



Queensland University of Technology
Brisbane Australia

This is the author's version of a work that was submitted/accepted for publication in the following source:

Choi, Jaz Hee-jeong, Foth, Marcus, & Hearn, Gregory N. (2009) Site specific mobility and connection in Korea : bangs (rooms) between public and private spaces. *Technology in Society*, 31(2), pp. 133-138.

This file was downloaded from: <http://eprints.qut.edu.au/13004/>

© Copyright 2009 Elsevier

Notice: *Changes introduced as a result of publishing processes such as copy-editing and formatting may not be reflected in this document. For a definitive version of this work, please refer to the published source:*

<http://dx.doi.org/10.1016/j.techsoc.2009.03.004>

Site specific mobility and connection in Korea: bangs in between public and private

Jaz Hee-jeong Choi (surname: Choi), Marcus Foth, Greg Hearn

Institute for Creative Industries and Innovation

Queensland University of Technology

Musk Ave, Kelvin Grove QLD 4059, Australia

h.choi | m.foth | g.hearn@qut.edu.au

Corresponding Author: Dr Marcus Foth

Postal address: As above

Phone: +61 7 3138 8772 | Fax: +61 7 3138 8195 | email: m.foth@qut.edu.au

Shortened Title: Site specific mobility and connection

Abstract

Although social and cultural research on mobile communication is exploding, many studies tend to take a technical view on the mobile phone as a personal networking device that connects people 'anywhere anytime.' Little cultural research has examined the uptake of mobile applications that are anchored to specific sites, especially outside Euro-Americo localities. To address this, we analyse media experience in the lived spaces of the Korean 'bang' (room) culture. These rooms provide various social spaces such as DVD-, jjimjil- (sauna), noraebang (karaoke)-, and PC-bangs. We position mobile technology along a blurring border between work and leisure and conceptualise the use of mobile

phones for the symbolic creation, demarcation, and integration of public and private spaces in a digitally connected urban environment. This analysis helps us gain an understanding of the socio-culturally specific rationales and desires behind technology design and adoption in the South Korean context.

Keywords: mobile technology, ubiquitous computing, urban informatics, Korea, bangs, screens

1. Introduction

The increasing ubiquity of mobile phones and wireless devices in both developed and developing countries affects the communicative ecologies of personal social networks with broader repercussions on employment, business operations, education, and health services. Mobile phone applications and services such as 3G (Third Generation), MMS (Multimedia Messaging Service), mobile email, and Internet are more multifunctional than basic -- though popular -- conventional services such as SMS (Short Messaging Service); the growing social, cultural, and economic impact of mobile digital content and services is evidenced in North-American, European, and South East Asian nations in particular as the major telecommunication carriers commit to 3G, next-G (Next-Generation), and associated enhanced services in the coming years [1-8].

Many mobile phone users now have a means to 'synchronise everyday life' [6] with home, school, and work through SMS, mobile email, photo and video messaging. These innovative though arguably straightforward mobile phone

applications do not fully portend evolving and undetermined cultural and social reappropriations and implications. Documented examples to date of mobile phone effects and applications beyond voice call functions in, for example, the health area include: the use of mobiles for electronic transfer of tracheal breath sounds to remotely monitor asthma patients [9]; research showing adolescents using mobile phones as a complementary behaviour to taking up smoking to demonstrate maturity [10]; stress related atopic eczema caused by mobile phone ringing [11]; and the use of SMS as a form of contact tracing in a hospital [12]. In 2004, medical workers sent data about medical trauma injuries to other clinicians via mobile network from remote locations in Banda Aceh in Indonesia after the Boxing Day Tsunami [13]. Not as antidotal was the case of the hurricane Katrina that hit New Orleans in 2005, during which the lack of communication capacity, especially amongst medical team members, was found to be one of the main obstacles for effective and efficient recuperation [14]. The variety of usages of mobile and wireless technologies extends far beyond voice and SMS. A Japanese company already offers the possibility for artificial fingernails to be embedded with small LEDs. Powered remotely by the phone, they glow when the phone is in use [8]. It has been envisaged that micro-devices may be inserted into teeth to provide a direct and discrete conduit between mobile signals and the body [15]. Current Bluetooth technology advances such body-phone integration, the so-called Wireless Body Area Network (WBAN). A wide variety of technologies such as RFID (Radio Frequency Identity) tags, GPS (Global Positioning System) tracking, PDAs (Personal Digital Assistants), digital cameras, and music players are being

converged and embedded in mobile and wireless devices in various combinations with local and global network connection.

Research situating new media use in place found that the Internet and other forms of global networks enable the exchange of business information and the real-time communication between corporate players across nations.

Conversely, there is also a noticeable trend towards using the global network for local, place-based, and social interaction [16-18]. New web services such as Google Maps and upmystreet.com pay tribute to this trend by providing location-based directories, services, and discussion boards. This line of thought is also evident in the large volume of phone calls and emails that connect people within a close geographical proximity [19]: the same city, company, and community.

In this respect, Davies's report on 'proxicommunication' [20] provides a solid overview of the various roles and impacts that ICTs can have in the local public realm. In the report's summary, he rightly argues that:

New technologies tend to be met with a hail of predictions about their social 'impact'. Over the past decade, digital technologies have often been presented as forces for globalisation and the 'death of distance', yet the vast majority of people's day-to-day activities remain fairly local. So does this mean that these technologies do not have a role to play in such activities? Not at all.

Couldry and McCarthy present a concept of 'mediaspace' in a similar vein [21], a concept which they define as 'a dialectical concept encompassing both the kinds of spaces created by media and the effects that existing spatial arrangements have on media forms as they materialise in everyday life.' An exemplary case of this concept is Silverstone and Sujon's *Urban Tapestries* project [22], which explores the inter-relations between people, technology, and space. They suggest that the human-technology relationship is both liberating and constraining, and argue that technologies as extensions of the self are now crucial parts of one's identity. *Urban Tapestries* allows participants to recreate cultural 'meanings' by playfully yet productively creating mutual relationships between people, technology, and place. In the case of Japan, Okabe et al. present the location-specific photo taking and modding culture of Japanese youths, at the centre of which is *Purikura*, the sticker photo booth [23]. The studies of Silverstone and Sujon, and Okabe et al. effectively examine playful interactions connecting the human, technology, and space, in relation to (or contrary to) mobility, while aptly unpacking the important role that sociability and pleasure play in user-led cultural productions.

In this article, we attempt to expand on these current findings with the fundamental understanding that social meanings are recreated in lived spaces as much as they are encoded and transformed in media. More specifically, we ask the following essential questions:

- How can mobile technology be conceptualised in a wider techno-social ecology?

- How does the place of engagement interact with use of mobile technologies?

We observe that mobile technology can be both pervasive and persuasive. At the same time, access to wireless technology is affected by the user's socio-geographical environment, which is also pervasive and persuasive. So then, how is the boundary between *work* and *play* being negotiated? How are cultural meanings negotiated? How does the technology / place / person mix evolve? And how can we make sense of different stages of development of mobile culture, especially when variations in such stages are evident even in the same society? An appropriate answer to all these questions would require a large and longitudinal study. Within the scope of this article, we respond to these by examining how mobility and connection are established and integrated into work and leisure at a specific site of the *bang* in one of the most connected and urbanised societies in the world: South Korea.

2. The bang culture in the city of flux

Today Korea is home to over 49 million people [24]; it is also home to some of the largest electronic corporations such as Samsung and LG; it boasts one of the highest broadband penetration rates and the fastest adoption rates of new network technologies [25]. Not surprisingly, the country has been ranked at the top of ITU's Digital Opportunity Index for the past two years [26]. However, before reaching this status, Korea went through a series of major metamorphoses: from a hermetic oriental kingdom to a Japanese annex, then

to a war zone, to which the end -- two ends, to be exact -- came with the physical division between North and South. The mass destruction of war positioned the divided nation at the bottom of the global economy, barely comparable to some of the poorest countries in Africa [27]. Half a century later, South Korea stands on a far different economic plane to its other half; it has seen an eleven-fold increase in GDP per capita (ibid), making it the 11th largest economy in the world [28]. According to Fujita and Thisse, 46.2% of the GDP is generated in the capital region of Seoul and Gyeonggi Province [29]. Evidently, Seoul is a concrete manifestation of the rapid and rumbustious development of contemporary Korea, which resonates with the concept of *culture de flux* -- also evident in other East Asian cities such as Tokyo, Hong Kong, and Shanghai -- as compared to *culture de stock*, or the *museumisation* of cities of the West [30]. Seoul, as one of the most densely populated -- at 16 551 people per square kilometer, it is higher than Tokyo (13 657) and New York (9 475) [31] -- and also most technologically connected cities in the world, is in constant and accentuated flux, in which every constituent is intricately and inherently interconnected.

The complex techno-social configuration of Seoul is aptly framed by comments by the former Vice Mayor of the Seoul Metropolitan Government, Hong-bin Kang, who notes the city's evidently 'paradoxical combination' of 'too much planning' and 'too little planning' [32]. Adding to this multi-layered, seemingly non-typological complexity is the emerging erosion of spatial boundaries not only in a conceptual sense but also sensorial and structural. This aspect can be shown by examining the space of the high-rise, one of the most identifiable

features of the contemporary urbanscape. While the design of its exterior obscures the physical limit through visual sensory effects, its interior (how sub-spaces are used) re-territorialises the building and further, the entire city, by creating a sense of trans-spatiality. We explain this idea further below.

Architectural metamorphosis of lived spaces into media infrastructure is not a new concept and has been a common -- largely commercial -- fixture of the urbanscape for the past few decades. However, as Vanderbilt [33] suggests, Seoul presents an especially interesting case for its accommodation of the ubiquity of the screen in the fabric of its 'illegible' urbanscape. Screens can be found inside -- at the lobby, in subways, elevators, cars, and each individual's hand -- as well as outside in public spaces; not only in the form of billboard LED screens, but also as the exterior surface of the building. A prime example of this is the Galleria department store in Apgujeong-dong: the entire façade is made up of light-reactive, programmable screens that are capable of generating 16 million colours [34]. The familiar straight seams of the building are overshadowed by forms projected by changing lights and colours on the screens, and thus the sensorial and conceptual demarcation of physical space becomes obscured. Such architectural developments together with other infrastructural developments turn the entire metropolis into what Vanderbilt calls 'circuit city' [33], with an extensive and multi-layered techno-social ecology. Here, the notion of spatial specificity becomes markedly individualised and subjective in terms of interpretation and reconstruction of the human subject's *spatial experience*, which encompasses not only the pre-defined space itself -- both physical and non-physical -- but also techno-social components.

3. Mediated city of bangs

The increasing *lifestylisation* of screens, however, does not make physical spatiality obsolete. Rather, it augments and heightens collective spatial sharing through the ubiquitous inter-media communication afforded by screens, as well as the strong collective cultural tendencies of Koreans, as evidenced in the contemporary commercial *bang* (room) culture [32,33]. The Korean Pavilion at the 9th Architecture Biennale of Venice was dedicated to the theme *City of the Bang*. The following excerpt from Sung Hong Kim's curatorial statement describes the essence of this culture (emphases added):

While the room has traditionally been considered a walled segment in a domestic space, the *bang* has infiltrated the Korean urban landscape of commercialized space with enterprises such as the *PC bang*, *Video bang*, *Norae bang*, *Jjimjil bang*, *Soju bang*, and others. The *Norae bang*, a scaled-down version of the Karaoke bar, is the primeval cave festival in the midst of the contemporary city. Visual, audible, olfactory, tactile, and gustatory sensations are simultaneously experienced in this tiny black box. Meanwhile, the *Jjimjil bang*, which combines a steam bath, fitness room, lounge, restaurant, and sleeping area, provides space where half-clothed bodies intersperse between a variety of functional areas. The *Jjimjil bang* blurs the lines between the collective and the individual, normal and deviant behaviour, privacy and voyeurism. The bang is an incarnation of the room, the house and the city, but it does not

belong to any of them. The city of the bang oscillates between the domestic realm, institutionalized place, and urban space [35].

A single building can consist of vertically layered eclectics of *bangs* -- *Jjimjil bang* underground, café on the ground floor, *PC bang* on the first floor and so on -- the randomness of which is not evident from the exterior of the building itself [35] if not through the common fixture of a great assortment of signs and screens covering the building. Kim further asserts that Koreans' use of *bangs* stems from the 'fear of alienation' and the subsequent need to 'constantly reconfirm their sense of relatedness' (ibid). Although we feel that this is an overstatement to a certain extent, we note that collective cultural tendencies still prevail in many East Asian cultures, including Korea, as suggested by Choi in her discussion of East Asian mobile culture [36].

Linguistic translation of *bang* also requires understanding of such cultural connotations. Although *bang* is literally translated as "room" in general, such a translation only correctly conjures up the measurable geographical configuration of space and fails to convey another important – perhaps more important – aspect: the social construction of space, especially the types of social activities that take place within, which evidently (re)define the space for the occupant. Essentially, *bang* is an architectural manifestation of a multifunctional space contrary to the Western definition of room, a single-purpose space that is designated for a specific function. For example, the traditional custom (which continues to be in practice in smaller residences) of serving food on a low fold-away table transforms the living room into the dining room, which can then turn

into a study or for entertainment during the day before finally becoming a bedroom when *Yo* (Korean futon) is unfolded on the floor at night. *Bang* is a typologically flexible, multifunctional space [37] in which multitudes of individual and collective activities occur, obliterating the boundaries between social dichotomies such as work and leisure, as well as public and private.

Furthermore, the lack of personal space in combination with the group-oriented social expectation functions as a complementary key driving force behind the proliferation of *bangs* in geographically dense and culturally collective Korean society. In this line of thought, *bangs* are places for both work and leisure that can be readily reconstructed according to the individual's needs. Moreover, screens -- on mobile phones, televisions, computers, and so on -- are palpable features in *bangs*, even in *Jjimjil bang*, which has sub-*bangs* with temperatures that can be as high as 70°C. Clearly, urban screens are ubiquitous; so are the Koreans' individual and collective needs and expectations for such communicative ubiquity, to play and to work in and through screens -- to live life in urban Korea.

4. Fragmented vs Modularised

In 2002, Nicola Green stated (emphasis added):

The decentralization of communication creates new webs of potential interaction between atomized individuals, which on the one hand increases the communication activities carried out, while at the same time *fragmenting* that communication into more numerous communications of shorter duration [38].

This statement conveys the notion of holistic, *ritual* communication (cf. Choi's discussion of Carey's *transmission* vs *ritual* communication model in the context of computer-mediated communication [36]), while taking a dependent, atomised view of individuals as nodes of a communication network. Such a view appears to be losing its validity, even from a strictly technological perspective, as today's communication networks become increasingly multi-layered and inter-related, involving multiple networks and inter-operable devices. Within the context of ubiquitous technology, the conceptualisation of the self extends beyond the autonomous physical self; it demands a transformation to the self that is readily and flexibly adaptive to the current spatiotemporal context, as much as it demands the reversal. Therefore, one useful way of approaching techno-social development would be to adopt the concept of *modularisation* as opposed to *fragmentation* by acknowledging the fundamental element of complex relationality in the broader network of human society [39], encompassing non-linear, multi-evolutionary interaction amongst the constituents. As a multifunctional network device, the mobile phone is increasingly acting as the management platform through which such modularisation is configured and interpreted.

5. Ubiquity and Mobility: Changing Reality/ies

In a recent news column, Lee [40] compares the current state of Korean IT to Acromegaly, accusing the public's over-consumption of technology, including the shortest mobile phone life cycle in the world (1.44 years, approximately half of the global average) and the youth's excessive use of SMSs (Korean

teenagers between 15 and 19 send over 60 messages on average each day). Lee also refers to a recent report by the Bank of Korea on household consumption expenditures: the figures show that Koreans spend more money on communication -- such as broadband and mobile phone subscriptions -- than on food and accommodation. Discussing the significance of this phenomenon is beyond the scope of this article; however, the situation clearly heralds imminent and fundamental socio-cultural transformations that need to be discussed.

As asserted throughout this article, the current techno-social context is complex, and this precludes formulaic predictions for its future trajectories. Nevertheless, Minsuk Cho's paper at the 2007 Holcim Forum, 'Urban_Trans_Formation,' provides a plausible sketch by describing two contrasting lifestyles: revolving around what he calls 'Hilberseimer's dream' (the spatial house) and 'Flâneur in the digital age' (the temporal residence) [41]. The former refers to the majority of Koreans' dream of owning a residence (a brand-name apartment) in Seoul, and latter to the emerging mobile lifestyle of contemporary flâneurs or urban nomads, who are capable of creating and appreciating subjective experiences of space: those who are able, in Baudelaire's words, 'to be away from home and yet to feel oneself everywhere at home; to see the world, to be at the centre of the world, and yet to remain hidden from the world' [42]. In Cho's depiction, this new mobile urban tribe constantly and spontaneously travels through the plethora of *bangs* and other 24-hour establishments, such as convenience stores, to fulfil their needs. The priority and schedules for such travelling are decided by the individual, not according to existing social norms. It is an intrinsically individualistic life, yet is only possible via the mass collective sharing

of heavily mediated and networked spaces where a multiplicity of sub-spatial components of various natures are intertwined within a dense urban environment. Atelier Hitoshi Abe's *Megahouse* project conveys an analogous view [43], in envisioning the future form of residence as based primarily on permeating the boundary between private and public through sharing rooms that are dispersed around the urban environment according to the individual's temporal and spatial needs. These envisionings confirm our view that the current rhetoric of reality will need to be re-conceptualised as its transformation will evidently evolve from the fundamental changes in how mobility and connection are experienced and understood.

4. Conclusions

There is a long history of examining the relationship between media and space [21, 44-48]. Culture is inscribed in every human artefact including those that define spaces. 'Old' media have already radically changed the nature of the space-time habitat of individual humans, and, as Giddens argued, modern media are the principal means by which social order is maintained beyond immediate presence [45]. Mobile media are infiltrating domestic and industrial spaces alike. Yet as Couldry and McCarthy point out, 'the spatial orders that media systems construct and enforce are highly complicated, unevenly developed and multi scaled' [21].

Our analysis shows the organic and complex inter-relations amongst culture, technology, and use, suggesting that site specific uses are difficult to

disentangle from ubiquitous uses. For this reason, it is imperative that we understand mobile use in its varied forms as a 'modularised whole,' especially in today's complex, ubiquitous, and mobile society in flux, where wired and wireless do not require significant techno-social distinguishing from each other. 'Space' is not only geographical, but is also techno-socially established, and further transformed in relation to technological and socio-cultural developments. There are numerous further questions that could be pursued in relation to this agenda; for example, at the macro level, issues of digital divide, surveillance and governance, and at the micro level, notions of personal orientation in the local aural cocoon. Our commentary speaks primarily to a different set of issues, namely to the way spaces and media co-evolve in defining the uses that are enacted in specific locales. In this regard we would point to two particular illustrative axes: the mediation of public and private and the boundaries between work and leisure.

A fundamental dimension of the social milieu is the distinction between private and public space. Understanding and feeling comfortable with this distinction is basic to a sense of well-being. After the home and the workplace, public spaces are the most prominent building blocks of a city. They act as 'social catalysts,' places where urban residents and members of neighbourhood communities meet to create and maintain social ties and friendships and engage in discussion and debate. They are paramount in establishing the identity and culture of a city and a sense of cohesion and belonging [49], ultimately leading to sustainability of the city. In public spaces, the personae one adopts are usually guaranteed a certain level of safety when there is also a certain level of

performativity that is adequately harmonious with established behavioural norms but may not be a true reflection of one's desires. Therefore, public space is still a relatively vulnerable sphere when compared to our private selves.

As Satchell suggests [50], locative mobile applications draw on the intimacy and trust that users have with mobile mediated communications by providing a peer-to-peer, 'walled garden' interaction space, where small networks of established friends, who have regular face-to-face contact, can find each other. This provides a useful lens to reflect upon the nature of mobile phone space itself, which is seen by users as less vulnerable than the public sphere with increased intimacy. As was the case with computer-mediated communication (CMC), such new spatial engagement afforded by mobile technology may provoke communitarian criticisms that it is yet another means to 'bowl alone.' We would like to bypass the debate and instead suggest that the focus of deliberation be broadened to acknowledge the 'fluid oscillation between the collective and networked sense of community membership' within 'each member's greater communicative ecology' [51] which encompasses multi-spatial social frameworks.

The spatial experience portrayed in our case study of South Korea appears to merge, break, and connect many forms of techno-social dynamics present on various levels of space, including public, intimate, and private, through ubiquitous screens and *bangs*. Similarly, the redefinition of the boundary between work and leisure is another example of the shift in the notions of private and public space engendered by wireless technologies. Not only are the

sites where work and leisure are engaged blurred through various forms of distributed work, but shifts in the form of leisure also blur the boundary between private and public.

As the basic notion of private and public changes in society, the individual human (dis)connection with others is also perceived differently by each constituent of the society. Notions of private and public spheres are about connection and disconnection from others and control over these two processes. Mobile media challenge our notion of this fundamental human interconnection. Mobile media creates new opportunities for spatial experiences that are constantly recreated at the intersection of people, place, and technology.

Acknowledgements

Dr Marcus Foth is the recipient of an Australian Postdoctoral Fellowship (DP0663854). The authors would like to thank Harvey May, Michael Keane, Natalie Collie, Gerard Goggin, and Melissa Greg for their valuable assistance with this article.

References

[1] Bygdas SS, Myhre O, Nyhus S, Urnes T, Weltzien A. Bubbles: Navigating Content in Mobile Ad-Hoc Networks. Norway: Telnor; 2003.

- [2] Dholakia N, Zwick D. Mobile Spaces and Boundaryless Spaces: Slavish Lifestyles, Seductive Meanderings or Creative Empowerment?; 2003 <http://ritim.cba.uri.edu/wp2003/pdf_format/HOIT-Mobility-Technology-Boundary-Paper-v06.pdf>
- [3] Fortunati L. The Mobile Phone: Towards New Categories and Social Relations. *Information, Communication and Society* 2002; 5(4): 513-29.
- [4] Ishii K. Internet Use via Mobile Phone in Japan. *Telecommunications Policy* 2004; 28(1): 43-58.
- [5] Kopomaa T. Speaking Mobile: Intensified Everyday Life, Condensed City. In Graham S, editor. *The Cybercities Reader*, London: Routledge; 2004, p. 267-72.
- [6] Ling R. *The Social and Cultural Consequences of Mobile Telephony as Seen in the Norwegian Context*. Norway: Telnor; 2001.
- [7] Ling R. *The Social Juxtaposition of Mobile telephone Conversations and Public Spaces*. Norway: Telnor; 2001.
- [8] Townsend AM. *Life in the Real: Mobile Telephones and Urban Metabolism*; 2003 <<http://urban.blogs.com/research/JUT-LifeRealTime.pdf>>
- [9] Anderson K, Qiu Y, Whittaker A, Lucas M. Breath Sounds, Asthma and the Mobile Phone. *The Lancet* 2001; 358(9290): 1343-4.
- [10] Steggles N, Jarvis MJ. Do Mobile Phones Replace Cigarette Smoking Among Teenagers? *Tobacco Control* 2003; 12(3): 339-40.
- [11] Kimata H. Enhancement of Allergic Responses in Patients with Atopic Eczema/Dermatitis Syndrome by Playing Video games or by a Frequently Ringing Mobile Phone. *European Journal of Clinical Investigation* 2003; 33(6): 513-18.

- [12] Newell A. A Mobile Phone Message and Trichomonas Vaginalis. Sexually Transmitted Infections 2001; 77(3): 225.
- [13] Maslog-Levis K. Mobile phone medical system processing tsunami infection victims; 2005 <<http://www.zdnet.com.au/news/communications/soa/Mobile-phone-medical-system-processing-tsunami-infection-victims/0,130061791,139178075,00.htm>>
- [14] CBS News. Dems Slam Katrina Medical Response; 2005
<<http://www.cbsnews.com/stories/2005/12/10/katrina/main115778.shtml>>
- [15] McKenna C. Mobile Phones Go Molar; 2002
<<http://student.bmj.com/issues/02/08/news/266a.php>>
- [16] Fallows D. The Internet and Daily Life. Pew Internet and American Life Project; 2004 < www.pewinternet.org/pdfs/PIP_Internet_and_Daily_Life.pdf>
- [17] Horrigan JB. Cities Online: Urban Development and the Internet. Washington,DC: Pew Internet & American Life Project; 2001
- [18] Horrigan JB, Rainie L, Fox S. Online Communities: Networks that nurture long-distance relationships and local ties. Washington, DC: Pew Internet & American Life Project; 2001
- [19] Urry J. Social networks, travel and talk. The British Journal of Sociology 2003; 54(2): 155-175.
- [20] Davies W. Proxicomunication: ICT and the Local Public Realm. London: The Work Foundation; 2004
- [21] Couldry N, McCarthy A. MediaSpace: Place, Scale and Culture in a Media Age. London: Routledge; 2004
- [22] Silverstone R, Sujon Z. Urban Tapestries: Experimental Ethnography, Technological Identities and Place (No. 7). London: Media@lse, Department of

Media and Communications, LSE; 2005.

[23] Okabe D, Ito M, Chipchase J, Shimizu A. The Social Uses of Purikura: Photographing, Modding, Archiving, and Sharing; 2006

<<http://www.itofisher.com/mito/okabe.purikura.pdf>>

[24] Central Intelligence Agency. The World Factbook: Korea, South; 2007

<<https://www.cia.gov/library/publications/the-world-factbook/geos/ks.html>>

[25] OECD. OECD Broadband Statistics to December 2006.

<http://www.oecd.org/document/7/0,3343,en_2649_37441_38446855_1_1_1_37441,00.html#Data2005>

[26] International Telecommunication Union. World Information Society Report. Geneva: International Telecommunication Union; 2006.

[27] The World Bank. Korea as a Knowledge Economy: Evolutionary Process and Lessons Learned - Overview. Washington, DC: The World Bank; 2006.

[28] Bureau of East Asian and Pacific Affairs. Background Note: South Korea. U.S. Department of State; 2007 <<http://www.state.gov/r/pa/ei/bgn/2800.htm>>

[29] Fujita M, Thisse J-F. Economics of agglomeration: cities, industrial location, and regional growth. New York: Cambridge University Press; 2002.

[30] Gelézeau V. The Republic of Apartments (아파트 공화국). Seoul: Humanitas (후마니타스); 2007.

[31] Population & Social Statistics Bureau. Local Population and Population Density; 2007

<http://www.index.go.kr/gams/stts/jsp/potal/stts/PO_STTS_idxSearchMain.jsp?idx_cd=1007>

- [32] Kim SH. The Paradox of Public Space in the Asian Metropolis; 2005
<http://archurban.maru.net/bbs/view.php?id=article&page=1&sn1=&divpage=1&sn=off&ss=on&sc=on&select_arrange=headnum&desc=asc&no=45>
- [33] Vanderbilt T. Circuit City. Artforum 2005; 44(3): 65-6.
- [34] Arup. The biggest pixels in the world clad the Galleria West shopping centre, Seoul; 2004 <http://www.arup.com>
- [35] Kim SH. Venice Biennale Korean Pavilion City of the Bang; 2004
<<http://www.korean-pavilion.or.kr>>
- [36] Choi JH. Approaching the Mobile Culture of East Asia. M/C Journal 2007; 10 (1) <<http://journal.media-culture.org.au/0703/01-choi.php>>
- [37] Choi JH, Greenfield A. To connect and flow in Seoul: Ubiquitous technologies, urban infrastructure and everyday life in the contemporary Korean city. In: Foth M editor. Urban Informatics: Community Integration and Implementation, Hershey, PA: IGI Global; 2008, in press.
- [38] Green N. On the Move: Technology, Mobility, and the Mediation of Social Time and Space. The Information Society 2002; 18 (4): 281-92.
- [39] Urry J. The Complexities of the Global. Media Culture & Society 2005; 22(5): 235-54.
- [40] Lee J. Acromegalic IT Korea. iNews24; 2007 <<http://www.inews24.com>>
- [41] Cho M. Two Houses in Seoul. Shanghai: Holcium Forum 2007.
- [42] Hazan S. The Virtual Aura and the Digital Flâneur. Proceedings, EVA2001, Glasgow, July 25-28.
- [43] Atelier Hitoshi Abe. Megahouse; 2006
<<http://www.artcenter.edu/openhouse/projects/megahouse.html>>

- [44] McLuhan M. *Understanding Media: The Extensions of Man*. London: Routledge and Kegan Paul; 1964.
- [45] Giddens A. *The Constitution of Society: Outline of the Theory of Structuration*. Los Angeles, CA: University of California Press; 1984.
- [46] Meyrowitz J. *No Sense of Place: The Impact of Electronic Media on Social Behavior*. New York: Oxford University Press; 1985.
- [47] Castells M. *The Rise of the Network Society*. 2nd ed. Oxford, UK: Blackwell Publishers; 2000.
- [48] Greenfield A. *Everyware : the dawning age of ubiquitous computing*. Berkeley, Calif.: New Riders; 2006.
- [49] Foth M, Sanders P. Impacts of Social Computing on the Architecture of Urban Spaces. In Aurigi A, De Cindio F, editors. *Augmented Urban Spaces: Articulating the Physical and Electronic City*. Aldershot, UK: Ashgate; 2007
- [50] Satchell C. Design, Mobile Phones and the Digital Generation. *The Telecommunications Journal of Australia* 2004; 54(3): 51-5.
- [51] Foth M, Choi JH. Exploring the Local Impact of Web 2.0 Paradigms on the Communicative Ecology of Urban Residents. Paper presented at the *Towards a Social Science of Web 2.0*: York, UK; 2007

Vitae

Jaz Hee-jeong Choi is a doctoral candidate in the Creative Industries Faculty at Queensland University of Technology. Her research interests are in playful technology, particularly the ways in which various forms of playful interaction are designed, developed, and integrated in an Asian context. Her current

research is on the *trans-youth* mobile play culture of South Korea at the intersection of play, culture, technology, people, and urban environment. Her website is located at www.nicemustard.com

Marcus Foth is a Senior Research Fellow at Queensland University of Technology (QUT), and a 2007 Visiting Fellow at the Oxford Internet Institute. His research informs new approaches towards interactive urban technology guided by media, communication and social studies. Dr Foth has published over forty articles in journals, edited books, and conference proceedings in the last four years, and is currently editing a book on Urban Informatics to be published in 2008. He received a PhD in digital media and urban sociology from QUT. He is a member of the Australian Computer Society and the Executive Committee of the Association of Internet Researchers. His website is located at www.vrolik.de

Greg Hearn is Research Professor in the Creative Industries Faculty at QUT. His work focuses on policy development and R&D for new technologies and services in the creative industries. In 2005 he was an invited member of a working party examining the role of creativity in the innovation economy for the Australian Prime Minister's Science Engineering and Innovation Council. He has authored or co-authored over 20 major research reports and a number of books, including, *Public policy in knowledge-based economies* (2003: Edward Elgar) and *The knowledge economy handbook* (2005: Edward Elgar).