



Københavns Universitet



Mobile Social Network in a Cultural Context

Liu, Jun

Published in:
M-Science

Publication date:
2010

Document Version
Publisher's PDF, also known as Version of record

Citation for published version (APA):

Liu, J. (2010). Mobile Social Network in a Cultural Context. In E. Canessa, & M. Zennaro (Eds.), *M-Science: Sensing, Computing and Dissemination* (pp. 211-240). ICTP—The Abdus Salam International Centre for Theoretical Physics.

m-Science

Sensing, Computing and Dissemination

m-Science

For more information about this book visit www.m-science.net

Editors: Enrique Canessa and Marco Zennaro

Publisher

ICTP—The Abdus Salam International Centre for Theoretical Physics

2010 ICTP Science Dissemination Unit, e-mail: sdu@ictp.it

Printing history: November 2010, First Edition

ISBN 92-95003-43-8

Disclaimer

The editors and publisher have taken due care in preparation of this book, but make no expressed or implied warranty of any kind and assume no responsibility for errors or omissions. No liability is assumed for incidental or consequential damages in connection with or arising out of the use of the information contained herein. Links to websites imply neither responsibility for, nor approval of, the information contained in those other web sites on the part of ICTP. No intellectual property rights are transferred to ICTP via this book, and the authors/readers will be free to use the given material for educational purposes. The ICTP will not transfer rights to other organizations, nor will it be used for any commercial purposes. ICTP is not to endorse or sponsor any particular commercial product, service or activity mentioned in this book.



This book is released under the Creative Commons **Attribution-Noncommercial-NoDerivative Works 3.0 Unported License**. For more details regarding your rights to use and redistribute this work, see <http://creativecommons.org/licenses/by-nc-nd/3.0/>

Contents

<i>Foreword</i>	V
<i>About This Book</i>	VII
<i>Book Overview</i>	IX
Introduction	
m-Science	3
The Internet, Mobile Computing and Mobile Phones in Developing Countries	7
Sensing	
Towards a Societal Scale Scientific Instrument	37
Data Gathering with Mobile Phones	87
Cell Phone Spectroscopy in the Classroom	97
Computing	
A Blocks Language for Mobile Phones: App Inventor for Android	115
Mobile Application Development with Python	145
Middleware for Grid Computing on Mobile Phones	169
Data Encapsulation and Mobile Access to the Protein Data Bank	189
Supercomputing on a Cell Phone: MIT Stories	203
Dissemination	
Mobile Social Network in a Cultural Context	211
Use of Mobile Devices in Self-managed Learning	241
m-Learning in Sri Lanka: A Case Study	259

Mobile Social Network in a Cultural Context

Liu Jun

University of Copenhagen, Denmark

The swift proliferation of the mobile phone as a communication tool within past decades has changed the information environment and facilitated interactivities in ways that earlier mass media have never been able to do [1]. The general nature of user-friendliness, affordability, accessibility, mobility, and intimacy that is imbedded in mobile communication has provided unprecedented opportunities for the developments of interpersonal relationships and social networks [2]. On the other hand, technology penetration and application cannot be separated from concrete political, economic, and socio-cultural factors. Different contexts have therefore shaped the characteristics of mobile phone-mediated interactions and mobile social network on different levels [3]. Nevertheless, few scholastic studies have been carried out to investigate which cultural factors contribute to the characteristics of mobile interaction and mobile social network, or how they do so [4].

Benefitting from the political and bureaucratic incentives in telecommunication network building, enormous market demands, low-cost handsets and downward price on the usage of mobile phone [5], mobile phones, including cellular phone (aka handset phone (shouji) in Chinese) and Little Smart (aka Xiao Lingtong in Chinese [6]), have become popular in people's everyday lives in China. It is worth noting that since 2001, China has the largest

number of mobile phone subscribers in the world, touching 747 million by the end of 2009 [7]. Indeed they now number more than the entire 722 million mobile users in all the European countries [8]. More than half of the 1.3 billion Chinese people own a mobile phone. The figures also mean that one in every six mobile phone users in the world is Chinese. More astoundingly, the national mobile phone SMS volume soared to 771.3 billion in 2009, a 770-fold increase within ten years [9]. With a vast rural market still keen for basic communications, migrant workers desperate for extending family cohesion, and city slickers craving the up-to-date whizz-bang handsets, no wonder China is still enjoying a growth period in the mobile phone market. Researches on mobile communication for social interactions in China typically focus on the questions of telecommunication policies [10], rumours and gossips under highly-controlled situations [11], and the political implication of satiric SMS against authorities and bureaucracies [12]. Yet, of the many individuals experiencing the convenience of telecommunication development, of the many individuals suffering from information censorship, and of the many individuals engaging in SMS criticism, only a few talked about 'guanxi', a cultural term relevant to understanding interpersonal relations and the social network system in Chinese society. By examining the spread of Severe Acute Respiratory Syndrome- (SARS) and war-related rumours via mobile phone and Internet in China, Ma argues that the combination of technology convenience, media censorship and guanxi in Chinese culture makes Chinese society a place that "tends to very easily become a warm bed for rumours" [13]. However, herein lies the dilemma: if guanxi penetrates Chinese people's daily life, why does guanxi only appear in case of rumours? If guanxi does not, how can the understanding of mobile phone interactions and mobile social networks be extended under the particular guanxi structures of Chinese society?

Given the specific features of this cultural context, my goal is to sketch a framework for understanding the formation of guanxi-embedded mobile social network in China. I will first introduce guanxi, the heavy reliance on interpersonal relationships in Chinese culture. Second, I will explain the characteristics of guanxi-

cohesive mobile social networks by looking at different cases where Chinese people use mobile communication to cultivate, maintain and strengthen guanxi, and further, breed new ways of social cohesion with mobile communication. The paper at the end highlights and addresses the dynamics of guanxi-based mobile social network that has emerged in China in the wake of wireless telephony communication. This study also provides another way of understanding the relationship between social network and mobile communication in China, and the influence of socio-cultural factors on technology application, in contrast to several existing studies, which drew their conclusions ignoring influences from the distinctively Chinese guanxi culture.



Copyright©2010 by ZHAO Hui and LIU Jun.

1 Understanding the Dynamic of Guanxi

1.1 Guanxi in Chinese Society

Guanxi, literally meaning “relation” or “personal connections”, stands for the endemic interpersonal relationship and social ties among various parties that make up the network and support another in various Chinese milieus [14]. As Yang defines it, guanxi “means literally ‘a relationship’ between objects, forces, or persons. When it is used to refer to relationships between people, not only

can it be applied to husband-wife, kinship and friendship relationships, it can also have the sense of ‘social connections,’ dyadic relationships that are based implicitly (rather than explicitly) on mutual interest and benefit” [15].

Distinguished from the independent existence of the individual in Western thought, the nature of a person is “a relational being, socially situated and defined within an interactive context” [16] in Chinese Confucian view. In other words, as Bian and Ang elaborate, “[the] self is identified, recognized, and evaluated in terms of one’s relations to the groups and communities to whom one belongs” [17]. The individual in Chinese society is always considered an entity within a network of *guanxi*, the social ecology of relational interdependence.

In addition to personal identity, *guanxi* conjures up both personal ties and social network (*shehui guanxi*, *guanxi wang*), the extended form of *guanxi*, with implicit claims on mutual emotional, interest or benefit involvements. The most common bases for building *guanxi* include blood relation and spatial connections (e.g. friends, neighbours and classmates) [18]. So and Walker [19] reinforce that people’s sense of self-worth depends on how well they deal with those related to them within their *guanxi* network. In this way, according to Fei Xiaotong, “the [Chinese] society is composed ...of overlapping networks of people linked together through differentially categorized social relationships” [20]. Regardless of an ever-changing set of social practices from pre-revolutionary, pre-reform to the reform eras, Chinese everywhere seem to rely heavily on *guanxi* to adapt themselves to the changing environment and strive for resources to satisfy their needs [21].

As a powerful lubricant to survival and success in Chinese society, *guanxi* has extended into political, economic and social dimensions [22]. For instance, *guanxi* has been widely recognized by both Chinese and non-Chinese businessmen and investors as a key element to successful business [23]. Observed by Ruan in his 1986 survey in Tianjin, ordinary workers in enterprises must cultivate *guanxi* with officials who will “use their discretionary power in distributing goods, services and other benefits” [24]. Yan revealed

as well that in rural communities guanxi exists “in its multiple functions in everyday life” [25]. He also notes that “*one’s guanxi network covers all ramifications of life in the community, ranging from agriculture production and political alliances to recreational activities*” [26]. That’s why Chinese society should always be described as “guanxi shehui” (guanxi-based society). Due to “*the strong relationship orientation of Chinese culture*” [27], those who are introverted and incapable of cultivating and maintaining guanxi are as a result “*relegated to socially disadvantaged positions*” [28].

1.2 Characteristics and Application of Guanxi

Always adapting itself to new institutional arrangement and functioning in a unique Chinese way, guanxi has three key characteristics [29].

First, guanxi takes root in familiarity or intimacy, which means the totality of personal connections rather than only being based on money. Connecting two peoples in a bond, guanxi also means that both sides must “*know a great deal about each other and share with each other frequently*” [30]. In other words, guanxi includes not only a utilitarian view of relationship but also ganqing (affection, attachment), the rapport of an emotional interpersonal relationship.

Second, guanxi carries reciprocal obligation. Guanxi usually develops between persons who are strongly tied to each other, and is a mutual obligation for both sides to respond to requests for assistance. As a reciprocal process, guanxi not only stimulates endless circulations of favours and gifts [31], but also embeds itself within Chinese society to a far greater extent as “*a dynamic process embedded in social interactions in everyday life*” [32]. If people fail to fulfil their obligations, they will be isolated, deprived, lose face (mianzi), even suffer the ultimate price of losing their guanxi networks and the social resources embedded in them [33].

Reciprocity also means both sides will share each other’s social circles after they set up guanxi. Therefore, guanxi also acts as an intermediary to tap into other’s social connections and resources. To do this, guanxi extends to guanxi networks, the intricacy of

guanxi development and hidden rules of social interactions and network structures permeating in Chinese society [34].

Third, and the most important characteristic of guanxi as I see it, is personal reliability. Guanxi involves not just material interest, but also various degrees of reliability of personal relations and social supports, including trustworthiness, solidarity, loyalty and friendship, according to the degree of guanxi between people [35]. For one thing, personal reliability accounts for the credibility of information exchange and effectively prohibits the occurrence of opportunism with, for example, false diplomas or certifications for education, training and work experiences [36]. Also, the significance of guanxi had been reinforced in a Chinese environment that is characterized by inadequate social infrastructure, weak legal institutions which failed to provide “*a trusted third party adjudication and enforcement of private agreements*” [37], and “*unpredictable risks of arbitrary bureaucratic intervention*” [38]. Furthermore, according to Yan’s anthropological work, the decline of social trust leads “*one to trust only those individuals in one’s personal network and to behave in accordance with a particularistic morality*” [39]. When rules are still not as important as personal relations, people in China always focus on the exceptionality of present circumstances and make their decisions and judgments “*based on acquaintance or lack of acquaintance with others*” [40] instead of resorting to law or other formal rules [41].

To initiate, maintain and strengthen guanxi requires a huge amount of frequent interactions. On the one hand, social interactions, such as gift-giving, sometime easily conflated with bribery, corruption and illegal payment, are required as an effective method to initiate guanxi and create a sense of long-term obligation for the recipients because “*frequent contacts with each other foster understanding and emotional bonds*”. On the other hand, “*for the further development and maintenance of guanxi, conformity to renqing (favour, human feelings) rules, in particular, reciprocity and continued social interaction as well as the utilization of the guanxi relationship are essential*” [42].

Despite the above efforts, most studies have failed to include guanxi in their analyses of the impacts of technological elements, for instance, the Internet and mobile phone. Acknowledging the proliferation of mobile telecommunication infrastructure as a new grounding for interpersonal connections and “quasi-mass communication” [43], what is needed is an analytical focus on guanxi in the context of mobile technological innovation.

2 Case Studies and Data Collection

This study explores the relation between guanxi and mobile social network through three types of cases, including New Year SMS greeting (New Year SMS), mobile communication and job allocations for migrant workers, and rumours via mobile network in China. I first elucidate the reasons for selection of cases, and second, explain the data collection.

2.1 New Year SMS

My first case study focuses on the exchange of greeting text messages during Spring Festival in China. Spring Festival, also known as Lunar New Year, is the most important and prevalent traditional Chinese holiday. Although many traditional parts of the celebration have disappeared or have been banned [44], the meaning of paying New Year calls remains unchanged. Greetings exchanged around holidays, in particular Spring Festival, keep people connected and strengthen their guanxi. The exchange of New Year greetings therefore is a useful means of measuring the composition of one’s guanxi network [45].

As the ubiquity of mobile devices increases, Chinese Spring Festival sees mobile messages flower. In addition to oral greetings to friends and relatives via a phone, the popularity of New Year SMS has overtaken visits to relatives and friends and sales of New Year Greeting Cards, developing into the best way to greet friends and family and spread the good cheer. A total of 23 billion short messages and 1.33 billion Multimedia Messaging Service (MMS) were sent during the 2010 New Year Festival, with 13 billion on the

first two-days alone, i.e. New Year's Eve and New Year's Day [46]. It means an average of 30.8 wireless messages had been sent per person based on the 747 million mobile users. In the 2009 Chinese New Year holiday, SMS traffic was about 19 billion messages, while in 2008, 2007, 2006 and 2005, the figures were 17 billion, 15.2 billion, 12.6 billion and 11 billion messages respectively [47]. Although people criticized stylized messages as being devoid of human emotions compared with traditional door-to-door greeting, so many people tried to SMS on New Year's Eve that networks became jam-packed and many of the messages arrived hours late. Why do people's passions for New Year SMS exchange run high and suffer not wane as the year passes? What is the relation between guanxi network and New Year text messages?

2.2 Mobile Communication and Job Allocations for Migrant Workers

The allocation of jobs is another case that is often used to illustrate social networks [48]. In China, job-hunting accounts for a considerable proportion in everyday life of "migrant workers". Migrant workers are a floating population from less-developed central and western areas which move to more prosperous coastal areas and big cities in order to hunt for jobs [49]. By the end of 2008, the number of migrant workers has been estimated at 225 million or nearly 17.0% of the population [50]. The low-cost of Information and Communication Technology (ICT) devices, including prepaid phone cards and Little Smart mobile phones, and cheap tariffs encourage mobile phone penetration among migrant workers. Data show that 72.9 percent of migrant workers own a mobile phone, which is much higher than the average mobile phone penetration rate in China in the same year—45.5 percent [51]. My ethnographic survey in 2008 about migrant workers and their use of mobile phone shows that, of the respondents in both urban and rural areas, over 90 percent had a mobile phone, which also reflects the popularization of the mobile phones among migrant workers [52]. The mass use of mobile services also gives mobile phone a significant role in the migrant workers' daily life,

including maintenance of emotional connections between geographically dispersed family members, formation of “translocal networks”, organization of group scuffles, negotiation of romantic relationships, and transmission of job information [53].

Pursuing better job opportunities to earn more money and improve quality of life is central in many migrant workers’ everyday lives. Provision of job information also plays a key role enabling local government to decrease unemployment rate and ensure social stability in urban areas. However, as several studies show, job information still mainly comes from the network of kinship, fellow-villagers and friends. Recently the mobile phone has been an important part of this communication [54]. Indeed, local governments have built up various supporting systems, including SMS job alerts by local telecom service providers (SPs) as one of the most important elements, to spread job information and help migrant workers find work [55]. Compared with job information within groups of migrant workers, SMS job alerts have advantages in both quality and quantity. One may ask, however, how migrant workers feel about mobile phone-spread job messages from their guanxi network and those from local SPs? What are the characteristics of the mobile social network among migrant workers?

2.3 Rumours via Mobile Network

The third case examines mobile phone rumours and guanxi networks during the 2003 SARS epidemic [56] and the 2010 Shanxi earthquake panic [57]. The word “rumours” here refers to messages denounced by government and expertise agencies, for instance, medical institutions in 2003 and earthquake bureaus in 2010 [58]. Since 2003, rumours via mobile network have initiated mass panic, stirred up disturbances and even triggered mass incidents, including riots, protests, demonstrations, and mass petitions [59]. Why do people believe mobile rumours instead of clarifications from governments? In particular, how do people consider mobile rumours and their social network? The case study shows a relation between mobile rumours and guanxi network.

2.4 Data

The data for this study are interviews carried out between 2003 and 2010. The first study on “New Year SMS” is based on over 30 face-to-face, telephone and web semi-structured interviews with mobile subscribers in Beijing, Shanghai, Guangzhou, Nanjing, Wuhan and Fuzhou during Spring Festivals in 2005, 2007, 2008 and 2009. The framework of the interview included:

Demographic data, including age, gender, education, career, socio-economic status and mobile phone usage time.

Behavioural data on New Year SMS practices such as how many SMS they send during the seven-day Spring Festival vacation, when, to whom, and why? Are there any personal experiences or stories about New Year SMS? Our interviewees always found it difficult to provide the accurate number of text messages they sent and received during the Spring Festival period. Instead, I asked the interviewees to estimate the number of New Year SMS according to the receipts from telecom service providers and then to compare the list of SMS senders and receivers with their *guanxi* network. Neither the lists of senders nor those of receivers represent the whole *guanxi* network of one person. For example, a teacher recalled that he never sent any SMS greeting back to his students because “*the students are not within [his] guanxi network*” [60]. Nonetheless greetings via mobile network “*cover a majority of [people’s] guanxi network*” [61].

Attitudinal data: viewpoints towards New Year SMS.

To explore migrant workers’ mobile phone use and their job searches, I hired two assistants to organize two focus groups of migrant workers in Fuzhou in May and August 2008. Each group consisted of eight people. We went to four labour markets for migrant workers and five selected companies which had over 50% migrant workers amongst their total workforce from rural and urban areas [62]. The selection procedure used a random sampling protocol from list of names first, and then followed voluntary

principles. We obtained detailed information about the use of mobile phone in exchanging job information from personal observations and interviews. We carried out interviews in interviewees' workplaces and asked them to talk freely on the basis of their experiences of job searching and, in particular, the use of mobile phone, encouraging a full, meaningful answer using the subject's own knowledge and/or feelings.

Third, I conducted the study of "mobile phone rumours" using in-depth interviews with 17 mobile phone users, six in Guangzhou during the 2003 SARS epidemic and eleven in Shanxi Province between January and February, 2010 [63]. Two additional things worth mentioning are earthquake rumours. First, after the magnitude 6.8 earthquake in Sichuan in 2008, rumours appeared about new earthquakes. These rumours ran rampant and created large scale social panics, for instance, in Beijing, Tianjin, Inner Mongolia, Shaanxi province, Henan province and elsewhere in China [64]. Second, earthquake rumours appeared twice in Shanxi in 2010 [65]. On January 24, an actual quake in Yuancheng county of Shanxi province happened after national and local earthquake bureaus dispelled the first earthquake rumours. As a result, when the identical rumours returned a month later, in February, for a second round, the earthquake rumours sparked a more far-reaching public panic in Shanxi. To separate the influences from mobile network with earthquake scare, I focus on people's attitudes toward the messages from mobile communication channel rather than the content of the information. I also ask respondents whether or not they have forwarded rumour messages, if so, how many, to whom, when and by what reasons.

3 Findings and Discussion: Guanxi and Mobile Communication in China

3.1 New Year SMS and Guanxi Network

During my interviews, New Year SMS were seen as the best, low-cost way to convey people's New Year wishes and greetings. Each

respondents had sent greeting SMS in the past three years in the seven-day Festival vacation, particularly on New Year's Eve. Of the respondents, 92.3% (24 of 26) stated that they mostly favoured SMS greeting via mobile network when asked about their greeting activities.

The data shows that the New Year SMS's reinforce guanxi. All of my respondents noted that New Year SMS had an active role in keeping and strengthening their personal guanxi and guanxi network. As one respondent notes, *"there is nothing more important than sending greeting SMS at the proper time in the New Year's Eve, not too early, not too late"* [66]. With regard to greeting SMS, it is a convenient and implicit way to say *"I remember you on this specific day. I would like to send you my best wishes. You are a very important person in my personal guanxi network"* [67]. Therefore, on the one hand, for the people you always contact, New Year SMS means greetings at the specific time to show that you have appreciated their help and friendship in the past year. On the other hand, for those friends with whom correspondence was irregular, greeting messages, implicitly tell them that they are not forgotten. Over 92 percent of respondents in that year's survey agreed with this thought [68].

Furthermore, the connotation of a New Year SMS is more complicated than it appears. First of all, selecting receivers is neither a random process nor a simple inclusion of all the names in a person's mobile phone directory. The process means *"to choose the person with whom you have a guanxi and a level of intimacy"* [69]. As one explains, *"the higher-ups and the person who helped you in the past years should be the first and foremost one to receive the greetings"* [70]. Second, it is also an act showing regard for these people. *"The earlier you send the messages [in the New Year's Eve] to someone who has meant a lot to you, the bigger impression you will leave on them. Because people will get tired later with hundreds of greeting SMS coming from other friends"* [71]. In particular, as one added, *"you can mention implicitly in the SMS the help you get from the person, this can remind your receivers that you are still keeping good memories of*

what they have done for you. Then they will appreciate your thought" [72]. That becomes a useful way to nurture and further strengthen guanxi between sender and receiver.

It's also a sense of achievement when you send hundreds of greeting SMS, *"because it shows that you have abundant guanxi and social resources"* [73]. Mr. Luo, a staff member in a local telecom company, sent over 350 SMS greetings on New Year Eve in each of the past four years. *"It is cheaper for telecom staff to send SMS. More importantly, sending New Year SMS offers you a chance to consider how much guanxi you still have, and how much guanxi you would like to maintain"* [74]. To do so, New Year SMS exchange provides the best way to map one's guanxi network.

On the other hand, guanxi suffers when the receiver does not return the greeting. *"That may lead me to think about what happened between us. Is there anything wrong between us? But in the long run, I may choose not to send greetings to this person in the next holiday. The absent mutual greetings at least showed that our guanxi is not as strong as I thought, or the person does not respect me so much"* [75] According to one respondent, *"I will regard the people who do not send back their SMS greetings as a penny-pinching person. They did not want to send an SMS of 0.1 Renminbi, so are unlikely to help me in future"* [76].

People feel "guilty" when they forget to send a New Year SMS, or are unsure whether or not they have already done it. One respondent says: *"I once unintentionally forgot to send an SMS greeting in New Year's Eve to one of my friends. Then I got an SMS [greeting] from her. I immediately felt guilty, guessing that she maybe regarded me as taking no account of her. I therefore chose one SMS with special greetings and sent to her with my apology"* [77]. *"Being the first to send the greeting SMS"*, as a result, has an implication: *"to me, you are a much more important friend and I am really concerned with you as I am sending my greetings before you do so to me"* [78]. Another respondent recalls that one of her friends asked her after the vacation that *"did you receive my [greeting] message? I did not receive yours"*. She felt embarrassed because she cannot remember exactly whether or

not she has sent. She chose to lie to her friend and said “yes, yes, yes. I also sent my regard to you. Did not you receive that? Maybe it is because of the SMS jam [that you did not get my feedback]”. This respondent explained to me that “it is not a deliberate lie. Because I do not want to disappoint my friend, no matter I forgot to send her SMS greetings or my message had been jammed”. In addition to the easy, fast, trendy and also cost effective advantages of SMS, the obligations in guanxi therefore implicitly play a central role in the exponential volume of Chinese New Year SMS, as people feel the necessity to send greetings to everyone who might send to them in their guanxi networks.

Wireless telecommunication technology brings the blessings of the new approach, as well as a means of modernization in maintaining and strengthening guanxi. Mobile communication does not merely entail a convenient way of interacting greetings but also facilitates the formation of guanxi-embedded social connection. The staggering volume of SMS greetings indicates the size of receiver’s guanxi network, or “social capital” [79], because everyone within the network is obligated to reply the greetings. Consequently, maintaining and strengthening guanxi lies at the heart of exchanging New Year SMS. Through mobile communication, during holidays in particular, people greet each other, maintain and nurture their guanxi network, and build up “a real virtuality integrated with other forms of interaction in an increasingly hybridized everyday life” [80].

4.2 Job Allocations, Guanxi and Mobile Network

As a convenient way to spread and receive information, mobile communication also provides migrant workers with most of their job information, and further increases their social and geographical mobility. As one respondent says, “after I arrived in this city, all the information about my three jobs came from my friends and townees via my mobile phone. Twice I got information via SMS and once through calling. I also shared [job] information [via mobile network] with my friends and relatives” [81]. Another respondent adds that “we always exchange job information via our mobile phones. It is

hard for yourself alone to find a job in a strange city. You have to depend on your relatives, friends and, in a word, [your] guanxi network. Getting up-to-date information also enhances our competitiveness. The mobile phone is a convenient tool to achieve that goal” [82].

Migrant workers prefer job information which comes from their guanxi network to that which comes from service providers and local government. All interviewees knew about the SMS job alerts network supported by the local telecom services. While 10 received job information from telecom services, only two used that information.

Why did they ignore or even “immediately delete” [83] job information from the government? A typical answer during our observation and interviews is *“I do not have the ability to judge real or fake job information [from telecom services]. And I trust those messages from my friends, relatives and townees” [84].* One of our interviewees adds that *“we do not mean that the information [from government] is fake. But messages from [our] guanxi network are more reliable [to us]” [85].* Personal connections from guanxi-embedded mobile communication mean that the information obtained is given high credibility.

This practice of job allocations in China distinguishes from Granovetter’s “strength-of-weak-ties” argument [86]. In his classic studies of job-seekers’ networks, Granovetter emphasizes the importance of “weak ties” (of group with low intimacy or infrequent interaction) as an access to *“information and resources beyond those available in their [people’s] own social circles” [87].* However, as Bian’s fieldwork of job assignments in China shows, guanxi, not matter direct or indirect ties of exchange relations, facilitates “strong ties of trust and obligation” [88] with personal influence. Consequently, in job searching activities, Chinese people, first and foremost, locate a “personal helper” or “individual control agency” within their guanxi network, or seek to build up indirect ties through their existing guanxi network. If you do not have guanxi, your job application could most probably fail even though you have the correct information. In contrast, a different scenario with guanxi

was identified empirically by Bian where the “strong ties” of job-seekers’ guanxi network was even used to influence job-control authorities. In this way, information, the key element in “strength-of-weak-ties”, becomes “only a by-product of influence received” in guanxi network.

Both trust and reciprocal obligation embedded in the strong ties of guanxi network play pivotal roles in information diffusion among migrant workers’ job searching. On the one hand, as Zhai finds out, *“reliable information always comes from individuals [who build up guanxi]. On the contrary, social institutions usually spread unreliable information”* [89]. As a migrant worker receives more identical message from one’s guanxi-embedded mobile network, the information gains higher credibility. As the information increases in credibility, the message disseminates wider and faster. As one respondent stresses, *“if you always keep [job] information to yourself and never share it with others, how you can expect other people to help you? How can you build up your guanxi?”* [90] Another respondent adds that *“when we share job information, we are following a well-known Chinese saying: ‘sharing the fortune and bearing the hardship together’ (‘share and share alike’ in English). We will strengthen our guanxi network and get more reliable information from each other”* [91]. Consequently, information duplication, the enemy of information diversity in “strength-of-weak-ties” argument, provides reliable information in migrant workers’ job-seeking activities. That is why migrant workers pay less attention to governmental SMS job alerts, even when the information is true.

Three features distinguish migrant workers’ job-search activities with guanxi-embedded mobile communication. First, migrant workers actively share job information via their mobile network. In addition, mobile phone-mediated guanxi network among migrant workers concretizes the migrant network in studies of Chinese migrant workers, playing a key role in migration living, “chain migration” [92] and their job searching. Second, the guanxi-embedded mobile connection illustrates the heavy reliance of migrant workers on mobile phones in their job searching. Third,

mobile phone networks embody migrant workers' *guanxi* and social network. On the one hand, SMS information duplication increases the credibility of messages. On the other hand, mutual obligations promote identical messages flow within *guanxi* network, and in turn, enhance mutual dependence.

3.2 *Guanxi* Network and Mobile Phone Rumours

The last case to be considered here is the phenomenon of mobile phone rumours. During the 2003 SARS epidemic, mobile phone rumours proliferated throughout China after SARS hysteria popped up in Beijing, Guangzhou, Shanghai, Hong Kong and elsewhere. One version of the rumours asserted that fumigating rooms with boiling vinegar could kill SARS germs and prevent the spread of pneumonia. Another claimed that Ban Lan Gen (isatis), a kind of Chinese herb, can enhance the body immune system, and particularly, ward off SARS. Mobile rumours triggered widespread panic buying of vinegar and Ban Lan Gen as effective SARS-deterrents. Many supermarkets soon ran out of vinegar, while local herbalists also reported brisk trade on items of herbal medicine.

Another theme in SMS rumours was earthquakes. In the early spring of 2010, panic arose in several cities in Shanxi province as a text message claimed that an earthquake was about to strike Shanxi. Earth experts tried to dispel the rumours through local media, vowing that they did not predict a “destructive earthquake” in the near future. Instead of blowing over, earthquake rumours emerged as a constant in conversations, mobile chats and in instant messaging. One of the mobile rumours said that *“there will be an earthquake before 6 am tomorrow around the areas of Yuci and Taiyuan [of Shanxi Province]. Please be sure to pay attention to [earthquake]. Please forward this to your friends. Bear in mind!”* [93] Propelled by mobile texts and the Internet, public fear of an imminent earthquake in Shanxi intensified and the panic became palpable. Around 3 am in the night of February 21st, thousands of citizen in different cities in Shanxi were walking down the streets and squares, some people with canes in their hands, anxiously waiting for “the predicted earthquake” [94]. As one

respondent describes on the next day, *“all of Shanxi was sleepless last night”* [95]. Even though local governments and public security bureaus refuted the rumours, few responded and went back home. How and why did these mobile rumours spark worry and disturbances in society?

One respondent recalled that *“my colleagues texted the messages to me, saying that vinegar and Ban Lan Gen function as prophylactic measures of SARS. Lots of my relatives, including my parents, received several mobile texts and callings in similar content. Actually I am not fully convinced by this information. But I still followed what the message said, meanwhile forwarded it [to my close friends and relatives]”* [96]. In SARS case, all respondents forwarded the information, either via callings or through text messages, to their relatives, colleagues and friends. *“Although there are some doubts over the curative effects [of vinegar and herbs], I am quite sure that my friends and relatives will neither lie to me nor hurt me. So I believe [the message]. I also forward mass text messages to my friends and relatives, because I hope to remind them [of this possible way to prevent SARS]. And it is convenient to send bulk SMS via mobile communication”* [97].

We find similar reactions to mobile rumours of earthquake. Even though some people remained in doubt about the authenticity of the rumours, few hesitated to transmit such messages. One respondent admitted that *“the more mobile text messages I get about earthquake, the more scared I become”* because all these messages comes from *“people I trust, including my relatives and close friends”* [98]. Many people hastened out of their houses in a great rush while still calling their relatives and friends *“to rush to open spaces”* as *“these people mean a lot to me”* [99].

If the SARS epidemic is the first time mobile phone rumours sparked public panic, mobile rumours related to natural disasters, including earthquake and acid rain [100], have frequently been spread. In particular, the “high credibility” of mobile phone messages obtained through guanxi network does not mean that people take for granted that the information from their guanxi network is true. To be sure, as in the case of the mobile rumours on

earthquake, it is almost impossible for any person to make the judgment between fact and falsehood. A combination of trustworthiness and reciprocal obligation from guanxi puts aside the fact and highlights the perceived reliability of the near friend, or as one respondent argues *“it’s better to believe it than not, especially when messages are coming from the people you trust”* [101]. In a word, both reliability and obligation characteristics of guanxi network and the instantaneity (calling and text messaging), synchronism (calling) and wide circulation (text messaging) characteristics of mobile communications contribute to continuous spreading of rumours of alleged credibility in Chinese society.

4 Conclusion: Guanxi-embedded Mobile Social Network in China

Both theoretically and empirically, this paper examines the dynamics of guanxi in Chinese society teeming with mobile connectedness. The ubiquity of mobile phone coverage in China has not only influenced interpersonal communication in the way Chinese people interact with each other, but also brought forth a revolutionary transformation of styles of guanxi and guanxi networks.

First, by investigating patterns of calling and SMS activities, we observe that mobile communication plays an increasing role in keeping in touch with people from the same locality, or with similar age, socioeconomic status, stage in the life-cycle, and life-style. Due to the technical capabilities of wireless telephony, urban and rural residents participate in guanxi-embedded mobile phone interactions of various kinds during their everyday life, from festival wishes to daily greetings, and from job search assistance to emergency contacts. In other words, Chinese people have not only adopted the mobile phone but they have also harnessed its assets by integrating mobile devices into their guanxi practice. Mobile social networks have therefore come and established themselves as an implicit substitute of guanxi networks in everyday lives of Chinese people.

Second, embracing the characteristics of *guanxi* in Chinese culture, in particular mutual reliability and reciprocal obligation, mobile messages enjoy high credibility. Further, the combination of high-credibility information and high-efficiency technology encourages the proliferation of the identical message within mobile social network in a short time. In a circle, the credibility of message expands its dissemination in mobile social network, and the high-efficiency dissemination in turn increases the credibility of the message and pushes more and more people to forward it. This process is both positive as well as negative. On the one hand, it keeps citizens informed in spite of media censorship in China. On the other hand, it makes mobile users easily credulous towards the messages they receive via mobile social network as they are unable to make judgments based on reasons or facts. That is why mobile rumours can easily trigger social disturbances in contemporary Chinese society.

In a word, mobile social network in China features not only the technical characteristics of mobile telephony, but also *guanxi*, a distinguishing characteristic of Chinese culture. As *guanxi*-embedded mobile social network integrates into Chinese people's routines, the omnipresent mobile communication articulates *guanxi*-based interpersonal relationships and social networks, reformulates a new cultural model of meaning in which the ultimate meaning is defined by both the content and, most importantly, the senders and their *guanxi* with receivers. In China's new, fast-paced environment, mobile phone-mediated *guanxi* network therefore has become more entrenched than ever, heavily influencing Chinese political landscapes, social behaviour and commercial practice.

Acknowledgements

I am deeply indebted to Professor Klaus Bruhn Jensen, University of Copenhagen, Denmark, for his encouragement and untiring helps. I am also grateful to Professor Rich Ling, IT University of Copenhagen, Denmark and Dr. Bridget Hallam for their valuable comments and linguistic helps on the paper. The study is funded by Asian Dynamics Initiative, University of Copenhagen, 2010.

References

- [1] See “Mobile Communication and Society: A Global Perspectives”, Manuel Castells, Mireia Fernandez - Ardevol, Jack Linchuan Qiu, and Araba Sey, Cambridge, MA: The MIT Press, 2007; “The Mobile Connection: the cell phone's impact on society”, Rich Ling, San Francisco, CA: Morgan Kaufmann, 2004; “Perpetual Contact: mobile communication, private talk, public performance”, James Everett Katz and Mark Aakhus, Cambridge; New York: Cambridge University Press, 2002.
- [2] “New Tech, New Ties: how mobile communication is reshaping social cohesion”, Rich Ling, Cambridge, MA: The MIT Press, 2008; “The Mobile Phone: towards new categories and social relations”, Leopoldina Fortunati, *Information, Communication & Society*, 5, 2002; “Social Networking's Next Frontier: The Mobile Phone”, Jim Knapik, *TechNewsWorld*, see <http://www.technewsworld.com/story/63970.html?wlc=1280262776>, July 30, 2008; “The future of social networking: mobile phones”, Mike Harvey, *The Times*, see http://technology.timesonline.co.uk/tol/news/tech_and_web/article3897340.ece, May 9, 2008.
- [3] For instance, the interpretation of ‘keitai’ in Japan, see “Personal, Portable, Pedestrian: Mobile Phones in Japanese Life”, Mizuko Ito, Daisuke Okabe, and Misa Matsuda, Cambridge, MA: The MIT Press, 2005; The interpretations of ‘cell phone’ in America and ‘mobile telephones’ in Europe, see “Media Convergence: The Three Degrees of Network, Mass, and Interpersonal Communication”, Klaus Bruhn Jensen, London, New York: Routledge, 2010.
- [4] “Personal, Portable, Pedestrian: Mobile Phones in Japanese Life”, Mizuko Ito, Daisuke Okabe, and Misa Matsuda, Cambridge, MA: The MIT Press, 2005; “Spread of SARS and War-Related Rumors through New Media in China”, Ringo Ma, *Communication Quarterly*, 56, 2008; “Reorienting the Mobile: Australasian Imaginaries”, Gerard Goggin, *The Information Society*, 24, 2008.
- [5] For instance, the price of sending SMS in mainland China is the cheapest in the world. It costs 0.1 RMB (0.01 USD) for each one within the same telecom network. It is much cheaper if you choose a flat monthly SMS/MMS in a bundle.
- [6] See “The Accidental Accomplishment of Little Smart: Understanding the Emergence of a Working-Class ICT”, Jack Linchuan Qiu, *New Media & Society*, 9, 2005; “From Iron Fist to Invisible Hand: the uneven path of telecommunications reform in China”, Irene S. Wu, Stanford, Calif.: Stanford University Press, 2009.

- [7] “The Informationalization in China still requires efforts (中国信息化建设仍需努力)”, Juan Wang, *Economic Information Daily* (经济参考报), 2002. “After Mobile Phones, What? Re-embedding the Social in China's “Digital Revolution””, Yuezhi Zhao, *International Journal of Communication*, 1, 2007.
- [8] “China's mobile users rise above the 630 million, surpassing the total European mobile phone users (中国手机用户达6.3亿 超全欧洲移动用户)”, CCTV.com. see <http://finance.cctv.com/20090108/105908.shtml>, Jan 8, 2009; “The overview of telecommunication industries in China in December 2009 (2009年12月我国通信业运行状况)”, MIIT (Ministry of Industry and Information Technology, the People's Republic of China), see <http://zwgk.miit.gov.cn/n11293472/n11293832/n11294132/n12858447/12985105.html>, Jan 12, 2010.
- [9] “Over 5.5 trillion SMS had been sent in the world in 2009 (2009年全球共发短信5.5万亿条)”, Zhiqiang, see http://www.ycwb.com/epaper/ycwb/html/2010-02/04/content_737346.htm, Feb 4, 2010.
- [10] “From Iron Fist to Invisible Hand: the uneven path of telecommunications reform in China”, Irene S. Wu, Stanford, California: Stanford University Press, 2009; “The nature and consequences of China's unique pattern of telecommunications development (pp. 179-207)”, Daniel C. Lynch, in “Power, Money, and Media: Communication patterns and bureaucratic control in cultural China”, Chin-Chuan Lee, Illinois: Northwestern University Press, 2000; “Editorial: mobile communication and Asian modernities”, Jack Linchuan Qiu and Eric C. Thompson, *New Media & Society*, 9, 2007; “State, Power and Mobile Communication: a case study of China”, Jia Lu and Ian Weber, *New Media & Society*, 9, 2007.
- [11] “Spread of SARS and War-Related Rumors through New Media in China”, Ringo Ma, *Communication Quarterly*, 56:376-391, 2008; “Media Dependencies in a Changing Media Environment: the case of the 2003 SARS epidemic in China”, Zixue Tai and Tao Sun, *New Media Society*, 9, 2007; “The Power of Thumbs: The politics of SMS in urban China”, Haiqing Yu, *Graduate Journal of Asia Pacific Studies*, 2, 2004.
- [12] “SMS in China: A major carrier of the nonofficial discourse universe”, Zhou He, *The Information Society*, 24, 2008.
- [13] “Spread of SARS and War-Related Rumors through New Media in China”, Ringo Ma, *Communication Quarterly*, 56, 2008.

[14] For Guanxi researches in urban areas, see “Interpersonal Networks and Workplace Controls in Urban China”, Danching Ruan, *The Australian Journal of Chinese Affairs*, 29, 1993; “Guanxi and the Allocation of Jobs in Urban China”, Yanjie Bian, *The China Quarterly*, 140, 1994. For rural researches, see “The Culture of Guanxi in a North China Village”, Yunxiang Yan, *The China Journal*, 35, 1996.

[15] “Gifts, Favors and Banquets: The Art of Social Relationship in China”, Mayfair Mei-hui Yang, Ithaca, NY: Cornell University Press, 1994.

[16] “The Social Psychology of Chinese people (pp. 213-266)”, Michael Harris Bond and Kwang-kuo Hwang, in “The Psychology of the Chinese people”, Michael Harris Bond. New York, NY, US: Oxford University Press, 1986.

[17] “Guanxi Networks and Job Mobility in China and Singapore”, Yanjie Bian and Soon Ang, *Social Forces*, 75, 1997.

[18] “Producing Guanxi: Sentiment, Self, and Subculture in a North China Village”, Andrew B. Kipnis, Duke University Press, 1997; “Guanxi Bases, Xinyong and Chinese Business Networks”, Tong Chee Kiong and Yong Pit Kee, *British Journal of Sociology*, 49, 1998.

[19] “Explaining Guanxi: the Chinese business network”, Ying Lun So and Walker Anthony, London, New York: Routledge, 2006.

[20] “From the Soil: The Foundations of Chinese Society”, Xiaotong Fei, California: University of California Press, 1992.

[21] For instance, guanxi for migrant workers, see “People's Mobility and Guanxi Networks: A Case Study”, Biliang Hu, *China & World Economy*, 16, 2008.

[22] “Social Connections in China. Institutions, Culture, and the Changing Nature of Guanxi”, Thomas Gold, Doug Guthrie, and David Wank, Cambridge: Cambridge University Press, 2002; “National Cultural Influences on Knowledge Sharing: A Comparison of China and Russia”, Sneijna Michailova and Kate Hutchings, *Journal of Management Studies*, 43, 2006.

[23] “Explaining Guanxi: the Chinese business network”, Ying Lun So and Walker Anthony, London, New York: Routledge, 2006; “Chinese Negotiating Style: Commercial Approaches and Cultural Principles”, Lucian W. Pye, Quorum Books, 1992.

[24] “Interpersonal Networks and Workplace Controls in Urban China”, Danching Ruan, *The Australian Journal of Chinese Affairs*, 29, 1993.

[25] “The Culture of Guanxi in a North China Village”, Yunxiang Yan, *The China Journal*, 35, 1996.

- [26] "The Culture of Guanxi in a North China Village", Yunxiang Yan, *The China Journal*, 35, 1996.
- [27] "Explaining Guanxi: the Chinese business network", Ying Lun So and Walker Anthony, London, New York: Routledge, 2006.
- [28] "The Culture of Guanxi in a North China Village", Yunxiang Yan, *The China Journal*, 35, 1996.
- [29] "Gifts, Favors and Banquets: The Art of Social Relationship in China", Mayfair Mei-hui Yang, Ithaca, NY: Cornell University Press, 1994; "Bringing Strong Ties Back in: Indirect Ties, Network Bridges, and Job Searches in China", Yanjie Bian, *American Sociological Review*, 62, 1997.
- [30] "Bringing Strong Ties Back in: Indirect Ties, Network Bridges, and Job Searches in China", Yanjie Bian, *American Sociological Review*, 62, 1997.
- [31] "Gifts, Favors and Banquets: The Art of Social Relationship in China", Mayfair Mei-hui Yang, Ithaca, NY: Cornell University Press, 1994; "The Flow of Gifts: Reciprocity and Social Networks in a Chinese Village", Yunxiang Yan, Stanford: Stanford University Press, 1996.
- [32] "The Culture of Guanxi in a North China Village", Yunxiang Yan, *The China Journal*, 35, 1996;
- [33] "Contract with a Chinese Face: Socially Embedded Factors in the Transformation from Hierachy to Market, 1978-1989", Lucie Cheng and Arthur Rosett, *Journal of Chinese Law*, 5, 1992; "Face and Favor: The Chinese Power Game", Kwang-kuo Hwang, *American Journal of Sociology*, 92, 1987; "Gifts, Bribes, and Guanxi: A Reconsideration of Bourdieu's Social Capital", Alan Smart, *Cultural Anthropology*, 8, 1993.
- [34] "Communist Neo-Traditionalism: Work and Authority in Chinese Industry", Andrew G. Walder, Berkeley, CA: University of California Press, 1986.
- [35] "The Culture of Guanxi in a North China Village", Yunxiang Yan, *The China Journal*, 35, 1996; "The Personal Influence Model and "Gao Guanxi" in Taiwan Chinese Public Relations", Yi-hui Huang, *Public Relations Review*, 26, 2000.
- [36] "Institutional holes and job mobility process: Guanxi mechanisms in China's emerging labor markets (pp. 117 - 136)", Yanjie Bian, in "Social Connections in China: Institutions, Culture, and the Changing Nature of Guanxi", Thomas Gold, Doug Guthrie, and David Wank:, New York: Cambridge University Press, 2002.

- [37] "Explaining Guanxi: the Chinese business network", Ying Lun So and Walker Anthony, London, New York: Routledge, 2006.
- [38] "Gifts, Bribes, and Guanxi: A Reconsideration of Bourdieu's Social Capital", Alan Smart, *Cultural Anthropology*, 8, 1993.
- [39] "The Individualization of Chinese Society", Yunxiang Yan, Oxford, New York: Berg, 2009.
- [40] "National Cultural Influences on Knowledge Sharing: A Comparison of China and Russia", Snežina Michailova and Kate Hutchings, *Journal of Management Studies*, 43, 2006.
- [41] "Is Guanxi Ethical? A normative analysis of doing business in China", Thomas W. Dunfee and Danielle E Warren, *Journal of Business Ethics*, 32, 2001; "Network Capitalism: the role of human resources in penetrating the China market", Rosalie L. Tung and Verner Worm, *International Journal of Human Resource Management*, 12, 2001.
- [42] "Explaining Guanxi: the Chinese business network", Ying Lun So and Walker Anthony, London, New York: Routledge, 2006.
- [43] "SMS in China: A major carrier of the nonofficial discourse universe", Zhou He, *The Information Society*, 24, 2008.
- [44] For example, New Year couplets pasted on gateposts or door panels and firecracker ban for safety issues.
- [45] For an analysis of social network by New Year visits, see "Occupation, Class, and Social Networks in Urban China (中国城市的职业、阶层和关系网)", Yanjie Bian, Ronald Breiger, Davis Deborah, and Joseph Galaskiewicz, *Open Times*, 4, 2005.
- [46] "23 Billion Mobile Messages Sent During Chinese New Year", ChinaTechNews, see <http://www.chinatechnews.com/2010/02/24/11618-23-billion-mobile-messages-sent-during-chinese-new-year>, Feb 24, 2010.
- [47] See <http://www.miit.gov.cn/>.
- [48] "Bringing Strong Ties Back in: Indirect Ties, Network Bridges, and Job Searches in China", Yanjie Bian, *American Sociological Review*, 62, 1997; "The Strength of Weak Ties", Mark Granovetter, *American Journal of Sociology*, 78, 1973.
- [49] "Urban Migrant Workers and Social Stratification in China (农民工与中国社会分层)", Qiang Li, Beijing: Social Sciences Academic Press (社会科学文献出版社), 2004.

[50] “The population of Migrant Workers touches 2.2542 million at the end of 2008 (2008年末全国农民工总量为22542万人)”, National Bureau of Statistics of China, see http://www.stats.gov.cn:82/tjfx/fxbg/t20090325_402547406.htm, March 25, 2009.

[51] “Migrant Workers in New Generation: The most noteworthy social group (新生代农民工：值得关注的社会群体)”, Qinghuan Wang, Guangming Daily (光明日报), see <http://nc.people.com.cn/GB/61161/5898213.html>, June 22, 2007.

[52] “Personal, popular and information portals”, Jun Liu, Sport in Society, 13, 2010.

[53] See “The Information Have-Less: Inequality, Mobility and Translocal Networks in Chinese Cities”, Carolyn Cartier, Manuel Castells, and Jack Linchuan Qiu, *Studies in Comparative International Development*, 40, 2005; “Personal, popular and information portals”, Jun Liu, *Sport in Society*, 13, 2010; “ICTs and Migrant Workers in Contemporary China”, Pui-lam Law and Wai-chi Rodney Chu, *Knowledge, Technology & Policy*, 21, 2008; “The use of mobile phones among migrant workers in southern China (pp. 245-258)”,

Pui-lam Law and Yinni Peng, in “New technology in global societies”, Pui-lam Law, Leopoldina Fortunati, and Shanhua Yang, Singapore: World Scientific, 2006.

[54] “A Preliminary Study on the Use of Mobile Phones amongst Migrant Workers in Beijing”, Yang Ke, *Knowledge, Technology & Policy*, 21, 2008; “Social Mobility and Relational Reliability (社会流动和关系信任) (pp.

109-126)”, Xuewei Zhai, in “Human Feelings, Face and Reproduction of Power (人情、面子与权力的再生产)”, Xuewei Zhai, Beijing: Peking University Press (北京大学出版社), 2005.

[55] “China Mobile in Shanghai provides free SMS job alerts as a new channel for job allocation of migrant workers (上海移动免费求职短信为农民工辟”新渠道)”, Kai Ye, *Telecommunication Weekly (通信产业报)*, see <http://www.ccidcom.com/html/yunyingshang/yewu-fuwu/201004/07-102485.html>, April 7, 2010; “The SMS job alert service has been set up for migrant workers (农民工求职有了短信平台)”, Xun Wang and Jing Lin, *The Straits Metropolitan Daliy (海峡都市报)*, see <http://news.sohu.com/20071101/n252990773.shtml>, Nov 1, 2007.

[56] “An Investigation on Rumor Spreads in Guangzhou SARS Incident (广州非典型肺炎事件中的流言传播)”, Huiming Xu and Sanjiu Yan, *Journalistic University (新闻大学)*, 4, 2003; “National Media Coverage of SARS Crisis (February to May 2003) (从失语到喧哗: 2003年2月-5月国内媒体SARS危机报道跟踪)”, Qianhua Xia and Xiaohua Ye, *Journalism & Communication (新闻与传播研究)*, Winter, 2003; “An Investigation on Rumor Spreads in Guangzhou SARS Incident (广州非典型肺炎事件中的流言传播调查)”, Sanjiu Yan and Huiming Xu, *Journal of East China Normal University (Philosophy and Social Sciences) (华东师范大学学报(哲学社会科学版))*, 36, 2004.

[57] “Rumors lead to earthquake panic in Shanxi”, Qian Wang and Ruisheng Sun, *China Daily*, www.chinadaily.com.cn/china/2010-02/22/content_9481564.htm, Feb 22, 2010.

[58] “Shanxi: Dispelling “Earthquake Rumours”, Wiping off Public Panic (山西：澄清“地震谣言”消除公众恐慌情绪)”, Mengqi Lv and Ning Wang, see http://news.xinhuanet.com/society/2010-02/21/content_13020662.htm, Feb 21, 2010.

[59] For instance, Weng’an mass incident in 2008, see “Girl's death sparks rioting in China”, Chris Buckley, Reuters, <http://www.nationalpost.com/life/gallery+shoeconomics/1620618/story.html?id=621715>, Jun 28, 2008; “Weng’an, an unpeaceful county city (瓮安, 不安的县城)”, Buzhi Ding, *Southern Weekend (南方周末)*, July 10, 2008; “Police station assaulted, torched by local people in southwest China county”, Xinhuanet, http://news.xinhuanet.com/english/2008-06/29/content_8456602.htm, June 29, 2008.

[60] Interview. Male, 28-year-old, university lecturer, February 2010.

[61] Interviews in Beijing and Fuzhou in 2007.

[62] Of the job markets, two in urban and two in rural areas. Of the companies, one in urban and four from rural areas. For a detail information of companies, see “Personal, popular and information portals”, Jun Liu, *Sport in Society*, 13, 2010.

[63] I arrange with my respondents about “telephone interviews” in Shanxi case.

[64] “Why do people regard the official statements which refuting rumours as rumours? (官方不断的”辟谣”, 为何成了不断 “造谣?”), Canghai Yan, <http://blog.ifeng.com/article/5194655.html>, April 29, 2010.

[65] “The earthquake bureau in Shanxi responses to the earthquake happened immediately after they dispelled the earthquake rumours (山西省地震局回应刚辟谣即发生地震事件)”, Wuhan Evening News (武汉晚报), see <http://house.people.com.cn/GB/10852583.html>, Jan 27, 2010; “Special Issue on earthquake bureau refusing the earthquake rumours (地震局辟谣专题)”, China Daily, <http://www.chinadaily.com.cn/micro-reading/mfeed/hotwords/20100415902.html>, April 15, 2010.

[66] Interview. Female, 45, civil servant in Beijing, February 2007.

[67] Interview. Female, 45, civil servant in Beijing, February 2007.

[68] Interviews in Beijing, Fuzhou and Shanghai, 2006, 2007, 2009.

[69] Interview. Male, 24, white-collar worker in Shanghai, February 2005.

[70] Interview. Male, 34, journalist in Xiamen, February 2008.

[71] Interview. Female, 27, journalist in Xiamen, February 2008.

[72] Interview. Female, 45, civil servant in Beijing, February 2007.

[73] Interview. Male, 43, white collar, Fuzhou, February 2009.

[74] Interview. Male, director of the news centre, Fujian Branch China Unicom Corporation Limited, Fuzhou, February 2009.

[75] Interview. Female, 45, civil servant in Beijing, February 2007.

[76] Interview. Male, 55, journalist in Beijing, February 2007.

[77] Interview. Female, 22, student in Fuzhou, February 2009.

[78] Interviews in Beijing, Fuzhou and Shanghai, 2005, 2008, 2009.

[79] “Social Connections in China. Institutions, Culture, and the Changing Nature of Guanxi”, Thomas Gold, Doug Guthrie, and David Wank, Cambridge: Cambridge University Press, 2002; “The Forms of Capital (pp. 241-258)”, Pierre Bourdieu, in “Handbook of Theory and Research for the Sociology of Education”, J. G. Richardson: Greenwood Press, 1986.

[80] “The Rise of the Network Society”, Manuel Castells, Wiley-Blackwell, 2009.

[81] Interview. Male, 22-year-old, worked as a home delivery staff in Fuzhou.

- [82] Interview. Male, 21-year-old, a porter in Fuzhou and Beijing.
- [83] Interview. Male, 22-year-old, worked as a home delivery staff in Fuzhou.
- [84] Interview. Female, 32-year-old, Fuzhou.
- [85] Interview. Male, 42-year-old, a porter in Fuzhou.
- [86] See “The Strength of Weak Ties”, Mark Granovetter, *American Journal of Sociology*, 78, 1973; “Getting a Job. A Study of Contracts and Careers”, Mark Granovetter, Chicago: University of Chicago Press, 1995; “The Impact of Social Structure on Economic Outcomes”, Mark Granovetter, *Journal of Economic Perspectives*, 19, 2005.
- [87] “The Strength of Weak Ties: A network theory revisited (pp. 105-130)”, Mark Granovetter, in “Social structure and network analysis”, Peter V. Marsden and Nan Lin, London: Sage Publications, 1982.
- [88] “Bringing Strong Ties Back in: Indirect Ties, Network Bridges, and Job Searches in China”, Yanjie Bian, *American Sociological Review*, 62, 1997.
- [89] “Social Mobility and Relational Reliability (社会流动和关系信任) (pp. 109-126)”, Xuewei Zhai, in “Human Feelings, Face and Reproduction of Power (人情、面子与权力的再生产)”, Xuewei Zhai, Beijing: Peking University Press (北京大学出版社), 2005.
- [90] Interview. Female, 32-year-old, Fuzhou.
- [91] Interview. Male, 22-year-old, worked as a home delivery staff in Fuzhou.
- [92] “Chain Migration Ethnic Neighborhood Formation and Social Networks”, John S. MacDonald and Leatrice D. MacDonald, *The Milbank Memorial Fund Quarterly*, 42, 1964.
- [93] Telephone interviews. Taiyuan, Shanxi Province, January and February 2010.
- [94] “Rumors lead to earthquake panic in Shanxi”, Qian Wang and Ruisheng Sun, *China Daily*, www.chinadaily.com.cn/china/2010-02/22/content_9481564.htm, Feb 22, 2010.
- [95] Telephone interviews. Shanxi, 2010.
- [96] Interview. Female, 22, journalist, Guangzhou, March 2003.
- [97] Interview. Male, 32-year-old, civil servant, Guangzhou, March 2003.
- [98] Telephone Interview. Male, 35, engineer, Taiyuan, February 2010.

[99] Telephone Interview. Male, 25, university student, Taiyuan, February 2010.

[100] For instance, mobile rumours about “severe acid rains contain Icelandic volcanic ash” in April, 2010, see “Why people trust the rumours about earthquake and acid rains (面对地震酸雨谣言, 人们为什么都轻易相信呢?)”, Jie Li and Xiaona Zhao, Nanfang Daily(南方日报), April 29, 2010.

[101] Telephone Interview. Male, 35, engineer, Taiyuan, February 2010.