

# Designing Community Interfaces in North Philadelphia: An Evolving Revitalization Strategy

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## INFORMATION TECHNOLOGY AND THE CITY

Information and communication infrastructures have dramatically affected the experience of both space and time in urban contexts, in some instances replacing or substituting physical places with virtual ones. A number of urban theorists and practitioners have in recent years drawn our attention to the fact that cities are as much about how they are organized (and experienced) through information technologies and networked communication infrastructures as they are physical form. We increasingly use ICTs as a means of understanding, filtering and perceiving the city. City websites, televised and print news, on-line social networks and blogs for example, have all increased our awareness of the urban realm. We have personalized our cities, often conciliating the complexity of information and our expanding metropolitan areas with new ICT tools. The ability to navigate this information using computers, and increasingly cell phones, has brought both a global array of perspectives and connections together with data about our local environments.

The merging of physical and digital realms, however, is not evenly applied or experienced. The rapid rise of an "information culture" has spawned the opposite for those not plugged in. Urban sociologist Manuel Castells characterizes the city as "socially and spatially polarized." with many communities effectively cut off from economic opportunities, jobs, and infrastructure. [1] Without the knowledge of how to use and access information technologies, residents in these neighborhoods are outside of the emerging economy and ultimately unable to fully participate in society. According to the US Department of Labor, 8 out of 10 jobs will require computer skills, and those that work with

computers on average earn 43% more than those that don't. [2] As Janine Shinoki-Clifford has recently pointed out:

"In a technology-intensive and not-too-distant future, where entry level jobs that previously required no special skills will require the ability to utilize some type of digital terminal, and where access to basic life needs will increasingly be melded with a digital interface, the definition of literacy will include the proficient use of a computer and the Internet." [3]

In lieu of many virtual experiences that have replaced or substituted physical spaces, there remains a multitude of significant social and cultural aspects of human existence that remain firmly rooted in our daily lives. Far from replacing human interaction with virtual exchanges, planner Stephen Graham points out that conditions of "recursive interaction" have developed through a co-evolution of virtual and physical realms in which "Material space and electronic space are increasingly being produced together." He continues to state that "[T]he articulation between widely-stretched telematic systems, and produced material spaces and places, becomes the norm and is a defining feature of contemporary urbanism". [4] Recent evidence suggests that IT has been the root of a resurgence of many older, established commercial districts, however such revivals of historic urban cores have bypassed many long-term, economically and socially disenfranchised inner city communities. [5] This condition, often termed the "digital divide", is a result of network forms of poverty, in which information and communication net-

works have only exacerbated conditions of marginalization of inner-city communities. When considering the future of urban design, these trends bring enormous opportunities and challenges to bear upon our work. On the one hand, we have a potentially expanding toolkit in which to address some entrenched problems that have plagued neighborhoods for decades. On the other hand, some of the concepts that traditionally form the basis of urban design practice and theory have transformed beyond recognition.

### REDEFINING COMMUNITY

The discipline of urban design and planning has traditionally positioned the notion of community as a place-based or location specific entity. In the wake of ICT and new ordering of social and cultural networks, ideas of what constitutes community and new forms of collectivity have been intensely debated. Similarly, it can be argued that any construction of community infers that the production of physical urban form alone does not develop communities, but that they are functions of complex social and cultural interactions over time, a result of which is not a predictable or prescriptive result of urban planning. In other words social structure do result from formal design solutions. When considering the restructuring of urban areas in the past half-century from migration, information networks, and the decentralization and globalization of capital, the clarity of what constitutes notions of an urban community must be questioned relative to traditional organizational methodologies in urban planning. In opposition to traditional forms of communities defined by geographic boundaries, a variety of diverse groups and organizations use digital telecommunications to become members of innumerable networked communities related to political, social, professional, personal, health-related, or other issues. However, place based communities are as well finding new modes of connectivity and representation through expanding their use of Information Technology. Social and community networking both from within local communities based services and activities, as well as those at larger urban, regional, and national scales of organization are being facilitated increasingly through Information Technology. Just a few years ago it would have been nearly unthinkable for a small grassroots community organization to participate and benefit from national organizations of community groups that are present today. Some

non-profit organizations in marginalized communities are not only aware of the need of community networking through ICT, but have made it a top priority. The ability to share not only their experiences, but to actively participate through a consulting network of services is a significant asset to grassroots organizations.

### SOCIAL SOFTWARE

Considering the changes in how communities are defined and understood, infrastructure must be re-evaluated and conceptualized to address challenges of urban neighbourhoods. Unlike traditional urban infrastructure developed and administered by public authorities providing services evenly throughout the city, ICT remains predominantly an enterprise of the private sector, increasingly condensed through corporate mergers and acquisitions, which has unfortunately produced new forms of uneven development and further social and economic exclusion. Whereas urban infrastructure is traditionally based on a model of the industrial city comprised of large, complex and hierarchical infrastructures, centralized plant structures and centralized systems of control, the private sector / commercial world has adopted flexible forms of management and organization through the incorporation of ICT networks.

This flexibility is indicative of ICTs inherent qualities as a value-added infrastructure. ICT enables us to make efficient use of existing infrastructure (real time management and pricing of water for instance) and enhances our ability to communicate. Simply providing access is not enough as the services potentially channelled through digital networks are expansive given that they are meaningful for the targeted users. Infrastructure, as pointed out by Graham and Marvin, is a socio-technical process shaped by the values of numerous stakeholders, investors and users. [6] It is no longer simply an issue of wires, nodes and hubs, but of social and cultural relations. For these reasons, technology is neither ubiquitous nor homogenizing, and must be understood as a tool that can have immensely positive or negative impacts depending upon how it is understood and used in practice. The integrated outlay of ICT infrastructure in neighbourhoods provides the opportunity for what we refer to as 'social software,' - the combination of programs, services, community relations and the necessary physical wiring (or unwiring in the case

of WiFi development) to support those efforts. Social software is place-based but not place exclusive. Its services and means of community interaction emerges from frequent contact with the local users. In essence, social software seeks to create a digital network that expresses and re-presents the unique characteristics of each neighbourhood while enabling opportunities to access services and information beyond its physical boundaries. We believe this is a coordinated process of community interaction, technology planning and physical design.

### **INTERFACE**

The remainder of this paper will focus on the interaction between re-organized forms of community, physical urban space, and ICT. The notion of "interface" is useful as both metaphor and process to develop an integrated strategy between ICT and urban design. Defined as (1) "a surface forming a common boundary of two bodies, spaces, or phases; (2) "the place at which independent and often unrelated systems meet and act on or communicate with each other", [7] interface becomes a workable strategy in the process of revitalizing neighborhoods. Considering that city design has always been about how linkages of people and goods can be focused to create elevated conditions of activity our intention is to uncover how the linkages between physical space and ICT can be manipulated to produce, enhance or intensify urban environments.

### **THE COMMUNITY OF APM**

The community organisation Asociacion Puretorriqueños en Marcha (APM) is located in lower North Philadelphia between Temple University and the once prosperous American Street Industrial corridor, which in the early 20th century helped to promote Philadelphia as "the workshop to the world". Overlapping portions of three different neighborhoods and the service areas of three community development corporations, the target area is defined less by a specific neighborhood identity or racial group and more by its proximity to both Temple University and the American Street Empowerment Zone. The extensive amount of vacant land and lack of a clear 'neighborhood center' further lessens the ability to find, let alone create, a unified neighborhood image.

Although less than mile from the positive change in the thriving Center City business district, the area that has long suffered from deterioration, urban blight, vacancy and crime, which inhibits investment economic recovery and frustrates the ability to attract a mix of incomes to the area. A review of census figures confirms these observations. The APM area has lost no less than 50% of its population from a peak in the early 1950's, and has experienced a 16% average decrease in population between 1990 and 2000. Household income is less than 60% of the city median and over 44% of families fall below the poverty level compared to 18% for the City and approximately 9% nationally. [6] The area's extreme amount of vacancy and physical deterioration has isolated its residents, providing neither the retail services that others in the City enjoy nor adequate park space to serve the area's children. Germantown Avenue, once a thriving neighborhood commercial core, contains only a handful of businesses. Although public transportation in the form of buses, local subway service and regional rail service are within a short walking distance of much of the community, concerns of safety deter pedestrian activity. The amount of safe open space in the area is inadequate for the neighborhood and continuously noted by residents as a major issue. Home to a diverse population (an approximately 50-50 split of Hispanic and African-American residents), the neighborhood is further challenged by racial tension and fragmentation where social barriers reinforce physical ones. This racial diversity, while potentially an opportunity, creates two distinct markets, neither of which are served by local services.

### **A REVITALISATION STRATEGY FOR APM**

APM, a non-profit community development corporation (CDC), has long attempted to address the myriad of problems facing the area. In the early 1990s, they completed their first strategic plan to help guide the activities of the then fledgling CDC which resulted in the construction of 268 units of housing, a 44,000 sq. ft. grocery store and brought over 51 million dollars in investment to the area. As a follow-up to another effort in 1999, the Quality of Life Plan, a major planning initiative was begun to take a broad look at the earlier plan's set of objective and issues which were to create a strategic plan with physical proposals, integrate the

economic, social and ecological needs of the community, and create an action oriented, prioritized work plan.

Most recently a new effort called the Revitalization Plan for APM, intends to rebuild the community, drawing upon a partnership of government, non-profit, advocacy and neighborhood organizations to involve the community in envisioning a better future and devising strategies for achieving it. Wallace Roberts & Todd, LLC led the design effort with assistance from eight Resource Consultants hired by Pennsylvania Environmental Council (PEC) to provide assistance and advice on key issues including storm water management, community participation, urban design, sustainable development, traffic calming, transit oriented development and market issues.

The Neighborhood Revitalization Plan for the APM target area was completed in 2002. It identified some of the key local assets to build upon:

- A progressive community organization that understands the value of services and its diverse population.
- An experienced team of professionals and academics devoted to helping the community
- Proximity to Temple University and a Regional rail line serving the entire Philadelphia metropolitan area.
- Proximity to the American Street Corridor Empowerment Zone, which is receiving funds for economic and physical development
- To guide the overall approach and capitalize on these assets, the plan focused on three key principles that continue to guide our thinking for the area.

## IDENTITY

Although previous plans expressed a need to define APM as a distinct neighborhood with a center and strong boundaries, identity, however, is an attribute of community that “emerges” overtime and is not something that can be imposed. We believed that the latent aspects of the area – those qualities that local residents identify with but may not be readily visible or attractive to visitors—should be explored through the actions of APM. Recognizing this, technology became one component of this effort utilizing the vested interest APM had in expanding the role of technology in the area as a new identity and catalyst for further commu-

nity interaction and coordination.

## CONNECTIVITY

Although APM is within direct proximity of Temple University and the regional rail station, there is limited interaction between the campus community and area residents. The elevated rail line provides the most visible boundary in the area, physically separating potentially reinforcing markets and services. But there are other, more subtle boundaries that compound local issues. Vacant land and perceptions of crime limit the pedestrian activity in the area. The racial composition adds additional social boundaries that are manifest physically. A clear necessity of the plan was to facilitate the flows of people, services and information across these multiple boundaries. Physical and digital proposals sought to re-connect local residents to one another and to local resources.

## INTERDEPENDENCY

Although the original intent of the plan was physical in nature, the authors emphasized the need to combine physical redevelopment initiatives with social and economic ones. While the APM target area is physically isolated and characterized by a high degree of vacant land and buildings, it is also socially and economically isolated from services, jobs and education. Efforts to create an environment that supports the training of residents and provides tools for them to begin their own businesses and find employment was tied to physical proposals. In this sense, the revitalization effort sought to cultivate both physical and social ‘magnets’ that will draw people to the area over time and provide the basis for further activities and revitalization activities.

### *Parallel Design Agendas - An Emerging Partnership*

Through these principles, the plan set a course for numerous physical improvements tied to technology initiatives. As a demonstration program for neighborhood revitalization, the technology initiatives sought to integrate new technologies in local parks, community centers and commercial centers such as the supermarket. Recognizing this proposal was beyond the capacity of APM and the City of Philadelphia, the plan recommended finding local partners to undertake a study of the needs and opportunities associated with technology in con-

cert with the implementation of specific physical proposals. To address the digital divide, a larger framework than the APM area itself was necessary to understand the opportunities. Solely focusing on the needs and challenges facing APM's low-income population would not fully capitalize on local resources nor satisfy the long-term objectives of bringing a mix of incomes to the area, and would exclude Temple University's students, workers and researchers associated with this large institution. The technology initiative, therefore, would need to expand in scale and scope to fully leverage this opportunity.

### *Building Local Capacity*

In the summer of 2003, an interdisciplinary research team was formed at Temple University sponsored by a University research grant, the focus of which was to develop IT initiatives within the APM neighbourhood area. This research collaborative combined the urban design and community planning expertise from faculty in the Tyler School of Art and Architecture together with ongoing New Media research from the School of Communications and Theater at Temple. The collaboration was to first assess the needs and future role that IT might play in the redevelopment of the APM community, including a schematic design for a Community Technology Center and educational programs in computer literacy. This team was recently joined by faculty from Temple's Department of Geography and Urban Studies to develop a community Geographic Information System, integrated with an IT education program focused on community mapping and Public Participation GIS. The ongoing work of this research team focused upon the capacity of APM to undertake various efforts ranging from the simple use of technology in day-to-day operations to more aggressive proposals that would become service, education and creative magnets for surrounding neighbourhoods.

### **THE MEANING OF COMMUNITY AND SOCIAL CONSEQUENCES OF INFORMATION TECHNOLOGY**

According to Rose Gray, director of APM's Housing and Community Development office, there is no public access IT infrastructure within the community outside of the offices of APM and the local elementary school. Subsequently, computer and media literacy are at the lowest levels imaginable.

As a prerequisite to a comprehensive Community IT Plan, two key research areas were identified related to IT within the neighborhood of APM. First, as a means to better understand the needs and aspirations of the community, a number of residents were interviewed as a means to document the meaning of community within their neighborhood. Residents are asked to define what community means to them, what value it has in their lives, and what changes in community life they might make. The aim of the interviews is to help create better transitions between how citizens "envision" community and how they "do" community.[8] The second component of the Temple study investigates the social consequences of Information Technology and focuses on investigating the beneficial and/or harmful consequences of IT, at both the individual and community level, and will consider how IT may expand social, cultural and professional horizons of the community. Using quantitative measures (surveys, panel studies) and qualitative observation (focus groups, face-to-face interviews, fieldwork) this aspect of the project investigates the social, cultural, economic and political consequences of integrating IT in Eastern North Philadelphia. Based on these results, it is the intention to develop greater insight by which to educate individuals and the community on the potential of IT, and be informed in terms of designing and applying technology.[9]

### **INITIAL OUTCOMES OF RESEARCH**

Preliminary findings indicate that residents are excited and supportive about the prospect of a greater presence of IT, particularly in the form of a public-use media center in the neighborhood and are committed to its success. Community members offered useful suggestions about the organization, planning, staffing, and maintenance of the media center. The majority of interviewees believe that such a center will improve the neighbourhood in innumerable ways, including:

- Allowing teenagers to explore creative and learning opportunities in a structured environment
- Providing neighbourhood residents with greater access to community services (many of which they are currently unaware), creating additional opportunities for resident interaction with neighbourhood businesses and services, and providing extra resources for citizen empowerment
- Creating learning opportunities for adults with

little computer experience, as well offering educational programs (including ESL initiatives) for residents,

- Providing employment opportunities for community members
- Providing a source of community pride

### **INTEGRATE IT TO ENHANCE THE EFFECTIVENESS AND OPERATION OF APM**

APM until recently has had no web presence, which according to Rose Gray, is severely limiting to their ability to connect with other organizations, advertise for funding, and support the many services they provide for the community. In addition to the web site, the Temple research team is developing a Geographic Information System (GIS) in which to better plan and manage housing and community development projects, land and building vacancies, open space, and parks and recreation facilities.

### **COMMUNITY INFORMATION NETWORK**

As an extension of the APM website, the creation of a Community Information Network will serve a multitude of functions within the community, providing access to health and human services, assistance to a large elderly population, public discussion forums, promote cultural heritage, and create a venue for community representation and expression, particularly among neighborhood youth. The development of community based media projects have the potential to induce social and civic cohesiveness and project a positive self-image back to the community, as well as to a broader audience. The main forum for these activities is a proposed media center. Discussed in the Revitalization Plan for APM, the media center is intended as a non-profit facility dedicated to education and the arts. These dual roles will help residents not just increase their literacy and access to services, but seek to capture the untapped creativity in the area. Local partners are being identified that will provide specific programs and lease space at the facility.

### **EXPAND THE APM PROJECT TO NEIGHBORING COMMUNITIES**

APM is not alone in their desire to improve quality of life and community organization through the implementation of IT. Unfortunately, the numerous community groups in North Philadelphia remain isolated and would benefit from greater

coordination and sharing of community services. As the needs of economically challenged communities are diverse and variable, it is often not possible for any single community organization to serve all the needs of their constituents. The networking of CDC's and grassroots organizations as a collective body would facilitate a more distribution of services, particularly in the area of IT. As the initial step of this initiative, Temple Faculty are developing a Community Technology GIS Database that will map public Internet and computer access facilities throughout North Philadelphia and identify areas that are currently underserved by IT.

### *A New Interface with Temple University*

The collaborative research outlined above by Temple researchers have made enormous strides in helping APM envision how technology can help them meet their neighbourhood revitalization objectives. The capacity building has laid a strong foundation for physical proposals to ground these efforts in space. In the fall of 2003, WRT was again hired by APM to create a plan for the Temple regional rail station. The intent was to re-build the vacant space surrounding the rail corridor and diminish the visible wall of the rail corridor that strongly separates the University and APM.

Conditions on either side of the rail corridor could not be more distinct. The west side of the tracks (Temple University) contains a number of old manufacturing buildings and Temple facilities buildings. It acts essentially as the University's "back of house." The main campus entry is just two blocks from the station accessed along either Berks or Norris Streets. Although the station has the fourth largest ridership in the entire SEPTA transit system, many of the manufacturing buildings remained underutilized. This area represents perhaps the best opportunity to infuse APM with a mix of incomes, uses and services. To address the potential opportunities, WRT worked closely with Temple researchers and APM to develop a comprehensive revitalization program. With the perceived market so strong for student housing, one group of developers proposed the first, market-rate development east of the tracks on the parking lot at the station. They envisioned two 25-story student towers – a secured enclave casting a long shadow over the local context.

This project raised a number of issues for APM. What

should be the relationship of Temple students with local residents? What role should Temple play in the revitalization of adjacent neighbourhoods? How can we create meaningful connections between a large institution and a distressed community? This design challenge provided us the opportunity to explore the notion of urban connection with a combined palette of physical and ICT based elements. While ICT is often retrofitted to existing urban fabric, here we were afforded the opportunity to think of them as complementary design tools from the bottom up. As a response to the insular high-rise proposal discussed above which reinforced the divide of the railroad viaduct, we sought an urban approach that would emphasize linkages perpendicular to the railroad - making the viaduct an instrument of permeability rather than separation. We explored these linkages in as many ways as possible - through program, form, and ICT.

### **AN INTEGRATED APPROACH**

Two integrated components of the station area plan sought to create new interfaces between Temple and APM. The first related to physical connections. Street improvements, open space and development were calibrated to provide a porousness to the sites - enabling clear views and a form that provides a bridge from the large scale Temple buildings and the fine grained fabric of APM. A diversity of architecture was proposed to express the unique and varied conditions of the area's past and potential future. Reuse of townhomes and an underutilized manufacturing building are integrated into a network of new homes and mixed-use buildings ranging in scale from three to ten stories.

Of critical importance for the physical program was the recognition of the value of the station area beyond the confines of APM or even Temple. The station is a gateway to the City and therefore presents a unique opportunity to market the local neighbourhoods. Thus, sites adjacent to the station were designed to accommodate larger densities while retaining a visual connection to APM. Taller portions of the buildings frame views to the neighbourhood and provide rooftop courtyards for residents of those structures. To complement the gateway, the viaduct was proposed for reuse as a nursery, providing a densely landscaped edge to the station.

The physical plan is nested within a series of pro-

posals for ICT access and programs. At the main station entry on Berks Street, the plan proposes a new media center. The media center was originally proposed in the Revitalization Plan for APM and has since been one of the main objectives of Temple faculty and researchers in their ongoing work in the area. With a focus on creativity and technology, the media center would occupy a critical location in the area, fully leveraging its physical proximity to APM, Temple and the station itself. It is envisioned as a catalyst that will bring people together and empower them in ongoing neighbourhood initiatives. Music and film production, arts programs, education, services and regular events are proposed through a partnership between APM, Temple and a series of specific non-profit organizations that currently operate programs in different portions of the city. These programs are provided exhibition and performance space in a small plaza that wraps under the tracks and to the station entry.

The media center is not a stand-alone facility, however, it is a part of what will be an expanding networked of digitally linked local services. Local schools, the APM offices, a local recreation center and facilities at Temple all provide some level of ICT access. As programs are defined, a coordinated approach to service delivery and communication is required to expand the very presence and impact of ICT. APM is already exploring the potential of a neighbourhood-wide WiFi zone. The neighbourhood zone will build off the local WiFi hot spot proposed at the station and provide information about local stores and events and a facilitate a neighbourhood bulletin board.

### **CONCLUSION**

Our cities are indeed being transformed by information technology. In this context, new strategies for economic change and physical development need to be defined particularly in the distressed and marginalized inner-city communities. If we recognize that cities are as much the product of ideas, words and images as the built reality, then our approaches must expand beyond our traditional boundaries. Urban designers need to form collaborations and partnerships with disciplines related to information technology and new media, thus creating a new connotation to the meaning of urban design and planning. Collaboration and new methodologies are critical in redefining the city of

the future and certainly essential in the development strategies for the many marginalized inner city neighbourhoods of North America.

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