Chapter III
Creating an Analytical Lens for Understanding Digital Networks in Urban South Africa

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ABSTRACT

Recent literature on African cities examines the way in which social networks function as critical livelihood arteries in the ongoing survival strategies of the poor. An understanding of livelihood strategies is not new, but these transactions cannot be defined in space or frozen in time. This terrain comprises a divergent range of intentions, communications and movements exchanged between a multiplicity of actors making sense of their life worlds; negotiating, scheming and bargaining. Urban life continues to be reinvented at the margins, despite prevailing exclusionary economic and social forces. The potential exists for harnessing these strategies for developmental aims—building on the social capital created despite the absence of, or in addition to, the usual resources available for survival. One of these resources is Information and Communication Technology (ICT). Clearly the “real-time” communication, information transfer and exchange functions facilitated by mobile phones, e-mail and the Internet create the potential for informed decision making around the use and distribution of scarce resources. However, this chapter begins with the premise that ICT can only be considered a meaningful development tool if it is appropriated as ongoing input into the day to day decision-making of the poor. It is at this scale—the local, the individual, the social—that the appropriation of digital technologies is examined. The social appropriation of technology is considered in tandem with the network strategies people employ to manage and access resources. A conceptual bridge between the theoretical foundations of actor-network theory and the more contemporary writings on the African city is constructed to posit a theoretical lens for understanding digital networks in South African cities. The chapter concludes with a number of methodological implications with regards to future research into ICT and social networks in developmental contexts.
INTRODUCTION

Urban Informatics as a field of study sits between various disciplines. Its multi-disciplinarity is partially its strength. Drawing on the fields of urban studies, sociology and information technology creates opportunities for conceptual ‘borrowing’ across disciplines. However, as with any endeavor to integrate, there are conceptual blind spots when applied to certain contexts.

One such gap has emerged in research currently being undertaken by this author that entails the development of web sites for selected community groups within South Africa’s primary port city, Durban. The aim is to understand the relationship between urban dynamics and digital technologies in South African cities at a local level. The study draws from various bodies of literature such as ICT and cities (S. Graham, 2004; S. Graham & Marvin, 2001; Mitchell, 2000), community informatics (such as Day, 2005; Liff, 2005; Williams, 2006) as well as selected writings about South African cities and African urban spaces (for example Pieterse, 2005; Simone, 2004). This is not enough. What is revealed in this research is the need for a theoretical lens that examines the power relations, institutional dynamics and livelihoods specific to (South) African urban spaces. The threads are there, but they require the conceptual mesh to encapsulate them.

The aim of this paper is to make suggestions on what may constitute such a framework. It begins by sketching the research project mentioned and its preliminary findings. The conceptual difficulties in gaining insight into finer dimensions of the relationship between technology and community within this context are defined. These are then addressed through a consideration of literature on associational life in (South) African cities and the tenets of Actor-network-theory (ANT). The argument here is that in combination, these two sets of debates provides more appropriate theoretical tools for understanding digital communities in African spaces. The emphasis on South Africa is by virtue of the fact that the study is conducted in Durban, considered an example of an African metropolis with its own distinguishing characteristics.

DESIGNING COMMUNITY WEB SITES IN DURBAN

Two areas within Durban were selected as cases. KwaMashu is a township on the outskirts of Durban whilst Wentworth / Lamont contains a number of residential areas on the edges of Durban’s primary industrial area, the Southern Basin that essentially forms an extension of the port. Both study areas could be considered marginal in terms of income and economic opportunities. Selected community groups worked with undergraduate Internet Studies students from the University of KwaZulu-Natal in developing web sites for a network of craft producers, a group of female home-based care workers (health workers that primarily provide support to HIV/AIDS victims in their homes), a Primary Health Care network (collective of clinics and Health Care workers) and a network of schools engaged in a market gardening and tree planting project in KwaMashu. The second generation of sites was developed for a Soccer team and clinic in Lamont as well as a school voluntary association and school environmental pressure group in Wentworth. The project has evolved over two years but is not yet complete. The author has been a participant-observer throughout this process and has conducted focus groups with members of the web design teams. Maintenance training is currently planned for representatives from all groups and follow-up interviews are to be conducted.

Preliminary findings indicate that the relationship between community networking and ICT manifests at a number of scales and in various dimensions. The first issue relates to the digital divide. Early studies of digital divides have tended to focus on physical and educational barriers that
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