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# Four frames of social software use by mobile-centric internet users

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**Abstract**

This paper describes use of mobile social software by “mobile centric” internet users (i.e., non-PC owners) in urban South Africa. We offer four distinct theoretical framings of this use, and, given the rising prominence of mobile use within the “Information and Communication Technologies for Development” (ICT4D) field, suggest future research compare these frames

**Keywords**

Mobile social software, developing countries

**ACM Classification Keywords**

K4.m Computers and Society: Miscellaneous

**Introduction**

The broad adoption and worldwide use of the mobile phone have enabled a wide range of activities which support economic development, from conveying market prices [10] to improving disease surveillance[11]. However, in the midst of all this instrumental potential, it seems people also still like to chat—a lot.

The widespread adoption of mobile voice and SMS in the developing world has been well-documented, but the research community knows less about the potential for mobile internet use in such settings. In this position

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*UbiComp 2009*, Sep 30 – Oct 3, 2009, Orlando, FL, USA

paper, we re-visit elements of findings from two studies of mobile-centric internet users [5, 8]. We focus on the prominence of mobile social software, considering it in light of the emerging “mobiles for development” (M4D) discourse within the “Information and Communication Technologies for Development (ICT4D) field [6].

### **Methods**

Study I [5] consisted of 37 semi-structured interviews with current mobile centric-internet users. Some participants were approached via intercepts in public places throughout Cape Town. Others were introduced to us by Learn to Earn, an NGO conducting livelihoods training in Khayelitsha, Cape Town’s largest township. To qualify, participants had to (a) NOT own a PC (b) own an internet-enabled mobile phone, and (c) report doing data-based activity on that phone. Familiarity with the words “internet” or “GPRS” were not preconditions for inclusion, nor was subscription to a data plan, since in South Africa, data tariffs can be linked to generic prepay accounts.

Study II [8] was a training exercise. Participants lived in Khayelitsha and worked as seamstresses at Learn to Earn (as above). Most had relocated to Cape Town from rural areas of the Eastern Cape Province. Participants’ median reported monthly household income was 3000 Rand (US\$375).

We approached the training as Ethnographic Action Research [14], combining exploratory and collaborative intervention with observation and listening over a thirteen week period. The study introduced mobile internet as a tool for daily life, including searching for business and job opportunities, news, and music

downloads. Peer-to-peer learning was encouraged. We did not discuss social software in the training modules.

### **Results**

For an extensive treatment of the study results, please see [5, 8]. In this brief position paper, we report and discuss only the observed use of two mobile social software applications, MXit and Facebook.

MXit, a downloadable, Java-based mobile instant messaging application [1], was the most commonly used internet application in study I. With 29 of 37 users, its use far outpaced browsers or email. Some participants had dozens of active MXit contacts; others used it only with a spouse or a close circle of friends.

In prepay/‘pay as you go’ environments, many people closely and strategically manage telecommunications expenditures. Using MXit to save money is an example of such behaviour [15]. Millions of MXit users in South Africa pay 1 South African Cent (\$.0012) per instant message, much less than they would pay for an SMS. One participant in the first study explained: “When I don’t have money to phone somebody I just go to MXit”. She spends roughly 30 Rand (\$3.5) per week, enough for 21 SMSs, 5-6 calls, and 14 *hours* of MXit.

Nine participants from the first study were Facebook users. More remarkable to us was the unprompted contagion/adoption of Facebook among the eight women in Study II. By the end of the training, five of the women had found their way to Facebook (1) MXit (1) or both (3). One participant described how she clicked on the preconfigured link to Facebook on her phone’s browser:

I put email address and password and they send me code in email...I even went there and found Neyo [a HipHop Musician] and sent him a message, and I chatted with this guy from Australia.

In both studies, we observed mobile centric internet users, all of modest means, none PC owners, layering new mobile internet behaviours onto existing mobile phone behaviours. In the midst of training about instrumental uses of the mobile internet, particularly job search, the women also gravitated toward the self-expression offered by Facebook, and the connection offered by MXit [12].

### **Discussion:**

We argue that the non-instrumental use of mobiles by people throughout the developing world is phenomenon which has been left largely unexamined by the current M4D hype/hope nexus. To the extent it has been addressed, its theoretical and practical significance is contested, and worthy of additional exploration. At least four distinct frames exist.

Some popular and grassroots voices argue that non-instrumental uses are **COMPETITIVE** with instrumental uses for the resources and attention of users. Popular expressions of this narrative are expressed as concerns over inappropriate content [2], and/or the sheer sums of money spent on "chit chat". In the research arena, a recent blog post by Richard Heeks summarized the position (without agreeing with it) [9]. The frame also echoes Fischer's assessment of the US landline before WWII, in which the industry was slow to wake up to the domestic/non-instrumental appeal of its service [7].

A second frame asserts that individuals are able to multitask, toggling with low effort between instrumental and non-instrumental uses of their mobile. Earlier work from one of the authors has made this case, looking at the mix of work and family calls (a 1:2 ratio) on the call logs of small business owners in Rwanda [3, 4]. In this frame, a chit-chat on the side is fine, and doesn't get in the way of using the phone for socioeconomic development. Instrumental and non-instrumental uses are simply **COPRESENT**.

A third frame rejects the instrumental/non-instrumental dichotomy, arguing instead for a **COMBINED** view of communication and information seeking. Kolko, Rose, and Johnson [13] specifically make a case for the promotion and use of mobile social software in developing countries, arguing that:

the act of collecting information is intimately entwined with communicating with friends and family. Looking for information necessarily involves communicating with someone, and so the mobile phone in many ways compliments and supports people's everyday routines more so than the Internet. (P. 869)

A fourth frame suggests that instrumental and non-instrumental uses are **COMPLEMENTARY**, that time spent in one domain empowers users to do more in the other. Zuckerman [16] offers a droll but insightful "cute cat" analogy. He argues that although much of the world wide web is devoted to the mundane (like sharing pictures of kittens), such widespread practices create and nurture skills which users can use instrumentally, for example for protesting stolen elections.

Certainly each of the four frames offers a useful lens on our studies. Mobile internet use for MXit and Facebook may have been competitive with instrumental uses, consuming scarce money and time that could have been 'better' spent on mobile web searches for jobs. The chat behavior may also have been merely copresent, as it seems that the job searches did continue, Facebook and MXit notwithstanding. We were most encouraged by the last framing—that the uses were complementary, and that the time the women spent on MXit and Facebook translated into greater digital literacy, and to a deeper sense of agency and mastery over the mobile internet technology.

Our designs did not allow for a specific or quantitative testing of which frame was the best fit. Future research could (and should) explore the relative explanatory power of these four frames. At a minimum, M4D researchers should be aware of the alternate frames before settling back onto the one which best matches their own research direction. There is more than one way to interpret non-instrumental mobile use.

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