

Building Community, Empowerment and Self-Sufficiency:

Early Results from the Camfield Estates-MIT Creating Community Connections Project

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INTRODUCTION

Many strategies are emerging and being employed to address the “digital divide” (NTIA 1995, 1997, 1999 & 2000) or the gap between those who benefit from new technologies and those who do not within the United States. The challenge in many low- to moderate-income communities has been to identify strategies for providing access to technology, engaging residents with technology, and encouraging meaningful use of technology. This has been done primarily through *community technology* (Morino, 1994; Beamish, 1999) efforts that have, until recently, focused on establishing community technology centers (CTCs) and community-based electronic networks. However, in light of the NTIA’s and other organization’s findings, it is clear that these approaches are a necessary, but not sufficient measure for bridging the digital divide (Benton Foundation, 1998). Consequently, efforts are now underway to augment community technology efforts by bringing computers and communications technologies into the homes of low-income residents (Bishop et al., 1999, Schön et al., 1999).

Started in January 2000, the Camfield Estates-MIT Creating Community Connections Project, a partnership between the Camfield Tenants Association (CTA) and the Massachusetts Institute of

Technology (MIT), has the goal of establishing Camfield Estates as a model for other housing developments as to how individuals, families, and a community can make use of information and communications technology to support their interests and needs. To achieve this goal, CTA and MIT have formed a unique partnership with support from various organizations in the public, private, and nonprofit sectors.

This multi-sector collaboration (Robinson, 2000) has joined to create an infrastructure at Camfield Estates that combines the three primary models for *community technology* (Morino, 1994; Beamish, 1999) – a *community network* whereas state-of-the-art desktop computers, software, and high-speed Internet connectivity have been offered to every family, a *community technology center (CTC)* located on the premises in the community center, and *community content* delivered through a community-based web system, the Creating Community Connections (C3) System – along with an agenda to build community, empowerment, and self-sufficiency amongst the residents.

This paper is a case study of the Camfield Estates-MIT project to-date, including the history and background of the project, the approaches taken to build community, empowerment and self-sufficiency, the methodology that has been employed, and early results from the initiative.

HISTORY OF THE CAMFIELD ESTATES-MIT PROJECT

Camfield Estates, formerly Camfield Gardens, is a predominantly African-American, low- to moderate-income housing development in the Roxbury section of Boston, Massachusetts.

Camfield is a participant in the US Department of Housing and Urban Development's (HUD) demonstration-disposition or "demo-dispo" program (HUD/MHFA, 1998). Demo-dispo was implemented by HUD in 1993, as a strategy to deal with its growing inventory of foreclosed multifamily housing, much of which was in poor physical and financial condition (MHFA, 2001). Through this national demonstration program, approved only in the City of Boston, the Massachusetts Housing Finance Agency (MHFA) was designated to oversee the renovation and sale of HUD properties to resident-owned organizations. As a result, the 136 low- to medium-rise apartments of Camfield Gardens were demolished in 1997 and residents were relocated throughout the greater Boston area. Reconstruction of the property was completed in 2000 as residents returned to Camfield Estates – 102-units of newly built town houses. The renovated property also includes the Camfield community center which houses meeting space, management offices, and the Neighborhood Technology Center (NTC) – a CTC and HUD Neighborhood Networks site, managed by Williams Consulting Services, and supported by MHFA. Finally, in 2001, HUD will dispose (transferred ownership) of the property to the non-profit Camfield Tenants Association, Inc. (CTA), making Camfield the first of several participants in the demo-dispo program to successfully complete the process.

The Camfield Estates-MIT Creating Community Connections project was initiated in January 2000, by graduate students and faculty from the MIT Media Laboratory, MIT Department of Urban Studies and Planning, MIT Center for Reflective Community Practice, and MIT Laboratory for Computer Science. These researchers shared an interest in the role of technology for the purpose of building community, empowerment, and self-sufficiency in a low-income community. Camfield was identified as an excellent site to examine these issues and conduct a

longitudinal study for numerous reasons, including the strong leadership exemplified by CTA, the cable-modem Internet capabilities in each unit, and the presence of NTC, along with its associated course offering and ongoing technical support. However, what made Camfield particularly attractive were the prospects to sustain the initiative as a result of their leading role in the demo-dispo program and impending ownership of the property.

The W.K. Kellogg Foundation provided primary support for the project in the form of a monetary grant, followed by in-kind donations from Hewlett-Packard Company (computers), RCN Telecom Services (cable-modem Internet service), Microsoft Corporation (software), and ArsDigita Corporation (software and technical support), with additional support from MHFA, Williams Consulting Services, Lucent Technologies, HUD, the Institute for African-American eCulture (iAAEC), YouthBuild of Boston, and the William Monroe Trotter Institute at the University of Massachusetts at Boston.

Exploratory meetings between CTA, MIT, Kellogg, and Williams Consulting took place during the winter 2000, culminating in final approval of the project by CTA. Under CTA's leadership, in spring 2000 a nine-person committee ("project team") was established to oversee the project's implementation, which consisted of three Camfield residents, two representatives of CTA, two members of Williams Consulting staff, and two researchers at MIT. The project officially began in June 2000.

TECHNOLOGY AND BUILDING COMMUNITY

One of the project's goals is to explore the synergy between *community technology* (Morino, 1994; Beamish, 1999) and *community building* (Aspen Institute, 1997; Kingsley, McNeely, & Gibson, 1999; Mattesich & Monsey, 1997). *Community technology* has been referred to as "a process to serve the local geographic community - to respond to the needs of that community and build solutions to its problems" (Morino, 1994, p. 1), and defined as "using the technology to support and meet the goals of a community" (Beamish, 1999, p. 366). *Community building* is an approach to community revitalization that is focused on "strengthening the capacity of residents, associations, and organizations to work, individually and collectively, to foster and sustain positive neighborhood change" (Aspen Institute, 1997, p. 10).

The integration of these domains has been informed by the theoretical framework of *sociocultural constructionism and an asset-based approach to community technology and community building* (Pinkett, 2001). Sociocultural constructionism and an asset-based approach to community technology and community building involve participants as active agents of changes, rather than passive beneficiaries or clients, and as the active producers of information and content, rather than passive consumers or recipients. This orientation is grounded in the theories of *sociocultural constructionism* (Pinkett, 2000) and *asset-based community development (ABCD)* (Kretzmann & McKnight, 1993).

Sociocultural Constructionism

Sociocultural constructionism (Pinkett, 2000), a synthesis of the theories of *social constructionism* (Shaw, 1995) and *cultural constructionism* (Hooper, 1998), is rooted in the theory of *constructionism*, a design-based approach to learning, drawing on research showing that people learn best when they are active participants in design activities (Papert, 1993), and that these activities give them a greater sense of control over (and personal involvement in) the learning process (Resnick, Bruckman, & Martin, 1996). *Sociocultural constructionism* argues that "individual and community development are reciprocally enhanced by independent and shared constructive activity that is resonant with both the social setting that encompasses a community of learners, as well as the culture of the learners themselves" (Pinkett, 2000, pp. 4-5). In the context of community technology, sociocultural constructionism advocates the following guidelines:

- *Empower Individuals and Communities* – As mentioned earlier, community technology has been referred to as "a process to serve the local geographic community - to respond to the needs of that community and build solutions to its problems" (Morino, 1994, p. 1). A sociocultural constructionist approach, as it endeavors to achieve social and cultural resonance, simultaneously seeks to empower individuals and communities to identify their interests and how technology can support those interests.
- *Engage People as Active Producers, Not Consumers* – Based on its constructionist underpinnings and emphasis on independent and shared constructive activity, sociocultural constructionism promotes community members as the active producers of their own information and content, rather than passive consumers or recipients. This includes

individual expression of ones knowledge, interests, and abilities, as well as communication and information exchange at the community level.

- *Emphasize Outcomes, Instead of Access* – Access does not imply use and use does not imply meaningful use. Sociocultural constructionism posits that one pathway to achieving individual and community development is to position technology as a tool for achieving outcomes in areas such as education, health care, and employment, instead of a tool for access, merely for the sake of access.

These guidelines reflect some of the lessons learned from the community technology movement thus far.

Asset-Based Community Development

Asset-based community development (ABCD), a particular model, or technique, for community building, assumes that social and economic revitalization starts with what is already present in the community – not only the capacities of residents as individuals, but also the existing commercial, associational and institutional foundation (Turner & Pinkett, 2000). Asset-based community development seeks to leverage the resources within a community by "mapping" these assets and then "mobilizing" them to facilitate productive and meaningful connections. Kretzmann and McKnight (1993) have identified three characteristics of asset-based community development:

- *Asset-based* – Asset-based community development begins with what is present in the community (assets), as opposed to what is absent or problematic in the community (needs). It is focused on indigenous assets as opposed to perceived needs. An asset-based approach involves community residents, organizations, institutions (e.g., libraries, schools, etc.), and businesses.
- *Internally focused* – Asset-based community development calls upon community members to identify their interests and build upon their capacity to solve problems. One of the distinguishing characteristics of the ABCD approach is its heavy emphasis on leveraging that which is in the community first, before looking to (but not excluding) outside entities and/or resources.
- *Relationship driven* – Community building has also been defined as "any identifiable set of activities pursued by a community in order to increase the social capacity of its members" (Mattesich & Monsey, 1997, pp. 8-9). Consequently, asset-based community development encourages the ongoing establishment of productive relationships among community members, as well as the associated trust and norms necessary to maintain and strengthen these relationships.

These principles acknowledge and embrace the traditions of successful community revitalization efforts from the past. Together, sociocultural constructionism and asset-based community development help operationalize a methodology for integrating community technology and community building.

TECHNOLOGY, EMPOWERMENT AND BUILDING SELF-SUFFICIENCY

Another one of the project's goals is to investigate the role of technology in empowering low- to moderate-income residents in their efforts toward becoming more self-sufficient. As noted earlier, community technology can be defined as "using the technology to support and meet the goals of a community" (Beamish, 1999, p 366), whereas empowerment and self-sufficiency are integral parts of the strength of a community.

Empowerment

Community *empowerment* emerges from a process of the determination and inspiration of the individual. Community empowerment involves a three-stage approach, which begins with psychological empowerment of the individual (Zimmerman, 1999) and builds into what can be

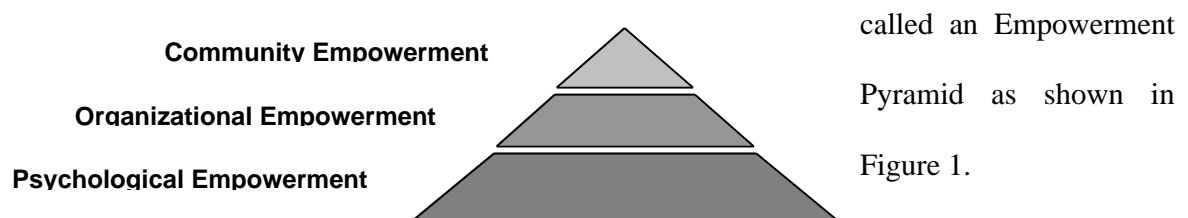


Figure 1: Empowerment Pyramid

Theory has been developed which suggests ways to measure the construct in different contexts, to study empowering processes, and to distinguish empowerment from other constructs, such as self-esteem, self-efficacy, or locus of control. Community empowerment literature parses out the levels of analysis at the individual, organizational and community levels (see Table 1).

Level of Analysis	Process (“Empowering”)	Outcome (“Empowered”)
Individual	Learning decision making skills	Sense of Control
	Managing Resources	Critical awareness
	Working with others	Participatory behavior
Organizational	Opportunities to participate in decision-making	Effectively compete for resources
	Shared responsibilities	Networking with other organizations
	Shared leadership	Policy influence
Community	Access to resources	Organization coalitions
	Open government structure	Pluralistic leadership
	Tolerance for diversity	Residents’ participatory skills

Table 1: A Comparison of Empowering Processes and Empowered Outcomes Across Levels of Analysis (Zimmerman, 1999)

The foundation for community empowerment is ultimately the empowerment of the individual. The empowerment of the individual begins with an individual’s belief that what they are trying to accomplish is in fact possible. What begins to emerge is the psychological aspects of empowerment. Psychological empowerment can be disaggregated into three components – interpersonal, interactional and behavioral (see Figure 2).

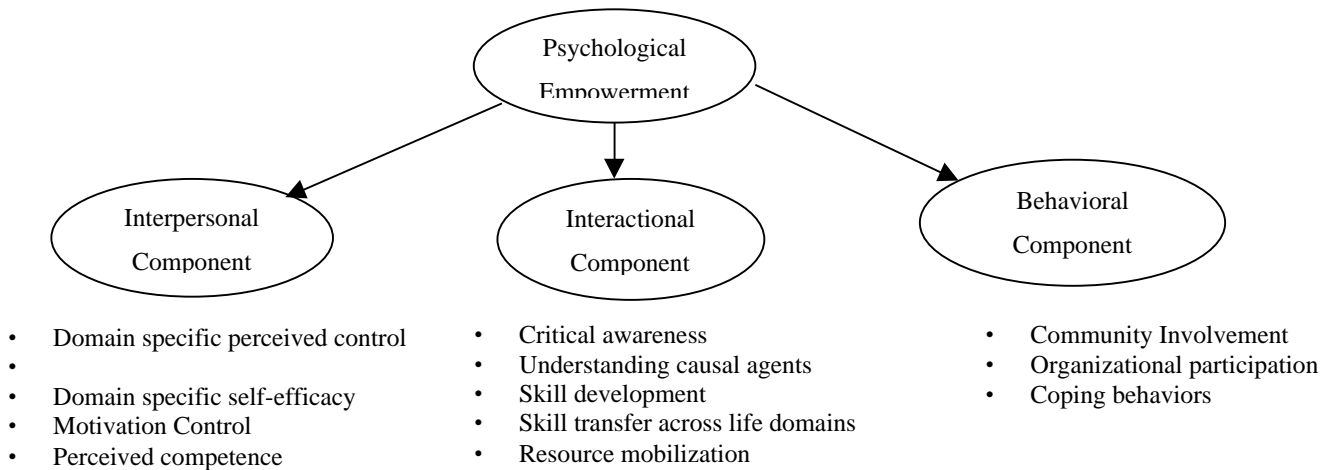


Figure 2: Disaggregation of Psychological Empowerment (Zimmerman, 1995)

By involving technology in the empowerment model, what emerges is an acknowledgement of the critical role of information and how a sense of control can also play a role in the representation and/or indication of empowerment and participatory behavior. In addition to the practical nature of technology's presence, it also plays a psychologically empowering role in assisting with the efficient and effective means by which information can be accessed.

Self-Sufficiency

The Federal Government, in particular HUD, narrowly defines *self-sufficiency* as having enough income to cover expenses from month to month without the assistance of a subsidy. The Asian Neighborhood Design Networks (1996) offer a more comprehensive definition of self-sufficiency, which relates to having some semblance of control over the basic functions and fundamentals of an individual and/or family's life.

In addition to a stable income, the elements of self-sufficiency also include education and skills, housing and nutritional stability, safety and environmental stability, the availability and accessibility of needed services, relationships and social networks, and the strength of personal attributes (motivation, desire, etc.). Self-sufficiency in these basic terms can be at different levels for each individual and/or family, which suggests that a continuum may be a better representation as opposed to an end state because ultimately, in today's society, total self-sufficiency is unachievable.

Technology and self-sufficiency is emerging as a critical issue, not solely based on having computer skills but inclusive of the fact that a vast array of societal resources are being made available electronically on the Internet. Self-sufficiency means not having to rely on others for things that can be acquired or produced for oneself. Therefore, in today's information-based society, access to information about what affects one's life is becoming a necessary element to reducing dependence on various external supports. In summary, technology can contribute to a greater sense of freedom and control over one's life toward becoming more self-sufficient.

CAMFIELD ESTATES-MIT PROJECT METHODOLOGY AND EARLY RESULTS

In June 2000, the project committee outlined a methodology, consisting of five interrelated, and at times parallel phases, including: I. Pre-Assessment and Awareness, II. Community Technology – Introductory/Specialized Courses and the Creating Community Connections (C3)

System, III. Building Community, Empowerment and Self-Sufficiency, and IV. Post-Assessment and Evaluation.

Phase I: Pre-Assessment and Awareness

During the summer 2000, the project team developed a pre-assessment survey instrument to collect data in the following areas: *community interests and satisfaction, social networks (strong and weak ties), neighboring, awareness of community resources, community satisfaction, community involvement, empowerment, self-sufficiency, computer experience, hobbies, interests and information needs, assets and income, and demographics*. The survey was designed for two purposes. First, to provide strategic direction for the initiative by identifying the interests and needs of residents. This information would shape the nature of online and offline activities to be planned in the future. Second, to provide baseline and formative data for the research study. This information would be used to perform a comparative analysis of a similar data set to be gathered approximately one-year later.

During this same period, an awareness campaign was conducted to inform residents about the initiative. A series of mailings were distributed describing the project's goals and objectives, and offering a new computer, high-speed Internet connection, and comprehensive courses at NTC, for adults 18-years and older that completed the courses, completed the preliminary interview, and signed an informed consent form granting permission to track the web-traffic at Camfield through a proxy server (aggregate patterns of use only, and not individually attributable). An open forum was also held in the community center for questions and answers. While families

were encouraged to attend the training, at least one adult from each household had to fulfill these requirements in order to receive the computer and Internet access. Given the fact that NTC was primarily used by youth at this time (O'Bryant, 2001), it was the decision of the committee to restrict participation to adults only, as we believed it would motivate parents to attend the training for the benefit of their children.

August 2000 marked the deadline to sign-up for the project, and 32 of the 66 occupied units at Camfield elected to participate in Round I. Subsequently, and just prior to the introductory courses, three committee members administered the preliminary survey via one-on-one interviews with each of these participants (lasting between approximately one and four hours).

Phase II: Community Technology – Introductory/Specialized Courses and the Creating Community Connections (C3) System

From September to October 2000, introductory courses were offered at NTC to Round I participants. The activity-based curriculum lasted eight weeks (two sessions per week, two hours per session) and covered various aspects of computer and Internet use. In November 2000, specialized courses were offered on how to use the Creating Community Connections (C3) System, available through the Camfield Estates website (<http://www.camfieldestates.net>), as shown in Figure 3. Whereas the introductory curriculum was designed solely by Williams Consulting Services, with input from MIT, the C3 curriculum was co-designed by both parties.



Figure 3: The Creating Community Connections (C3) System

Based on the principles of sociocultural constructionism, C3 is a database-backed web system designed to establish and strengthen relationships between community residents, local businesses, and neighborhood institutions (e.g., libraries, schools, etc.) and organizations. Co-designed between Camfield residents and MIT, C3 serves two primary functions:

- As a *community intranet*, C3 facilitates community communication and information exchange with the following features: resident profiles (cataloging formal and informal skills and interests obtained during specific asset-mapping, described in greater detail below), community calendar of events, community discussion forums, community e-mail lists (listservs), community chat rooms, community news and announcements, surveying, and more.
- As a *community extranet*, C3 facilitates asset-mapping and asset mobilization among residents, organizations, and businesses with the following features: organization and

business database (visualized using a geographic information system (GIS) that represents this data in the form of a map with hyperlinked symbols for various resources), job and volunteer opportunity postings, online résumés, personal home pages, personalized web portals, electronic commerce, and more.

C3 is built using the ArsDigita Community System (ACS), an open-source software platform. C3 is delivered using an application service provider (ASP) model – Camfield residents create and maintain the content, while MIT administers and maintains the associated hardware and software.

In November 2000, 26 families received computers, software, and subsequent high-speed Internet access, having fulfilled the aforementioned requirements. In January 2001, a second awareness campaign was conducted and aimed at the 47 families still eligible for the project (the number of occupied units had increased from 66 to 80), including another round of mailings and meetings. After the second deadline passed, only 8 additional families elected to participate in the project, the majority of whom were Spanish-speaking, as we were late distributing the flyers in their native-language during Round I.

Unwilling to accept these numbers as being representative of residents' interest, we embarked on a grassroots, door-to-door, outreach campaign to make sure people were fully aware of this unique opportunity. As a result, we were able to increase Round II numbers from 8 to 27 families, raising the total number of families participating in the project to 59 out of 80 eligible

units. Interestingly, for those residents that did not participate in Round I, but decided to participate in Round II, the most commonly cited reasons were:

- Miscommunication/misunderstanding ("I never received any of the flyers"),
- Skepticism ("It sounded too good to be true"), and
- They already owned a computer and weren't as quick as others to move on the opportunity.

For those residents that did not participate in either Round I or Round II, the most commonly cited reasons were:

- Lack of relevance ("I just don't want to be involved"),
- Too many responsibilities, including a few single mothers juggling multiple obligations, and
- A health-related condition preventing involvement.

A third awareness campaign will be conducted at the end of Round II, along with a flexible training program (e.g., one-on-one instruction), which will hopefully enable the participation of residents who were interested, but unable to participate in Rounds I and II.

Phase III: Building Community, Empowerment and Self-Sufficiency

Per the asset-based community development approach, a resident-led general asset-mapping took place during the summer 2000, with technical assistance from researchers at MIT. It consisted of mapping all the organizations, institutions (e.g., libraries, schools, etc.), and businesses within an

approximately 1.5-mile radius of Camfield, as shown in Figure 4. This broad attempt to identify community resources was done to obtain local information of potential benefit to residents that would eventually be made available through C3, and as a preparatory step for more specific asset-mapping to be conducted after analyzing the results of the pre-assessment. Not surprisingly, the mere process of gathering this information served to heighten residents' awareness of assets in their own neighborhood. For example, the first-pass general asset-map was conducted within a few square blocks of the property. Residents soon discovered there were very few organizations and institutions in this catchment area, and only a small cluster of businesses. The decision was then made to expand the radius of the asset-map to 1.5 miles, which captured approximately 757 businesses, 178 organizations, 67 churches, and 29 schools, as shown in Figure 4.

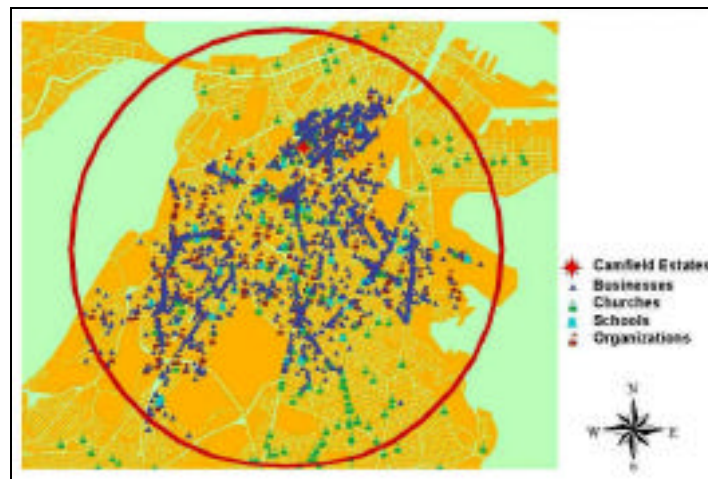


Figure 4: Camfield Estates Catchment Area

Specific asset-mapping began in November 2000, and consisted of mapping the formal and informal skills of residents, as well as a more detailed mapping of a targeted sample of the

organizations, institutions, and businesses previously identified during general asset-mapping. The former activity took place during the final two weeks of the introductory and specialized courses. Using C3, residents entered their formal and informal skills and interests, by selecting from an inventory of more than 150 items. Given this information, residents could now use C3 to identify neighbors who could perform plumbing, babysitting, web design, etc., or, neighbors who were interested in learning these skills. Residents were often pleasantly surprised to learn about the talents and abilities of their neighbors. Furthermore, in learning asset mapping techniques, residents will be able to perform the associated tasks in future as information, assets and resources change.

Finally, to begin to address the areas of empowerment and self-sufficiency, the introductory and specialized courses were followed by a series of thematic workshops that covered the topics of online educational, banking, shopping, government, and housing services. Through these workshops, residents were able to acquire additional skills that enabled them to tap into information resources that were specific to their interests and needs.

Phase V: Post-Assessment and Evaluation

In August 2001, a post-assessment and evaluation was conducted with the head-of-household from the 26 out of 32 families who completed the introductory course (only the data for 19 of these 26 families was available at the time of this publication). The average participant could be described as a single, Black/African-American female, head-of-household (complete demographics for these participants can be found in the Appendix).

The post-assessment and evaluation consisted of a comparative analysis against the pre-assessment interviews and other sources of data (proxy server logs, C3 server logs, direct observation) to quantify and qualify our progress to-date. Some of the early results and highlights from the post-assessment include the following:

- *Participants have expanded their local ties.* The number of residents that were recognizable by name increased from 30 to 40 out of a possible 137 adults; the number of residents contacted via telephone and e-mail doubled ($t = -1.978$; $p = 0.063$); 53% of participants reported that they were more connected to family and friends in the local area.
- *Participants have a heightened awareness of community resources.* The number of City of Boston services, programs, and/or departments that participants had heard of or used increased from 34 to 43; a paired-samples T test of residents awareness and utilization of community resources in nine categories resulted in a statistically significant increase in four of those categories (a fifth was nearly significant) including: residents skills and abilities ($t = 3.284$; $p = 0.004$), volunteer opportunities in the neighborhood ($t = 3.684$; $p = 0.002$), social services and programs provided for the community ($t = 3.240$; $p = 0.005$), community projects, activities, and events ($t = 4.371$; $p = 0.000$), and employment opportunities in the community ($t = 1.924$; $p = 0.070$); the Camfield Estates website and the C3 system received high marks from participants when asked to rate its usefulness in this regard.

- *Participants are better informed about what is happening at the development.* Almost half of participants (47%) reported that they are more aware of what is going on at Camfield when compared to before the project was started; the most popular C3 modules were the resident profiles (31% of traffic), calendar of events (18% of traffic), and discussion forums (13% of traffic) on the Camfield Estates website, and while these modules experienced moderate use, their traffic has steadily increased since the site went live.
- *Participants have cultivated the meta-competence of a renewed confidence in themselves and their ability to learn.* Qualitative responses from the one-on-one interviews revealed a shift in participants' attitudes and perceptions of themselves as learners. Several participants described their personal transition of moving from a reticence toward technology to envisioning themselves as (or taking actual steps to becoming) web designers, network administrators, and programmers. In particular, their participation in the training has given them a greater appreciation of their strengths, and it has given the community a greater appreciation of its most basic assets, the skills and abilities of its residents.
- *Participants have been inspired through use of the Internet to stay informed locally, nationally and internationally.* Although the pre-survey revealed that a significant number of Camfield residents already possessed a strong personal commitment to their local community, in the post-survey all participants said they felt inspired knowing how to use a computer and the Internet, while the data suggest they have been using these tools to obtain information both within and beyond the local area. 84% and 90% of participants went on-line frequently and/or occasionally to obtain information local to the City of Boston and

national information (news, sports, etc.), respectively. Furthermore, a strong majority of 95% of participants felt motivated to find out more about what is going on in the world.

- *Participants are using the Internet to gather information that can help address basic needs –* With nearly 90% of participants reporting that they are more aware of human and health services in their community, residents have begun to develop a cadre of options for themselves to support their essential needs. 89% felt that they could find housing through the Internet if they needed to, while 84% stated the same with respect to finding a job. Shopping online for retail goods such as clothes, books, music, movie tickets, etc. was very popular with 74% of the participants. These results show an emergence of using the Internet to search and address basic fundamental needs.

CONCLUSION

The post-assessment provides greater insight to milieu at Camfield, as well as the challenges and opportunities of building community, empowerment, and self-sufficiency. These challenges and opportunities can be grouped into three interrelated categories: technological, social, and cultural.

Technological

The technological challenges and opportunities have been primarily centered on skill development, continuous learning, and cultivating technological fluency. The question is not

whether participants have the requisite ability to become technologically fluent, as they most certainly do. The question is how to establish a convenient means to develop their skills on an ongoing basis. Another finding from the post-assessment was participants' strong desire to use technology in creative ways (e.g., building a website, designing a flyer or newsletter, etc.) yet lack of time to engage in these activities or attend follow-up courses. Not surprisingly, participants' making the greatest strides toward technological fluency, were those receiving some form of ongoing support for continuous learning from family members, friends, or NTC staff. For those who did not have a readily accessible or convenient means of support, they made only moderate progress toward becoming more technologically fluent since completing the introductory course, despite their desire to do so (ironically, residents have not turned to other residents en masse for such support, which is an issue we will revisit in the context of the cultural challenges).

Nonetheless, participants' motivation to become more active as creators and producers of content is a positive sign for the future, and strategies are being developed to tap into this interest. While the Camfield Estates website and the C3 system have played a role in promoting this type of engagement there is still room for improvement toward providing a broader range of ways for residents to express themselves. Many of the existing mechanisms available via C3 are text-based or form-based, which does not exploit the expressive power of images, audio, and video. Fortunately, and in response to the preliminary and post-assessment results, a website design course will be offered during the fall 2001 for participants from Round I and Round II. This course will further advance sociocultural constructionist and asset-based principles by providing an excellent opportunity for residents to create content and share ideas with one another, while

also providing an avenue for expression that leverages the multimedia affordances of web technology.

Social

The social challenges and opportunities offline are informed by the fact that although the number of residents recognizable by name and contacted via telephone and e-mail increased, the baseline numbers for these measures and related measures were relatively low to begin with. In August 2000, participants could recognize 30 out of a possible 137 adults (22%), but only talked to 10 on a regular basis, visited 4 in the past six months, were visited by 3 in the past six months, and telephoned 2 in the past six months. Furthermore, these numbers were drawn from a Round I cohort of participants that included every member of the CTA board of directors. While almost every participant expressed the fact that they knew several residents “by face,” such accounts are still indicative of a cursory rather than deeply personal relationship.

Now that residents have settled back into their homes, the number (and nature) of social activities and events at Camfield continues to rise. Ongoing efforts such as these hold the greatest promise to foster deeper and more meaningful relationships among residents that transcend the superficial and can potentially be translated into action. Furthermore, one of the areas we unfortunately have not yet capitalized on is the large number of residents who expressed an interest in contributing to this project (81%) with whom we have not followed up with in any formal manner. Thus far, the project’s implementation has been guided by Camfield

leadership and the project team. Clearly, this is extremely fertile ground for soliciting more widespread involvement from the community.

Finally, any discussion of the social challenges and opportunities must be tempered by the reality that only one-third of the families at Camfield (26 out of 80) have completed the introductory courses and received a computer and high-speed Internet connection. In order to use technology for communication and other social purposes, users must have an audience or critical mass of community members to connect with. For example, in order to send an e-mail, you have to know someone who has access to e-mail. Similarly, to connect with others online there has to be a community to connect with that is online. While the levels of participation in Round I were an excellent starting point, our efforts at Camfield will undoubtedly be enhanced by the families completing Round II and the families scheduled to begin Round III.

Cultural

What is essentially taking place at Camfield is a cultural shift, or re-orientation toward community and technology as a result of their return to the renovated property and the associated infrastructure that has been set in place. In order to achieve greater use of technology for the purposes of building community, empowerment, and self-sufficiency, Camfield leadership is going to have to continue to take an active role in promoting its use in this capacity. CTA board members, NTC representatives, and Camfield staff members will have to continue to set in place policies and procedures that facilitate and accelerate this shift.

At the core of these opportunities is not only residents' reorientation toward integrating technology into their daily lives, but rather, residents' reorientation toward integrating technology *and* the notions of building community, empowerment, and self-sufficiency into their daily lives. Such a paradigm shift is fundamental to the arguments put forward by sociocultural constructionism, asset-based community development, and the literature surrounding empowerment and self-sufficiency. It is anticipated that as the technological and social challenges are hopefully addressed via continuous learning and greater levels of engagement amongst the families at Camfield, this cultural shift will similarly be advanced as residents gradually adjust their habits and expand their vision of the possibilities.

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APPENDIX – Participant’s Demographics

Race	Total	%
Black/African-American	13	68.4%
African-Caribbean	2	10.5%
Asian/Pacific Islander	0	0.0%
Spanish/Hispanic/Latino(a)	1	5.3%
White/Caucasian	0	0.0%
Native American/American-Indian	0	0.0%
Mixed/Mutiracial	1	5.3%
Other	2	10.5%

Table 1: Race of Participants

Gender	Total	%
Female	16	84.2%
Male	3	15.8%

Table 2: Gender of Participants

Education	Total	%
Less than high school	0	0.0%
High school diploma or GED	4	21.1%
Less than two years college	4	21.1%
Less than four years college	5	26.3%
Two-year degree	2	10.5%
Four-year degree	2	10.5%
Postgraduate degree	2	10.5%

Table 3: Education of Participants

Marital Status	Total	%
Married	5	26.3%
Single	10	52.6%
Divorced	4	21.1%
Window(er)	0	0.0%

Table 4: Marital Status of Participants

Age	Total	%	Age	Total	%
0 - 5	0	0.0%	40 - 49	6	42.9%
6 - 12	0	0.0%	50 - 59	2	14.3%
13 - 17	0	0.0%	60 - 69	1	7.1%
18 - 22	0	0.0%	70 - 79	0	0.0%
23 - 29	3	21.4%	80 - 89	0	0.0%
30 - 39	2	14.3%			

Table 5: Age of Participants

Family Size	Total	%
1 person	2	10.5%
2 people	5	26.3%
3 people	2	10.5%
4 people	4	21.1%
5 people	5	26.3%
6 people	1	5.3%

Table 6: Family Size of Participants

Income	Total	%
Less than \$10,000	1	5.3%
\$10,000 - \$14,999	4	21.1%
\$15,000 - \$19,999	0	0.0%
\$20,000 - \$24,999	4	21.1%
\$25,000 - \$29,999	3	15.8%
\$30,000 - \$34,999	4	21.1%
\$35,000 and up	1	5.3%
No Response	2	10.5%

Table 7: Annual Income of Participants