

SOCIAL COHESION AND COMMUNITY:  
TECHNOLOGY'S AFFECTS ON INTERACTION

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By

Olga T. Heifets, B. A.

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## **Chapter One: Introduction**

The human experience is inherently a cooperative one. People rely on each other in essential ways; be those of more complex economic, social or political processes, like material exchange, agricultural subsistence, or the most basic biological urges for propagation of the species and the safety of the tribe. Bound to engage the world through a body, people must reside within a specific geographic space where daily living happens. To this end, people establish communities within which they live, work and socially engage with others. While the forms and progression of these groupings differ across geographic lines, some systematic iterations of interpersonal community engagement can be mapped on to the human experience wherever people are found.

Technology shapes cooperation within the communities where it is implemented. As technologies grow increasingly complex, so too are the effects that these technologies have on the interactions of the people who use them.

Transportation and communication technologies, like the train, airplane, car or telephone, have freed notions of community from its place within a space as interaction costs, both financial and social, have decreased with their use. The capabilities of existing human systems differ greatly before and after the adoption new technologies as the people affected shifted their normal behaviors to accommodate the changes that came with the technology.

The shifts technology brings are particularly highlighted with the more recent manifestations of computer-mediated communication (CMC) technologies permitted by the widespread adoption of the Internet. Like the telephone, those applications of the Internet that connect people to each other (email, instant messaging and online chat communities are some well known examples) give people the opportunity to extend their personal social sphere beyond their geographic locale. In doing so, people are no longer bound to place for their most intimate interpersonal interactions. People can find their most immediately beloved community is just as likely to be half a world away as it is right outside of their front door. In an increasingly interconnected world, it is common to find people participating in an online discussion daily while rarely associating with their real world, offline, next-door neighbors. This begs the question; *does the greater integration of communication technologies into a geographic community affect the social cohesion of the residents that live there?*

In my belief, the introduction of communication technologies should benefit feelings of interconnectedness, that is, the social cohesion, of a geographic community overall. People default in their interactions to those individuals who reify their particular perception of the world. As people find that they can more readily identify others with shared cultural, religious, political, and too, other less weighty interests, regardless of their physical location, their heightened feelings of personal connectedness (as situated within a world context) translate into a greater sense of satisfaction in space and too, increased feelings of personal empowerment within their

local place. I propose that these feelings of connectedness will serve as the impetus to affect change, and thus participate, in an individual's immediate offline world.

This thesis intends to explore the relationship between communication technologies and social cohesion by exploring several components. To begin, I define my terms and discuss how factors like notions of community, feelings of trust, willingness to participate in social exchange, and contribution of social capital are connected in a group's social cohesion, referring to literature on each. Then linking social cohesion to communication technology, I present a case study where communication technologies were built into the infrastructure of an offline community. Using a number of measures, I explore the interactions and experiences of those who inhabit this community before and after the introduction of these technologies. I show how individual residents' predilection towards the common good affects the ways they utilize the technologies and in turn affect the social cohesion in this community as reflected in the quality of engagement with each other, as well as their value of the community whole.

In greater terms, the increasing degree of Internet use and saturation creates an environment where for some; highly wired, broadband-enabled communities will soon be the norm. The community-boosting features of the New Urbanist communities of late where the layout of the physical spaces is intended to, for example, increase interaction between neighbors while decreasing vehicular traffic, reiterates how the design of a space is essential to the experiences that occur within it. This topic is of

relevance then because if technology can serve to benefit the net good in the world (so to speak), consideration should be given to how communication technologies can best be integrated in order to enable and enhance increased interconnectedness among residents, thus boosting the social cohesion of those who reside there.

## **Chapter Two: Definitions and Literature**

Does the greater integration of communication technologies into a geographic community affect the social cohesion of the residents who live there? In order to understand the field of inquiry, terms must be defined: the biggest pieces of this particular puzzle are social cohesion, made up of community, trust, and exchange, and communication technologies, more specifically those enabled by the Internet.

### *Community*

What is a community? Notions of “community” vary greatly across the disciplines, each with their own demarcations, be those cultural, ethnic, ideological, economic, patriotic, religious, interest-oriented, and so forth. A problematic term, in that each discipline has its own definition of the word. In 1955, George Hillery, Jr. set out to define “community” through a systematic, comprehensive review. He found ninety-four distinct definitions, which he classified by content and put through both qualitative and quantitative analyses. He found them to be widely divergent, even when boiled down to sixteen main categories; each still had at least two authors presenting conflicting definitions in every case. He found that the only common theme that they shared was that they all dealt with people; beyond that he found no agreement. In the end however, he was able to ascertain two minimum requisites found throughout: (a) persons in social interaction within a geographic area with (b) one or more additional common tie.

Ferdinand Tonnies is often referred to as the founding father of community theory. His book *Gemeinschaft and Gesellschaft* (1887) presented two contrasting ideas that have shaped community discourse ever since. As Bell and Newby (1972) described, he defined *gemeinschaft* (translated as community) as

“...intimate, enduring, and based on a clear understanding of where each person stands in society. A man’s ‘worth’ is estimated according to *who* he is not *what* he has done...Members of a community are relatively immobile in a physical and social way...In addition, the culture of the community is relatively homogeneous, for it must be so if roles are not to conflict or human relations to lose their intimacy...For Tonnies, there are three central aspects of *Gemeinschaft*: blood, place (land), and mind, with their sociological consequences of kinship, neighborhood, and friendship.” (p. 23-24).

They noted too that a behavioral consequence of *gemeinschaft* ties is then the personalizing of issues, events and explanations for the people involved in it; however they note that while *gemeinschaft* for Tonnies originally referred to local community, it went beyond it as well, to include religion, work, family, and culture, referring to all social bonds the individuals were involved in. The other side, *gesellschaft* (translated as society or association) is described by Bell and Newby (1972) as the antithesis of *gemeinschaft*. It refers to the large scale, impersonal, and contractual ties that encompass a singularity about them, with all activities involved in it restricted to a definite end with specific means of attaining them.

Interestingly, Brown and Cropper (2001) differentiate between “community” and “neighborliness”: Neighborliness includes such activities as knowing one’s neighbors, borrowing from neighbors, visiting, speaking and socializing with neighbors, watching a neighbor’s home, and expressing a willingness to improve the neighborhood. “Community” includes feeling of membership, perceived ability to influence the nature of the neighborhood, shared emotional connections and the fulfillment of needs.

Roland Warren (1978) defined community as “that combination of social unites and systems that perform the major social functions having locality relevance” (p. 9). The five major functions that have such “locality relevance” identified are: (1) production-distribution-consumption; (2) socialization; (3) social control; (4) social participation; (5) mutual support. He noted that, at the time of his writing, a shift in thinking about the parameters of community, from institution-based to function-based was occurring. The 1980 census indicated a population shift away from large urban cities to smaller, more intimate towns. When metropolitan area growth was noted in the same census, this growth centered around the revitalized traditionally ethnic neighborhood of the inner cities where people could find small, personal communities (Rivera & Erlich, 1981).

The idea of “communities of interest” takes Warren’s shift to function-based communities another step, centering the idea of community around identity rather than geography. These communities include occupational or professional, affiliation, and

racial or ethnic communities (some examples of studies include Riesman, 1955; Simmel, 1950; Zablocki, 1971). Etienne Wenger understood “communities of practice” to be the fundamental ground for where learning takes place. Engagement, imagination, and alignment, Wenger (1998) argued, each create “relations of belonging”. She saw the sense of belonging resulting from any of these three criteria as a marker of membership in a particular community of practice, where the members’ shared learning and knowledge delineates the boundaries of the community.

Clearly, since the advent and increasing pervasiveness of the Internet, notions of community have markedly changed. In the 1993 introduction to his book, Howard Rheingold described the then-unfamiliar experience of a “virtual community”:

Since the summer of 1985 for an average of two hours a day, seven days a week, I’ve been plugging my personal computer into my telephone and making contact with the WELL (Whole Earth ‘Lectronic Link) – a computer conferencing system that enables people around the world to carry on public conversations and exchange private electronic mail (email). The idea of a community accessible only via my computer screen sounded cold to me at first, but I learned quickly that people can feel passionately about email and computer conferences...I care about these people I met through my computer, and I care deeply about the future of the medium that enables us to assemble. Millions of people on every continent also participate in the computer-mediated

social groups known as virtual communities, and this population is growing fast.

Rheingold (2000), in his description of what qualified the WELL, known as the seminal online community, as a “community”, cites social network capital, knowledge capital, and communion. In this virtual community of the WELL, people began to experience the same feelings of community online that they had previously only experienced in their offline worlds. “The personalities stood out and the experience of participating mind-to-mind with people became compelling, fascinating, inspiring...this was the kind of thing that might happen in a small town.” (p. 56-57) describes Katie Hafner (2001), in her biography of the community.

By the mid-1990s, the romanticized idea of an online world where individuals could come together to connect replaced the factual existence of viable spaces online where they could organically do so. “By 1996 the idea of The WELL was in some ways more potent than the actuality of The WELL. Internet startups seeking to create a community like The WELL (that is, to create a place that would motivate people to keep coming back to their site)...” failed to succeed in creating comparable spaces where people felt those organic notions of connectedness rising up in the exchanges that took place online (Hafner, p154). Eventually, after the extensive commercialization of virtual, or online, communities, the WELL too became a casualty of overselling, and much of the original feelings of community were lost for many of the members. Online communities however do continue to persist. And people are

using the Internet to facilitate offline interactions as well, whether by using its pervasive nature to organizing events or connect with distant friends or interest groups (Scott, 2003; Hampton & Wellman, 2001).

Of interest here are communities defined by specific geographic boundaries. Because an individual's daily activities must take place within a very concrete sphere – the house they come home to, the office where they work, the store where they purchase groceries, the schools that children attend – those people encountered become a part of the individual's functional geographic community. “New urbanism”, “neotraditional neighborhoods”, or “traditional urban design”, tries to create livable spaces where the community has accessible and useful public spaces, safe and inviting streets (typically narrow, with front porches to facilitate low crime rates, see Jacobs, 1961, and interaction among neighbors), and links to public transportation. Coming into prominence in 1981, the movement's vision of a community is one that is: (1) diverse, both demographically and with mixed residential, business and retail developments; (2) walk-able, with walking paths, streets on a grid pattern, no cul-de-sacs, and the idea that shops should be within a five-minute walk of a residents' home; (3) not automobile-centric, with garages hidden in back alleys and parallel, rather than lot, parking; (4) not gated; (5) clearly defined, with clear edges and a distinct center (Sander, 2001).

It is interesting to consider if design trends in new offline, real-world neighborhoods can meld the best of both the real and the virtual worlds. For instance,

if they blended the connective tools used to facilitate interaction and community in online communities with the brick-and-mortar building techniques (like those of the New Urbanism movement) to facilitate feelings of community among the individuals who reside there.

### *Trust and Community*

What makes a community work? What characteristics create feelings of *gemeinschaft* rather than *gesellschaft* (Bell and Newby, 1972)? What increases resident's feelings of both neighborliness and community (Brown and Cropper, 2001)? Events in the recent past have highlighted the difficulty of sustaining trust. The sexual abuse scandals in the Roman Catholic Church depleted the trust many carried for their church hierarchy. Enron accounting problems decreased trust in the workings of the economy, corporate accounting, and retirement security. A marked decrease in the levels of trust the citizenry hold for the government has been well documented, after such events as Watergate, Vietnam, Monica Lewinsky, and the 2000 elections. Globally, the tension between the Israelis and the Palestinians is another manifestation of where neither side trusts the other enough to move closer to a resolution. Trust has been identified as essential for international negotiation, where it takes enough trust in the other for each side to move one small step forward to build towards a resolution (all in Scott, 2002).

So what is trust? Roderick Kramer (from Scott, 2002) describes trust as the expectation that the faith one places in someone or some institution will be honored;

“It demands vulnerability and grows through small risks. And it accumulates when those risks are reciprocated”. Eric Uslaner (2000) explains that trust is cyclical, but must begin with a level of trust that then allows the individual to act. The results of this act either builds upon that trust or depress it. When trust is betrayed, a person can become sensitive and self-protective, as well as risk-averse, says John Holmes, affecting of course the ways that he interacts with those people who make up his world. In its most extreme cases, betrayed trust can turn to suspicion, and distrust.

Barry Hewlett argues that trust, as well as the lack of trust, is developed in babies, and affects the ways we interact as adults (Bower, 2000). Hewlett conducted research among the Aka and Ngandu people of central Africa, two foraging groups whose child rearing practices differ greatly. His findings resulted led him to theorizes that the Aka’s high levels of trust towards others and towards the natural world are directly affected by the way their children are nurtured from birth, citing psychology’s attachment theory.

According to attachment theory, an idea developed by British psychiatrist John Bowlby more than thirty years ago, parents who react to their child promptly, and are concerned and attentive to the infants’ needs, nurture a secure and trusting model of self and others. In contrast, unpredictable or insensitive reactions to the child’s needs feed a growing sense of insecurity and raised feelings of anxiety, aggression and distrust (Bowlby, 1969). Thus, the emotional experiences with parents and others who provide them care as infants set the “internal working model”, which provides a mental

bridge from infant care to cultural modes of interaction for the child. So for the Akas, Hewlett (in Bower, 2000) postulates that intensive infant care results in grown adults whose relationship styles have been shaped to regard their environment and their neighbors as inherently generous and trustworthy. He sees this model as an integrated approach, taking into account experience, emotions, cognition, and biology, to understanding what transmits culture.

Not all anthropologists agree however with Hewlett's internal working model theory of human attachment and trust. Polly Wiessner (cited in Bower, 2000) argues that groups who live in areas where the environment is not as readily abundant in food and resources operate instead under a sort of social insurance policy model. In this case, members of the group are expected to give in times of plenty and return the favor in times of need to those they owe. "The amount of jealousy and bitching about who owes what to whom in many hunter-gatherer camps is astounding," says Wiessner. She and many others disagree that greater amounts of infant care breed more trust, saying instead that the "quality of child care and unusual experiences during childhood, such as traumatic weaning, may shape working models, if they exist" (cited in Bower, 2000, p. 9). Whether it is the amount of childcare, or the quality of it, trust is a basic human trait that is learned in the communities we inhabit, and it determines much of how we interact with our world.

In his book, The Origins of Virtue, Matt Ridley talks about trust and the desire for mutual aid as instinctual among humans: "The conspicuously virtuous things we all

praise – cooperation, altruism, generosity, sympathy, kindness, selflessness – are all unambiguously concerned with the welfare of others... It is a bias shared by the whole species” (1996, p. 38). Putnam (2000) describes social trust as being strongly linked to honesty, civic engagement and social capital, where people who trust others more readily participate in civic activities and are themselves trustworthier. When people in a community trust others in that community, the transaction costs of their interactions are decreased. Trusting communities have measurable economic advantage and enhanced life expectancy over communities where people are more reticent in their exchanges (Putnam, 2000). Ridley explains this as natural: “If a creature puts the greater good ahead of its individual interest, it is because its fate is inextricably tied to that of the group; it shares the group’s fate” (1996, p. 38). Durkheim (1950; see also Willis, 1982) echoed these sentiments in his discussion of the powers of coercion that membership in a collective group can have on an individuals’ behaviors, thoughts and feelings. The division of labor then is the benefit of living in a community, as members of that community specialize and the entirety of the components creates a whole that can more effectively operate within the world.

#### *Social Exchange and Community*

The complexity of the dynamics between people lies in the nuances of the relationships, as Ridley states, “Social contracts between equals, generalized reciprocity between individuals and between groups – these are at the heart of the most vital of all human achievements: the creation of society” (1996, p251). And so,

regardless of their personal relationship to contributing, by the very nature of being a part of a group whole, individuals must, in a sense, exchange favors in order to benefit from their inclusion in the social network that is their community. Depending on their own level of investment in the community, the individual will act accordingly, as long as the benefit they receive outweighs the cost of their contribution in their own mind.

An individual's "communal orientation" is a psychological measure of her willingness to contribute for the benefit of others. An individual's communal and exchange orientations make up her relationship orientation, that is, how she approaches relationships with others in her lives, and what she comes to expect of those relationships. When a person focuses on the needs and desires of another, his communal orientation, as defined by Margaret Clark and Carolyn Taraban, moves him to provide benefits in response to the other's needs, and results in his good feelings when helping the other (1991). With a base of trust individuals are more willing to engage in reciprocal behaviors, not expecting immediate benefit for themselves, but with faith that they will eventually benefit from their actions. People then, develop these reciprocal behaviors with friends, family, co-workers, and fellow members of a known group otherwise, because these are familiar individuals. In the same way that individuals trust those who are immediately familiar, an affiliation with a familiar group, like their workplace, their neighborhood, or their church, will provide some base for a lesser degree of trust, but trust none-the-less (Sander, 2002).

Affected by their history with the group and their own individual personality, people's willingness to contribute to the overall goodwill of a community is highly dependent on a variety of factors including trust and the value they place on the social network of the community. Trust affects people's willingness to help others. It is reflected in their desire to participate in activities that benefit the group. As Cicero said "There is no duty more indispensable than that of returning a kindness. All men distrust one forgetful of a benefit." Therefore, group members' trust in one another is essential to the formation of a successful community. The social network established within the community is essential to strengthening norms of trust and reciprocity, as Sander (2002) suggests. It does this by making it easier for a community to learn who is and is not trustworthy. Each positive exchange inspires and establishes a pattern for future cooperation among the community's membership, because the cost of being untrustworthy is a community-wide loss in reputation.

Group members each bring external social networks into the communities they are a part of. This establishes the community within a greater context, and leverages the relationships that these networks bring to better the life of the residents within the community. Social networks, trust, and reciprocity enhance a community's wellbeing, Sander (2002) explains in several ways. These include: (1) facilitating the mobilization of others, (2) improving the flow of information, (3) negating the need for an outside entity to reinforce pro-social cooperative behavior, and (4) freeing members from engaging in unproductive defensive behaviors because they are operating on

some basic level of knowing what and who they are involved with. In the same way, each individual that is part of the community whole has a communal orientation (Clark & Taraban, 1991) particular to them that dictates, among other things, the degree to which they are willing to contribute to the benefit of the group reflected in their willingness to offer their own resources for the benefit the group without expecting something in return. The resources that members of a community contribute as a result of the social networks in which she is a member are referred to as social capital.

Social capital, as described by Putnam, is the “social networks and the associated norms of reciprocity,” comes in two forms: bridging and bonding. Bonding social capital refers to those networks that reinforce mutual traits and common identities within an already existing group, making this network increasingly concrete and specific. Bridging social capital on the other hand extends out into the ether and is the web of connections that bonds diverse groupings to each other. Putnam describes bonding social capital as “undergirding specific reciprocity and mobilizing solidarity”, whereas “bridging networks, by contrast, are better for linkage to external assets and for information diffusion...Bonding social capital constitutes a kind of sociological superglue, whereas bridging social capital provides a sociological WD-40” (Putnam, 2000, p.21-23).

Barry Wellman blends research on relationships that occur within the realm of online communities, and that of more traditional sociological work grounded in the offline world of neighborhoods. He considers the totality of relationships that create

community ties and not just those behaviors that are bound to one communication medium or locale. Wellman believes that three measures go into assessing the vitality of a community: network capital, participatory capital, and community commitment. Network capital refers to the relations with others that provide among other things, a sense of belonging (bonding social capital for Putnam, 2000), and participatory capital, involvement by an individual in their society (or in Putnam's sense, those activities that an individual engages in in order to add to their bridging social capital; see Putnam, 2000). Wellman's third measure, community commitment, is the motivation to mobilize what social capital a person has; in his words, "social capital consists of more than going through the motions of interpersonal interaction and organizational involvement. When people have a strong attitude toward community – have a motivated, responsibly sense of belonging – they will mobilize their social capital more willingly and effectively" (Wellman, Quan Haase, et. al, 2001, p.437).

### *Social Capital and Community*

The first noted use of the term "social capital" came when a then-supervisor of the state of West Virginia's rural schools wrote, in 1916, about the importance of community involvement in successful schools. Intending to influence the businessmen and economists of that era (Putnam, 2000), Lyda Judson Hanifan invoked the notion of capital when referring to the importance of social networks as assets, explaining:

In the use of the phrase 'social capital' no reference here is made to the usual acceptance of the term 'capital', except in a figurative sense. We do not

refer to real estate or to personal property or to cash, but rather to that in life which tends to make those tangible substances count for most in the daily lives of people; namely good will, fellowship, sympathy, and social intercourse among the individuals and families who make up a social unit (p. 130).

Continuing, he went on to describe the importance of social capital to a community, and how it can be leveraged to benefit the group, saying:

Now we may easily pass from the business corporation over to the social corporation, the community, and find many points of singularity. The individual is helpless socially, if left by himself. Even the association of the members of one's own family fails to satisfy that desire which every normal individual has of being with his fellows, of being a part of a larger group than the family. If he comes into contact with his neighbors, there will be an accumulation of social capital, which may immediately satisfy his social needs and which may bear a social potentiality sufficient for the substantial improvement of life in the whole community. The community as a whole will benefit by the cooperation of all its parts, which the individual will find in his associations the advantages of the help, the sympathy, and the fellowship of his neighbors. First, then, there must be an accumulation of community social capital...When the people of a given community have become acquainted with one another and have formed a habit of coming together occasionally for entertainment, social intercourse, and personal enjoyment, then by skillful

leadership this social capital may easily be directed towards the general improvement of the community well-being (1916, p. 130).

Social capital has been invoked by a wide variety of social scientists, including Francis Fukuyama, who argued that economies do better when citizens have high levels of social trust (1980), Jane Jacobs who emphasized the importance of being a good neighbor in the modern city (1961), and Pierre Bourdieu who discussed the resources embedded in the social relationships communities brought their members (1983; for more on the development of the social capital idea, see Woolcock, 1998). Regardless of who did the writing, descriptions of social capital always include an invocation of the notion that lives are enhanced and made better, richer, and more productive by social ties that come through a breadth of networks.

Robert Putnam's notion of social capital (2000) includes the social networks, norms, and trust that facilitate coordination for mutual benefit. Putnam attributes the erosion of American society to individuals becoming increasingly disconnected from one another. Less interpersonal communication between people has come about because of increasing time spent alone, whether because of longer commutes, or more time spent watching television, or surfing the Internet. This increasing disconnectedness has led to lowered levels of social trust and increased social detachment among the population. He notes that this civic disengagement can be seen with the sharp decreases in membership in formal organizations like the Elks club, the PTA and in less formal organizations like bowling leagues, as well as a decline in

participation in formal political parties and community organizations. He argues that the increasing disconnectedness, and thus, social capital, of the citizenry is a danger to a healthy society (2000).

Others argue that Putnam overstates the importance of membership in formal organizations, or that political involvement is essential to a society. Unlike Putnam, Harwood and Lay (2001) separate social from political capital, arguing that a decrease in political participation is not necessarily indicative of a decrease in socially beneficial contacts, and vice versa. Political capital reflects attitudes of trust directed specifically towards government, interest in politics, and political efficacy, also important but not one and the same. The authors state that political capital is affected by an individual's attachment to a community (similar to Wellman's "community commitment", see Wellman, 2001), whereas social capital is something affected by the bridges built through face-to-face social interaction with others.

They cite the increasing shifts to participation in small groups, from all encompassing, socially controlling communities to individualized, fragmented personal communities (Wuthnow, 1994; Wellman 1999; Wellman 2001), to suggest that Americans are exchanging their membership in dated varieties of social engagement and interaction for less formal, increasingly intimate forums. Harwood and Lay (2001) suggest that social capital is limited to feelings and attitudes, rather than actions and involvement. Feelings and attitudes can serve as the impetus for action, but they are not in themselves indicators of social capital. Social capital does not reflect communal

coordination of action to affect change in a community, but rather a measure of the connectedness of that community.

In particular, “thick trust”, that is, trust embedded in personal relations that are strong, frequent, and nested in wider networks. While Putnam describes “thin trust” as more useful for social capital, in that it extends the radius of trust beyond just those known personally, he notes that its effectiveness in “transmitting and sustaining reputations declines, and its power to undergird norms of honesty, generalized reciprocity...is enfeebled (Putnam, 2000, p.136).” However, it should be noted that not all forms of social capital are interchangeable – both fleeting weak ties of social interactions and deep personal relationships are forms of social capital. However the weak tie relationship proves to be worse for finding work or emotional support (Sander, 2002). The interactions that most feed into a sense of trust and add to the group’s net social capital are those that occur between neighbors and more distant members of their community group as weak-ties. And, while strong ties between family and close friends boosts levels of trust in general, an individual with few weak ties and many strong ties does not have much social capital to contribute (Granovetter, 1973).

### *Social Cohesion Defined*

The quality of engagement among members of the community; the residents’ feelings of satisfaction with their place of residence, their investment and involvement

in the community whole, feelings of accountability to the group, and their levels of trust in their neighbors; all feed into their feelings of trust for members of the group. Nisbet (1953) discussed how the aspects that contribute to community included the social bonds of emotional cohesion, continuity, and fullness. These can be enhanced further with greater levels of trust leading to an increased willingness to share among members of community. Members of the community are willing to contribute social capital to the group in order to fortify the community as a whole because they value their own membership in that community. Thus, the willingness to share social capital within a community is a measure of how dense the networks of social exchange are within that community. They have a desire to participate, an initiative and motivation to act, investing time and effort into an offline community's infrastructure. Bonds among group members are reinforced in their common goals enhancing the density of the group.

A community's social cohesion then is reflected in the synthesis of the following ideas gleaned its component parts: (1) community, (2) trust, (3) exchange, and (4) social capital:

1. Ferdinand Tonnies idea of *gemeinschaft*, (rather than the impersonal, more distant sensations embodied in *gesellschaft*) with its three central characteristics of blood, place, and mind; the sociological consequences of which include kinship, neighborhood, and friendship.

2. Brown and Cropper's (2001) ideas of both community and neighborliness. Neighborliness, which results in knowing, borrowing from, visiting, speaking and socializing with neighbors, in addition to being willing to help a neighbor by watching their home, or expressing a willingness to improve the neighborhood whole; and also, community, which reflects feelings of membership, a perceived ability to influence the nature of the neighborhood, and shared emotional connections and the fulfillment of needs.
3. Eric Uslaner's (2000) notion that trust is cyclical, with a beginning level of trust that is then built upon or depressed, coupled with Putnam's (2000) description of social trust, which, because of its cyclical nature decreases the transaction costs of engagement within a community. That trust is then linked to honesty, civic engagement and social capital, where people who trust others more readily participate in civic activities and are themselves trustworthier.
4. People are more willing to engage in reciprocal behaviors, resulting from a certain base level of trust because of their past experiences with a community and the learned reputations of its individual members. This is true regardless of their relationship orientation, in that the trust leads them to believe that they will eventually gain benefit from their actions (Clark & Taraban, 1991; Sander, 2002).

5. Harwood and Lay's (2001) suggestion of social capital as the feelings and attitudes, rather than actions and involvement, which can be used to measure the connectedness of a community.
6. Putnam's (2000) bridging and bonding social capital, with measures of bonding capital (network capital for Wellman, et al., 2001) assessing the internal community connectedness, and measures of bridging capital (participatory capital for Wellman, et al., 2001) assessing the community whole's connectedness to its place within the greater sphere of the world, including a reflection of the strong and weak ties in each.
7. And finally, Wellman's (Wellman, et al. 2001) idea of community commitment, the final of his three measures assessing the vitality of a community, described as the motivation to mobilize what social capital a person has.

In these ways social cohesion is important to the success of a community: the stronger the community member's feelings of interconnectedness, the greater the community's "social cohesion." This thesis will evaluate the cohesiveness of the group by looking at the individuals in the group and analyzing their attitudes relative to the above measures.

### *Communication Technology*

The independent variable in this analysis of a community's social cohesiveness is communication technology. The Internet has changed the way communities behave. No longer bound to place, community has become embedded in social networks grounded in a mix of online and offline interaction (Wellman, Quan Haase, Witte & Hampton, 2001). The telephone, the adoption of which is most often set as a parallel to that of the Internet, has been shown to reinforce preexisting social, political, and cultural patterns (Fischer, 1992; Dutton, 1996; Winner, 1977). While technologies that permit communication are diverse, including both landline telephones and those of the mobile variety, pagers, and the like, those enabled by the increasingly common use of the web backbone, namely the Internet, instant messaging, chat, email, and so forth are of interest here.

All content found online interacts with the user in two distinct ways: by imparting information, or by permitting dynamic communication. The web is both a powerful and continuously changing research and educational tool (e.g. research on businesses, organizations, government, etc.) and it provides methods of connecting to others using the Internet (e.g. IM, email, chat, etc.). It has great potential to empower by presenting previously unconsidered ideas and granting access to, for example, resources, and other types of capital essential to a society's social fabric that had previously been out of reach. The Internet provides lowered costs of engagement,

access to a variety of activities, and it has the capacity to improve those engagements (for example, through automation and the like).

While there are many connectivity issues that remain surrounding the truly pervasive use of the Internet, it is no longer a question of if, but rather how long it will take for the Internet to extend into those communities that remain outside of its current area of availability. Some of the conditions that surround the successful integration of these technologies include access to hardware, sufficient training on how to use the technology, outdated software, poor connections to the web, as well as other social conditions like community bias and fear of the technology, and lack of available relevant content (U.S. Department of Commerce, 2000; Benton Foundation, 1998; Morino Institute, 2001; Resnick & Cooke, 1998). Each is a step in the truly pervasive availability of the web. The point of interest here is how the design of the technology can affect its adoption in those communities that remain outside of its impact, if its integration can benefit the community in any way.

Asset-based community development is a community-building model that believes social and economic revitalization is best addressed by leveraging the existing capabilities of the residents and the available resources of the local institutions and businesses in a community. Instead of taking a top-down intervention approach, or focusing on the community's deficiencies or needs, asset-based community development sees the residents as integral to the community building process (Kretzmann & McKnight, 1993). Can the form that these technologies take overtly

prove to benefit the community whole by bringing to the fore the existing assets, contributing to the density of the group's social networks and thus bring forth capital and boosting investment in the community by its membership?

### *Technology and Cooperation in Communities*

If increased communication among individuals' works to benefit their social cohesion, then the Internet provides a forum for a "myriad of different configurations of communication (Morris & Ogan, 1996, p. 42). Internet users have been shown to have wider social networks than non-users (Raney, 2000; Robinson, et al., 2000). Research on email interactions has shown that the use of email sustains levels of social capital in its users, keeping them connected and allowing for continued contact and maintenance of relationships, indicating no change in their levels of trust before and after their use of the technology (Pew, 1999; Uslaner, 2000). Email does not allow for the creation of new networks however and thus cannot contribute to the social capital and connectedness of an individual, even though it does sustain strong tie relationships well (Granovetter, 1973; Pew, 1999).

Harwood and Lay (2001) in their research with online discussion groups wondered whether the depth of the interactions that occur online can really ever replicate the strong-tie relationships that offline interactions bring, or if all that is going on is the bridging of weak-ties between individuals (Granovetter, 1973; Wuthnow, 1994; Wasserman, 1999). Online discussion groups, they argued, are a continuation of

the offline small group movement and unlike the small groups, the anonymous nature of computer mediated communication fails to positively bridge the weak-tie interactions found online for the individuals involved, an essential component of successful communities, recalling Granovetter's idea that weak ties bring more social capital to a community than do individuals with only a few strong ties, who do not have much social capital to contribute to the community (1973).

Unlike an offline forum where individuals come together to hold a common discussion, and thus establish a shared experience, Harwood and Lay (2001) found instead that online discussion forums do not create the same communal experience and that many monologues, rather than dialogues, occur. Their findings indicated that interactions online actually had a negative effect on social capital, with disconnected offline individuals coming online for their own self interest rather than to connect with others, thus failing to bridge the weak-tie associations encountered there. This begs the question of how an offline community, already connected to each other by their physical location, would leverage communication technologies, and if the technology could strengthen their already pre-existing weak-ties that bind them to one another?

Eric Uslaner, in a comparison of surveys from various Pew Charitable Trusts dated 1998 and 2000 looked at the connections between the Internet, trust, and civic engagement. His findings indicated that the Internet neither creates nor destroys social bonds, just as it does not build up or destroy trust. In the same way, people with high levels of trust are not any more or less likely to go online than those with low levels of

trust. He concludes then that, “the World Wide Web is very much like the World. It makes things better in some ways and worse in others. But it is not transforming. If you want to make a revolution, you have to go offline” (p. 22, 2000)

Wellman, Quan Haase, Witte, and Hampton (2001) share a similar concern when they consider if the Internet increases, decreases or supplements social capital. Their findings show that when people engage online in asocial activities, its “immersiveness can turn people away from community, organizational and political involvement, and domestic life. By contrast, when people use the Internet to communicate and coordinate with friends, relatives, and organizations – near and far – then it is a tool for building and maintaining social capital” (p451).

Hampton and Wellman (2001) conclude that the Internet fosters “glocalization”; it increases global and local contact. The increased connectivity that high-speed networks permit showed increased contact and support beyond preexisting levels in an established neighborhood, in the same way that telephone or in-person contact did. In the same way, the Internet allows for the maintenance of contact and support for those who previously had been just out of reach because of geographic proximity. Hampton and Wellman thus assert that CMC reinforces existing communities, establishing contact and encouraging support.

To go back then to the discussion this thesis began with, regarding cooperation and trust in social networks offline, to reference Ridley’s closing to his book: “...exchange between enfranchised and empowered individuals is the best recipe for

cooperation. We must encourage social and material exchange between equals for that is the raw material of trust, and trust is the foundation of virtue” (p265). So, can the use of communication technologies benefit of a community? Is online interaction supplemental to offline allegiances? Or does it negate them instead? Can the tool of the Internet benefit the individuals who make up a community?

### *Research Interests for this Thesis*

In light of all of this, having reviewed the pertinent aspects of the task at hand, recalling the original research question for this thesis: does the greater integration of communication technologies into a geographic community affect the social cohesion of the residents who live there? To note, in considering the impact of communication technologies on social cohesion, it is important to note that a groups’ social cohesion is not dependent on whether or not communication technologies are present, but rather the willingness of the community members to interact and exchange for the benefit of the whole.

Remembering that social cohesion is the quality of interest, it is important to recall that it is made up of the component parts of community, trust, exchange, and social capital. Sub-questions that precipitate out of the research question then include:

1. Regarding community: Can communication technologies contribute in some personal ways to the well-being of individual residents and in this way increasing their personal willingness to give and benefit the group?

2. Regarding trust: How can communication technologies specifically work to boost feelings of interconnectedness and trust?

3. Regarding social exchange: How can communication technologies be used to best leverage the social networks existent in the community?

All of these and other questions on the effects of communication technologies on social cohesion will be explored in the following sections of this thesis.

## **Chapter Three: Methodology**

### *Sample*

#### *Camfield Estates*

The groundwork for the analysis found within this thesis was completed in a community located in the South End/Lower Roxbury neighborhood of Boston called Camfield Estates, a 132-unit low-to-moderate income housing development whose residents are predominantly African-American. Camfield Estates was selected as the research site where an MIT project whose goal, among others, was to establish a model for how housing developments can utilize technology to better the lives of the residents who live there.

Camfield Estates, originally called Camfield Gardens, was built in 1971 as an affordable housing initiative of the nearby People's Baptist Church. Following the inability of the original owners to continue their mortgage payments on the property in 1980, the U.S. Department of Housing and Development foreclosed on the development in 1991 after infrastructure issues made the residences uninhabitable. Camfield residents organized to form the Camfield Tenants Association and soon after convinced HUD to tear down and rebuild the properties through a demonstration-disposition program (Camfield Tenants Association, Inc., 2001), an approved HUD program wherein the Massachusetts Housing Finance Agency oversaw the demolition and rebuilding, then the sale of, HUD properties like Camfield Gardens to resident

organizations like the Camfield Tenants Association; for more information, see MHFA, 2001).

In 1997, the 136 Camfield Gardens apartments were demolished and the residents relocated throughout Boston. The property was rebuilt as Camfield Estates and in 1999 residents returned to 106 townhouse units, 92 of which were designated Section 8 and thus reserved for very-low and low-income households. The newly rebuilt property included a community center with meeting space, management offices and a Neighborhood Technology Center (managed by an outside agency and supported by the Massachusetts Housing Finance Agency). By the fall of 2001, all 102 units in the development were occupied (Pinkett, 2002; Camfield Tenants Association, Inc., 2001).

#### *The Camfield Estates-MIT C3 Project*

A partnership between the Camfield Tenants Association and the Massachusetts Institute of Technology was begun in January of 2000. Camfield Estates was chosen to be site for the MIT's project for several reasons: strong leadership within the tenant base and an expressed interest in the collaboration from within the community, cable modem capabilities built in to each newly built townhouse unit, the Neighborhood Technology Center and its course offerings and technical support, the increased chances for sustainability of the project that the involvement by Camfield's tenant association being a part of the demonstration-disposition program suggested, and the impending transfer of ownership of the

property from HUD to the tenant's association (the final step in the demonstration-disposition program, scheduled for the fall of 2001).

After needs assessments and evaluations were completed, using asset-based principles of community building like the creation of a community needs map and a community asset map among other assessments, the project was begun to establish a community technology infrastructure at Camfield. Each family was offered a high-end computer, a high-speed Internet connection, and software, in addition to comprehensive training courses in how to use the technology in ways relevant to their lives and needs at the onsite, fifteen-computer community technology center. Researchers on the project also worked with residents to create a web-based community building system, a Creating Community Connections, or C3, website, the purpose of which was to "create connections" between the Camfield residents, nearby associations, institutions such as local schools and libraries, and neighborhood businesses.

The project was designed to be sustainable after the researchers completed all five phases outlined in their work. In Phase One, the period that serves as the focus of this thesis, the general framework of the research consisted of signing up families, completing a pre-assessment with the head of the household, the resident completing technology training classes at the Neighborhood Technology Center, the family receiving their computer and Internet access, and then a year later, the research team would complete a post-assessment with the head of the household to complete each

round. The researchers would use learning from the previous rounds to move into the next phases of the research. With each subsequent round, learning from the previous rounds were integrated and the approach taken the next round adjusted to fit the new model set forth in the research and inform the next phases of the partnership not covered herein. Round I, begun in August of 2000, had 32 of the 66 families then living at Camfield signed up for the project. This thesis analyzes the work done in this round. Round II had 27 families signed up in January 2001, scheduled to complete the project by January of 2002. Round III was scheduled to begin in the fall of 2001, and so forth (for more information on the C3 project, see Pinkett, 2002).

### *Participants*

The general demographics of the Phase One participant group follow, with all percentages approximate. In the most general terms, they are single, black/African-American, female, and head of their Camfield Estates households.

Of the 32 residents who originally signed up, 26 completed the post assessment. Those residents who could not finish the training courses for whatever reason were not included in the final assessment. The ethnic makeup of the 26 Camfield participants that completed in full the training courses included 68% who self-identified as black or African-American, 10% African-Caribbean, 5% Hispanic or Latino. Another 5% self-identified as multi-racial, and another 10% selected the other category. An overwhelming number of the participants were women, some 84%. Some 40% are in their 40s, with an additional 20% each in their 20s and their 50s. A

little more than half were single, a quarter married, and another 20% divorced. Family size varied, from one to six people in a participating household. About a quarter had a family of five, and another quarter a family of two. Some 20% had four members in their family, and an additional 10% each had a single person or three people. Another approximately 5% had a family of six.

In terms of education, nearly 70% cited some amount of time spent in college. An additional 20% have at least a four-year college degree. Those with the least education were at minimum high school graduates (or held an equivalent GED). The annual income of the residents at the housing development ranged from less than \$10,000 to over \$35,000. All percentages approximate, about 5% made less than \$10,000, 20% made \$10,000 to \$14,999, 20% made \$20,000 to \$24,999, 15% made \$25,000 to \$29,999, 20% made \$30,000 to \$35,999, and some 5% bring in \$35,000 or more annually.

### *Apparatus*

The pre- and post- survey instruments consisted of questions intended to measure specific characteristics of the community as represented by the 26 participants before and after their involvement in the project. These included demographics, community interests and satisfaction, social networks, neighboring, community impressions, awareness of community resources, and community involvement and attachment. The pre-assessment survey instrument included sections on computer

experience and training interests as well as a section on hobbies, interests and information needs. The post-assessment included sections on the Camfield Estates-MIT Project, training experience, and computer and Internet use. The MIT researcher team administered the pre- and post- survey instruments in face-to-face interviews with each participant involved with the project. These in-person interviews each lasted between one and five hours each and were conducted either in the respondent's home or in the Camfield community center.

Of interest in this thesis are the comparative pre- and post-survey results from a subset of the questions included in the MIT researcher's work, in particular, those questions where responses reflect in some way a change in the group's net social cohesion, whether by measuring resident's level of trust, their awareness of the community's social capital, or those questions that suggest a change an individual's concept of their social sphere after the integration of the technology into their lives. By looking at the before and after responses for these measures, an evaluation of the impacts, if any, that the introduction of the Internet produced into the Camfield Estates community was completed.

The raw data was available from one of the original researchers in the C3 project in the form of one Excel spreadsheet for each resident participant, for both their pre- and post-assessment responses. The C3 project researchers coded the respondents' answers during an interview-style discussion at the inception of the participants' involvement in the project, and then also a year later, after the completion

of the training courses by the participant. Of the thirty-two participants who completed the preliminary interviews in August 2000, only 19 of the raw data files were available for the post- comparison. Whether the data set was invalid, the participants unavailable for the post-interview, or they were unable to complete the training for whatever reason, thirteen of the original group's data was simply not useable.

As described in the last chapter, the data of interest for this thesis are those questions in the pre- and post-survey instruments whose answers reflect a shift in the community's social cohesion. These included questions from the surveys whose comparative responses revealed the residents' attitudes before and after the introduction of the communication technologies into their community regarding: (1) their notions of community, (2) their levels of trust towards their neighbors, (3) the parameters of their social exchange networks, and (4) the social capital resources available to them as a result of these networks. The comparison of the before and after responses showed how the introduction of the Internet into the community group had either a positive affect on the group's social cohesion, a negative affect on the group's social cohesion, or no affect what so ever on the group's social cohesion.

Outlined below are those questions selected from the pre- and post-survey instruments as the ones that in some way could serve as indicators of social cohesion. Each was selected as a measure of some aspect of the total puzzle influencing the density and depth of a community groups' social cohesion: the closer members of a group feel to each other, the more they value their membership in the community, and

the greater the group's total cohesion. The less value they place upon their membership in the community, and the less willingness they present in participating for the benefit of the group, the less cohesive the group is.

The MIT researchers' survey instrument is divided up into twelve distinct sections, each with a particular focus area. The post-survey instrument included every question found in the pre-instrument except for the demographics questions (which would not have changed for the participant residents). Additional sections were added to the post-survey to address the changes that the introduction of the technology had on the participating residents. This research took five of those sections and used questions from each, in addition to two questions from the sixth post-survey instrument, to assess the community's net social cohesion. Grouped by the characteristics of social cohesion that each was originally designed to assess, the survey sections of interest for this thesis were:

1. those questions that assess the residents' feelings around community and trust found in Community Interests and Satisfaction (survey Section A), Relationships with People at Camfield Estates (survey Section D), Impressions of Camfield Estates (survey Section G), and in one of the questions from Computer and Internet Use: Local (survey Section L2)
2. those questions used to assess the residents' attitudes about social exchange among resident at Camfield, found in Neighbors at Camfield Estates (survey Section E),

3. and finally, the questions that addressed the residents' familiarity with the social capital existent in their community are those found in Awareness of Community Resources (Section F), and one final question from Computer and Internet Use: Local (Section L2).

#### *Assessment of Community and Trust*

Those questions pertaining to the assessment of community and trust (the two are coupled here as a result of the original survey design though it should be noted that this does not prove problematic: trust and the resultant cycles of reciprocity feed into feelings of community, so the two are by their nature bound; see Uslaner, 2000; Putnam, 2000) were two questions that addressed the community interests and satisfaction, five that considered the respondents' relationships with people at Camfield Estates, 26 questions that assessed the respondents' impressions of Camfield Estates, and one that asked the participants about the local impacts of their computer and Internet use. Below, each question is presented and its relevance described.

To begin, the before and after responses for two questions (see Table I) from the Community Interests and Satisfaction section of the MIT survey were assessed. These two questions reflected an individual's relationship to the Camfield Estates community by asking about the residents' feelings of inclusion and their own membership in the community. A comparison of the pre- and post-survey results demonstrated if the residents participating in the C3 project viewed their own

connectedness and inclusion in the Camfield Estates community differently before and after having access and using the technology. Whether by getting to know more of their neighbors through the trainings, from an increased awareness of events in the development facilitated by the C3 website, or otherwise, these questions reflected the participant's own sense of belonging to the community.

Table I

*Community Interests and Satisfaction -- Section A*

---

A7. Would you say that you always, sometimes, or never feel a part of the local community in Camfield Estates? (*Circle one*)

- a. Always      b. Sometimes      c. Never      d. Don't know

A8. Another way to ask the previous question is, imagine that the people of Camfield Estates are a circle. Would you put yourself inside the circle, on the edge of the circle, or outside the circle? (*Circle one*)

- a. Inside      b. On the edge      c. Outside      d. Don't know
-

The next batch of questions came from the survey's Relationships with People at Camfield Estates section (see Table II), designed to quantify the relationships that participating residents had with other Camfield Estates residents. All five of the questions in this section asked the participating resident to identify those Camfield residents whose names they recognized. Each subsequent question asked the participant resident to further specify the relationship they had with these selected residents over the previous six months via a particular communication method (such as email, phone, or in-person exchanges). These specifications included those with whom they speak regularly, those residents who have been guests in their home, those in whose homes they have been guests, those they've emailed, and those they've phoned. These are important to technology's affects on the developments' social cohesion because they identify if there was a change in the frequency and type of interactions among the residents at Camfield.

Table II

*Relationships with People at Camfield Estates -- Section D*

---

- D1. Those whom you talk to on what you would consider to be a regular basis?
  - D2. Those whom you have invited into your home in the last six months?
  - D3. Those whom have invited you into their home in the last six months?
  - D4. Those whom you have contacted using e-mail in the last six months?
  - D5. Those whom you have called on the phone in the last six months?
-

The pre- and post-assessment comparison of resident impressions of Camfield Estates came next. This question (see Table III) looked at the general sense of community that the participant resident felt regarding his life at Camfield Estates. By asking about some specific attributes that make up the notion of what a community is, an individual's assessment of how well his community, Camfield Estates, measured up to these are identified. By clustering the sub-questions into five groups, the residents' feelings of satisfaction with his place of residence, his investment and involvement in the community whole, his feelings of accountability to the group, and his levels of trust in neighbors, shifts in the general attitudes of the participant respondents were indicated. Again, the pre- and post- picture that the responses to this lengthy twenty-six-part survey question painted helped demonstrate if the integration of the technology into the development has an effect on the community and the interconnectedness of its residents.

Table III

*Impressions of Camfield Estates – Section G*

---

G1. Please respond to the following statements, according to the following scale:  
(Circle one for each item)

Agree strongly	Agree somewhat	Disagree somewhat
Disagree strongly	Don't know	

---

- a. I think Camfield Estates is a good place to live
- b. People in Camfield Estates share the same values
- c. My neighbors and I want the same things for Camfield Estates
- d. I can recognize most of the people who live in Camfield Estates
- e. I feel at home in Camfield Estates
- f. Very few of my neighbors at Camfield Estates know me
- g. I care about what neighbors at Camfield Estates think of my actions
- h. I have influence over what Camfield Estates is like
- i. If there is a problem in Camfield Estates, people who live here can get it solved
- j. It is very important to me to live in Camfield Estates
- k. I have an active part in keeping Camfield Estates going
- l. People in Camfield Estates get along with each other
- m. I expect to live in Camfield Estates for a long time
- n. Most people in Camfield Estates are active in groups outside the local area
- o. Camfield Estates is a good place for my kids to grow up and thrive
- p. Camfield Estates is a close-knit community
- q. I wish I had more contact with people in Camfield Estates
- r. It is hard to make good friends at Camfield Estates
- s. It is safe to walk in Camfield Estates at night

- t. The people in Camfield Estates do not have very much in common
  - u. I feel an obligation to make a contribution to Camfield Estates
  - v. If others in Camfield Estates wanted to do something that I thought would improve the neighborhood, I would probably be willing to work together with them
  - w. If I had to go away for the day, I could count on my neighbors at Camfield Estates to take care of my children
  - x. If I were sick, I could count on my neighbors at Camfield Estates to shop for groceries for me
  - y. If I had to borrow about \$25 for an emergency, one of my neighbors at Camfield Estates would lend me the money
  - z. When I am away from home, I can count on my neighbors at Camfield Estates to keep their eyes open for possible trouble
-

The local Computer and Internet Use section was found only in the post-assessment instrument, with the relevant question to community and trust from this section (see Table IV) asking the participant residents to identify if they felt that they had become less, equally or more connected with twelve different categories of people. These ‘different categories’ included such broad bucket descriptions as “people like you” to more specific categorizations like “Camfield Tenants Association board”. Because the question specified in its text for the participant resident to “indicate which of the following statements best describes your views since you received your computer and Internet access”, the responses to this question reflected the shift that may have existed in the residents’ interactions with their neighbors as a result of their use of the technology. This precisely got at the notion of whether or not the residents felt that the introduction of the web had an affect on the community’s social cohesion.

Table IV

*Computer and Internet Use: Local -- Section L2*

---

L16. Please indicate which of the following statements best describes your views since you have received your computer and Internet access. Have you become less, equally, or more connected with the following groups, or not sure:

Less	Equally	More	Not Sure	N/A
------	---------	------	----------	-----

---

- a. People like you?
  - b. People not like you?
  - c. Family/friends in your local area?
  - d. Family/friends not in your local area?
  - e. Co-workers?
  - f. People at your place of worship?
  - g. Residents at Camfield?
  - h. Camfield Tenants Association board?
  - i. Cornu Management company?
  - j. People inside your local community?
  - k. People outside your local community?
  - l. Your child's school or local school groups?
-

*Assessment of Residents' Attitudes About Social Exchange*

Those questions pertaining to the assessment of residents' attitudes regarding social exchange among residents at Camfield were found in the Neighbors at Camfield Estates section. The first question (see Table V) asked about how often the participant lent things to neighbors, how often she turned to neighbors for help or advice, and how often she socialized with a neighbor.

Table V

*Neighbors at Camfield Estates – Section E*

---

E1. Please respond to the following statements, according to the following scale:

*(Circle one for each item)*

Never    Once/year    Few times/year    Once/month    Once/week  
Almost everyday    Don't Know

---

- a. How often do you lend to neighbors?
  - b. How often do you turn to neighbors for help or advice?
  - c. How often do you socialize with a neighbor? (For example, sit with other mothers while watching kids outside, walk kids to school with another mother, go shopping)
-

The next two questions (see Table VI and Table VII) reflected feelings of reciprocity between the participant and his Camfield neighbors. This set of questions, the first addressed the resident's behavior and then the neighbor's, presented responses that asked the participant to identify as many of the caring acts where trust was a prerequisite for the exchange to have taken place (for example, listening to problems, caring for a family member, or lending money).

Table VI

*Neighbors at Camfield Estates – Section E*

---

- E5. In the past twelve months, excluding your immediate household, have you helped any of your neighbors in any of the following ways? (*Circle all that apply*)
- a. Listened to their problems
  - b. Helped them with household chores, shopping, repairs, house-sat, or lent them tools or supplies
  - c. Cared for a member of their family, either a child or an adult
  - d. Helped them find work
  - e. Lent them money
  - f. None of the above
- 

Table VII

*Neighbors at Camfield Estates – Section E*

---

- E6. In the past twelve months, excluding your immediate household, have any of your neighbors helped you in any of the following ways? (*Circle all that apply*)
- a. Listened to your problems
  - b. Helped you with household chores, shopping, repairs, house-sat, or lent you tools or supplies
  - c. Cared for a member of your family, either a child or an adult
  - d. Helped you find work
  - e. Lent you money
  - f. None of the above
-

*Assessment of Residents' Knowledge of Community Social Capital*

Those questions that address the residents' familiarity with the social capital existent in their community are those in Awareness of Community Resources section, and one additional question from the Computer and Internet Use: Local section. Two questions were of particular interest from the Awareness of Community Resources section. (see Table VIII and Table IX). The first asked the participant resident to rate her specific awareness on a four point scale of nine particular resource types found in the community, while the following question asked her to rate her general level of satisfaction with her awareness of all community resources in general. These two questions were of interest because the responses reflected the social capital that the residents' were able to bring to the total social capital of the Camfield Estates community, and second, the responses reflected her feelings of cognizance and comfort with this social capital.

Table VIII

*Awareness of Community Resources – Section F*

---

F1. Please rate your awareness of the following community resources, according to the following scale: *(Circle one for each item)*

Very well informed    Well informed    Somewhat informed    Not informed

---

- a. Skills and abilities of other residents at Camfield Estates
  - b. Associations and organizations that serve the community
  - c. Volunteer opportunities in the community
  - d. Institutions located in the community (For example, libraries and schools)
  - e. Social services and programs provided for the community
  - f. Community projects, activities, and events
  - g. Businesses located in the community
  - h. Products and services sold by local businesses
  - i. Employment opportunities in the community
- 

Table IX

*Awareness of Community Resources – Section F*

---

F2. How do you feel about your awareness of the community resources listed above? *(Circle one)*

- a. Very satisfied
  - b. Somewhat satisfied
  - c. Somewhat dissatisfied
  - d. Very dissatisfied
  - e. Don't know
-

The next and final question of interest in this thesis' analysis of the community's social cohesion before and after the introduction of the Internet technologies into this community was a final question from the local use of the computer and Internet section (see Table X below). This two-part question asked the participant resident about (1) his level of awareness regarding "what's going on at Camfield", and (2) his level of participation in meeting and events at Camfield since they had gotten their computer and Internet access. Again, because the question was framed in such a way as to include the technology component in its criteria, the responses reflected how the introduction of the web could have an affect on the community's social cohesion.

Table X

*Computer and Internet Use: Local – Section L2*

---

L17. Please indicate which of the following statements best describes your views since you have received your computer and Internet access.

Less                  Equally                  More                  Not Sure                  N/A

---

b. Have you become less, equally, or more aware of what's going on at Camfield?

c. Have you attended less, equally, or more numbers of meetings and events at Camfield?

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### *Procedure*

Participants in the Camfield Estates-MIT Creating Community Connections project participated in a pre- and post-project assessment. Of the families living at Camfield Estates during the summer of 2000, 32 elected to participate in the project's first round by August of that year. The first assessment was administered by three of the researchers to all 32 families before the families began the technology training courses required for the project. Face-to-face interviews with a head-of-household representative for each family were conducted using a survey that included more than 250 questions designed for both research and benchmarking.

After their training courses ended in November 2000, the 26 families that were able to complete the entire round of training classes received a computer and were configured for high-speed Internet access in their home. A year after the project first began its work at the development, in August 2001, the researchers conducted the follow-up post-assessment. This post-assessment was also done face-to-face with the same heads-of-household who completed the pre-assessments. A similar survey was used, but with additional project-related, training-related, and computer-and-Internet-use-specific questions in with the others to check on progress made and to evaluate the project to date.

The data of interest in this thesis research is that of the 26 respondents who completed the entire first round: the pre-assessment, the technology training courses, and the required post-assessment for the first round of the project.

## **Chapter Four: Results**

In the last chapter, the background of the Camfield Estates development case study and its relevance to the question this thesis set out to answer were demonstrated. The approach of analyzing a subset of survey questions was presented and the pertinence of the selected questions discussed, with the planned comparison of the before and after responses intending to show that the introduction of the Internet into the community group had either a positive affect on the group's social cohesion, a negative affect on the group's social cohesion, or no affect what so ever on the group's social cohesion. This chapter presents the answers to each survey question so that an assessment of whether the greater integration of communication technologies into a geographic community affected this community's cohesion can be done given these findings.

### *Assessment of Community and Trust*

The questions pertaining to the assessment of community and trust in the survey instruments two questions that addressed the community interests and satisfaction, five that considered the respondents' relationships with people at Camfield Estates, 26 questions that assessed the respondents' impressions of Camfield Estates, and one that asked the participants about the local impacts of their computer and Internet use. Below, comparative findings for each are presented.

### *Community Interests and Satisfaction Section*

All of the questions (see Table I) in this section reflected an individual's relationship to the Camfield Estates community by asking about the residents' feelings of inclusion and alignment; these indicated the respondents' feelings of membership in the community. The first question asked, "Would you say that you always, sometimes, or never feel a part of the local community in Camfield Estates?" The participant resident was presented the four answer options of "Always", "Sometimes", "Never", and "Don't know". The comparative responses from the 19 participants showed that about half felt the same about their feelings of inclusion in the local community after a year, with five respondents answering "sometimes" in both the pre- and post-assessments and the remaining three indicating "always" in both. Six indicated an increase in their feelings of being a part of the local community, and four indicated a decrease in these feelings.

The next question reflected much the same notion using different language: "Another way to ask the previous question is, imagine that the people of Camfield Estates are a circle. Would you put yourself inside the circle, on the edge of the circle, or outside the circle?" Seven of the survey respondents indicated a positive change in their feelings of inclusion in the circle analogy; for example, where before they may have considered themselves outside of the circle, a year later they considered themselves on the edge of the circle. Another four indicated a negative shift in their feelings, and six respondents indicated no change in their position relative to the circle.

In summary, in general there were no significant changes in the residents' feelings of inclusion. While most indicated that they sometimes felt like a part of the Camfield Estates community, too few of the participants indicated a positive shift in their position on "the circle" of the community to indicate that the technology that this subset of the Camfield community had access to affect their feelings of inclusiveness in any way. No clear connection was made between their technology use and their social cohesion. This grouping of residents, the subset of all Camfield residents, who had access to the computers, the Internet, and the training resources in the community may have developed closer feelings to their neighbors simply through living longer in the community, by interacting with new people in the trainings, from an increased awareness of events in the development facilitated by the C3 website, or otherwise. Regardless, these questions did not reflect a clear impact by the technology on the participant's own sense of belonging to the community.

#### *Relationships with People at Camfield Estates Section*

Participants were asked to read a list of Camfield Estates resident names and identify those they recognized. Then, from the subset list of neighbors they identified as familiars, the participants were asked to specify the nature of their relationships with these people over the previous six months by identifying the forms that their interactions took (see Table II).

The first question asked the resident to identify "Those whom you talk to on what you would consider to be a regular basis". After a year, the vast majority

indicated an increase in the number of people they identified as those with whom they regularly spoke, with six respondents identifying at least an additional ten neighbors on their survey lists. Some 16 residents indicated a positive change, while only 3 reported talking to fewer neighbors.

The next, participants were asked to identify “Those whom you have invited into your home in the last six months”. Ten respondents had a change in their patterns of interaction with their neighbors, indicating a negative change in the number of invitations they extended to neighbors in the six months prior to their taking the each assessment. Three respondents showed no change, and six indicated they had invited more of their neighbors into their homes in the post-assessment than they had in the six months prior to the pre-assessment. Reciprocally, the following question asked the participant to identify “Those whom have invited you into their home in the last six months”. Here nine respondents indicated that more of their neighbors invited them into their homes over the six months prior to assessment date, and two indicated no change. Eight indicated that at least one more neighbor had invited them into their home.

Next participants were asked to identify “Those whom you have contacted using e-mail in the last six months”. Five respondents showed no change in how many of their neighbors they had emailed before and after their participation in the project. Interestingly, six indicated a decrease in how many of their Camfield Estates neighbors they had emailed before and after their involvement in the project. Eight indicated an

increase, though five of those indicated that they emailed only one additional neighbor over the six-month period prior to the post-assessment interview.

The final question here asked residents to identify “Those whom you have called on the phone in the last six months”. Eleven of the respondents showed an increase in the number of people at Camfield they called in the six months prior to their survey interviews. Seven indicated no change, and only one person indicated that she called less people in the post-interview than she had in the initial assessment.

Interestingly, in both the pre- and post- assessment the phone was the least popular method of communication among residents of the development overall, given the number of individuals they interacted with in this way cited by each participant resident. Residents reported significantly more in-home visits by neighbors than they did phone calls. Even the number of homes they were invited to was comparable to the number of residents they reported emailing, and both interaction types represented a significantly higher level of contact than did the telephone.

#### *Impressions of Camfield Estates Section*

Questions from the Impressions of Camfield Estates Section asked the resident to rate each one of 26 parts in order to get at the general sense of what the community at Camfield Estates is like for the participants of the C3 project (see Table III). In asking about some specific attributes that relate to the notion of what a community is, the groups’ assessment of how well Camfield Estates measured up could be seen. Here, rather than recording the changes in each participant’s responses in order to

gauge their personal degree of change before and after their involvement in the project, the responses to this question were grouped together and the responses totaled to indicate changes for the entire Round One participant pool. In this way the groups' total shift, as a community of people who all experienced the same change in their lives, is more clearly demonstrated.

Approaching the analysis of this question in a way that looks at the community's shifts as a whole helps discern the net feelings of social cohesion among the participant residents. The subsets that the 26 parts of the question were grouped into included the residents' ratings of satisfaction with the community, of investment or involvement in the community, their feelings surrounding definitions of what a community is, their feelings of accountability to their neighbors, and trust among the residents at Camfield. Again, the before and after responses to this survey question helped assess any changes in the feelings and notions of community after the introduction of the technology into the community; if their concept of community extended out to those beyond just their geographic place accessible via the Internet, if their interests focused closer to home just outside their door in the Camfield community, or, if the introduction of the technology had no effect at all.

*Satisfaction:* The first subset of questions looked at levels of satisfaction with the community. Table XI and XII show the results for those parts of the question that relate to this measure.

Table XI

*Satisfaction with the Community – Pre*

Question	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Don't Know
A. I think Camfield Estates is a good place to live	9	10	0	0	0
E. I feel at home in Camfield Estates	9	10	0	0	0
J. It is very important to me to live in Camfield Estates	6	10	2	0	1
M. I expect to live in Camfield Estates for a long time	4	9	3	1	2
O. Camfield Estates is a good place for my kids to grow up and thrive	2	9	2	2	4
S. It is safe to walk in Camfield Estates at night	6	9	0	2	2

Table XII

*Satisfaction with the Community – Post*

Question	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Don't Know
A. I think Camfield Estates is a good place to live	8	8	3	0	0
E. I feel at home in Camfield Estates	7	10	0	2	0
J. It is very important to me to live in Camfield Estates	4	8	6	1	0
M. I expect to live in Camfield Estates for a long time	1	7	3	4	4
O. Camfield Estates is a good place for my kids to grow up and thrive	0	10	5	1	3
S. It is safe to walk in Camfield Estates at night	4	10	4	0	1

In general, there seemed to be a greater level of overall satisfaction with the Camfield Estates development as a residence in the pre-assessment. The participant residents indicated that they were fairly satisfied with Camfield Estates, but in several categories feelings of dissatisfaction seemed to strengthen in the post-assessment responses. This is perhaps attributable to residents learning more about other places and situations online, and thus impacting their levels of personal contentedness at Camfield Estates.

*Resident investment and involvement:* Next were the set of characteristics that looked at resident investment and involvement in the Camfield community (see Table XIII and Table XIV). The results here showed that while most participant residents felt fairly unfamiliar with their neighbors, they did have a strong interest in changing this. Resident participants indicated that their neighbors knew little about them, and that they too knew little about their neighbors. They did indicate however that they wanted more contact within their community, and that they were willing to work with others to make the community better. This revealed that the potential for increased involvement does exist and that those residents who live in the development are interested and invested in their community life at Camfield Estates.

Table XIII

*Resident Investment and Involvement – Pre*

Question	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Don't Know
D. I can recognize most of the people who live in Camfield Estates	3	10	3	2	1
F. Very few of my neighbors at Camfield Estates know me	0	10	5	3	1
N. Most people in Camfield Estates are active in groups outside the local area	0	3	0	3	13
Q. I wish I had more contact with people in Camfield Estates	7	7	3	2	0
V. If others in Camfield Estates wanted to do something that I thought would improve the neighborhood, I would probably be willing to work together with them	15	3	0	1	0

Table XIV

*Resident Investment and Involvement – Post*

Question	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Don't Know
D. I can recognize most of the people who live in Camfield Estates	5	7	7	0	0
F. Very few of my neighbors at Camfield Estates know me	1	7	6	4	1
N. Most people in Camfield Estates are active in groups outside the local area	0	5	1	1	12
Q. I wish I had more contact with people in Camfield Estates	5	8	2	2	2
V. If others in Camfield Estates wanted to do something that I thought would improve the neighborhood, I would probably be willing to work together with them	15	4	0	0	0

*Community:* Shifts in what residents consider community follow (see Table XV and Table XVI). Similar to the last set of questions on investment, interest and involvement, these questions questioned notions of community among the participant residents. No clear patterns or agreements on what the residents believed community should be like were made clear in the results. Results seemed to indicate that while the participant residents believed in the capability of the Camfield residents to affect positive change for their community, (perhaps harkening back to the development's history with HUD and the successful rebuilding), they saw the community residents as disconnected.

Table XV

*Community – Pre*


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Question	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Don't Know
B. People in Camfield Estates share the same values	2	4	4	6	3
C. My neighbors and I want the same things for Camfield Estates	4	4	1	3	7
I. If there is a problem in Camfield Estates, people who live here can get it solved	6	9	4	0	0
L. People in Camfield Estates get along with each other	1	6	1	3	4
P. Camfield Estates is a close-knit community	1	5	6	5	2
R. It is hard to make good friends at Camfield Estates	2	2	5	3	7
T. The people in Camfield Estates do not have very much in common	4	2	5	3	5

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Table XVI

*Community – Post*


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Question	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Don't Know
B. People in Camfield Estates share the same values	0	7	7	2	3
C. My neighbors and I want the same things for Camfield Estates	2	6	4	2	4
I. If there is a problem in Camfield Estates, people who live here can get it solved	2	9	6	2	0
L. People in Camfield Estates get along with each other	1	8	5	2	3
P. Camfield Estates is a close-knit community	1	6	7	3	2
R. It is hard to make good friends at Camfield Estates	0	0	0	0	19
T. The people in Camfield Estates do not have very much in common	2	5	6	1	5

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*Accountability:* The next set of characteristics considered were those that gauged the resident participants' feelings of accountability towards their neighbors (see Tables XVII and XVIII). This sub-section did seem to reveal some direction in the residents' feelings of accountability towards their neighbors. The numbers were higher in both the pre- and post-assessments indicating agreement for each question asked. Also, perhaps due to their wording, revealed that participant residents a.) were concerned with their neighbors, and b.) saw themselves as an inherent part of Camfield's future. By associating themselves with both having the influence and the obligation to the Camfield community, they were positioning themselves as empowered enough to create change in their community if need be.

Table XVII

*Accountability – Pre*

Question	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Don't Know
G. I care about what neighbors at Camfield Estates think of my actions	3	11	3	2	0
H. I have influence over what Camfield Estates is like	4	6	5	3	1
K. I have an active part in keeping Camfield Estates going	7	7	3	2	1
U. I feel an obligation to make a contribution to Camfield Estates	4	12	2	1	0

Table XVIII

*Accountability – Post*

Question	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Don't Know
G. I care about what neighbors at Camfield Estates think of my actions	6	8	4	1	0
H. I have influence over what Camfield Estates is like	5	9	3	1	1
K. I have an active part in keeping Camfield Estates going	7	6	3	2	1
U. I feel an obligation to make a contribution to Camfield Estates	6	10	3	0	0

*Trust:* Finally, an increase in the feelings of trust among the residents at Camfield would also contribute to an increase in the community's social cohesion (see Tables IXX and XX). These questions also seemed to indicate fairly high levels of trust among the community's residents, in particular in light of the responses in previous sections where respondents indicated that their neighbors did not know them well and that they in turn did not know their neighbors well either. Interestingly, the responses showed that they still felt comfortable enough with their Camfield neighbors that they believed they could be counted on in moments of need. This was perhaps a projection of their own desire to get to know their neighbors more as found in a previous section, these responses shed light on the sort of community the participant residents envision Camfield to someday be.

Table IXX

*Trust – Pre*

Question	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Don't Know
W. If I had to go away for the day, I could count on my neighbors at Camfield Estates to take care of my children	4	6	1	4	6
X. If I were sick, I could count on my neighbors at Camfield Estates to shop for groceries for me	3	4	2	4	6
Y. If I had to borrow about \$25 for an emergency, one of my neighbors at Camfield Estates would lend me the money	8	6	0	1	4
Z. When I am away from home, I can count on my neighbors at Camfield Estates to keep their eyes open for possible trouble	8	5	2	2	2

Table XX

*Trust – Post*

Question	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Don't Know
W. If I had to go away for the day, I could count on my neighbors at Camfield Estates to take care of my children	2	5	4	2	6
X. If I were sick, I could count on my neighbors at Camfield Estates to shop for groceries for me	3	9	1	4	2
Y. If I had to borrow about \$25 for an emergency, one of my neighbors at Camfield Estates would lend me the money	6	9	1	1	2
Z. When I am away from home, I can count on my neighbors at Camfield Estates to keep their eyes open for possible trouble	5	12	1	1	0

### *Local Computer and Internet Use*

In the post-assessment, a supplemental section on local computer and Internet use appeared following the general computer and Internet use questions. These questions asked the participant resident to reflect on the ways that their connections with others had changed, if they had changed at all, since they received their computer and the access to the Internet. The first question (see Table IV) asked that the resident consider which answer choice “best describe[d her] views” since receiving their computer and Internet access; more specifically, if she had become less, equally, or more connected with twelve different categories of people.

The questions included specific groups of people, and more general categories. Two general questions asked about the resident’s connectedness with people who share some unspecified characteristics with the resident, while the other two general questions asked geographically bound questions. The first two sub-questions asked, in the most general terms, about the participant residents’ connectedness with “people like [her]”, and “people not like [her]”. Nine respondents reporting feeling more connected with people like them, and five feeling more connected with people not like them. Five each felt equally connected with both categories, and four each were not sure how to respond. One felt less connected with people like them since receiving their computer and Internet access, and four felt less connected to those not like them.

Other sub-questions considered geography, asking the resident to identify their feelings of connectedness to other, unspecified, people inside and outside of their local

community. Here six people felt more connected to individuals inside of their local community, while three reported feeling less connected to these people. Five reported the no change in their feelings of connectedness since receiving their computer and Internet access. The question asking about connectedness with people outside of the resident's local community showed a very similar pattern, with two residents feeling less connected, five equally connected, and eight more connected since receiving their computer and Internet access.

The sub-questions then turned the academic lens to the resident's familiars, asking about their connectedness with friends, family, co-workers, neighbors, and the like. To note, the questions of connectedness to co-workers and to people at the place of worship didn't apply to five people. Of those left, six people reported feeling more connected both to people at their place of worship and to their co-workers. Regarding co-workers, two felt less connected, and four felt no change in their connectedness. Regarding those at their place of worship, two felt less connected and another two felt no change. For the question about the participant residents' connectedness to individuals at their child's school, six indicated that that the question did not apply. Of those who remained, two felt less connected, five felt equally connected, and six reported feeling more connected since their computer and Internet connections had arrived.

The survey then addressed to closer relations, asking about friends and family who were geographically close and those far away. More to the point, these questions

look at the change in the connectedness the residents felt towards those people they already had an established connection with, and with whom they put in specific effort to sustain a relationship. These questions assessed whether the introduction of the Internet as another means of communication and connection to those relations helped or hurt their feelings of closeness with these individuals. Both questions, asking about family and friends in the local area, and family and friends not in the local area, resulted in nearly identical results. Two were not sure of the question, but of the remaining seventeen respondents, ten of the residents reported feeling more connected after the introduction of the Internet. With the local area, six felt no change in their relationships, and one reported less connection with their local family and friends. With family and friends not in the local area, five reported no change, and two reported less connection.

Finally, three sub-questions that reflect how the introduction of the technologies influenced the connectedness within the Camfield Estates community follow. The first of these asked residents about their feelings towards other Camfield residents. Five indicated a not applicable or not sure response, but of those fourteen remaining, half (seven) felt more connected, two felt equally connected before and after they received the Internet and computer, and one felt less connected to their Camfield neighbors. Regarding their connectedness to the Camfield Tenants Association board, again five reported a not sure or not applicable answer, while four indicated that they felt more connected, seven felt their connectedness remained

unchanged, and three felt less connected. The final sub-question asked the respondent to consider their connectedness to the Cornu Management Company since the introduction of the computers into their community. Six either were not sure how to respond, or said that this question did not apply to them. Of the remaining thirteen, four felt less connected, six felt equally connected as before, and three felt more connected since the receipt of their computers.

#### *Assessment of Residents' Attitudes About Social Exchange*

Those questions pertaining to the assessment of residents' attitudes regarding social exchange among residents at Camfield were considered next.

#### *Neighbors at Camfield Estates Section*

The next set of questions inquired about the trust dynamics that existed in the participant resident's relationships with their neighbors in the Camfield Estates development. Three distinct questions were asked which all used the same seven point ranking scale for the answer choices; these included "never", "once per year", "few times per year", "once per month", "once per week", "almost every day", and "don't know" as the answer options for each of the three sub-questions (see Table V).

The first question asked the participant resident how often they lent to their neighbors. In general terms, seven participants reported lending less, five reported lending more, and another seven remained unchanged in the frequency of their lending to neighbors in the pre- and post-interviews. Six of those whose responses remained

unchanged never lent to their neighbors at all. Most of those residents who lent less often after the year had only a one-degree shift in their lending behavior. For those who lent more often in the post-assessment, their increase was in each case a two degree jump, whether from never to a few times per year, or once a month to almost every day.

Next, the participant resident was asked how often they turned to neighbors for help or advice. Eight residents reported turning to neighbors for help less, three reported more, and eight remained unchanged. In this instance, most indicated a one-degree shift, whether positive or negative, in how many neighbors they turned to request help or advice from indicated. The majority of unchanged responses, six, indicated “never”, with the other two indicating an infrequency, while not never, of only once or a few times per year.

Finally, the participant resident was asked how often they socialized with a neighbor at Camfield Estates, citing the examples of sitting with other mothers while watching kids outside, walking kids to school with another mother, and going shopping together. Again, the tallied results of the responses to this question pointed to comparable findings, with eight respondents reporting no change in their socializing behaviors, six indicating less socializing, and five indicating more. In this case, the degree of change was more noticeable than only one point, and was instead at least a few degrees in whichever direction, whether more or less. Those who indicated no change at all in their socializing behaviors in this case were not all in the “never”

category, as in parts a and b of the question, here those who socialized with neighbors in the same ways varied from those who never interacted to those who interacted almost every day.

Interesting to note that there was no consistency among who of the participant residents indicated “more” of any of the above behaviors, that is, the same people that indicated that they socialized more in the year between the interviews were not the same ones who reported lending more. Even those whose behaviors remained unchanged didn’t keep consistent in their levels of trust across categories, suggesting that reciprocity does not necessarily translate across the board, that their trust in someone they may lend something to do not necessarily contribute to their trusting the same people to provide advice.

The next two questions (see Table VI and Table VII) reflected feelings of reciprocity between the participant and their Camfield neighbors. This set of questions, one addressing the resident’s behavior and the next addressing the neighbors’ ask, “In the past twelve months, excluding your immediate household, [have you helped any of your neighbors] *or* [have any of your neighbors helped you] in any of the following ways?” The answer set included five answers and a “none of the above” option, where respondents could select all that applied to their situation. These included “listened to their problems”, “helped them with household chores, shopping, repairs, house-sat, or lent them tools or supplies”, “cared for a member of their family, either a child or an adult”, “helped them find work” and “lent them money”. The total

number indicated for each respondent reflected their level of willingness to interact as exhibited in their behaviors towards their neighbors, as trust must exist for the caring acts described in each exchange to take place.

To begin, four respondents reported no change in the number of interactions described, three of those identifying none of the above. Six selected fewer in the post-assessment interview than they did in the pre-assessment; nine selected more of the exchanges. From the data set available for analysis, it could not be determined which of the specified exchanges were identified by the respondents in each case, only the total number identified. Overall however, the entire groups' willingness to help a neighbor grew, with the total helping acts rising from the pre-assessment total of 25 to a total of 33 at the time of the post-assessment.

The second question reflected a net movement in the opposite direction, with the total number of ways identified that neighbors were willing to help the respondent decreasing from 29 in the pre-assessment to 24 in the post-assessment. More specifically, five respondents indicated that their neighbors were more helpful in the year between, six indicated less helpful, and eight indicated no change.

Thus, no clear direction developed in this section regarding manifestations of the groups' social cohesion as demonstrated in the increase of exchanges between neighbors before and after the introduction of the technology into their community. No specific increase in particular types of interaction or in willingness to rely on their neighbors could be established through this data.

### *Assessment of Residents' Knowledge of Community Social Capital*

Those questions that addressed the residents' familiarity with the social capital existent in their community were next (see Tables VIII, IX, X).

#### *Awareness of Community Resources Section*

The Awareness of Community Resources section was designed to gauge how familiar the resident participants' were of the resources in their community. This was of interest because these questions reflected the residents' personal social capital, which they could then contribute to the total social capital of the group, if they so chose. The first question asked residents to "Please rate your awareness of the following community resources" on a four point scale, running from "very well informed" to "well informed", "somewhat informed", and finally, "not informed".

The first community resource participants were asked to rate was the skills and abilities of their neighbors at Camfield Estates. While no one considered himself or herself "very well informed", eleven of the participants indicated an improved awareness in the post-assessment interviews, with six of those ending up in the "well informed" category in the post-assessment. Six others reported no change, with four of these respondents reporting a rating of "not informed" both before and after their involvement in the project.

Next, the participant residents were asked about the associations and organizations that serve the community where Camfield Estates is found. Five

reported a decreased awareness, six reported no change, and eight indicated an improved awareness. On a related note, residents were asked about their awareness of volunteer opportunities in the community. Here a significant shift was visible, with twelve respondents indicating an improved awareness, none reporting a decreased awareness, and seven showing no change in their awareness. Skipping ahead for the moment, part F of the question, which asked about community projects, activities and events, also had a significant shift, with thirteen residents reporting feeling better informed, and only one reporting a decreased awareness.

Residents were asked about institutions, like libraries and schools, located in the community. While eight indicated no change, almost as many, seven, indicated an improved awareness of such resources near Camfield Estates. Next, social services and programs provided for the community were considered, and twelve participant residents indicated an improved awareness here. Five indicated no change, and two indicated a decrease, though in neither case did they indicate that they were not informed, only that in the year their awareness had decreased.

As for for-profit resources in the community, the final three sections of this question considered these. The first asked about the participant residents' awareness of businesses located in the community. Nine indicated no change, and five each indicated an increase and a decrease. Getting more specific, they were then asked about the products and services sold by local businesses, and here nine reported an improved awareness, six reported no change, and four indicated a decreased awareness.

Finally, when asked about the employment opportunities in the community, eight participant respondents indicated an improved awareness, eight indicated no change, and only three reported a decreased awareness.

The next question in the section (see Table IX) asked the resident to rate how she felt about her general level of satisfaction with her awareness of all of the resources in the previous question in general, with these responses reflecting her feelings of cognizance and comfort with this social capital. On a five point scale ranging from “very satisfied” to “very dissatisfied”, and a “don’t know” option, changes in eight of the participants’ responses from the pre-assessment survey to the post-assessment survey indicated an increased satisfaction with the awareness of community resources. Eight also indicated no change at all however.

The collective groups’ responses do show general movement in a positive direction when considered as a whole: in the pre-assessment only one person indicated that she was very satisfied, ten were somewhat satisfied, and six indicated that they were somewhat dissatisfied. In the post-assessment, four indicated that they were very satisfied, twelve somewhat satisfied, and none dissatisfied. This comparison revealed that as a collective group, the participants did seem to feel more satisfied at whatever level after their year of involvement in the project with their level of awareness of community resources. This coupled with increased trust, caring, and a greater sense of community adds to an increased level of social cohesion within the group.

### *Local Computer and Internet Use*

The final survey question addressed here was included only in the post-survey section on local use of the computer and Internet. It asked the participant to indicate which of the answer choices best described her awareness and involvement, rather than her relationships since receiving the computer and Internet access. The first sub-question asked how aware of what's going on at Camfield the resident had become since receiving their computer. One resident indicated that she was not sure how to respond, seven reported no change, and two felt less aware, however, nine residents indicated that they had become more aware after getting the computer than they were before. The second sub-question asked how their involvement had changed, as reflected in their attending "less, equally, or more numbers of meetings and events at Camfield." Ten reported no change in their involvement, four were less involved in the community activities at Camfield, and five reported being more involved in the community's meetings and events since receiving their computers and Internet connections to the Camfield community.

## **Chapter Five: Discussion**

In this chapter, the results of the Camfield survey findings indicate whether the integration of communication technologies into the Camfield community affected the interconnectedness of the residents, as reflected by the set of measures that as a whole are referred to here as social cohesion. Addressing the Camfield community's collective concept of community, the levels of trust among the neighbors at Camfield Estates, the parameters of the existent social exchange networks, and the social capital resources of the community pointed to how social cohesion was affected by the access to the tools of technology. After this summation, a discussion of the implications follows.

### *Net Social Cohesion in the Community*

In all, the findings showed an increase in two of the four measures of social cohesion: improved feelings of community and awareness of existent social capital. Indicators of trust revealed a desire to trust, but no overarching willingness to do so consistently among the residents. Residents' attitudes about social exchange were similar. In all then, this comparison of the before and after responses showed that the introduction of the Internet into the community had some positive effects on certain aspects, and no effect on other aspects of the group's total social cohesion.

### *Assessment of Community and Trust*

The first cluster of questions addressed community and trust. In general the questions surrounding community; notions of what a community is and should look like, the levels of trust among the residents, feelings of inclusion and alignment (i.e. membership); indicated no major shift. While a good number of participants did indicate a positive shift in their own feelings of alignment with the group, not enough of the group did so to result in an overwhelming agreement that it was a result of the introduction of the technology that permitted this change (see Tables I, II, XI, XII).

The residents who indicated a positive shift may have felt a change as a result of their living in the development longer and becoming more established within the community, as indicated by the considerable increase in the number of neighbor names most of the respondents were able to add after a year (see Tables II, XVII, XVIII), or because of peripheral benefits that the technology introduced: increased interaction with their fellow residents during the training classes, or from an increased awareness of events in the development facilitated by the C3 website. Results do however suggest that the technology did have an effect for some (see Table IV), in that half of those who understood the question felt that the technology had influenced their connectedness to other Camfield residents positively.

The Internet did seem to affect the ways that the community's residents interacted (see Tables II, XIII, XIV): almost all the residents indicated an increase in the number of neighbors they spoke with. There was a strong showing of participants

who agreed that few of their neighbors knew them, however despite this the participants showed an interest in collective action if others were interested. Also, the respondents remained unfamiliar with their neighbors' activities outside of the community, and indicated a desire to have more contact with their neighbors in the development. As for methods of contact (see Table II), while the residents did show a small increase in the number of neighbors they emailed or phoned, they indicated a greater increase in the number of in-home visits. Their feelings of general connectedness did benefit more markedly because of the access to the technology however (see Table IV): a noticeable number of respondents indicated that they felt more connected to non-specific people like them both inside and outside of their local community, local and distant family and friends, co-workers and people at their place of worship, and to other Camfield residents.

Levels of trust among members of the community were fairly high (see Tables IXX, XX) despite feelings of unfamiliarity with neighbors. All of this seemed to indicate that the technology did increase the weak-ties (Putnam, 2000) among the residents at Camfield; while the residents had not become a tight-knit community, they did seem to move towards increased familiarity and interest in their neighborhood. There did not seem to be agreement on the concept of Camfield Estates could become as a discrete community (see Tables XV, XVI), the faith in the capability of the development to pull together as a cohesive unit if need be did seem to exist. Additionally, the residents seemed to indicate (see Tables XVII, XVIII) that their

membership in the Camfield community provided them with both the obligation and the influence on the future of the development.

So, feelings of community, in Brown and Cropper's (2001) sense, seemed strong among residents, that is, those feelings that reflect membership, a perceived ability to influence the nature of the neighborhood, and shared emotional connections and the fulfillment of needs. Neighborliness; knowing, borrowing from, visiting, speaking and socializing with neighbors, in addition to being willing to help a neighbor by watching their home, or expressing a willingness to improve the neighborhood; was a bit more uncertain.

In all, the results for the questions addressing the community and trust components of social cohesion showed a distinct potential for Camfield to become a more united, cohesive unit. The residents indicated a clear interest in movement towards that vision for the development, but identified that they were not yet there as a whole community. The connective capacity of the technology was quite high for the participants, as was their interest in creating a more salient community within the Camfield development. This suggests that the potential for the greater use of the Internet to move their desire for a more cohesive Camfield Estates community forward is a feasible one.

### *Assessment of Residents' Attitudes About Social Exchange*

The next cluster of questions addressed residents' attitudes towards social exchange among residents at Camfield (see Tables V, VI, VII). The results showed no consistency among the participants' responses, and thus were inconclusive. The same people who showed a willingness to engage in some forms of social exchange did not indicate a willingness to engage in others. Thus, different levels and varieties of trust exist among the residents in the Camfield development. Physical or geographic proximity did not translate into feelings of connection among the residents, and did not dictate their willingness to exchange with their neighbors.

These findings are consistent with the previous section on feelings about community: though the residents were interested and invested in their Camfield community, they did not yet feel that it was a place where their neighbors were their familiars. The desire for a cohesive community is clearly not enough to replicate the behaviors of one, thus the findings for this section, where residents showed a willingness to interact and exchange with their neighbors in need, but it was not an abiding willingness. Sander's (2002) understanding of the value that community members place on the social network of the community as essential to strengthening norms of trust and reciprocity can be seen here. While a degree of trust was existent, as per the last section's findings, it was not enough to diminish the still intrinsic distance present among the community's residents for them to give without fail,

knowing that norms of reciprocity among community would dictate a guarantee of a return on the favor down the road.

#### *Assessment of Residents' Knowledge of Community Social Capital*

The final piece in the assessment of the social cohesion of the community after the technology was introduced was the residents' familiarity with existent social capital (see Tables VIII, IX, X). A substantial increase in the number of participants who reported an improved awareness of what's going on at Camfield, of their neighbors' skills and abilities, social services and programs in the community, available community volunteer opportunities, and community projects, activities and events. A noteworthy number also indicated increases in awareness of the organizations serving the Camfield community, in the institutions like libraries and school near Camfield, in the products and services sold by local businesses, and employment opportunities. While there was an increase in the levels of awareness (i.e. knowledge), there was little increase in the levels of involvement (i.e. action).

After the year, the group showed a positive shift in their overall feelings of satisfaction with their awareness of the resources available to them. The increase in their collective level of knowledge, and the awareness of how to gain access to it, benefits the community as a whole in that it indicates an increase in the accessibility of the community's existent social capital, indicating that the availability of the technology did grease the wheels of their knowledge of the community's existent

social capital so that they could better to leverage it when needed for the benefit of the community.

Putnam's (2000) sense of overall social capital showed a marked improvement. The findings indicate strong weak-tie relationships among the Camfield residents, and a fairly strong increase in bridging capital. Bonding capital among the residents seemed to increase, but was limited to increased awareness rather than increased use of these resources. Recalling Wellman's idea of community commitment, the motivation to mobilize what capital a person has, Camfield residents seemed ranked high in motivation but low in actual mobilization of the community's social capital resources.

### *Implications*

Does the greater integration of communication technology into an offline community contribute to its social cohesion? Not directly. It does create another path for members of that community to learn, with the potential outcome of that increased awareness manifesting within the community sphere. So while the communication technologies do not in and of themselves directly affect the social cohesion of a community, their availability does serve to facilitate the greater social cohesion of that community.

Computer mediated communication "reinforces existing communities, establishing contact and encouraging support where none may have existed before" (Hampton & Wellman, 2001). People remain social creatures whose fact to face

interactions most influence their impressions, associations, and behaviors. The findings here just reiterate that the technology is a tool, which if used correctly can lubricate the simplicity of connection but cannot replace the act of mobilizing to affect and create a changed circumstance. Wellman and Hampton (2001) found similar results in the residents of the Netville community outside of Toronto, being wired did not increase or decrease social contact among the Netville residents in that access to the high-speed local network did not appreciably change the amount of contact between neighbors.

Ultimately then, the social cohesion of a community lies in the willingness of neighbors to put forward collective effort together to benefit the group. Technology serves as an effective tool for the dissemination of information, coordination and organization, but building of trust and reciprocity is something that must occur offline.

While low-income communities like Camfield Estates are unusual in terms of their connectedness to the Internet, the increasing degree of Internet use and saturation creates an environment where for many; highly wired, broadband-enabled communities will soon be the norm. It is exactly in communities like Camfield Estates however that the residents could most benefit from such broadband networks. One of the categories that showed the greatest substantial increase in the findings was the awareness of social services and community programs available, resources that the participants had not been aware of before the introduction of the Internet into their community. In increasing the awareness and general knowledge of the residents at

Camfield, the potential benefits to the residents' quality of life are increased. While the implications of the technology being present in the community is dependent upon their taking action, this is no different than with any other communication medium, except that the always-on connection facilitates access to those resources and enables those with an interest in seeking them out to more easily find them.

In communities like those of the New Urbanist movement where community-boosting features are built in to the design of the neighborhoods, could communication technologies add to the many community-building tools available? Though it has not been determined that these developments actually do create a more socially cohesive environment for their residents, the intention of doing so in their design could perhaps benefit from another method of increasing communication among the residents. Of interest would be a study that compares the social cohesion of New Urbanist developments that do and do not provide high-speed always-on Internet networks into their neighborhoods to indicate more decisively the effects this would have.

So while communication technologies do not in and of themselves benefit the net good in the world, their availability does serve to facilitate the greater social cohesion of a community. Their integration can allow for an enabled community, with access to resources and each other. As Hampton and Wellman (2001) propose:

...several scenarios are possible. Indeed, each scenario may happen to different people or to the same person at different times. In an information society where work, leisure, and social ties are all maintained from within the

smart home, people could completely reject the need for social relationships based on physical location. They might find community online (or not at all) rather than on street corners or while visiting friends and relatives. New communication technologies may advance the home as a center for services that encourage a shift toward greater home-centeredness and privatization. At the same time, the location of the technology in the home facilitates access to local relationships, suggesting that domestic relations may flourish, possibly at the expense of more distant ties” (p. 478).

Every iteration of the above can manifest, however, the need for the individual to take action in any case is essential. Whether to engage community or technology, it is the effort that people must put forward in their interactions with each other that is most essential to the creation of a more socially cohesive neighborhood community.

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