300 Neighbourhood Houses throughout Victoria, and these are funded by a variety of government agencies as grass-roots community development agencies, particularly in deprived areas. Substantial funds are invested in getting them on line. Politicians and policy-makers see them as a vehicle for influencing social and community capital through the use of technology. This is made explicit by optimistic government programmatic and ideological statements by, for example, by the Victorian Community Services Minister in 2001:

Places like Neighbourhood Houses are the glue that helps hold communities together. The funds to get them online, upgraded and get staff internet-trained will help give access to the information age to people who otherwise might not have access. They also provide another resource for Neighbourhood Houses to keep in contact with each other, work together and knit stronger networks. Community building happens bit by bit, brick by brick, and helping Neighbourhood Houses be part of the construction is vital. The bottom line is stronger communities. We know strong communities mean fewer social problems and less isolation, crime and homelessness.'

(<http://www.dhs.vic.gov.au/humanservicesnews/apr01/wnn.htm>, April 2001)

In the Western Region today, the subject of this project, there are 32 Neighbourhood Houses organised into a service network, including a part-time regional coordinator worker, based at Community West (formerly Brimbank Community Centre). As already noted, almost all the workers are women. A portal, called Network West has been built for the network, though according to Community West staff, its potential as an interactive information hub has not been realised (<http://www.networkwest.net/>). The aim of Network West has been to:

‘Strengthen our communities by building networks between neighbourhood houses and community centres, communities, business, and government in the west’ (<http://www.networkwest.net/networkprofile.htm>)

How then, are we to examine the aspirations held by both government and community?

## **The Contribution of Structuration Theory to the Study of Information and Communication Technologies**

“The starting-point for theoretical thinking and empirical work in the social sciences should ...be understood as the analysis of *recurrent* social practices”  
(Giddens 1989: 252)

From a research perspective, the use of structuration theory to explain the particular cultures found in community-based organisations and their networks could provide increased insight into the potential of technologies for social transformation.

Structuration theory offers insights into the process by which organisations and structures (such as community networks) emerge and exist. Structuration theory is of particular interest since Anthony Giddens, the key writer on structuration, has had an ongoing interest in the effects of information technology in contemporary society.

What are the existing relationships, information flows, and deployed resources of Network West? What challenges do those contextual conditions pose for integrating ICTs into the work of network members? What strategies are needed to meet those challenges?

The following is a brief outline of the essence of structuration theory and how it can be used to answer these questions.

- Recurrent social practices

Structuration theory is a theory about how social and power relations are constituted in society (and organisations which exist in it) through human action. Of particular interest to students of organisation is an explanation of how organisational or group cultures are created and reproduced across time and space, particularly those which use electronic communications.

Axiomatic to structuration theory is the principle that the ‘structures’ of everyday life are nothing more than ideas about order which we reproduce in everyday practice. These ideas can be regarded as structural principles, which over time become the recognisable properties or characteristics of social systems such as community networks. That these principles and structures are nothing more than mental assumptions about how to do things is clear from the experience that anyone has in entering into a new job or group activity (such as an information or community network): the way things were done (e.g.

meeting etiquette, or particular ways of presenting and organising information) in one job may be embarrassingly different in another situation. The formal rules (such as a job description or manual) may tell you little about what really goes on between people.

Because these informal rules or scripts are reproduced by people in their actions, structural properties are thus both the medium and the outcome of the process of structuration. As Giddens puts it, 'actors draw upon the modalities of structuration in the reproduction of systems of interaction, by the same token reconstituting their structural properties' (Giddens 1984: 28-290). When we think of the effect of the use of technology on people's 'rules', the study of the interaction between people's conscious 'rules' and the technology they use becomes even more intriguing.

- Modalities of Structuration

Giddens identifies three key 'modalities' which are useful as a more detailed framework for examining the qualities of relationships set up in the reproduction of structural principles in everyday life.

Dimensions or modalities of structuration include:

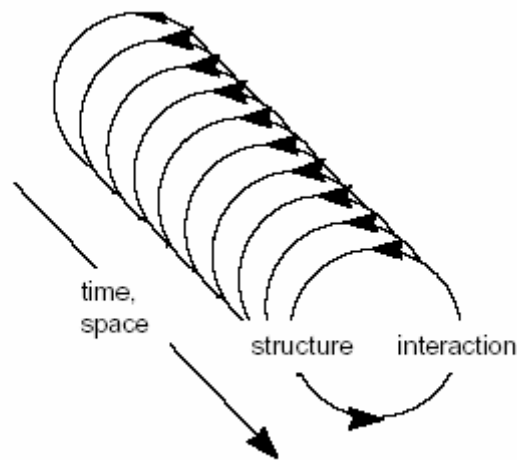
- *patterns of communication* (signification),
- *use of power* (the capacity to act and use resources), *and*
- *norms of behaviour and conduct* (means of legitimation)

Identification of the dynamics of these dimensions in the Western Region community network will provide considerable information about what makes the network 'tick'. It is suggested that these modalities, which can be opportunities and constraints to members of the network include:

- Patterns of communication as developed by workers as they relate to the use of new technologies (for example, changes in the genres of communication, from paper based, to computerised client records). Previous studies of human services such as social work indicate the significance of gendered, intuitive, and reflective patterns of communication interacting with what are conceived as depersonalised technical-rational systems embedded in technological systems (Lie 1997).
- New relationships of power and knowledge resulting from the adoption of specialist systems of information management and communication (Foucault and Gordon 1980). These relationships can be empowering or disempowering. Some workers embrace the new electronic systems as liberating, others do not – why?
- The rules and norms of behaviour that are develop to mediate the relationship between members of the community network. For example, what informal codes of behaviour emerge to govern behaviour in new forms of electronic communication? How are these rules determined?

- Time and Space

Another key element in the theory of structuration is the influence of time and space on actors – the how and why patterns of order (or disorder) are transmitted geographically, and adapted. The disconnection or disembedding of traditional considerations of time and space (such as face-to-face presence and interactions) are hallmarks of the modern organization. Work roles are lifted out of local context into a new bracketing of time and space (Giddens 1991; Giddens 1992). In a large geographic area such as the Western Region of Victoria, the realities of geography and time, which are putatively made irrelevant by networked information, is worthy of exploration. Is it possible to completely ignore geography or time when emails can replace face-to-face communication or a phone call? Or what is the relationship between the two?



[(Rose and Scheepers 2001)]

The above figure illustrates the dynamic nature of structuration through time and space. At an individual level, we all process ideas and information and reproduce behaviours in particular settings on a daily basis. At a group level, the same applies, with many interactions between actors. No organisation runs as a frozen constant, and coupled with dimensions of time and space, there is an inherent dynamic towards change. A community network can be considered as one of these 'circles', changing as human actors interact with technology, creating new understandings, patterns of behaviour, and genres of communication.

- Resources

In structuration theory, the reference to resources is not to the materiality of an object, or capacity to organise in a particular way, but rather, to the *capabilities or capacities of agents to command either allocative or authoritative resources* (Giddens 1979: 100 ). Allocative resources refer to the material goods used in everyday life (and obviously

include computing equipment. Authoritative resources on the other hand, refer to the capacity to organise life and work (for example, scheduling, or free time).

More specifically, material resources themselves have no structural bearing *unless* they are instantiated in structured relationships. This idea can be confusing at first since it appears obvious that, for example, a particular technological artefact or system has a tangible material existence (the PC, the wires, the electronic network). However, if the PC is unused, or in the extreme case, remains unopened in its box, or the software remains shrink-wrapped in its box on the office floor), or the grant money remains in the bank, then, in a structural sense, these are not resources within a structural relationship. The technological artefact does not contribute towards the maintenance of structure. This is a critical point: if technology-as-artifact is overvalued, then the allocative power which people have, for example to be creative, can be quite undervalued and ignored. For example, in one attempt to create a community network in a local government area in the mid-1990s in Melbourne, the location of the project within the IT department of a local government authority meant that it was virtually impossible to communicate the importance of engaging in community development when the idea of technology was wholly understood as a managed technological information system.

- Technology as a socially-constructed resource

The preceding insight helps us to establish a more contextualised understanding of the place of technology in community networking, where there has been a tendency to put ICTs at the centre of events and regard it as a ‘black box’ with an input-output character. Giddens himself tends to have this more simple view of technology, though at the same time, he pointedly indicates that new technologies such as email are critical resources in the rise of the distributed organization. Furthermore, he argues that ‘if the modern era is the era par excellence of organisations, it is by the same token an era of maximising of information, employed in that bracketing of time and space upon which time - space distanciation depends’. Giddens emphasises the development of information storage capacity that enables the collation, analysis and retrieval of information and the use of such storage capacity a technology for both positive and negative of workers.

As a consequence, following the insights of Orlikowski in particular, we understand technology in a more nuanced, reconfigurable, and frequently personalised way as an ‘artifact-in-use’, reflecting the insights of other concepts such as actor network theory and feminist ‘techno-science’ theory into conceptualising the place of technology in gendered organisational and networking environments (Orlikowski 1992; Latour 1994; Orlikowski 1999; Haraway 2000; Orlikowski 2000; Orlikowski 2002)

However, despite the impact on scholarship of Orlikowski’s or Haraway’s research (Bryant and Jary 2001), these insights have not been taken up in the study of community technology environments, despite knowledge that human services do interact differently with technology than for-profit businesses (Henfridsson 2000). The current project is an

opportunity to engage in some preliminary discussion about the usefulness of structuration and related theories to the analysis and practice of community networking.<sup>4</sup>

*Adapting one of Giddens' axioms, our proposition is that the practice of community technology in community networks is the medium and outcome of the values which people bring into being using the artifact of ICTs (boxes, wires, and bytes), and the multidimensional interactions which result from that use.*

The exciting thing about the new networked ICTs is that there appear to be an extraordinary number of possibilities in a much more open environment for the transformative use of technology because of its increasing cheapness, malleability and potential for simplicity). Transformative interaction between the 'bytes' and people results in an outcome that is continually reinvented through new activity. Issues of power, communication, values, gender, time and space are important dimensions which affect this interaction. How people in a community network understand the place of technology in their community vision is potentially quite different to that of for profits: characterised as technology as a tool for helping people in contrast to technology as a means to make money.

## **The Gendering of Technology of Human Services Work and Technology**

One of the most important contextual factors to take into account in understanding the structuration of human services work, and the potential for ICT to enhance that work, is its gendered nature. This is particularly true of community-based human services entities such as neighbourhood houses, which focus on serving local regions (Ife 2002).

The gendered nature of this work begins with the historical separation of private and public spheres in western society. As capitalist industrialization separated work from home, it also separated men from women. The geographical separation supported a social separation, with men focusing on politics and economics outside the home, and restricting women to management of the home itself (Zaretsky 1986). The creation of the private sphere, or home, as a "haven in a heartless world" also emphasized the hoped-for contrast with the back-stabbing, ruthless character of the public sphere (Lasch 1977).

As women grew restless with the restrictions imposed on this separation of spheres, however, they more and more often traversed the boundaries between them. But the separate spheres themselves did not disappear. Rather, they are mediated by various liminal spaces. Liminal spaces are cross-over points, either cultural or physical, where two social structures or two cultures cross over into each other (Turner 1974; Zukin 1991; Dear 2000). In liminal spaces, multiple structures or cultures coexist, intersect, or transform each other (Lie 2002). While it is well known that in the world of small-business the cross over between home, pub, and 'the office' exists for many men in the emergence of 'proximate' spaces (Down and Taylor 2003), this is much more the case for

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<sup>4</sup> In depth case study and interview research is being conducted by Stillman for PhD research.

women's work. Community, whether geographical (a neighbourhood) or cultural (an identity community), is a liminal space where the structures of private and public spheres, and cultural beliefs that maintain the separation of spheres, come together. The strong gendered nature of Neighbourhood Houses, at the intersection of private and public spheres has now been recently researched in some detail and confirms these suppositions (Permezel 2001).

On the one hand, community often occurs as an extension of the private sphere—creating a space where social reproduction activities such as child care, elder care, tool and task bartering, are shared beyond the boundaries of nuclear families. On the other hand, community is often an extension of the public sphere. Formal neighbourhood associations, local school parent associations, neighbourhood-based political action groups, and community development organizations are all extensions of community relationships that interface directly with the public sphere. In contrast to the personal relationships more characteristic of private sphere extensions of community, the public sphere extensions of community are more likely to involve bureaucratic relationships (Stall and Stoecker forthcoming: 2005).

Liminal spaces can also be places of contradiction and conflict, as incompatible social structures, cultures, and practices intersect in real time. We can particularly see that in the field of community-based human services. It is important to note that women are much more effective at occupying the liminal space of community than men, which is part and parcel at their ability to be effective in both the private and public spheres. Men, in contrast, have not taken on full responsibilities for the private sphere in anything but the smallest of percentages.

In addition, the historical role of community-based human services work has been to compensate for resource gaps in the private sphere. Like production, reproduction—the tasks of caring for people so they can continue to reproduce their labour power on a daily basis (Laslett and Brenner 1989) -- is socially organized and resource dependent. Lack of resources for decent food, clothing, and shelter hinders people's ability to care for themselves and for those who cannot work. Human services workers have historically attempted to fill those resource gaps, sometimes substituting coaching in how to get resources for the resources themselves. This has meant providing direct help in the private sphere activities of families. Consequently, it is no wonder that the predominant workers on the front lines of community-based human services work have been women, and the low-paid invisible nature of such work is consistent with the no-pay invisible nature of such work within the private sphere itself (McHugh 1999; Permezel 2001).

But the field of human services has been changing, as rationalisation has forced a public sphere culture into these private sphere support activities. The rationalisation and bureaucratization of human services work, along with the reduction in resources to provide direct support to families (Lyons 2001), have gradually transformed human services work from an extension of private sphere activities to be increasingly an extension of public sphere activities.

Enter information and communication technologies, which are also gendered. We know that women have only recently begun catching up with men in their use of ICTs, and that they still lag behind in their involvement with computer programming and maintenance, particularly in the human services area, a profession traditionally dominated by women. We know that ICTs “masculine” data management abilities have been developed to a much greater extent than their “feminine” communication abilities. But like the neighbourhood, virtual spaces created by technology also have liminal qualities—both bringing strangers together to form bonds of personal friendship and separating people from each other in real space as they stare into computer monitors. Complex personal problems are redefined as problems of computerised case management (Lie 1997; Henfridsson 2000; Humphries and Camilleri 2002; Margolis and Fisher 2002).

Technology can both contribute to the distancing of human services work from the private sphere as it is used to “track clients” and manage dehumanizing databases, and can contribute to reconnecting human services work to the private sphere as it is used to enhance communication and information flows that support development of the private sphere. If rationalisation and bureaucratization of human services has begun to separate its historical connection to the private sphere and subjugate it to a wholly public sphere activity, then the introduction of technology will likely only hasten the disconnection of community-based human services work from the community. But can we integrate ICT into human services work in a way that rehumanizes the overall practice while also meeting the demands for the rationalisation of the practice? If so, how do we develop ICT plans to do that?

For the answers to these questions, we must turn to the process of participatory action research.

## **Participatory Action Research**

If both community and technology exhibit liminal qualities—community in the sense that it is a space where the public and private spheres cross over one another and technology in the sense that is a space where tendencies toward isolation and connectedness cross over one another—then creating an ICT implementation that negotiates such liminality is tricky indeed.

In addition, if the goal is to use ICT in a way that supports relationship building and provides private sphere support, then the research informing such a plan cannot be conducted using traditional scientific models. Traditional scientific models of research are designed specifically to prevent the formation of personal connections between the researcher and the researched (Finn 1994), which parallels rationalised human services models that prevent personal connections between service providers and (Lie 1997; Henfridsson 2000).

The goal of this project is to assist human services providers in better using technology which serves the needs of the community. The most effective way to determine the needs of the community, and the forms of ICT than can best help meet those needs, is through a

research process that emphasizes the involvement of the people being researched in the research itself. Such a research process goes by various names: participatory research, participatory action research, action research, community-based research, community-based participatory research, popular education, and others. Regardless of the label, however, the premise of the research process is that the involvement of the research subjects in making decisions about the research will produce better results. In general, a participatory research process has three basic characteristics:

- ◆ it is a *collaborative* enterprise between researchers (professors and/or students) and community members.
- ◆ it *validates multiple sources of knowledge* and promotes the use of multiple methods of discovery and of dissemination of the knowledge produced.
- ◆ it has as its goal *social action and social change* for the purpose of enhancing social justice ((Strand, Marullo et al. 2003).

The collaboration between researchers and community members is important. Community members have experiential expertise. They understand their situation with a depth that no outside researcher can. Researchers, on the other hand, bring comparative cases and theories that can allow people to develop new ways of thinking about their situation. Likewise, involving those who are the object of research in determining the methods of data collection and data presentation will produce information in a form usable by those charged with program implementation and produce greater commitment to using it. Finally, this form of research is fundamentally applied in orientation, designed not to simply study change, but to guide it (Stoecker forthcoming). This perspective is also familiar from Giddens' structuration theory where the practice of sociology as engaging in a 'double hermeneutic', the fact that the process of interpretation and intervention in the real world by researchers in their in their analysis in turn changes the understandings of 'lay actors' and vice versa (Giddens 1984).

The specific model we are using integrates participatory research with participatory planning and community organizing in this project through the following processes:

1. Involvement of human service providers in framing the research question. This will occur through the formation of a project steering committee with interested members of the Neighbourhood Houses as well as email and personal communications with the workers prior to a 2-day in-depth workshop.
2. Involvement of human service providers in shaping the research methods being used to determine the most effective forms of ICT to be used in community-based services. Consultations have already occurred with the Neighbourhood House network coordinator and Community West manager, and further advice will be received through the steering committee.
3. Involvement of human service providers in collecting data about their information and ICT needs and challenges. Key support for this is being provided by Community West at this time and through the life of the project.
4. Involvement of human service providers in analyzing the data and putting it to use. Both the steering committee and especially the in-depth workshop will be

critical in developing meaningful understanding of service data about developing a more effective use of ICTs. The researchers will act as a human toolbox for the development of a future action plan by the Neighbourhood Houses and Community West.

Involvement of the human service providers is an intermediate step toward involvement of the communities in which they work. Such a form of participatory research is called “working from the middle,” since it begins with the involvement of those who are knowledgeable of the community but not necessarily members of it. But those individuals, in this case service providers, are often the first point of contact for researchers, and as the project progresses they are also the translators between the researchers and community members that can bring community members into greater and greater participation in the research and decision-making around the project itself.

## **Conclusions**

This research aims to develop a new perspective on the development of community networks through the incorporation of four bodies of theory into theory development and field work.

These include:

- Structuration theory, which offers a framework for understanding how recurrent practices of knowledge and action are transmitted in formal and informal communities with particular cultures across time and space.
- Theories of technology, which understand technology as a socially constructed or embedded relationship between actors and machine artefacts.
- Gender perspectives on the nature of women’s work and its reification in the community development and human services field.
- Participatory action research, which values and incorporates the views and skills of what are collaborators, rather than subjects of research projects in partnerships with research institutions.

These perspectives will inform the researchers in their participatory research with an network of Neighbourhood House coordinators. The workers, as research participants in the process, will be critical to the development of new understandings and perspectives about how ICTs are currently used in their region, and how ICTs can be better used for information and knowledge generation for social action and social change. Their outcomes will include new action plans and potentially, a new community-in-practice with a capacity to share insights about how technology can be used for community development.

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