

Being Part of the Life of One's Hometown: Strategies to Support Community Connectedness

Luis A. Castro*♦ and Victor M. Gonzalez♦

Manchester Business School, The University of Manchester
(United Kingdom)

ABSTRACT

Information and Communication Technologies can be instrumental for those who have moved away permanently from their places of origin. This paper presents a condensed analysis of interviews conducted with twenty six (26) Mexican migrants and family members living in Mexico. The interviews addressed several topics ranging from family communication to communication with the community in general. In this paper, we identify and discuss the strategies followed by those living away to keep the sense of community connectedness high. Among those strategies, we found that they keep connected with the community life through several sources following certain communication patterns which are used to as a way to reencounter with their people periodically. These findings serve to highlight the relevance of the role played by ICTs on supporting community connectedness for migrants and the opportunities for defining and developing new technologies.

Keywords: *Community Connectedness, Presence, Migration.*

Paper Received 19/03/2008; received in revised form 25/04/2008; accepted 28/04/2008.

1. Introduction

Information and Communication Technologies (ICTs) have always been a key mechanism to coordinate and make people feel closer to others. With the advent of new technologies, people have been able to overcome more easily the limitations imposed by space and time. However, this situation gains more significance particularly in contexts where people stay permanently far away from their hometowns and, most of the times, from the people they love.

Cite as:

Castro, L.A. & Gonzalez, V.M. (2008). Being Part of the Life of One's Hometown: Strategies to Support Community Connectedness. *PsychNology Journal*, 6(1), 61 – 83. Retrieved [month] [day], [year], from www.psychnology.org.

* Corresponding Author:

Luis A. Castro
The University of Manchester
MBS East, Room F40
Manchester, UK M13 9SS
Phone: +44 0161 306 33 65
Mail: Luis.Castro@postgrad.manchester.ac.uk

As people move away from their home communities, staying in touch and frequently returning to their hometowns can become of paramount importance. Due to the need of being in touch with those left behind or the belief of an eventual return to their homeland, many migrants look for the ways to keep strong connections to their home communities, i.e. to be connected to the daily life in their home communities, which we will refer hereinafter as *community connectedness*. One of the obvious ways for keeping strong connections is returning home frequently (Suro & Escobar, 2006). However, very often, many migrants fail to do so due to many factors such as their migratory status, work commitments, or financial limitations, so that all links they currently have with the home community are necessarily *mediated* through social networks either face-to-face or by using some form of technology (e.g. the phone).

An understanding of the role played by ICTs on supporting migrants' sense of community connectedness is clearly relevant all over the world but it is even more for those countries facing major migratory flows. Our investigation focuses on the migratory flow from Mexico to the USA as it has been identified as one of the most dynamic worldwide in terms of movements of people and economic integration (Roberts, Frank, & Lozano-Ascencio, 1999) and, therefore, an ideal scenario to understand the implications of technology for community connectedness. In general, migration is a phenomenon of major dimensions and is likely to reshape societies forever (Castles & Miller, 2003). In Mexico, as in many other countries, emigration is often experienced by regions with fewer opportunities of development such as jobs and education (Rinderle, 2005). Economically, the receiving regions benefit from such migratory flows as immigrants are seen as key to the community's long-term social and economic health (Grey & Woodrick, 2005). On the other hand, the expelling regions receive every year billions of dollars in remittances, usually for family consumption and community projects (Burgees, 2005). During the last two years, 2006 and 2007, the Bank of Mexico reported Mexico received more than US\$ 46 billion in remittances (BANXICO, 2008). Socially, the migration from Mexico to the USA is a phenomenon of major dimensions. According to the National Council of Population in Mexico (CONAPO), there are about 10 million people born in Mexico in the US and the figure can be twice as large considering people of Mexican descent (CONAPO, 2005). Within this particular context, it has been suggested that Mexican migrants contribute generally to reduce inequality and better-off households in their home country (Ratha & Shaw, 2006).

Nowadays, many Mexican migrants, absent for years from their home communities, as well as those that emigrated recently, are increasingly using ICTs to get in touch with their roots, their home communities and their families. New communication technologies have provided migrants a better opportunity to be part of the daily life of their home communities since now their spectrum of alternatives to get in touch with them has been broadened. A palpable example of this is the hundreds of community web sites in the Internet that have been established with the aim of connecting those living away (Gonzalez & Castro, 2008). However, a most typical scenario is one where the links with the day-to-day homeland occurrences that the migrant has are still mediated through family and friends (typically by phone calls). This can undermine the richness of the information received as it depends on the ability, availability and willingness of the interlocutor. This paper presents empirical, preliminary results aimed to identify the strategies followed by migrants to keep the sense of community connectedness high. We also discuss the role that non-conventional presence-affording technology (e.g., environmental microphones) could potentially play on the sense of community connectedness.

This paper is organized as follows. In section two we discuss previous studies and identify some of the main reasons why migrants would be interested in maintaining certain levels of interest in their homelands. Next, section three describes the characteristics of our study and the participants. Section four presents the results of the study, describing the current strategies used by our participants for keeping community connectedness. Finally, we discuss our findings, and conclusions and future work are presented.

2. Presence in Absence: Toward Connecting Migrants to their Hometowns

Previous studies have confirmed the potential of internet-based tools such as e-mail and web sites as a way to keep in touch with the family, close friends and to obtain a certain notion of what goes on in the home country (Bernal, 2005; Castro & Gonzalez, 2007; Hiller & Franz, 2004; Miller & Slater, 2000). As such, ICTs have been a valuable mechanism to make people feel 'closer' to others and, in the case of migrants, reconnect with the life in their home communities.

2.1 The Need to Be Connected to the Life of the Home Community

Place Attachment and Belonging

Previous research suggests that this need of returning is caused by psychosocial bonding to that particular place which can be ascribed to landscapes, childhood experiences, and, symbolic and cultural ties (Chawla, 1992; Hummon, 1992; Low, 1992; Riley, 1992). Other studies show that humans have a natural need to belong and are usually reluctant to be unattached (Baumeister & Leary, 1995). This can be the situation of many immigrants when they do not get fully integrated into the new society thus resulting on their longing for home. In general, some of these theories are still to be consolidated and more research is needed to fully understand it (Stedman, 2002).

Distress after Relocation

It has been found that humans tend to experience distress after a move (Fisher, 1989). The need of returning or getting in touch with the community in the very early stages of migration might be due to the need to alleviate the distress experienced by many factors, including the drastic loss of social capital, which is one of the most important aspects in community life (Putnam, 2000). Social capital is a collective value of all social networks, i.e. a public good, and comprises several aspects such as trust, reciprocity, information flow and social norms (Coleman, 1988). After moving out from small (geographical) communities, migrants' stock of social capital is likely to change drastically as they face an entirely new context.

In the same way, other studies concerning diasporic communities suggest that longing for homeland is a typical behavior of members of a Diaspora and that these communities are very prone to be disturbed by the effects of homesickness. Homesickness is a reaction to leaving one's home and occurs typically after a move (Fisher, 1989; van Tilburg, 1997). Fisher (1989) reported that this phenomenon could potentially hamper the adaptation of migrants to their new society, and yet, not so much research has been conducted in this area (van Tilburg, 1997). Although, some studies have identified some causes and effects of homesickness (Fisher, 1989; van Tilburg, 1997), research has scarcely addressed the problem of coping with homesickness.

Living a Lifetime Away from Home

As discussed previously, there are several reasons why migrants need to return. Urry (2002) discussed the need of physical co-presence and travelling in many situations

which might provide also some initial clues (Urry, 2002). In particular, we are interested in understanding the role played by technology in keeping migrants in touch with the daily life in their places of origin. This situation seems to be even more relevant when migrants are deprived of an eventual return to their homeland meaning that the only alternative they have to remotely experience the community life is necessarily *mediated* either through their social networks (who people know) or technology. Along with these works, several studies have placed particular emphasis on studying the role played by ICTs to support the life of diasporic communities (Bernal, 2005; Hiller & Franz, 2004; Miller & Slater, 2000). Every study in their own way concluded that the role played by Internet was fundamental for these kinds of communities to know the details, to get to know their roots, to rediscover their past, to strengthen family communication and, finally, to keep some sort of connection to their home communities. For the particular case of Mexicans immigrating to the USA, a study conducted by Pew Hispanic, after the 2006 presidential election, concluded that they have strong connections to their home country either by watching news about Mexico (in Spanish) or by calling frequently (Suro & Escobar, 2006). There is no doubt that the communication support provided by technology is of paramount importance for many migrants since sometimes it is the only alternative they have due to their migratory status.

Along with these works, in a previous study, Gonzalez and Castro (2008) found hundreds of community web sites in Mexico aimed to maintain those living in the US aware of the events going on in the home communities (Gonzalez & Castro, 2008). These web sites include similar services such as synchronous and asynchronous text-based communication tools (e.g., guestbooks, chats, forums), photo sharing systems, and others. They argue that those services are used to alleviate certain needs of the community such as the need to be part of the community, social and civic participation, and the need of being aware of everything that goes on in those communities. Other studies on community networks reported that, depending on the individual, Internet can enhance community participation by “mediating the link between the disposition to be civically active and the actual activity of making the activity easier” (Carroll et al., 2005, p.179) which, in the particular case of migrants, is much more relevant due to distance and extended period of absence from their hometowns.

2.2 Community Connectedness, Awareness and Presence

As it can be seen, the context presented in this work is somehow different from those presented typically in the area of presence since this work is not about exploring how

we can make migrants feel like being home which, although interesting, is not the aim of our research. Our research aims to shed some light on the nature of community connectedness, identifying some of the main elements influencing the fluctuations of community connectedness and, finally, understanding the role played by ITCs on these. The problem presented in this work is a particular phenomenon that involves mainly two parties: those living away and those still living in the home community. There is empirical evidence that suggest that both parties are interested in maintaining certain degree of intimacy and immediacy. However, on top of these feelings, empirical evidence suggests that migrants also need to know about the local events and random occurrences in their home communities which, in this work, we refer to community connectedness. Formally, community connectedness has been described as “the inclusion of the community in self” (Mashek, Cannaday, & Tangney, 2007, p.259) meaning that migrants and community are part of each other. They know what is going on with the community and the community is aware of the life of those living away.

Awareness is a concept largely used in Computer Supported Cooperative Work (CSCW), which has been defined as “an understanding of the activities of others, which provides a context for your own activity” (Dourish & Bellotti, 1992, p.107). Even though the concept of awareness has been mainly used in terms of supporting work-related activities, it can be applied also to other contexts such as Computer-Mediated Communication (CMC). Indeed, it has been found that by increasing awareness on human or machine partners the interactions could be improved (Picard, 1999). For instance, computers that can recognize interest, disliking or confusion could certainly be used to improve human interactions with them. This improvement could also be experienced in human relationships by the conveyance of emotional information between lovers or family members. Indeed, distant lovers could be very favored by the conveyance of emotional information since that issue may be fundamental for the relationship to prevail. Recent research on personal awareness systems have focused on designing systems for the home setting as well as creating affection connections between lovers (Chung, Lee, & Selker, 2006; Dey & de Guzman, 2006; Fujita & Nishimoto, 2004; Keller, van der Hoog, & Stappers, 2004; Mynatt, Rowan, Craighill, & Jacobs, 2001). These systems have been mainly designed for families, friends, and lovers to keep them feel *connected* to each other. Indeed, as suggested by Licoppe (2004), several frequent, continuous communicative gestures can yield to what he calls ‘connected presence’ (Licoppe, 2004). Connected presence refers to a continuous stream of contact between two persons throughout the day afforded by the

uninterrupted use of different technologies such as SMS, electronic mail, Instant Messaging (IM). This concept *per se* is very important as it extends interpersonal (intermittent) interactions to an uninterrupted state of connection. However, this stream of research has been focusing on the sense of connection between people rather than connecting people to communities as a whole. In the particular case of study presented in this work, migrants' need to be connected with the family seems to be woven together with the need to be connected with the community. In addition, following this latter perspective, little or none research has been conducted to investigate the effects of technology on community connectedness since, in this particular case, is the main liaison between those living away and the homeland. Moreover, many of these works consider the feeling of connectedness as a finite state resulting from an interpersonal exchange. In this work, we conceive community connectedness as a continuous, variable state experienced by migrants toward their community of origin.

3. Understanding the Needs of Migrant Workers

In January, 2007, we conducted a study aimed to understand how migrants keep up to date about family and community events. In particular, the study aimed to understand the role of technology in connecting migrants to their families and their home communities. The initial study consisted of ethnographic-based interviews with people experiencing the phenomenon (Figure 1).

The topics (see Appendix 1) covered by the interviews are: the general understanding of the migration experience, the feelings produced by immigrating, patterns of communication, contact with the home community and future perspectives. Interviews lasted in average about 53 minutes. The data collected was then analyzed using a comparative approach aiming at identifying patterns among the responses and producing an integrated set of findings as suggested by the Grounded Theory approach (Charmaz, 2006; Strauss & Corbin, 1998).



Figure 1. Migrants, participating in our study, gathering before going to work (left) and a migrant worker with all his children in the USA (right).

This study involved migrants living in Southern California as well as some members of their family and/or acquaintances living in the municipality of Juchipila in the central state of Zacatecas, Mexico. All interviewees (Table 1) were originally from the same municipality. Twenty six interviews were conducted from which thirteen were carried out in California and the rest in Mexico. Finally, the interviews were verbatim transcribed for their posterior analysis.

Country of Residence	20 – 40 years old		41 – 60 years old		60 and older	
	M	F	M	F	M	F
United States	6 (3) [1]	–	6 (3) [1]	–	1 [1]	–
Mexico	1	2	2	5 (2)	3 (1)	–

Table 1. Demographic data of interviewees and transcripts: (1st round), [2nd round].

The analysis was aimed to obtain the meaning of the phrases or comments made by the interviewees. The relevant ideas were assigned a code to be used throughout the analysis since different people can refer to the same codes previously identified. Nine interviews (see Table 1) were first transcribed, analyzed, and codified in three stages from which the first draft of code emerged. As the analysis continued, some categories emerged as the main ones as well as some of the properties and dimensions of the categories (see Appendix 2). After concluding this stage, associations were created between categories and properties. From the rest of the interviews, three more were fully transcribed and analyzed. Finally, we carefully listened to the rest of the interviews to fill any gap left by the initial analysis.

4. Physically Absents: Strategies to Be Part of their Hometowns' Life

To overcome remoteness many migrants use different strategies. It is important to see that many migrants indeed remain socially and economically 'present' in their home communities despite the distance. There are several means they use to do so. Among those, the remittances are mechanisms used by migrants to be there present in absence and the effects they have on their home communities have been subject of study several times (Ratha & Shaw, 2006). Indeed, remittances have been considered as one of the most effective strategies for development since the money go straight to those who need it the most (Garcia-Zamora, 2005). In the same way, Hometown Associations (HTA), formed by migrants of the same community of origin (Figure 2), are recurrently doing fundraising activities to support community projects and charity in their home communities (Burgees, 2005).



Figure 2. Two migrants, participants of our study showing pictures of the community projects they have participated in.

These are some of the facts that reflect the migrants' desire of being there in some way. We move now to the analysis of how migrants use technology to be aware of everything that goes on in the home community i.e., how to be there without actually being there.

4.1 Keeping Connected with the Community Life

Many Mexican communities are dispersed throughout several locations in Mexico and the USA forming small satellite communities of migrants from the same place of origin that are permanently in touch with the homeland (Roberts et al., 1999). In our study, the informants commented keeping strong communication bidirectional flows within and between the communities through informants in the hometown. On the one hand, the

inbound information flows are toward the home community and are characterized by the inclusion of information about the activities and occurrences in the satellite communities. Likewise, it also includes the social life within those communities as well as particular events from isolated migrants. On the other hand, *outbound* communication flows are originated in the home community and are aimed to keep migrants well informed about the occurrences in the home community. The main difference is that *outbound* communication conveys information about the daily occurrences as well as fortuities in the home community whereas *inbound* let people in the community know how they are doing in their new communities. Inbound and outbound communication involves the inclusion of different channels.

Through Close Informants

The migrants participating in our study mentioned that they usually have one main informant in their home communities, or even in their own family in the US who are usually relatives (e.g., mother) or very close friends who, depending on the situation, can be reached by telephone or internet based services. One of our participants, a young university student living in the US for 11 years commented *"My dad calls them and he just tells me something if anything [extraordinary] happens there and that's the way I get to know things... and I think that's reciprocal, what happens here it's told [there], because many people there knew I had been in the navy"* (male, 27). This scenario is mirrored in the home communities where our informant's father has one main contact (one of his siblings) to obtain information about the community and family. Highlighting the importance of being aware of the events in the community, a migrant, 42, commented *"Well, important dates, say, in December that sometimes I cannot go, I'm always with the curiosity 'what will be happening? if someone got married, how it would have been?' in December, January, May... those are the times when there are a lot of family birthday parties... that I wish I could be there and you have to wait till they are finished to know how they went, the news the next day... things like that"*. These types of comments were typical among migrants. They have their local informants to keep them well aware of the events in the community.

Through Local Social Networks

When Mexicans migrate, they tend to form small groups of migrants from the same place of origin since they share common values and traditions (Roberts et al., 1999). This situation was highlighted by our informants who said they organize, coordinate

and perform fundraising activities to contribute to the wellbeing of the community as well as to help each other. One active member of the community currently living in Los Angeles commented *“we get to know everything very fast, we are used to that, if an accident occurs [in our hometown], we collect money quickly, quickly, we communicate with each other and well, with the pain when someone dies... Always, when it happens something like that, we are always informed ‘that someone died because he crashed his car’ or ‘that someone spilled and got disabled’. We are always helping each other and because it’s such a small village. One can be informed about everything and you feel something about everyone or everything there, even though this person is not a relative, because you have always lived in conviviality with everyone”* (male, 42). Most migrants rely on these local social networks as a support network as one of them living for over 20 years in the USA commented *“Around 6 months ago, a man died there [his hometown], and his daughter was here... they organized a barbecue as a fundraising activity to help to the burial costs and I told them ‘what you collect, I will make it double’”*. Similarly, many of them are used to augment their communicative repertoire as another professional migrant worker commented *“When something just happens, there’s always someone calling here and the one who receives the call distribute them [news] ‘look, you know what happened? That someone fought with this other –and how was it? Well, like this’ the gossips are easily spread”*. Hence, every migrant is seen by the rest as a potential source of news about the hometown.

Through the Community Web Site

While community web sites might afford certain levels of social presence by including synchronous communication tools (e.g., chat), the importance of these sites rely in that they allow migrants to have a place where people from the community can virtually gather, create and exchange information about the community (Bernal, 2005). They can directly obtain ‘raw’ information that can help them to spread all the news about local events such as weddings and the local festivities. For instance one migrant, male, 45, commented *“like now [January], the fair should be there [on the web site], I haven’t seen it... and people have been asking me ‘hey, do you know something?’ because they used to send me pamphlets [to the store] before, about the bullfights, cockfights, and they haven’t sent anything... and somebody told me ‘it’s on the internet, you can download it from there’, but before they used to bring me [those things]”*. Others usually find the web site as informative as one commented *“it’s good that these pages exist, to be informative and very far from being gossiping... they’re to be in touch”*. Similarly,

some others use the web site as an escape from their realities in the US, as one young migrant worker, 21, commented *“Well, you feel like you transport yourself, let’s say, you can imagine that you are there”*. Thus, migrants usually use the community web site to feel part of the life in their place of origin by obtaining a taste of those goings-on not easily conveyed through their social networks.

These three different channels are used to obtain a ‘taste’ of the community life supplement each other. Nonetheless, it is still unclear to what extent each of these channels contributes to the sense of connection to the life of the community.

4.2 Keeping Certain Communication Patterns

The analysis revealed that migrants follow some preconditioned behaviors ruled by the need to be part of the life of their families and communities. We identified three main types of simultaneous cycles influencing the communication practices as well as visiting patterns of migrants.

Firstly, the *annual festivity cycle* is formed by the most relevant events for migrants throughout the calendar year (e.g., Independence Day). This cycle influences their practices mainly in terms of communication, traveling and emotions. For instance, one of the traditional annual fairs in Juchipila is held in January. Many migrants said they prefer to visit during those days rather than during the Christmas holidays. One of our interviewees, living for 8 years in the US, even said *“Last year, 2006, I couldn’t go in January, so I went until May that is also when we have another fiesta in my hometown”*, which obviously confers some significance to community events. Likewise, migrants said they usually call home before, during and after the annual fair to get the details of the event as commented by one of our informants *“When I’m going in May [community fair], in April I start calling ‘what is it going to be? When does it start the fiesta? Are there pitahayas¹ already?’ and that’s when I [call] more...and in December, before going there, the same, to know how’s the panorama”* (male, 42).

Interestingly, dates for similar celebrations in Mexico and the USA are likely to vary such as the Mother’s Day. As such, that difference could also have peculiar effects on the communication patterns, traveling and even celebrations. One active member of the community living in the US for over 20 years commented *“I love to go during the Fiesta de la Cruz [May], but also because it’s so familiar, not only because of the event, but because you see people. Since most people are students, they set the dates so*

¹ It is the fruit of several cactus species, are also known as dragon fruit. Native to Mexico and Central and South America (source: <http://en.wikipedia.org/wiki/Pitaya>)

well that we can take the Memorial Day long weekend [US]. Then I go from Thursdays and I can take Monday off, since it is the last Monday of May. Then we don't set it [the date of the fiesta] because of the [religious] tradition, that it's supposed to be on May, 3rd, [instead] we do it like this so people can go, I mean, it was changed almost a month so people can go and enjoy a little bit" (male, 38). Likewise, another interviewee said *"I remember that happened on the 10th of May [Mother's Day], and I called with the card and the [phone] lines were saturated. I dialed the number but it said 'We are sorry, but we can't communicate', the lines were all busy, and I finally could go through around midnight, because the lines were a little less busy. That day I worked and during the day I couldn't [call], because I was working, it was until I got home, but I couldn't till midnight"* (male, 21). It is clear then that family communication is shaped in some way by social norms which usually coincide with the important events during the calendar year (e.g., traditional celebrations).

Secondly, overlapped, the *communication cycle* is formed by periodical interactions spaced out uniformly over time (e.g., weekly) and it is used mainly to stay in touch and exchange information about any incident occurred since the last interaction. These sorts of periodical interactions are likely to become part of the life of the migrant forever. Moreover, these interactions are periods reserved exclusively for communication with the family as one of the interviewees commented *"that time is reserved... my program is... I mean my routine is: on Saturdays, as soon as I wake up I pick up the phone and I call her [mom]... That time is set aside, it's not that interferes with other things"* (male, 39). Interestingly, these exchanges become part of the routine as another migrant worker commented *"every Thursday... every Thursday, I mean... I'm a gardener, and when I finish the third house on Thursdays, automatically, now, bum!... sometimes I chat for 5 minutes, sometimes 1 minute, when there is something to talk about I usually last [more]... or when it's my birthday, they call me on weekdays, or things like that, but every Thursday is ritual"* (male, 38). Migrants develop a certain sense of communicative ritual where these periodical exchanges seem to serve both parties primarily to reassure the commitment on each other, and secondarily, to exchange everyday experiences from each place. Indeed, some research has found that the content of communication is sometimes secondary when interacting with someone you care about (Rettie, 2003).

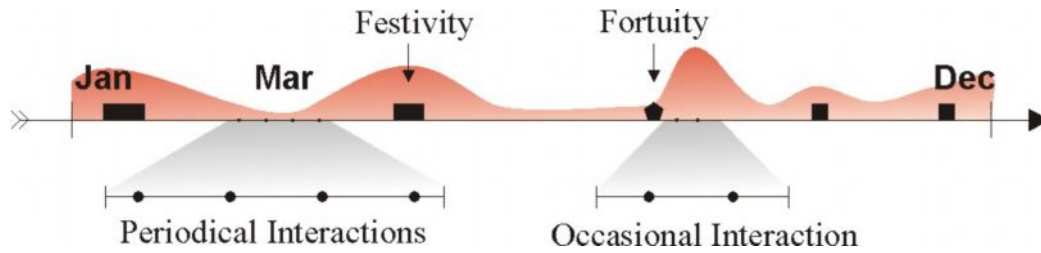


Figure 3. Hypothetical example of an annual cycle showing the fluctuations of community connectedness.

Finally, the *occasional interactions* cycle, less uniform, is formed by other extraordinary incidents. For instance, migrants usually return (or call) when something exceptional goes on in the home community and needs urgent attention (e.g., a relative's death). Figure 3 illustrates both of the aforementioned cycles and the fluctuations of the emotional load. Several other events such a visit to the family might also alter considerably these fluctuations.

4.3 Periodical Encounters to Be Together

Undoubtedly, ICTs play a major role on the communication practices of migrants to get close to home. Any technology comes with different communicative affordances, as discussed by the Media Richness Theory (Daft & Lengel, 1986), but also with an associated usage cost. It can be argued that that cost inhibits, in some way, the action of communicating. Migrant workers, as many people, are also restricted by the cost of communicating, which together with emotions shapes their communication practices. We found that the main medium used by our participants was the telephone, which provides an opportunity to spend some time together and to be used as a resemblance of a get-together as has been pointed by previous studies (Licoppe & Smoreda, 2006). For the people we interviewed, these periodical synchronous encounters (i.e., phone calls) afford certain degree of social presence as one of our informants commented when asked about the means he used to communicate "*with the telephone, in one second, you are there*" (male, 59). This quote, as simple as it may seem, provides strong evidence of the practical uses of the telephone. Another interviewee, a mother who has her children and husband in the US, commented "*the telephone you actually hear them, you know they are ok at that moment and the letters at times when you get them only God knows how... what had happened during that time... and telephone, you hear them clearly how they are doing at that moment, and the voice, listening to them is like... and now that I know where they live I feel more... before, I felt like they*

were in a lost place even when I talked to them I didn't even know where... and now that I go and I see them I feel... they tell me 'I'm here, I'm there, now I'm at this place', and it's more like a consolation for me to know where they work, where they go out to... all that makes me feel more calm". These periodical encounters through the telephone are used just to be some time together (Licoppe & Smoreda, 2006).

To some extent, these encounters are defined by the service used to communicate. In the case of migrants interviewed, for convenience, many of them use prepaid phone cards. This kind of service affords having long conversations which is seen, as mentioned, as a window of opportunity to be together. One young migrant worker, 21, commented with regards of the phone calls *"One doesn't really mind the money but because one is barely beginning the conversation at ease... and that's the problem I have more than anything, we are talking, talking and then I tell my mom 'hold on, the call is going to be interrupted because the card is running out of credit' and it's like we have a limit, an amount... we are talking and that's it when we are talking about something interesting, the card is finished... you have to dial again or just tell her 'I'll call you tomorrow or one of these days'"*. Communication exchanges are often seen as finite windows of opportunity (i.e., sessions) to reencounter with the family at a regular basis, for some extended time, but still restricted in terms of time.

5. Discussion of the Study

The analysis presented before is evidence of how, migrants have been managing to keep some sense of closeness to the life in their hometowns. They use certain people, in their families or members of the community, who keep them informed about the occurrences in their home communities. In the same way, some of them have been using a community web site as a source of information not easily obtained by any other mean.

In addition, migrants' need of returning and communicating is mainly influenced by recurrent cycles ruled mostly by the calendar year, fixed periodical interactions and occasional interactions derived from unexpected or sporadic events. Moreover, regarding the periodical interactions, many of our informants prefer to follow a rigid habit of getting in touch to stay informed about the events in their home communities and their families. These uniform patterns of communication usually become part of their routine and from this work it is complicated to compare the levels of significance

between migrants' need to be connected and the need to be connected with the community, although both of them seem to be important

This work presented empirical, preliminary results aimed to identify the current strategies followed by migrants to keep the sense of community connectedness high. We also discussed the role that presence technology could potentially play on the sense of community connectedness since it can potentially augment the quality (and kind) of the information migrants receive.

The main challenge faced by this work is the convergence of several areas of research (e.g., Psychology, Sociology, Computer-mediated Communication) and several theories within those areas that could help to fully understand the phenomenon (e.g., homesickness, connectedness, intimacy, media richness theory, social identity, social capital, community attachment). Undoubtedly, there are several areas of improvement to be taken into consideration for future similar studies. A proper study of conversation analysis between migrants and their local informants is necessary. Currently, we are analyzing the usage of a community web site (i.e., a web site used exclusively to connect those living away with those in their places of origin), which will provide a characterization of the actual communication exchanges between the dispersed members of the community. In general, this work has several implications for the design of appropriate communication instruments that afford the conveyance of information (and perhaps feelings) within the members of community networks that surpass space and time.

Our future work consists of longitudinal studies that involve the inclusion of 24/7 community cameras onto the web site as well as a set of periodical activities that participants will be asked to which will enable us to investigate the temporal patterns of communication and variations over time.

6. Closing Remarks

There is no doubt that there is still a long way to go in the area of connectedness and hence in community connectedness. Technologically, connectedness as a concept is very appealing to investigate. However, the relationship with the psychological background supporting this area is still a bit unclear and more work is needed to make more robust the research in the area. In addition, measuring the concept of connectedness is inherently complex. Even though there have been some efforts

toward the design of effective measurement instruments there is still some work to do (Mashek et al., 2007; van Baren, Ijsselsteijn, Markopoulos, Romero, & de Ruyter, 2004).

In practice, community connectedness is a concept that could potentially relate to the concept of presence. A focal point in future research would be to see if presence-affording technologies can influence community connectedness. Using technologies that can offer presence as an affordance could potentially increase the sense of being part of the life of the community beyond the interaction timeframe. Alternative mediums such as 24/7 cameras or environmental one-way audio channels can provide 'raw' context straight to migrants' senses which may facilitate the sensation of being there and might even have a particular effect on community connectedness. However, just as connectedness, and similar areas, presence also faces challenges to measure the level of presence on individuals in VE (Ijsselsteijn, de Ridder, Freeman, & Avons, 2000). Finally, we argue that a migrant with a greater community connectedness might potentially feel more engaged in the community life and hence feel more willing to participate socially, civically and financially. Indeed, Carroll et al. reported that, depending on individuals, internet can enhance social and civic participation (Carroll et al., 2005). Our future work in this area will aim at revealing a better understanding of the effects of using certain technologies and information on the way migrant workers engage with and take an active role in the life of their homeland.

7. References

- BANXICO (2008). *Remesas Familiares*. Retrieved Feb 19th, 2008, from <http://www.banxico.gob.mx/polmoneinflacion/estadisticas/balanzaPagos/balanzaPagos.html>
- Baumeister, R. F., & Leary, M. R. (1995). The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation. *Psychological Bulletin*, 117(3), 497-529.
- Bernal, V. (2005). Eritrea on-line: Diaspora, cyberspace, and the public sphere. *American Ethnologist*, 32(4), 660-675.
- Burgees, K. (2005). Migrant Philanthropy and Local Governance. In B. J. Merz (Ed.), *New Patterns for Mexico: Observations on Remittances, Philanthropic Giving, and Equitable Development* (pp. 99-155). Cambridge, Mass.: Harvard University Press.

- Carroll, J. M., Rosson, M. B., Kavanaugh, A., Dunlap, D. R., Schafer, W., Snook, J., & Isenhour, P. (2005). Social and civic participation in a community network. In R. Kraut, M. Brynin & S. Kiesler (Eds.), *Domesticating Information Technologies* (pp. 168-181). New York, NY: Oxford University Press.
- Castles, S., & Miller, M. J. (2003). *The Age of Migration: International Population Movements in the Modern World* (Third Edition, Revised and Updated ed.). New York, NY: Palgrave Macmillan.
- Castro, L. A., & Gonzalez, V. M. (2007, 18-20 Feb, 2007). *Binding a Scattered Community in Rural Mexico with a Web-based System*. Paper presented at the Web Based Communities 2007, Salamanca, Spain.
- Charmaz, K. (2006). *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*. London, UK: Sage Publications.
- Chawla, L. (1992). Childhood Place Attachments. In I. Altman & S. Low (Eds.), *Place Attachment* (pp. 63-85). New York, NY: Plenum Press.
- Chung, H., Lee, C. H. J., & Selker, T. (2006). Lover's cups: drinking interfaces as new communication channels. *Conference on Human Factors in Computing Systems (CHI 2006)* (pp. 375-380). Montréal, Québec, Canada: ACM Press.
- Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. *The American Journal of Sociology*, 94, 95-120.
- CONAPO (2005). *Población nacida en México residente en Estados Unidos por características demográficas, 1994-2003*. Retrieved Oct 25th, 2006, from http://www.conapo.gob.mx/mig_int/series/030202.xls
- Daft, R. L., & Lengel, R. H. (1986). Organizational information requirements, media richness and structural design. *Management Science*, 32(5), 554-571.
- Dey, A. K., & de Guzman, E. (2006). From awareness to connectedness: the design and deployment of presence displays. *Conference on Human Factors in Computing Systems (CHI 2006)* (pp. 899-908). Montréal, Québec, Canada: ACM Press.
- Dourish, P., & Bellotti, V. (1992). Awareness and coordination in shared workspaces, *ACM conference on Computer-Supported Cooperative Work (CSCW 92)* (pp. 107-114). Toronto, Ontario, Canada: ACM Press.
- Fisher, S. (1989). *Homesickness, Cognition, and Health*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Fujita, H., & Nishimoto, K. (2004). Lovelet: a heartwarming communication tool for intimate people by constantly conveying situation data. *Conference on Human*

- Factors in Computing Systems (CHI 2004)* (pp. 1553-1553). Vienna, Austria: ACM Press
- Garcia-Zamora, R. (2005). The Impact of Remittances in Jerez, Zacatecas. In B. J. Merz (Ed.), *New Patterns for Mexico: Observations on Remittances, Philanthropic Giving, and Equitable Development* (pp. 19-32). Cambridge, Mass.: Harvard University Press.
- Gonzalez, V. M., & Castro, L. A. (2008). Keeping Strong Connections to the Homeland via Web-based Tools: The Case of Mexican Migrant Communities in the United States. *The Journal of Community Informatics (to be published)*.
- Grey, M. A., & Woodrick, A. C. (2005). "Latinos Have Revitalized Our Community": Mexican Immigration and Anglo Responses in Marshalltown, Iowa. In V. Zúñiga & R. Hernández-León (Eds.), *New Destinations: Mexican Immigration in the United States* (pp. 133-154). New York, NY: Russell Sage.
- Hiller, H. H., & Franz, T. M. (2004). New ties, old ties and lost ties: the use of the internet in diaspora. *New Media & Society*, 6(6), 731-752.
- Hummon, D. M. (1992). Community Attachment. In I. Altman & S. Low (Eds.), *Place Attachment* (pp. 253-277). New York, NY: Plenum Press.
- Ijsselsteijn, W. A., de Ridder, H., Freeman, J., & Avons, S. E. (2000). Presence: Concept, determinants and measurement. In B. E. Rogowitz & T. N. Pappas (Eds.), *SPIE Conference on Human Vision and Electronic Imaging V* (Vol. 3959, pp. 520-529). San Jose, CA.
- Keller, I., van der Hoog, W., & Stappers, P. J. (2004). Gust of me: reconnecting mother and son. *Pervasive Computing, IEEE*, 3(1), 22-27.
- Licoppe, C. (2004). Connected presence: the emergence of a new repertoire for managing social relationships in a changing communication technoscape. *Environment and Planning D: Society and Space*, 22(1), 135-156.
- Licoppe, C., & Smoreda, Z. (2006). Rhythms and Ties: Toward a Pragmatics of Technologically Mediated Sociability. In R. E. Kraut, M. Brynin & S. Kiesler (Eds.), *Computers, Phones, and the Internet: Domesticating Information Technology* (pp. 296-324). New York, NY: Oxford University Press.
- Low, S. M. (1992). Symbolic Ties that Bind: Attachment to the Plaza. In I. Altman & S. Low (Eds.), *Place Attachment* (pp. 165-185). New York, NY: Plenum Press.
- Mashek, D., Cannaday, L. W., & Tangney, J. P. (2007). Inclusion of Community In Self Scale: A Single-Item Pictorial Measure of Community Connectedness. *Journal of Community Psychology*, 35(2), 257-275.

- Miller, D., & Slater, D. (2000). *The Internet: an ethnographic approach*. Oxford, UK: Berg.
- Mynatt, E. D., Rowan, J., Craighill, S., & Jacobs, A. (2001). Digital family portraits: supporting peace of mind for extended family members, *Conference on Human factors in Computing Systems (CHI 2001)* (pp. 333-340). Seattle, Washington: ACM Press.
- Picard, R. W. (1999). Affective Computing for HCI. *Human-Computer Interaction: Ergonomics and User Interfaces, 1*, 829-833.
- Putnam, R. D. (2000). *Bowling Alone: America's Declining Social Capital*. New York, NY: Simon & Schuster.
- Ratha, D., & Shaw, W. (2006). *Global Economics Prospects: Economic Implications of Remittances and Migration* (No. 34320). Washington, DC: The World Bank.
- Rettie, R. (2003, Nov 5-8, 2003). *Connectedness: A new dimension of CMC?* Paper presented at the IADIS International Conference WWW/Internet 2003, Algarve, Portugal.
- Riley, R. B. (1992). Attachment to the Ordinary Landscape. In I. Altman & S. Low (Eds.), *Place Attachment* (pp. 13-35). New York, NY: Plenum Press.
- Rinderle, S. (2005). The Mexican Diaspora: A Critical Examination of Signifiers. *Journal of Communication Inquiry, 29*(4), 294-316.
- Roberts, B. R., Frank, R., & Lozano-Ascencio, F. (1999). Transnational migrant communities and Mexican migration to the US. *Ethnic and Racial Studies, 22*(2), 238-266.
- Stedman, R. C. (2002). Toward a Social Psychology of Place: Predicting Behavior From Place-Based Cognitions, Attitude, and Identity. *Environment and Behavior, 34*(5), 561.
- Strauss, A. L., & Corbin, J. M. (1998). *Basics of qualitative research: techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage Publications.
- Suro, R., & Escobar, G. (2006). *Survey of Mexicans Living in the U.S. on Absentee Voting in Mexican Elections*. Washington, DC: Pew Hispanic Center.
- Urry, J. (2002). Mobility and Proximity. *Sociology, 36*(2), 255-274.
- van Baren, J., Ijsselsteijn, W. A., Markopoulos, P., Romero, N., & de Ruyter, B. (2004). Measuring affective benefits and costs of awareness systems supporting intimate social networks. In A. Nijholt & T. Nishida (Eds.), *3rd Workshop on Social*

Intelligence Design. CTIT Workshop Proceedings Series WP04-02 (pp. 13-19). Enschede, the Netherlands.

van Tilburg, M. (1997). The Psychological Context of Homesickness. In M. van Tilburg & A. Vingerhoets (Eds.), *Psychological Aspects of Geographical Moves: Homesickness and Acculturation Stress*. Tilburg, Netherlands: Tilburg University Press.

8. Appendix 1

General Excerpt of the Interview Guide

General Category	Topics Addressed
General understanding of the phenomenon	<ul style="list-style-type: none"> – Experiences as immigrant – Reasons to migrate – Frequency of visits to Mexico – Remittances
Feelings	<ul style="list-style-type: none"> – Distance and time – Community of origin
Patterns of communication	<ul style="list-style-type: none"> – Frequency of contacts – Means of communication used – Cost – Barriers that hamper the frequency of contacts – Quality of contacts – Transference of information – Usage of the community web site – Perception of the reduction of the distance factor
Information/objects exchange	<ul style="list-style-type: none"> – Types of information exchange – Frequency of exchange – Particular events that alter the communication ritual – Perception of information relevant for the family – Information not currently obtained but desired
Contact with the community	<ul style="list-style-type: none"> – Means of communication used – Social, economic and politic participation – Cost
Perspectives	<ul style="list-style-type: none"> – Future plans for your family – Additional comments

9. Appendix 2

Main Categories Emerged from the Analysis

Category	Sub-categories
Being away from home	<ul style="list-style-type: none">- Experiences- Family abroad- Future perspectives- Feelings toward the absents- Getting connected to home- Reasons to migrate- Feelings related to being away
Returning home	<ul style="list-style-type: none">- Activities at home- The idealization of home- Reasons to go home- Reencountering with home
Staying in touch	<ul style="list-style-type: none">- ICTs- Awareness- Informants (social networks)- Content of communication- Communication ritual- Remittances