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STUDYING MOBILE PHONE USE IN CONTEXT: CULTURAL, POLITICAL, AND ECONOMIC DIMENSIONS OF MOBILE PHONE USE

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Studying mobile phone use in context: Cultural, political, and economic dimensions of mobile phone use

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Abstract

This paper discusses the need for studying mobile phone use within the context of a society, with consideration of the cultural, political, and economic factors that influence phone use. Such contextual study is especially valuable in a culture that sharply differs from the industrial, predominantly Western perspective in which mobile phones and applications are developed. This paper presents a case study of mobile phone use in Uzbekistan, a Central Asian republic with a unique socio-political environment that is experiencing growing mobile phone use. A review of literature related to mobile phone use in developing, non-Western countries is presented. Some results of interviews about perceptions and use of the mobile phones in Tashkent are discussed.

Keywords: *mobile phone use, technology studies, cross-cultural communication, usability*

Introduction

Mobile phones are growing in popularity all around the world. They are ubiquitous tools and accessories in highly wired societies such as Scandinavia and East Asia; several research studies of phone use have been conducted in such technologically developed places (e.g., [1-4]). Mobile technology has also become important in the developing world, for example, by allowing it to "leapfrog" and take advantage of advances in information and communication technologies (ICT) without land lines [5]. Many development projects are currently underway to bring information services via mobile phone to emerging societies [6].

Studies of mobile phone use are predominantly in such settings of highly developed digital societies and still technologically emerging societies. But we have yet to understand how mobile phones are being used in places that have existing telecommunication networks but not modern, pervasive systems. In such digitally nascent settings we can see from a fresh perspective how culture and the available infrastructure influence users' decisions to start using a mobile phone as well as their decisions about how the mobile phone is actually used. Researchers will better see how culture influences technology use as well as how the technology itself transforms daily life. Since access to technology will be somewhere in-between primitive and cutting-edge, we can more clearly triangulate how much the transformation is dictated by infrastructure and how much by culture.

This paper presents a case study of mobile phone use in Uzbekistan, a former Soviet republic in Central Asia that is experiencing growing mobile phone use. It discusses the need for studying mobile phone use in the whole context of a society, with consideration of the cultural, political, and economic factors that influence phone use. Contextual study of mobile phone use is especially valuable in a culture that differs from the industrial, predominantly Western perspective that developed mobile phones and their applications.

This paper first briefly reviews relevant literature about Uzbekistan's cultural patterns of communication and technological infrastructure as well as mobile phone use in other emerging, non-

Western countries. Then the methods of this qualitative interview study are presented. Some key findings from the study are presented and discussed, with reference to how cultural, political, and financial considerations might affect use.

Relevant Literature

Uzbekistan is one of the newly independent states of Central Asia that is redefining its cultural, political, and economic identity since the collapse of the Soviet Union. The region has a rich mix of cultures, ethnicities, and languages. Uzbekistan's economy is largely based on export of cotton and gold, while its industrial sector is poorly developed [7]. Its government is highly authoritarian, with power centered on the executive branch. The amalgamation of the Soviet legacy with the traditional Asian culture has created an environment that is distinctive from the West.

Uzbekistan is a productive region to study the use of ICT because it blends traditional values and communication behavior together with burgeoning new technologies. Uzbek culture values family ties and personal relationships; many Uzbeks live with extended family [8]. In addition to the cultural emphasis on family, Uzbeks traditionally obtain and reciprocate information and services through social networks and personal connections. The people whom one knows are often an important resource for assistance, goods, or information especially if none are available through official channels [9].

Coupled with these traditional values and communication behavior is Uzbekistan's maturing digital infrastructure, which is still emerging from the collapse of the Soviet Union. There are still very few telephone lines in Uzbekistan: in 2003, there were only 7.96 telephone subscribers per 100 people [10]. In other words, not every home or even village has a phone, particularly in rural areas. Phone lines are concentrated in urban areas, such as Tashkent, the capital city. Many of the phone lines, including in Tashkent, are analog technology with poor quality connections. The Internet infrastructure in Uzbekistan is similarly in the early stages. Internet services are easily found in urban areas, but access becomes more challenging in rural areas. Official estimates suggest that less than three percent of the population uses the Internet [11].

Given the importance of social networks and the rough land telecommunication system, one might expect that new personal communication technologies, such as mobile phones, will be highly relevant and intriguing to the local population. In fact, mobile phone use has been growing incredibly quickly. Recent official statistics showed that the number of mobile phone users in Uzbekistan increased 68 percent, more rapidly than Internet users; however, there are still fewer mobile users than Internet users [11].

The limited yet growing spread of technology in Uzbekistan is similar to patterns of ICT adoption in other digitally emerging societies. Even when the technology is not yet pervasive, there is often popular interest in it. For example, in Russia, one study discovered that 40 percent of people who did not use computers were interested in them [12]. In China, a culture that values personal relationships, mobile phones have become important as a secondary method (after face-to-face communication) of building *guanxi* or social relationships [13].

Studying these early stages of adoption will teach researchers what works and what does not work in mobile phone device and service design in a still emergent population of users. Furthermore, since services such as text messaging and WAP were designed for use in industrialized cultures, these phone users may perceive and use non-voice mobile services in unexpected ways. Studying a culture in which mobile phone use is still budding can renew the understanding of researchers in the West of how the various facets of a society (e.g., culture, politics, and financial circumstances) interplay with technology.

Method

To explore the cultural issues of mobile phone use, a two-week study was conducted in March 2004 in Tashkent, the capital of Uzbekistan. The site was chosen because of its support for mobile phones and the sizeable population of users. There were three primary research activities: observations in public areas, interviews of mobile service providers, and interviews of mobile phone users and non-users. Additionally, a focus group was conducted with college students. The specific methods for each phase of research are discussed below.

Observations in Public Spaces

Observations in public spaces can reveal how people interact with the locations around them more effectively than if they were to self-report about these locations in an interview cut off from this environment [14]. With this idea in mind, observations of mobile use and the prevalence of mobile technology were conducted in many areas around Tashkent, from the city center to the outskirts. The types of locations that were observed included public transportation, bazaars, shopping areas, parks, restaurants, and universities. During these observations, the researcher would note mobile phone use, the demographic characteristics of the user, and features of the environment such as noise level so that evidence of mobile phone use could be contextualized.

Interviews with Mobile Service Providers

To assess the extent of technology and services available in Tashkent, representatives of local mobile service providers were approached for in-depth interviews about the services they provide. Because the landscape of mobile service is quickly changing, provider interviews helped capture the services and technology currently available. Two of the six mobile providers in Tashkent were interviewed. The questions asked in the interview included the services offered by the company, the method of subscription, and upcoming projects. The interview format was semi-structured, with questions asked depending on the topics of conversation that emerged.

Interviews with Mobile Phone Users and Non-Users

Interviews of mobile phone users and non-users were the final research activities of this study. Mobile phone users were the primary subjects of these interviews, but non-users were opportunistically sampled to assess what they thought about mobile phones and mobile users. Two populations were targeted for these interviews: business people because they were perceived to have the greatest need and financial resources for mobile services, and young people (aged 18-21) because they are the focus of many studies of mobile phone use in Western Europe and East Asia.

Three business people who used mobile phones were interviewed, each separately. Nine young people recruited at a college were also interviewed. Five of the young people owned a mobile phone, four of them did not. The young people were interviewed in multiples except for one person. The goal was to interview them in at least pairs for their own comfort and so they could react to each other's answers. Both the business people and young people were asked questions such as why they got their phone, where they used it, and what they liked about it. The non-users were asked questions including what they thought of mobile phones and if they wanted one. The initial questions for the interview were developed in a grounded theory approach based on the observations in public spaces and conversations with cultural informants about mobile phone use in Uzbekistan. The interviews were semi-structured, so questions were modified or added depending on the topics that arose.

Besides the interviews, a focus group of twenty young people was also conducted at the same college to get a broad overview of what young people think about mobile phone use. Because the focus group was a mix of mobile phone users and non-users, general questions about mobile phone use and its impact on society were asked.

A selection of the results from these observations and interviews as well as a discussion of what they mean now follows.

Mobile Infrastructure in Tashkent

The interviews with the two mobile providers and mobile phone users as well as informal conversations with knowledgeable people revealed a technical infrastructure and subscription model that is different from that in the U.S. Understanding how mobile services work in Tashkent enhanced interpretation of how mobile phones are being used.

The mobile market is highly competitive in Tashkent because there are relatively few customers to share between the six major mobile providers. Mobile service is not widespread throughout the country. Generally the urban areas have comprehensive service, but many rural areas have yet to be integrated into a network.

In Tashkent, consumers commonly buy mobile phones at an independent shop where they can bargain, and then they go to a mobile provider's head office to buy a SIM card and service plan. New phones start at about $100. Phones are

expensive relative to the average monthly salary of $20-30 [15]. Replacement parts for mobile phones are clearly displayed in the shops, suggesting that customers will repair and care for their investment.

The mobile phones in Uzbekistan are often unofficially imported from Malaysia or elsewhere, that is, they are designed for use in other markets and are informally brought to Uzbekistan by entrepreneurs. Consequently, phones sometimes do not have comprehensive support for Cyrillic, the alphabet used for Russian and sometimes Uzbek, the two most common languages [16]. Depending on the origin of the phone, Cyrillic may be absent on the keypad, or the software may not support it. Writing a text message may require memorization or a workaround such as typing in Latin letters. A mobile phone's character or language support has implications for the user's navigation through phone menus and use of textual services such as SMS and the wireless Web.

Many kinds of mobile service are available. For voice service, monthly costs can range from $5 for limited, economical use to about $90 for an unlimited calling plan. These prices are very high relative to the average monthly salary. A surprising variety of additional services are available for the phone. Besides voice calls, it is also possible to send and receive text messages and even access wireless content such as horoscopes and one's mobile phone account balance. Full-fledged WAP services for browsing the wireless Web are also being launched.

Mobile phone bills, like most bills in Uzbekistan, are generally paid in person every month at the cashier window of a branch office because checks and credit or debit cards are not commonly available. In-person payment of the bills makes mobile phones inconvenient for people who do not live near a payment office such as those in rural areas, so some of the mobile providers offer refill cards at convenience stores.

With this brief overview, one can see that mobile phones are a luxury item that requires not only an investment of money, but also of time to purchase a phone and to pay monthly bills. Further, extra time may be needed to learn the textual features on the phone if it does not fully support the user's language of choice. The likely effect of mobile infrastructure and its cost will be that mobile phone users will be fairly committed to the technology, having invested time and money to acquire it.

Public Face of Mobile Phone Use

Mobile phones were occasionally seen in use during the public observations, but its use was generally brief and fleeting, only about a minute or two for most observed calls. In contrast, previous work by the researcher showed that mobile phone users in the U.S. sometimes talk on the phone in public for great periods of time, such as while riding the bus. Other research has shown that users in Western societies will use their mobile phones for "meaningless communication" with no explicit goal other than to strengthen relationships [17]. Some explanations for the differences in Uzbekistan include the expense of making a phone call, as well as the culture's general "quietness" outside. Perhaps left over from Soviet times and concern about attracting undue attention, Uzbeks seem concerned with privacy and generally do not talk loudly on buses, subway trains, or other kinds of highly enclosed public space. A natural extension of this behavior would be restricted, conservative use of the mobile phone.

Interestingly, the people who were observed using the phone most in outdoor space were men, while indoors the genders of the mobile users were more equally divided. Traditionally, Uzbek women are socially subordinate to men, and they may be conservative in their use of mobile phones outside to deflect attention from themselves. Alternatively, men may simply be more likely to own a mobile.

Although the numbers of people engaging in actual use of the phone in public areas was relatively small as a proportion of the general population, the conspicuous display of phones was much more common. At cafés and restaurants, users would set their mobile phone on the table, perhaps for ease of monitoring calls, convenience, or display. At one popular upscale restaurant, virtually every table had one or two mobile phones on it. Because of the expense of the mobile, the ability to own one is an indication of economic well-being, and there may be a tendency to want to exhibit this prestigious item. It is also possible that these mobile users are not deliberately flaunting their phones, rather they may be visible simply because they are ubiquitous among the well off.

Reasons for Owning a Mobile Phone

While the observations in public space gave an overall perspective on the state of mobile phone use in Tashkent, the interviews allowed in-depth examination of specific issues. Interview participants expressed various reasons for acquiring a phone. Three reasons were most often given: prestige, necessity for work, and a gift from parents. Prestige was cited by the older, early adopters. The two businessmen who were early users of the mobile phone described the excitement of being among the first to have a mobile phone in Uzbekistan. None of the other participants, who were at least ten years younger than these two businessmen, mentioned the excitement or prestige of owning a phone. Although mobile phones are relatively rare in Uzbekistan, they are no longer novel, merely expensive.

A second reason for mobile phone ownership was necessity for work. Two of the business people and one young person indicated this as a reason. For example, one businessman noted that he needed the phone to run his business because he was often away from the office. Mobiles are perceived as useful tools for work and are not just an accessory.

The third common reason for mobile phone ownership was a gift from parents. Most of the young mobile owners reported receiving their phone from their parents since phones are usually too expensive for a student budget. Those subjects unanimously reported that their parents gave them the phones for the specific reason of "controlling" them or otherwise keeping tabs on their whereabouts. Although the phones were ostensibly for keeping in touch with family, all the students reported using the phone for other purposes as well such as talking with or text messaging friends.

The reasons for acquiring a mobile phone in Tashkent are not much different than what has been observed in the U.S. The prestige factor of the mobile was closely associated with the early days of the technology. It seems that prestige is most associated with novelty rather than expense or luxury, especially since none of the young people who had a phone claimed a cachet to mobile phone ownership. Necessity for work and a gift from parents for reasons of security are also common reasons for phone ownership in the U.S. Interestingly, none of the interview participants reported acquiring a mobile phone for coordinating and managing their personal lives, which is common in the U.S. This difference perhaps speaks to the expense of the phone as well as Uzbekistan's slower pace of life where hyper-coordination of personal lives is uncommon.

Value of the Mobile Phone

Because of the expense of the phone and their restricted income, the young people were very sensitive to the cost of their mobile phones. They all mentioned taking care of the phone because they knew it was expensive, and more than one expressed concern about losing the phone. Even one of the businessmen reported choosing to text message instead of making a voice call to colleagues overseas in some situations to save on cost. Despite the cost of phone calls, mobile owners all mentioned that they lend their phones to friends who need to make calls – in other words, the value of their personal relationships outweighed the material cost.

A surprising number of interview and focus group participants were highly aware of the provider market and could name all six provider companies unprompted. A few people volunteered information about the technical specifications of the provider networks (e.g., GSM, AMPS, or D-AMPS standard). The level of knowledge about mobile phone technology suggests it is a matter of some significance. A parallel might be the care with which some Americans research computers before purchasing one. It may be that the mobile phone is an equivalently significant purchase that requires careful consideration since this investment must last a few years.

Necessity of the Mobile Phone

All of the mobile phone users reported needing their phones. Many of the subjects simply said they needed their mobile phone, and upon probing, would give more specific reasons for why they needed the phone (such as for emergencies or for work). That many people did not provide an immediate explanation for why they needed the mobile phone, suggests that it has permeated and become well-integrated into their daily lives. They use it for so many purposes, that it is necessary on multiple levels. All the subjects appreciated the phone for its mobility and described situations where they were away from home or the office and a mobile phone was indispensable. The students,

for example, did not have ready access to a land line at school. One business person valued his phone for making international calls which were costly or difficult to make on a land line.

None of the mobile phone users referred to their phone as annoyances or burdens, nor did they problematize being reachable at all times. Some previous interviews administered by the researcher in the U.S. suggested that some users did not like carrying their mobiles around with them and being reachable at all times, especially since they had phones at work and ready access to the Internet and e-mail. For them, their mobile phones were a somewhat redundant means of communication. In contrast, the Tashkent mobile users only had positive things to say about mobile phones, and their criticisms would be against the quality of the phone or service. These mobile users generally had more restricted use of phones and Internet, either in terms of physical access, sound quality, or speed, so the mobile phone is a new opportunity for communication. At this point, mobile users realize more benefits than disadvantages from their phones.

Conclusions

Studying the use of mobile phones in Uzbekistan with consideration to its broader social context suggests that unique patterns of mobile phone use exist. The mobile users of Uzbekistan seem to be adopting mobile phones in a culturally meaningful way. People are able to use the mobile phones as a technological extension of their natural behavior. For instance, parents worry about their children's safety, and they are able to use mobile phones to watch over them even when they are out of sight.

The relatively conservative and minimal use of the mobile phone in public may be a reflection of the political environment. In a society where it may be safest not to attract the attention of the police or to share too much information in a public area, mobile phone owners may be deliberately judicious about their use.

The economics of mobile phones also affect use. The cost of the phone itself may cause some owners to treat the phone with care and to be more aware of how it works since it is an investment. The investment aspect may also lead owners to see the phone as a necessary tool rather than a frivolous toy. The expense of mobile phone calls themselves may help explain the relatively brief mobile calls made in public as well as economical uses of the phone such as sending a text message instead of making a long-distance call.

At these early moments of adoption, it seems that mobiles have already started to transform Uzbek society in that people are becoming dependent on their phones although they have regular access to land lines, similar to the ubiquity of mobiles in highly wired societies. The enthusiastic acceptance of the benefits of mobile phones by users may echo the accolades that often accompany the introduction of mobile technology to previously unconnected regions of the world. Continued study may reveal that the pattern of mobile phone adoption in Uzbekistan will be a unique hybrid of the patterns observed in other parts of the world.

Study of Uzbekistan's mobile phone use offers some lessons. It enriches the mobile phone industry's understanding of the diversity of its users. It also highlights the differences in mobile phone use that can exist in various parts of the world. To more effectively understand the role of mobile phones in a society, it is necessary to study them in the entire cultural context. With a more complete understanding of the cultural, political, and economic heritage of a society, researchers and designers can strengthen their products and design recommendations and improve interfaces and technologies for more kinds of people.

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References

[1] M. Ito and D. Okabe. "Mobile Phones, Japanese Youth, and the Re-Placement of Social Contact," in *Front Stage - Back Stage: Mobile Communication and the Renegotiation of the Social Sphere*, Grimstad, Norway, 2003. [Online]. Available: http://www.itofisher.com/PEOPLE/mito/mobileyouth.pdf

[2] R. Ling. *The Adoption of Mobile Telephony among Norwegian Teens, May 2000*. Telenor notat 57/2000. Kjeller: Telenor R&D, 2000. [Online]. Available: http://www.telenor.no/fou/program/nomadiske/articles/07.pdf

[3] V. Oksman and P. Rautiainen. "'Perhaps It is a Body Part': How the Mobile Phone Became and Organic Part of the Everyday Lives of Finnish Children and Teenagers," in *Machines That Become Us: The Social Context of Personal Communication Technology*, ed. J. E. Katz. New Brunswick, NJ: Transaction Publishers, 2003. pp. 293-308.

[4] H. Rheingold. *Smart Mobs: The Next Social Revolution*, Cambridge, MA: Perseus Publishing, 2002.

[5] D. Jamieson. (2002, Sept. 30). "Mobiles to leapfrog into the future," *BBC News Online*. [Online]. Available: http://news.bbc.co.uk/1/hi/technology/2287913.stm

[6] Development Gateway. (2005, Jan 14). Information and Communication Technologies for Development. [Online]. Available: http://topics.developmentgateway.org/ict

[7] Economist Intelligence Unit. (2005). Country Profile Uzbekistan 2004. [Online]. Available: http://eiu.com

[8] R. Zanca. (2002). Cultural Summary: Uzbeks. [Online]. Available: eHRAF Collection of Ethnography

[9] D. Kandiyoti. "Rural Livelihoods and Social Networks in Uzbekistan: Perspectives from Andijan,"*Central Asian Survey*, vol. 17, pp. 561-578, 1998.

[10] International Telecommunication Union. (2004). Basic Indicators 2003. [Online]. Available: http://www.itu.int/ITU-D/ict/statistics/at_glance/basic03.pdf

[11] Ferghana.ru. (2005, Jan 13). "Internet users in Uzbekistan number 675,000." [Online]. Available: http://enews.ferghana.ru/detail.php?id=757

[12] O. Vershinskaya. "Information and Communication Technology in Russian Families: Results of Sociological Research," in *Machines That Become Us: The Social Context of Personal Communication Technology*, ed. J. E. Katz. New Brunswick, NJ: Transaction Publishers, 2003. pp. 117-25.

[13] L. Yu and T. H. Tng. "Culture and Design for Mobile Phones for China," in *Machines That Become Us: The Social Context of Personal Communication Technology*, ed. J. E. Katz. New Brunswick, NJ: Transaction Publishers, 2003. pp. 187-98.

[14] M. Kusenbach. "Street Phenomenology: The Go-along as Ethnographic Research Tool," *Ethnography*, vol. 4, pp. 455-85, 2003.

[15] B. E. Kolko, C. Y. Wei, and J. H. Spyridakis. "Internet Use in Uzbekistan: Developing a Methodology for Tracking IT Implementation Success," *Information Technologies and International Development*, vol. 1, pp. 1-19, Winter, 2003.

[16] C. Wei. "Language and the Internet in Uzbekistan," in *Proceedings of the Fourth Conference on Cultural Attitudes Toward Technology and Communication (CATaC '04)*, Karlstad, Sweden, pp. 393-96.

[17] T. E. Johnsen. "The Social Context of the Mobile Phone Use of Norwegian Teens," in *Machines That Become Us: The Social Context of Personal Communication Technology*, ed. J. E. Katz. New Brunswick, NJ: Transaction Publishers, 2003. pp. 161-69.

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