The Wireless Leash:
Mobile Messaging Service as a Means of Control

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Mobile messaging, including short-messaging service (SMS) and multimedia messaging service (MMS), is an asynchronous mobile phone service that is too often deemed as a tool for entertainment and consumption at the micro individual level. This paper, however, examines the more structural aspects of mobile messaging being socially, economically, and politically shaped as a means of control. It first establishes conceptual connections between existing mobile communication studies and the historical tendency for information and communication technologies (ICTs) to be used for surveillance and authoritarian power projects. This discussion is substantiated by a brief global overview of related incidents occurring in Malaysia, the United Kingdom, Australia, and Hong Kong, all in 2005. The paper then focuses on mobile messaging and social control in China, where a massive IT industrial complex has emerged since 2000 to serve the control needs of the power elite, especially with regard to SMS. There is both macro institutional formations at the national and transnational levels and more specific organizational developments, such as in the workplace for purposes of labor control or at the interface between broadcast stations and audiences in order to reduce the political risk of phone-in programs. The overall argument is that, the political function of mobile messaging has to be understood as part of the existing institutional structures of a given society; and that only by fully recognizing problems in the political status quo, in power projects at micro, meso, and macro levels, can we seize the opportunity for social change.

Introduction

The first five years of the new century witnesses the emergence of a series of studies on the social and cultural aspects of the mobile phone (Townsend, 2000; Brown, Green and Harper, 2001; Katz and Aaknus, 2002; Mitchelle, 2003; Castells, Fernández-Ardèvol, Qiu, & Sey, 2004; 2006; Ling, 2004; Ito, Okabe, and Matsuda, 2005). This growing body of literature reflects the rapid growth of wireless communication worldwide. We are seeing, in the global context of telecom liberalization and deregulation,

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Date submitted: 2006-09-26

the phenomenal rise of the mobile phone industry that provides new connectivity solutions to people and areas that were previously not connected (Castells, et al, 2006). In this process of diffusion, a notable pattern that characterizes young users worldwide and the bulk of adopters in the developing world is the quick dissemination of mobile messaging services (ibid).

Mobile messaging refers to asynchronous wireless communication services that include short-messaging service (SMS or texting), which is text-based, and multi-media messaging service (MMS), which allows for the transmission of audio and visual content between handsets. The world's first SMS was sent in 1992. Since then, the service has been particularly popular. In mid-2004, close to 41.7 billion SMS were sent each month worldwide, of which 2.5 billion were in the United States, 2.2 billion in the United Kingdom and 18.1 billion in China.[1]

Because one has to enter and read messages on a small screen, often using the thumb only, the physical challenges of the interface means that youth remains the core group for mobile messaging. Hence, from the "thumb tribe (*oyayubisoku*)" in Japan to youngsters voting for "American Idols" via SMS, we came to know mobile messaging as a sphere of youth culture played out in micro interpersonal networks of family and peer groups (e.g., Ling, 2004; Ito, et al, 2005), a space of identity, consumption, entertainment, and fantasy. This body of literature on mobile youth culture reflects much empirical reality, given technical constraints of the interface. It consists one of the strongest assets in the burgeoning field of mobile communication studies. However, such a focus of attention is accompanied by negligence of issues pertaining to larger units of analysis, with regard to the relationship between mobile messaging and more macro, structural transformations, of which youth culture is merely one part. To address the inadequacy, this paper attempts to analyze the formation of mobile messaging as a multi-level and multi-faceted political process. It is assumed that, like most information and communication technologies (ICTs), mobile messaging is also subject to, and can be used to facilitate, power, surveillance and control.

How can mobile messaging be controlled? What are the functions of mobile messaging as a means of control? How are these control functions performed in more macro structures larger than friendship and family networks, for example, at the interface between citizens and governments, employees and corporations, audiences and the mass media? Why do these mechanisms of control materialize under diverse social, institutional and cultural settings? What are the problems, risks, and limitations for mobile messaging to be constructed as a wireless leash?

To raise these questions, this paper first critiques the lack of research on social control via mobile messaging. It then provides a brief overview on the global trend of messaging being used as a means of control in a variety of international settings, in connection with the historical tendency for ICT developments to facilitate control, especially through the personalization of communication and the automation of social sorting. The paper will then focus on the case of China by examining the formation of probably the world's largest national mobile messaging market, how the surveillance needs of powerful

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[1] The worldwide figure and UK figure come from Mobile Data Association (2005). Figures for US and China come from IT Facts (2005) and the Ministry of Information Industry of China (2005).

institutions give rise to a new IT industrial complex, and how mobile phones and messaging are controlled and being used to manage everyday activities under a variety of organizational contexts.

China is selected as a case of neoliberal market development (Wang, 2004) rather than simply a newly developed mobile market or a "transitional" socialist society under "reform and opening-up." This is a peculiar case, but not without its universalities. When it comes to control and surveillance through ICTs, China is now characterized by an undifferentiated system of keyword-based filtering and state-led "broadcasting" through mobile messages plus strict hierarchical control within certain organizational settings. This differs from industrialized societies in North America and Europe, where social sorting is more often organized by geo-demographic data (Lyon, 2003). While the Chinese system may have wider applicability in other developing countries with recent mobile boom, it shares with its western counterparts the same ultimate goal of pre-empting risks, risks often vaguely and arbitrarily defined by the authorities, through technological and bureaucratic means of ambiguous legality. In both cases, they also draw from a larger ecology of fear created and maintained by such powerful institutions as the state and the mass media.

Personal, Pedestrian, Panopticon?

Wireless communication keeps people connected "anytime, anywhere" (Galambos and Abrahamson, 2002). But because mobile phones have become such an ordinary part of life, because they are so "personal, portable, pedestrian" (Ito, et al, 2005), we tend to underestimate the total impact of wireless communication on society at large. Yet, in recent years, researchers in almost all social science and humanities disciplines started to investigate the relationship between mobile phone and existing social relationships. These include anthropologists, sociologists, linguists, and many in communication, the totality of whom comprises a burgeoning interdisciplinary community of ICT researchers.

In broad strokes, we can divide existing mobile communication studies in three camps including, first, those who emphasize the revolutionary potential of wireless communication in fundamentally changing communication patterns (Murray, 2001) and undermining existing power structures, for example, by giving rise to "smart mobs" (Rheingold, 2002). Such a deterministic view is, however, disputed by researchers in the second camp who see more continuity than change. Yoon (2003) argues in the context of South Korea that mobile phones are used to "immobilize" secondary school students under the conditions of traditional social networks. In Japan, Habuchi maintains that a main effect of wireless phone is "tele-cocooning," which means adopters of the technology, tend to be socially constrained within a small circle of close friends and families (2005:178-179).

Most analyses fall in the third category, somewhere between the techno-determinist views in the first camp and strong social shaping arguments in the second camp. This approach does not highlight any one-way causality between technology and society. Instead, it stresses that the relationship with mobile communication is contingent upon specific contexts, in which negotiation constantly takes place among individuals, especially youth, and within micro social structures (Ling, 2004; Ito, et al, 2005). In the private realms of family and friendship networks, for instance, mobile phones are found to be used for

"micro coordination," held by Ling as the most important social consequence of wireless communication (2004:57). Through such negotiations in everyday life, the technology co-evolves with culture and society.

Despite their differences, all three approaches share certain inadequacies. Overall, the analytical frameworks tend to be micro. The research subjects tend to be young people from middle-class background residing in major cities. These studies typically do not question the larger structural settings under which mobile communication takes shape, especially macro conditions of inequality and the presumption of access provision based on individual-oriented commercial consumption. After all, everybody will get a mobile phone, as shown in so many flashy advertisements, and messaging is the cheapest and most effective solution for connectivity, or so we are told by members of the mobile industry – but is this true?

At one level, one may argue that micro analysis suffices for research on mobile messaging because this is how the technology is constructed to be. The devise is "personal" and fits in the pocket. The message is "short" and usually about things banal. In most parts of the world, mobile messaging is a technology built for consumers rather than citizens. Although in the rare cases of the Philippines, South Korea, and Spain, grassroots mobilization successfully utilized SMS for political change (Castells, et al, 2005), in most countries and at the level of everyday routine usage, we see the subjection of this technology to the logic of profit maximization based on micro-level consumption.

While mobile messaging is emblematic of the global trends of personalization and commercialization concerning all media, this development does not contradict, but indeed necessitates, observations and considerations at higher structural levels. As illustrated by Vincent Rafael's critical analysis of Manila's "Generation Txt" and the People Power II movement, larger institutions – in this case, the military, the Catholic Church, and the mass media – all mattered greatly when mobile messaging is put to political use (2003). Social control is fundamentally about power. We therefore need to foreground structural issues in this discussion with regard to equality and public interests. In so doing, we have to question the lack of democratic deliberation in telecom "liberalization" processes, the legality of state and corporate actions, the persistence of monopoly and/or oligopoly structures, and the penetration of various social domains through the control of activities as mundane as texting. Such a conception refuses to reify the "micro" nature of mobile messaging, as the service is commercially and socially constructed to be. Instead, it encompasses dimensions of market and consumption within a larger analytical framework for a particular ICT-based power project: Project Control.

Ample historical evidence suggests that ICTs in general contribute to various control projects in all social, political, economic, and cultural spheres, leading to what Gandy terms the "panoptic sort" (1993). Beniger, for example, interprets the emergence of old and new ICTs since the 19th century as a "control revolution," by which people, like things, are subjected to rationalization and bureaucratization (1986). Giddens also emphasizes the increase of surveillance as an intrinsic process in the rise of the modern nation-state (1985). To keep society, economy, and all political processes under control, public authorities must exercise its surveillance power, which is "maximized in the modern state" (1985:310) through ICTs and other institutional mechanisms.

While in the past decade many celebrate the "demise" of state intervention due to the privatization, liberalization, and deregulation of telecom market, the control functions are, in many ways, strengthened rather than weakened. Especially since September 11, 2001, governments worldwide have stepped up their surveillance measures. In October 2001, for instance, a Filipino immigrant living in Belgium was detained for twelve hours by police because his friend sent him a joke SMS, in which he pretended to be Osama bin Laden (Middleton, 2001).

Meanwhile, according to Lyon, "[s]urveillance has spilled out of its old nation-state containers to become a feature of everyday life, at work, at home, at play, on the move" (Lyon, 2003:13). It's not only "the big brother (i.e. government)" but also "a multitude of little sisters (i.e. corporations)" who are watching us (Castells, 2001:180). Increasingly, due to mobile devices and other surveillance technologies like central-circuit TV, "[m]ovement is not a means of evading surveillance but has become the subject of surveillance" and "[e]ven if the surveillance is designed not to control but to care and secure, the awareness that one is under scrutiny, or that one might potentially be under scrutiny, can change behaviors in unintended ways" (Bennett and Reagan, 2004:453). This is the nightmare of a wireless panopticon, now we hold in the palm. Although perhaps a bit exaggerated for average users of mobile messaging, this is in fact a realistic threat for all kinds of alternative and oppositional social formations around the world, not to mention sympathizers of "terrorism", however loosely defined.

Increasing control over and through mobile messaging is, of course, not something inevitable. It often stems from concrete incidents of power manifestation and contestation, between the two of which the boundaries are slippery to define. Let us consider a few happenings in 2005, which, although seemingly unrelated at the first glance, all shed light on different aspects of the complex interplay between mobile messaging and structures of control, large or small.

First, in April 2005, two teenage boys in London raped one of their schoolmates while a third boy filmed the crime with his mobile phone. They then forwarded the footage to other children in the school "within minutes" (Sulaiman, 2005). This was the worst offense of the so-called "happy slappers," who launch bullying and often vicious attacks in part to produce images and clips that can be circulated among teenage peer groups. Similar, although less serious, incidents were also reported in Hong Kong secondary schools where violent offenses were recorded on and passed through mobile phones.[2] The response from some school authorities in both cities was to ban mobile phones at school. In London, Burberry pulled one model of its hats from the UK market because somehow it has become the fashion accoutrement of choice for the "happy slappers."[3] Who is controlling whom in these incidents?

Second, in November 2005, an ethnic Chinese woman was detained in Malaysia as she was suspected to offer commercial sex service, which was illegal according to Malaysian law. In the police station, a policewoman forced her to perform naked squats repetitively, an act of humiliation later held by police authorities to be a "routine check" to see if the detainee was carrying drugs. The process was filmed on camera phone by a fellow police, and the clip was circulated online, causing an international uproar

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[2] Interview, Hong Kong, March 2005.

[3] Personal exchange with a friend who visited London in May 2005 (July 2005, Hong Kong).

against detainee abuse in the country.[4] In this incident, which was not too different from the one triggered by Abu Ghraib prison photos, the same digital image produced for power manifestation in one context turned out to backfire in another.

Third, on December 11, 2005, in a coastal suburb of Sydney, a racist crowd of approximately 5,000 people gathered to protest the "invasion" of the local beach by people of Lebanese descent. It escalated into a major riot against all people of middle-eastern appearance and it lasted for several days. SMS stood out as the most notable medium instigating racist sentiments among the Anglos as well as people of Lebanese and other middle-eastern origins.[5] While many of these messages were used to incite further violence, others called for "anti-racism" protests in Melbourne and other cities.[6] Although violence was mostly concentrated in one Sydney suburb, police forces in New South Wales, Queensland, Victoria and Western Australia were all mobilized to monitor and investigate SMS to prevent further violence.[7]

Fourth, in the same month, the WTO Ministerial Meeting was held in Hong Kong on December 13-18, 2005. Anti-WTO protesters congregated in the Wan Chai district, where the Convention Center is located. Led by a strong army of Korean farmers, they breached road barriers set by the authorities in the evening before the meeting closed, putting Hong Kong police under the most serious test since the 1960s.[8] While the whole city is watching this street battle on TV, the police chief appeared on the screen. In a slightly trembling voice, he appealed to the audience, "If your families and friends are in Wan Chai, please use SMS… SMS, or mobile phone to ask them leave the area immediately."[9] Was he really so frightened to such an extent that he forgot the key role of wireless communication in organizing the battle of Seattle? What if, through mobile phone and messaging, protesters in Wan Chai could persuade their "families and friends" to join their fight?

The juxtaposition of the above incidents from Asia to Europe to Oceania opens up new issues and new questions. We can see that with the diffusion of mobile technology the spatial and temporal scope of control is enlarged – it is not only perpetual contact but also *perpetual control, "anytime, anywhere"* – while mobility, power, and counter-power are intricately and sometimes paradoxically intertwined. In this process, the central place of control still matters, be it a school or beachfront, a police station or a street next to the WTO meeting. Yet, mobile messaging, moving through and materializing all types of social networks, travels way beyond these places into other social spheres, attracting media exposure, prompting state intervention and sometimes also corporate reaction. In so doing, messaging becomes both a subject of control and a means of control, of which the second is the ultimate goal, because

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[4] Interview with editor of *Malaysiakini*, one of the first online publications that released the phone clip (December 2005, Hong Kong).

[5] Chilling call to arms via SMS. *The Daily Telegraph,* December 19, 2005, p. 6.

[6] SMS messages goes out: Let's march for racial tolerance. *The Weekend Australian,* December 17, 2005, p. 6.

[7] Police intercept interstate riot SMS. *The Daily Telegraph,* December 15, 2005, p. 5.

[8] N. Law, N. Gough, E. Ng, & N. Connolly. The siege of Wan Chai. *South China Morning Post*, December 18, 2005, p. 1.

[9] Personal observation, Hong Kong, December 2005.

controlling messaging is always a step towards controlling people, controlling activities, and controlling place – towards a general means of social control.

The Emergence of an IT Industrial Complex

The focus of this section and the next is mobile messaging as a means of control in the People's Republic of China, probably the world's largest national market for mobile messaging. In studies on media control, China is often treated conceptually as an idiosyncratic case of "reform and opening-up" under authoritarian rule (e.g., Chan and Qiu, 2001) or as one that represents a small cluster of regimes along with Cuba and Saudi Arabia (Kalathil and Boas, 2003). The singularity of the Chinese Communist Party (CCP) and its dominance over the Chinese society of course remain a key factor in shaping the social role of mobile messaging in the country. Yet, for our analysis here, the universalities of this particular case need to be emphasized.

Given the ubiquity of messaging and the malleability of the technology to serve very different purposes under all kinds of circumstances, as demonstrated in the series of happenings in 2005, we can see two lines of development around the world. On the one hand, state authorities (not just the police) and corporations are working to construct a macro structure of mobile messaging that is easy to control, thanks to the spread of neoliberal telecom policies. On the other hand, within such a controlled macro structure, mobile messaging is used as a tool of surveillance and risk management in a variety of contexts for more specific purposes, for example, at the workplace. China, in this broad sense, is a representative case that reveals much about the process and the challenge of constructing mobile messaging for purposes of social control. We will first examine in this section how the macro control structure evolves in China into an IT industrial complex, and then turn to the more specific developments at lower levels of analysis in the section that follows.

Mobile messaging began in China on May 17, 2000, when the country's dominant mobile provider, China Mobile, launched its first SMS or *duanxin* service. Since then, a range of messaging services came into being including MMS (*caixin*), ring tone (*cailing*), and m-commerce, although SMS still accounts for the bulk of the mobile messaging market. Table 1 summarizes some basic patterns in the growth of China's mobile messaging market. During 2000-2005, the mobile phone user population increased from 85.3 million to 393.4 million (i.e. 30.4% of the national population), and the total volume of SMS grew from 1.4 billion to 304.7 billion messages. SMS maintains stronger growth than the increase of users. In 2001, an average Chinese mobile subscriber sent 130.5 SMS. This per capita number climbed to 774.5 messages in 2005.

The usual cost for sending one SMS is 0.1 *yuan* or 1.24 US cent. This new market of mobile messaging therefore created a total revenue of no less than US$ 3.79 billion in 2005, and the figure did not to include MMS and other value-added services, all of which materialized in the short span of five and a half years. However, the growth rate is slowing down for both the user population and SMS traffic. Since 2003, annual increase in the volume of SMS has declined from three-digits to 39.9 per cent in 2005, although this is still quite impressive given the size of the messaging market.

Table 1 The growth of mobile phone subscription and SMS traffic in China (2000-2005)

	Total number of mobile phone users (million)	Percentage increase from previous year	Total volume of SMS traffic (billion messages)	Percentage increase from previous year
2000	85.3	97.7	1.4	--
2001	144.8	70.6	18.9	1250.0
2002	206.6	42.8	90.0	376.2
2003	270.0	30.4	137.2	52.4
2004	334.8	24.1	217.8	58.8
2005	393.4	17.3	304.7	39.9

Compilation based on year-end data from *Annual Statistical Report on the Development of Telecommunications in China (2000-2004)* released by the Ministry of Information Industry (MII)

The phenomenal growth of mobile messaging is only one indicator for the rise of a new IT industrial complex that involves multiple stakeholders at the macro national and transnational levels of operation. It was around this period when all of China's national telecom service providers went public on New York Stock Exchange: China Mobile (October 1997), China Unicom (June 2000), China Telecom (November 2002), and China Netcom (November 2004). The two mobile service license holders, China Mobile and China Unicom, certainly benefited greatly from the emergence of this new market of messaging. Moreover, the fixed-line network duopoly, China Telecom and China Netcom, also entered the messaging market with their low-end wireless service of Little Smart, which has been capable of sending and receiving SMS since 2003 (Qiu, 2005). All four companies promote mobile messaging in order to increase ARPU (average revenue per user), the crucial factor that influences their stock prices.

On the other hand, mobile messaging is central to the survival of Chinese dot-com's listed on Nasdaq including sina.com, sohu.com, netease.com, and tom.com. Indeed, since 2001, all major Internet companies in the country realized that they could not meet investor expectations by only providing content on their websites and selling online advertisement. They could not generate profit directly from end-users due to the low level of credit card usage among average Chinese. SMS helped break this bottleneck because the content flow from websites to mobile handsets is easily quantifiable into a portion of the phone bill, which can then be divided between the phone company and the dot-com (Clark, 2003). Although this is in the realm of content provision, it constitutes an *industrial* model with mass production, stream-lined delivery, and mass consumption processes. For instance, it has become routine for Internet companies employ a special group of "SMS writers (*duanxin xieshou*)" to produce a full range of messages that can be sold to end-users. In the southern city of Shenzhen, a good SMS writer could make 10,000 *yuan* (approximately US$ 1,242) in the week during the Lunar New Year, when SMS greetings are in high demand (Lan, 2006).

The IT industrial complex of SMS involves other types of commercial players. Multinational corporations like Coca Cola and KFC are sending out m-coupons that can be circulated among young people via messaging (Castells, et al, 2004:185-186). International and Chinese mobile phone manufacturers are pumping advertising money into mass media, which is being transformed by the usage

of SMS in not only game shows but almost every type of programs, a topic we will return to in the next section. Although the aforementioned players may belong to different sectors, they are all for-profit organizations and they all benefit, albeit to different degrees, from the shaping of mobile messaging into a narrowly defined "market" rather than a more inclusive sphere for public communication and citizen engagement.

At the foundation of this political economy structure lies the issue of ownership. In China, all of the four messaging service providers are, in fact, state-owned enterprises, which not only take the largest proportion of the profits but are also the most willing to work with the authorities to construct a messaging market that is "problem-free." State ownership of these corporations is not to be diluted by public offerings on the NYSE, which can be understood as a particular power project led by the state to foster "neoliberalism with Chinese characteristics" (Harvey, 2005).

The shadow of ownership cast itself easily into the realm of content. The huge amount of information generated by SMS in China – in total about 770 billion messages by the end of 2005 – are technically all transmitted through state-owned infrastructures, and an unknown amount of them are being stored in state-owned devices as a new type of informational property of the government. All the rules against "harmful" information initially designed for the control of mass media and the Internet apply to this new service. But mobile messaging helps broaden the scope of surveillance significantly because it is not tied to particular spatial locations; because each message, regardless of its specific content, constitutes part of a "remote searchable database" (Lyon, 2003, p. 2); and because, compared to PC, the handset is harder to re-configure to get around the "panoptic sort" (Gandy, 1993).

Most important, mobile messaging decisively blurs the boundary between the public and the private. While in China, state penetration of the interpersonal sphere of communication has been limited in the past quarter century due to prohibitive cost, the proliferation of personal messages on state-owned networks offers fresh opportunities for surveillance over an enormous amount of daily conversations. During the Cultural Revolution, Maoist fanatics once almost achieve complete penetration into private lives through interpersonal and organizational channels. Thanks to digital mobile technology, the goal can now be reached with higher efficiency at larger scale.

However, the molding of messaging as a means of social control resulted more from *ad hoc* policy reactions by the authorities than from any deliberate planning in the beginning. It was only after the 2003 SARS epidemic, in which SMS first demonstrated its capacity for alternative information exchange, when the state started to control messaging.[10] Yet once the authoritarian government decided to intervene, it was relatively easy because all text messages have to travel through state-owned networks and the technology to filter and track them is not too different from the filtering and tracking of email communication. About a dozen Chinese, for example, were detained for "spreading rumors" via SMS during the SARS period.[11]

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[10] Joe McDonald. (2003, May 14). *China cracks down on high-tech spread of SARS rumors*. The Associated Press. See also Castells, et al (2005).

[11] Reporters without Borders, "China to censor mobile text," July 3, 2004.

Of critical importance is that the authoritarian need for surveillance is immediately recognized as yet another new "market" to be served by IT companies. Venus Information Technology Inc (http://www.venusense.com/), headquartered in the *Zhongguancun* area of Beijing, was among the first being authorized by the Ministry of Public Security to develop real-time surveillance system for SMS. Founded by returning overseas Chinese students, the company produces Cybervision SMS Filtering System, the first of its kind in China that uses filtering algorism from the Chinese Academy of Sciences "based on keywords and combination of keywords."[12] According to English descriptions provided on the company's website:[13]

> "Cybervision SMS Filtering System is a harmful short message filtering product designed and developed by Venus Information Technology Inc. It meets the technical requirements of information security authentication, such as filtering harmful short messages, storing short messages for sixty days, and exporting harmful short messages. It provides the best solution for SMS providers to supervise and control the contents of short messages effectively."

Because there is little check and balance against power abuse in the political structure, once the regime of control is in place, it grows and expands by reacting to a host of external stimuli. To be sure, messaging is a malleable technology that can be used for all sorts of purposes that may concern the authorities. Protestors, as in the April 2005 anti-Japanese demonstrations, can use SMS for mobilization and the coordination of logistics (Qiu, 2006). Criminals may also use messaging to disseminate fabricated information through spam and then set traps and scams, for example, during the October 1st National Day holiday of 2005, when identity theft initiated by SMS affected thousands of mobile subscribers in Beijing.[14] State intervention is also frequently triggered by problems related to sexuality, like sex jokes circulated among teenage mobile users or messages advertising prostitution (Lanfranco, 2005). These problematic uses of SMS have been widely reported in mass media to support further state control over the technology. As a result, when a strict real-name registration system (*shimingzhi*) for all mobile phone users was proposed in the second half of 2005, an opinion poll in Beijing found that 75.9 per cent of the respondents endorsed the plan.[15]

When I was doing fieldwork in South China in the first week of May 2005, the political atmosphere was tense due to the large-scale anti-Japanese demonstrations that spread several major cities in the previous month. My mobile phone equipped with a China Mobile pre-paid SIM card suddenly received a SMS that looked peculiar. The sender information was blank and it read, "The Guangdong Provincial Department of Public Security wishes you a happy and peaceful May Day holiday." In this case, like many others, the authorities select particular time to strengthen control and those being surveyed

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[12] Ibid.

[13] http://www.venusense.com/html/product/product_08.htm (accessed on February 8, 2006).

[14] Beijing police announced upsurge of credit card and SMS scam during the golden week, *Beijing Evening News* (*Beijing wanbao*), October 11, 2005.

[15] Beijing Statistics Information Network, http://www.bjstats.gov.cn/zwxx/tpbd/200510140022.htm, October 14, 2005. (accessed on February 8, 2006).

roughly know the timing and the types of content/action being restricted. It works through undifferentiated mass advocacy in a traditional broadcasting model, which defies the proclaimed "personal" nature of the technology. The holiday greetings from the police had no sender. It looked like something generated by the system, by the IT industrial complex, under the auspices of the authoritarian state. It comes from nowhere. But it catches you wherever you are.

Mobiles, SMS, and the Management of "Risk"

Despite its rapid emergence since 2003, the control regime for SMS in China is still in its initial phase. It remains an open question whether the authorities can fully domesticate this technology. But as discussed previously, the materialization of the particular IT industrial complex — tied closely to state power and capital flows on the national and transnational levels — is a most important force of social shaping for mobile messaging services. It is within this macro structure that messaging is socially constructed as nothing but a *market* for entertainment and personal consumption. Acknowledging the structural conditions is critical because it alerts us to a series of concrete scenarios in which mobile phone and SMS can be used to strengthen social control for the purpose of pre-empting risk, risk often vaguely and arbitrarily defined by the power elite for the management of a myriad of activities in daily life.

Let us start with a small but fundamental social unit: the family. While Chinese families certainly use mobiles for "micro-coordination" like in Europe (Ling, 2004), the control-oriented Chinese mobile service providers are keen to serve the surveillance needs of the family unit. A wife, for example, may spy on the husband to see whether he is having an affair by checking SMS stored on his handset or getting log records from the mobile operators, as dramatized in the popular movie *Shouji* (*Cell Phone*) in 2003 (Zhao, 2004). According to one of my informants who grew up in the northern province of Shandong, one of her friends, at the age of 17, had to use a sub-handset (*ziji*) connected to her father's mobile phone. There was only one bill every month for both handsets, which would be paid by the father. What is astonishing about the service was that, whenever the daughter gets an incoming call, the father's mobile also rings displaying the caller ID, and the father receives in real time a copy of every message the daughter sends or receives. By so doing, the father could have seamless surveillance over the mobile phone activities of the daughter.

It is unknown how widespread the sub-handset service is in Shandong or the rest of China. The daughter in fact stopped using it after she turned eighteen. But one such incident suffices to reveal that, under the macro conditions of heightening control and the marketization of mobile phone surveillance, telecom operators would be tempted to re-configure the "personal" handset at the system level and change it into a "collective" device controlled by the powerful. The messages and phone calls can be C.C.'d and even B.C.C.'d just like emails. And the service would be in high demand among parents, employers, police, and gangsters, as long as they can pay.

Given such an institutional and cultural environment that supports and encourages surveillance, it is of little surprise that systems of mobile communication designed for the purpose of control proliferate in China's workplaces. This is, of course, not a unique development specific to China. In the context of the UK, scholars have discussed that the diffusion of wireless phones may probably lead to a new "assembly

line" model of management, which controls mobile workers beyond fixed physical locations (Laurier, 2002:50). A standard way to enforce such control, as being found in both North and South China, is that the employer would equip employees with mobile communication devices and pay a portion or all of the phone bill. Meanwhile, employees are instructed to keep switching on the phone and be on call twenty-four hours a day, seven days a week. This happened to several of my informants who worked in government offices, hospitals, factories, and multinational corporations. One of them drove a limousine that was assigned to serve the National People's Congress for two weeks in 2004. He complained that he was unable to sleep well during the period due to the emotional stress. But in fact he was lucky for just needing to deal with the anxiety for two weeks in a year. In other parts of the country, a lot more people have to take it as an inevitable part of their professional life.

In an apparel factory of more than 10,000 workers located in the southern industrial city of Dongguan, several hundred mobile numbers were distributed on different levels of the management structure as of early 2006. The practice started in 1999 when a number of Nokia handsets were purchased from China Mobile for communication among top executives. Since the end of 2001, a much larger number of the low-end Little Smart wireless phones were added to network lower-rank managers all the way down to *banzhang* (i.e. leader of a work team consisting of six or seven workers) and some ordinary clerks (*wenyuan*). This network, known as *jiqunwang* -- meaning literally Concentrated Collective Network -- swelled to more than 1,000 phones in 2004, but was later downsized due to cost concerns.
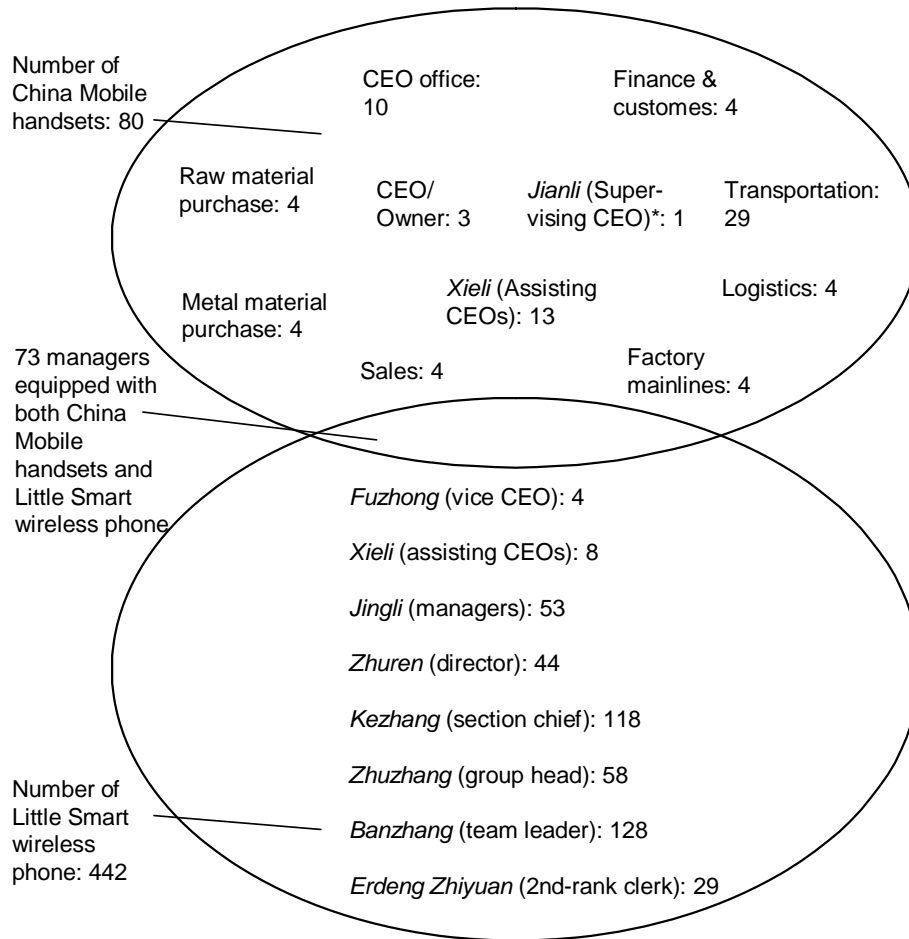
Jiqunwang is an intra-organizational system with several key features. First and foremost, all high- and low-rank managers have to use the phone numbers assigned to them and are responsible for always keeping the phone on with sufficient battery back-up. Second, there is a special Information Division (*zixunbu*) consisting of more than a dozen technicians that takes charge of computer issues, networking, as well as the management of the *jiqunwang*. Third, most of the China Mobile phone numbers purchased by the company start with identical digits and are only different in their last three digits, whereas almost all of the Little Smart phone numbers purchased from China Telecom share the first four digits and differ in the last four digits. It is very inexpensive to exchange voice calls or SMS within the *jiqunwang*, but very expensive to contact people beyond this internal network. Fourth, when a senior manager receives a wireless phone or when a low-rank clerk receives just a SIM card from the Information Division (meaning s/he has to buy a handset using personal funds), the person is instructed to use the device for work-related issues only. Fifth, information flow is controlled to protect corporate secrets. For example, in order to prevent the latest apparel designs from being leaked, everyone working in the Design Division, regardless of their administrative rank, can only use Little Smart phones that do not have built-in cameras.

Figure 1 illustrates the intra-organizational allocation of wireless phone numbers in this large-scale family enterprise. The distribution of China Mobile phones among high-rank managers follows a more networked structure centered on the CEO/owner and his wife, whereas the distribution of the inexpensive Little Smart phones reflects directly the management hierarchy of the factory. Important is to note that, although managers on all ranks receive handsets or at least phone numbers (i.e. SIM cards) provided by the company, ordinary workers are strictly forbidden to bring mobiles onto the shop floor. If a

worker is caught checking or sending SMS on the assembly line, the phone will be immediately confiscated before further punishment is decided.

There is a range of penalties for those who fail to answer the company-provided phone or abuse it for personal affairs. If the boss cannot reach a manager or technician who is assigned a wireless phone number, several steps will be taken to find and punish the person. These include (1) calling his/her name through loudspeakers over the shop floor, (2) calling the person in the dormitory, (3) sending security guards to find the person, (4) deducting wages of the offender, (5) deducting wages of the offender and his/her co-workers, (6) physical punishment (e.g. being hit in the face), and (7) being fired. These are more than simple deterrence. In the past, there were actual incidents when the most severe penalties were actually utilized, including physical punishment and dismissal from the company.

Figure 1 The number of wireless phones being allocated within an apparel factory in Dongguan, Guangdong Province (January 2006)

* *Jianli* (Supervising CEO) is the wife of the CEO/owner.

According to my informants and observations in other cities in South China, company-owned mobile phone *jiqunwang* networks are common in large- and medium-sized enterprises. In fact, China Mobile and China Telecom are competing to provide customized Concentrated Collective Networks in order to achieve market consolidation. It is therefore highly likely that the telecom operators would further meet the needs of the employers, who, at the bottom line, own the systems designed for the workplace. Now that the father could have his personal panopticon over the daughter, there is little technical barrier for it to be replicated at a larger scale, especially under the umbrella of the macro IT industrial complex obsessed with enhancing top-down control. After all, the same intranet structure controlling email flows within corporations can be copied for the management of mobile communication.

But does enhanced control mean offenders of Chinese law would be more easily prosecuted to restore justice? Not necessarily so. Here it is important to note a sex harassment case occurring in an elementary school in Southwest China, which shows that the SMS surveillance system only works for the powerful, but not the vulnerable. Since 2000, a female teacher in the Banan District of Sichuan has been harassed by the school principal, who not only attempted to have inappropriate physical contact with her but also sent her sex jokes and flirting text messages. When the victim decided to sue him in August 2005, she had nineteen offensive SMS stored in her handset. In order to have more evidence, she requested the local mobile operator to release the SMS record for her phone in the past six months. But the mobile company refused because, according to its legal representative, they "are only obligated by the law to coordinate with the police, public persecutors, and state security agencies."[16] In another word, there is no legal basis for the right of the victim to request her SMS logs. Even though the data probably exist, even though the teacher paid for her phone bill, the messaging control system is simply not designed for someone at the grassroots, thus adding further to the difficulty in bottom-up social formations through ICTs in the country (Duffy and Zhao, 2004).

Finally, the rise of mobile messaging is also leading to several "media replacement" effects that are worth noting. One such development has to do with the replacement of pager services by mobile messages. China used to have 48.8 million pager subscribers in 2000 but, with the phenomenal increase in SMS, the number of pager users declined to 0.97 million in 2005 (MII, 2000-2005). The disappearance of paging in Chinese cities is not simply a process of automation in the phone-based message exchange system. It also undermines a major channel for underground groups in China to bypass police surveillance in their activities. Falun Gong practitioners in Beijing, for example, were reported to use a combination of pager and public phone services to keep contact with each other and particularly for coordinating logistics among themselves (Johnson, 2004:259-260). With the pager now being replaced by SMS, under a much more centralized system for filtering and tracking, it would be significantly harder to bypass the surveyors, who can now tap mobile conversations and messages.

In broadcasting stations, there is also a remarkable change for SMS to replace live phone-in programs. It is a global trend for SMS to be widely adopted in radio and TV channels as a means to increase interactions with the audience. Entertainment shows like the "American Idol" and China's

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[16] See "Female teacher sued principal for 5-year-long sex harassment but failed to retrieve SMS evidence," *Chongqin Commercial Daily* (*chongqin shangbao*), November 5, 2005.

extremely popular "Super Girl" contests all used SMS voting as an essential component in program production. So do various news and public opinion shows from the CNN to Radio Television Hong Kong, which allow listeners and audiences to send in their short comments and questions. Selected feedback will then be read or shown on screen to increase further interaction. By so doing, the hosts and hostesses can have a wide range of opinions to respond to within a very short period of time. The broadcasting stations may also get a portion of the SMS revenue generated by their programs.

There is, however, an additional factor that explains the replacement of the phone-in channel with SMS in China. Based on information provided by a news program producer in China Central Television and the head of a city-level radio station in Jiangsu Province in East China,[17] there has been a tightening of control over live broadcast programs in the country during the past few years. In order to prevent unpredicted incidents (i.e., inappropriate/harmful/illegal information being aired), the State Administration for Radio, Film and Television has required higher "safety measures" for live programs. This normally involves a delay of six to seven seconds before the phone-in conversation goes on air. Such measures increased production cost, and yet there is still political risk, however small, to maintain the phone-in format even if the producer can afford for the delay and filtering mechanism. As a result, many broadcasters like those in Beijing have abandoned all phone-in programs in favor of SMS, which is much easier to filter and reduces the political risk to zero. In this particular context, the service that was initially adopted to increase interactivity with audiences turns out to perform a control function that could not be envisaged at the first place. It becomes a control instrument that reduces the diversity of interactions and restricts the broadcast content of the seemingly "interactive" shows within the safe zone of political correctness.

Concluding Remarks

There are certainly institutional and cultural specificities in the development of SMS as a means of control in China. But as demonstrated through the messaging-related incidents in 2005 in Asia, Australia, and Europe, the rising tide of social control over and through mobile messaging has now become a global trend among macro institutions like government agencies and telecom service providers as well as meso-level social structures like schools, factories, and radio production teams. Moreover, with the surging manufacture, export, and investment capacity of China (Schiller, 2005), the formation of the IT industrial complex for SMS surveillance in China is in itself a product of multi-layered transnational processes, ranging from the stock market to the global "brain circulation" (Saxenian, 2005) of IT talents that supports companies like Venus Information Technology Inc.

What, then, should be done to prevent this new technology of control from going out of control? How should the legitimate needs of institutions and organizations in risk management be balanced with public interests, broadly defined to include working-class ICT users and the information have-less (Cartier, Castells, and Qiu, 2005)? Answering these questions is a task beyond this paper, whose goal is limited to diagnosis, not prescription, given the emergent nature of the subject and, most important, the contextual contingency of the technological system, as we have seen in the case of China. Diagnosis, however, is a

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[17] Personal interview in Beijing followed up by email exchange, July 2005.

necessary first step to alert scholars, policy analysts, and members of the civil society – in both domestic and transnational settings – to participate in the social shaping of mobile messaging. This technology has been for too long subject to narrowly defined state and commercial interests. It is now time to rethink mobile messaging in more structural terms beyond the personal, beyond m-entertainment and m-commerce. Utilizing community wisdom under myriad cultural settings, we have to interrogate and scrutinize the wireless leash in its various forms and processes, which have to be fundamentally transformed to serve the interests of ordinary citizens and vulnerable groups. Only by so doing can we seize the opportunities, now lying deep in mobile messaging, for progressive social change.

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