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The City is Connections: Seoul as an Urban Network

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ABSTRACT: With the rise of ubiquitous computing in recent years, concepts of spatiality have become a significant topic of discussion in design and development of multimedia systems. This article investigates spatial practices at the intersection of youth, technology, and urban space in Seoul, and examines what the author calls ‘transyouth’: in the South Korean context, these people are between the ages of 18 and 24, situated on the delicate border between digital natives and immigrants in Prensky’s (2001) terms. In the first section, the article sets out the technosocial environment of contemporary Seoul. This is followed by a discussion of social networking processes derived from semi-structured interviews conducted in 2007-8 with Seoul transyouth about their ‘lived experiences of the city.’ Interviewees reported how they interact to play, work, and live with and within the city’s unique environment. The article develops a theme of how technosocial convergence (re)creates urban environments and argues for a need to consider such user-driven spatial recreation in designing cities as (ubiquitous) urban networks in recognition of its changing technosocial contours of connections. This is explored in three spaces of different scales: *Cyworld* as an online social networking space; *cocoon housing* – a form of individual residential space which is growing rapidly in many Korean cities – as a private living space; and *u-City* (ubiquitous City) as the future macro-space of Seoul.

KEYWORDS: *Ubiquitous technology, Seoul, Social Networking, Cyworld, u-City, Cocoon housing, Urban informatics*

1. Introduction

As the poet John Donne remarked, ‘No man [*sic*] is an island’ (2004, p. 62). The statement conveys a generally accepted notion that people have an inclination, as well as a basic human need, to be connected with others (*cf.* Baumeister & Leary, 1995). However, degrees and intensity of connectivity vary. Social networking sites (SNSs) make more visible social connections, especially amongst young people. The reasons for using SNSs also vary. For example, *LinkedIn* is predominantly used for professional networking whereas *MySpace* operates on the border of business and leisure. The latter can be used to promote a user’s professional endeavours as well as to manage on and offline social connections. A good example is bands using it to break through in the market as well as to communicate with their fans. In this respect, identity is inevitably the ground on which online social networking activities grow. As self-definition is inherently context specific, ‘interaction is intimately connected with settings in which it occurs’ (Dourish, 2001). Socioculturally specific elements are evident in the design and uses of *Cyworld* (www.cyworld.com), the largest social networking site in South Korea (hereafter Korea) (Choi, 2006). Cultural patterns are also conspicuous in mobile phone usage – for instance, the girls’ pager revolution (Fujimoto, 2005) and mobile email use amongst Japanese youth (Ito & Okabe, 2004). Scholars across disciplines have noted the global convergence of public and private platforms that are supported by network technologies (Benkler, 2006; Castells, 1996; Katz & Aakhus, 2002).

With this understanding, the article investigates the connection between spatial practices and urban social networking in Seoul. As one of the most connected, densely populated, and rapidly transforming metropolises in the world, Seoul is often portrayed in global media in terms of ‘technological fetishism and techno-orientalism’ (Hjorth & Koo, 2007) or alternatively the hot test-bed of ‘digital Asia’ where the latest technologies coexist – however transient the existence may be – with some of the oldest cultural traditions. The result of such a convergence is a unique technosocial environment that is constantly recreated by newer technologies and social practices.

If Seoul's environment is so unique, what effect does this have on the lived reality of the population? How does the complex intermix of mobility and ubiquitous media connect users of the city? These are important issues to consider, particularly in the context of inter-disciplinary research into communication, urban design and social connectivity, which together create strong pillars of future multimedia environments. By reflecting on the localised development of 'urban network lifestyle' in a Korean context, this article provides useful and comparable knowledge for future technological, social, and urban developments in different geographical and cultural milieux. In particular, the article argues for a need to consider user-driven spatial recreation in designing cities as urban networks in recognition of its changing technosocial contours of connections within each localised network. To achieve this, the article first examines the technosocial environment of contemporary Seoul. Then an analysis of interviews with Seoul transyouth presents experiential perspectives of the city. This is followed by a discussion of interviews with industry representatives of Cyworld, a *cocoon house*, and u-City to reflect on multilayered technosocial interactions as urban fabrics of Seoul, the city of connections.

2. The City: Seoul

Nearly half of the entire Korean population live in the capital city of Seoul, making it a massive economic engine contributing half of the national GDP together alongside the surrounding Gyeonggi Province (The World Bank, 2006). Seoul is also the capital of the 'broadband miracle' (Hazlett, 2004), home to the electronic corporations such as Samsung and LG. Approximately 80 per cent of Korean households own at least one computer with broadband internet (MIC, 2008). However, Seoul was not always a locus of economic wealth and technology. The damage from the Korean War (1950-3) soon after the end of Japanese annexation (1945) placed the country at the bottom of the global political and economic scale. At that time Korea was comparable with poor countries in Africa (*ibid*). However, within several decades, the country rose to be the eleventh-largest economy in the world (Bureau of East Asian and Pacific Affairs, 2007). With rapid development came infrastructural reforms: political, social, and physical.

Through turbulent reformations, Korea has transformed significantly: economic growth delivered cultural revitalisation and cultural adaptation. Opportunities for regaining traditional values were a welcome change (people were prohibited from practicing such values during the Japanese occupation, for example). However, the authoritarian government's radical reforms under the name of modernisation forced Koreans to adopt ideologies from more economically advanced countries, particularly those from North America and Europe, which were often contradictory to traditional ones. Such confusion was also evident in urban (re)developments, particularly in Seoul. The mayor of Seoul in the late-1960s, Hyeon-ok Kim famously stated, 'the city is lines,' mirroring the massive reconstruction of the city during his administration. Many, but not all old winding roads and unstructured commercial/residential clusters were quickly replaced with straight lines of asphalt and concrete. For example, apartment megaplexes with an identical matchbox-like exterior have become an iconic feature of Seoul as a modern city (Fig. 1); further, such a dense urban residential distribution contoured by apartment living has been reported to have contributed significantly to the rapid penetration of broadband Internet in Korea by allowing relatively easy deployment and close proximity to telecommunication exchanges (Jyoti & Lee, 2004; Lau, et al., 2005).



Figure 1. Apartments in Seoul

OECD reports that Paris and Seoul are the top two cities with the highest population density amongst small region with 20,501 and 16,534 per sq. kilometer, respectively (OECD, 2009, p. 17). In fact, if we are to accept the dense, apartmentalised residential environment as one of the fundamental strengths for rapid adoption of broadband Internet by Koreans, then we can aptly expect similar

observations in the case of Paris. However, the figures show divergence from such an expectation. ITU's Digital Opportunity Index (DOI) reveals that while Korea and France share a similar level of opportunity, Korea demonstrates a more advanced level of infrastructure, and even stronger degree of usage, placing Korea at the top with a DOI of 0.80 and France at the 26th place with DOI of 0.64 (International Telecommunication Union, 2007, p. 37). This suggests that while architectural environment facilitates diffusion of network technology, an equally – if not more – significant role is played by sociocultural elements.

In this respect, Valérie Gelézeau offers an evocative insight in 'The Apartment Republic: Korean Apartments in the Eyes of a French Geographer,' claiming that there are fundamental differences between the public's perception of apartments in France and Korea, particularly in their image as a residential space and reasons for occupancy (Gelézeau, 2007b, pp. 75-77). For example, although the literal translation of the Korean term *danji* (megaplex) in French would be *grand ensemble* or *cit *, the French terms convey negative connotations and refer to a problematic and/or precarious area emphasising marginalisation and exclusion. In contrast, while Seoul has a physical dimension that is approximately six times larger than Paris, apartments are rarely peripheral but often central to the dynamics of the city and telecommunication networks (*ibid*). This situation is not only due to the design of the urban infrastructure as planned and managed by the state. Rather, it is attributable to the Korean public's imagining of the apartment – similarly to digital technology – as a symbol of modernity, security, and thus adequately respectable social status that is equivalent to the urban (upper) middle class (*ibid*).

Gelézeau thereby argues that simplistic assumption that population density was the main force behind the proliferation of apartments in Korea ineffectively negates the complexity of the situation; rather, she claims that it is the interplay of socio-political contexts that has been creating the ever-evolving configuration of the city in a way that is distinctively Korean (*ibid*). This argument is convincing and resonates strongly with the notion of convergence in framing the development of network society, as opposed to the presupposed hegemonic relationship between technology and society apparent in technological- or social-determinism.

Just as the apartment metamorphosed from *housing* to a *habitat* (Gelézeau, 2007a), network technology also has transformed for the Korean public from a conceptually external, autonomous domain to be adopted for modernisation to an essential embodiment of habitus and thus more broadly, of the habitat that is Seoul. Indeed, approaches to understanding this city have been particularly complicated by its rapid modernisation process, which has mixed old and new without adequate opportunities for reflection. A former Vice Mayor of Seoul, Hong-bin Kang aptly frames the city's complex techno-social configuration by noting its evidently 'paradoxical combination' of 'too much planning' and 'too little planning' (Kim, 2005). In this respect, I have previously described contemporary Seoul as a city in flux, of screens and bangs (Choi, 2007). This notion is discussed in detail in the following paragraphs.

Western technology, Eastern spirit was a prevalent slogan in Korea in the twentieth-century. This reflects a desire among Koreans to adopt, copy, and reappropriate Western technology and science (Shin, 2003), a symbol of modernity and supremacy in global economy. However, unlike Western science, Western values were portrayed as detrimental to the preservation of Korean cultural traditions and Korea's positioning in the global market (Yoon, 2003). In this regard, technology has come to symbolise modernisation and a means to accomplish productivity in labour, a socially positive attitude presumably leading to the nation's growth. Bright and colourful digital screens became visual spectacles of Seoul urbanscape, conveying rising consumerism (Debord, 1977), and a sense of pre-eminence as the capital. Furthermore, screens are becoming increasingly conspicuous in varied scale – from the façade of an entire building (as seen in the Galleria Department Store in Apgujeong, of which the façade is made up of 4330 light-reactive, programmable discs that are capable of generating 16 million colours) to small TV screens in subways (Fig. 2) and elevators, as well as tiny screens on mobile phones.



Figure 2. Screens in subway

To a somewhat limited extent, these screens together create a spatial experience of ubiquitous media in the city, thereby emphasizing the multiplicities of reality – both mediated and non-mediated – at any given moment. Therefore, screens at their core act as the visual interface to a more profound sensorial and conceptual experience complemented by the bang culture, as I shall explain in the following section.

If screens visually augment space, *bangs* (rooms) do so sensorially by allowing their participants to recreate or participate in recreating the space. In discussing the prevalence of screens in Seoul the circuit city, Vanderbilt (2005) mentions the equally prevalent number of bangs while also noting the transitional spatial quality that bangs provide between public and private realms. However, the notion of a bang requires greater discussion beyond a simple binary confluence of public and private, as the bang is one of the most fundamental pillars of socialisation in Korea. The consideration must acknowledge the significant role bangs play in Korean culture, especially in relation to spatiality, communication, and the sense of selfhood:

1. Spatiality: Bang is often literally translated to ‘room.’ This is correct but only to an extent that both words refer to a confined space, which mainly denotes the physical or geometric dimension of the space. Such literal

translation of bang to room overlooks the fundamental difference between the Korean way of creating a place (in other words, social construction of space) and that of the West. While a room is perceived in Western cultures as a pre-provisioned space with a specific purpose, bang is considered to be a flexibly provisioned multifunctional space, which metamorphoses into a context-specific space according to the occupant's will (Choi & Greenfield, 2009, pp. 26-7). For example, a bang changes into the bedroom by folding out *yo* (Korean futon); when the *yo* is folded up and put away in a cupboard, a low table can be put out to turn the space into the study; when the table is set up with food, the space becomes the dining room. Although modern housings have changed to conform to Western architectural traditions and thus contain designated spaces—dining room, living room—in smaller dwellings, the traditional spatial practice of bang is still maintained.

2. Communication: A traditionally collectivist (Hofstede, 2006), interdependent (Markus & Kitayama, 1991), high-contextual communication (Hall, 1976) society, Korea is also defined as a polychronic culture in which time is perceived to be flexible and fluid rather than discrete and fixed (seconds/minutes/hours etc) and thus is subordinate to harmonious maintenance of selective relationships (*ibid*; Gudykunst & Matsumoto, 1996). This suggests the possibility of flexibly creating manifold spatial realities according to the multiple temporal realities one needs to manage at any given time. In turn, this implies the possibility of utilising communication technologies to create such multiple spatial realities, which in the Korean context, manifest in a form of bangs – virtual or not.
3. Sense of Selfhood: In such an environment where there is a need for one to be 'present' in multiple spaces at once, it is natural to assume and practice the notion of the distributed self. This relates directly with the notion of 'interdependent self-construal' (Markus & Kitayama, 1991), which refers to the self being defined not as an autonomous entity but in relation to the social environment, or one's in-group members (Kim, 2002, p. 73). In this

respect, the adoption of and adaptation to network technologies would be different for Korean culture as compared to Western cultures, where the self is perceived as an autonomous entity. It would be then plausible to say that the configuration of network technology is fundamentally interrelated with the locally specific cultural characteristics of socialisation in Korea, thereby influencing the prompt and substantial embedding of network technology in everyday life.

Therefore, in a simplistic sense bangs indeed converge public and private realms in Korean society as Vanderbilt (2005) observes. More profoundly, however, bangs signify inclusion, sharing, and metamorphosis through which one's existence is validated on the border of belonging, an aspect that has been made particularly conspicuous with the contemporary development of network technology. The commercial sector has promptly embraced this aspect. Walking in the streets of Seoul (or any urban districts of Korea), one would frequently come across many different types of commercial bangs such as PC-bang, *Norae*-bang (Karaoke), and DVD-bang, often as an eclectic collection contained within a single building. As Kim states in the curatorial statement for the 9th International Architecture Exhibition 2004 Venice Biennale, 'The bang is an incarnation of the room, the house and the city, but it does not belong to any of them' (Kim, 2004). Such typological obscurity of bang is best exemplified in the popular *Jjimjil*-bang, a large-scale commercial establishment, which typically consists of multiple types of bangs such as themed sauna-like rooms, baths, sleeping rooms, snack bars, and a PC-room. Screens are a common feature of *jjimjil*-bang: many sub-bangs have televisions installed, and people commonly carry their mobiles into them. Considering some sub-bangs have temperatures of over 70°C, ubiquity of screens in this environment shows profound desire among Koreans for constant connection on the border of many belongings and (un)belongings. This aspect is particularly evident amongst Korean youth.

3. People: Transyouth

Young people tend to use and experiment with new technologies more than older people. They are familiar with digital technologies. At this point, I would like to

bypass the debate of applicability of the now broadly used expression, ‘digital native’ (Prensky, 2001). The term is commonly used to refer to a distinctive generation born in the digital era (in the last 10-15 years of massive digitisation) and thus share relevant sensibilities that older generations may find novel and even challenging. However, such a generational and homogenising approach to users raises concerns for its theoretical validity (Bayne & Ross, 2007; Owen, 2004). However, the proliferation of social networking sites, as well as participatory (Jenkins, et al., 2006), DIY (Hartley, 1999) and remix cultures (Lessig, 2005) amongst youth indicate their desire and competency to incorporate digital technologies into everyday life, and be constantly connected to their social networks via technological means; they perceive such connection as a given social parameter. For my research project on urban mobile play culture of young Seoulites, I selected a demographic between the ages of 18 and 24. I call them *transyouth* to refer to their transitioning from youth to adulthood (*cf.* Arnett, 2004 for a similar understanding of extended adolescence or 'emerging adulthood'). This is a period when they are temporarily and partially emancipated from rigid social traditions; more specifically, it refers to the in-between period bridging student and worker identity. Transyouth have been pioneers of network communication in Korea (Choi, 2008); they have experienced both analogue and digital technologies growing up in a period of rapid urbanisation, digitalisation, and globalisation.

A total of 44 transyouths (23 females and 21 males) were recruited; the research approach incorporated surveys, photo-sharing and daily activity diaries. For the purpose of this article, I draw on the data from interviews, the total duration of each being 2 – 2.5 hours. Details of the specific process and outcomes of this part (specifically methodology and empirical findings) have been discussed elsewhere (Choi, 2009 forthcoming, 2009 in press) while key reflections germane to this article are presented here. During the interviews the research participants indicated being Internet-savvy and open (to other cultures and ideas) as distinctive features of transyouth. Contrary to my original hypothesis that the transyouth period was not a flexible ‘in-between playtime’ linking two social identities of student and worker, I discovered that the period is a ‘go-between prep-time’ during which they prepare for the uncertainty of the future. The uncertainty was

evident in many fundamental facets of selfhood – their sense of who they were, or who they were becoming – owed much to the uniquely intense geographical, technological, and social changes that constantly occur in Seoul. In order to overcome such ontological insecurity, they strive to create a sense of continuity through social networking: in spatial terms, the cycle starts in a wide social field of online SNSs (Cyworld); then it moves to a tighter and more direct communication space created by mobile phone communication (texting and voicecalling); finally, the most intimate and secure place (to express themselves without a great need to perform their socially-framed roles (Goffman, 1975)) is created through their Face-to-Face (FtF) interactions in places that are affordable to enter/stay and which are socially acceptable in a form of ‘coolness,’ such as cafés in trendy precincts like Hongdae and Shinchon. Carefully selecting the place for interaction is an important issue for them as such interactions are recorded on their SNSs and shared with the involved parties and others: at this point, their social networking process forms a cycle.

Forming multiplicities of such cycles with others within one’s social network invokes a sense of social continuity in which the self is updated, shared, and thus assured. As I have argued elsewhere (Choi, 2009 in press), the notion of the bang resonates considerably here, as bangs signify inclusion, sharing, and metamorphosis, facilitating and encompassing various scales and types of such multiplicities. With the assumed ‘always-on’ connection, the space of urban social networking for Seoul transyouth is ubiquitously accessible and instantly (re)created in a form of physical and/or virtual bang. Transyouth actively engage themselves in using, creating, and recreating bangs at intersections of their cyclic interactions within the network of mediated and non-mediated reality layers. In this sense, the phenomenological reality for transyouth is a network of technosocial layers.

4. Layers: Technosocial

To further examine the interrelation between Seoul transyouth and the business sectors as both users and constructors of the city, this section reflects on the interviews with industry representatives who are involved in designing and/or

providing technosocial spaces in Seoul: Yong Jun Hyoung, the founder of Cyworld now the CEO of Enfra Networks; Jong-soo Jeong, the owner of a cocoon housing in Shinchon, Seoul; and Dr. Jong Sung Hwang, the director of the National Information Society Agency (NIA) leading the u-City project. The selection of these three spaces serves a two-fold purpose: first, these places are closely integrated in transyouth's life (Cyworld is widely and frequently used; many live in cocoon houses; u-City as a national agenda will affect many cities in Korea, particularly Seoul and surrounding cities); second, they reflect three loose categories of dwelling – public (u-City), private (cocoon house), and in-between (Cyworld). Each industry representative was interviewed for an hour. The interview questions addressed the six areas of who, where, what, when, why, and how of the current and future Seoul in technological and social domains in relation to their business practices and trajectories.

4.1 Cyworld

It is hard, if not impossible, to delineate online social networking in Korea without also discussing Cyworld, the most prominent multimedia SNS in the country. Approximately 90 per cent of Korean Internet users in their twenties are members of Cyworld (Yoo, 2005). For them, Cyworld is a quotidian and integral part (Choi, 2006) of their communicative ecologies (Foth & Hearn, 2007). It is a private space where they can express themselves; at the same time, it functions as an augmented self, which, as a node within a technosocial network, must entail performative aspects. Its openness to various types and scales of social ties fundamentally necessitates the user to evaluate the level of performativity applicable to such a wide range of audience. In this respect, Cyworld continues its appeal to Koreans: it allows the user opportunities to flexibly and tactically employ low and high-contextual communication through direct (text) and indirect (image, audio, and avatar) languages to codify their desire for further interaction with their close(r) ties on their page known as a *mini-hompy* (Choi, 2006) (Fig 3). Such codification can be useful when the user wishes to discuss a particular issue through other communicative channels without explicitly disclosing the issue to everyone on their buddy-list (*1-chon* list in Cyworld). As well as codification, 'courtesy' was found to be another main reason why transyouth use more multimedia elements on their personal pages (mini-hompies) compared to their

mobile phones. As one of the participants said, “Cyworld is a place for people to come. It has to be presentable if not inviting. The mobile phone is just for me. I’m the only one who hears the ringtone.”

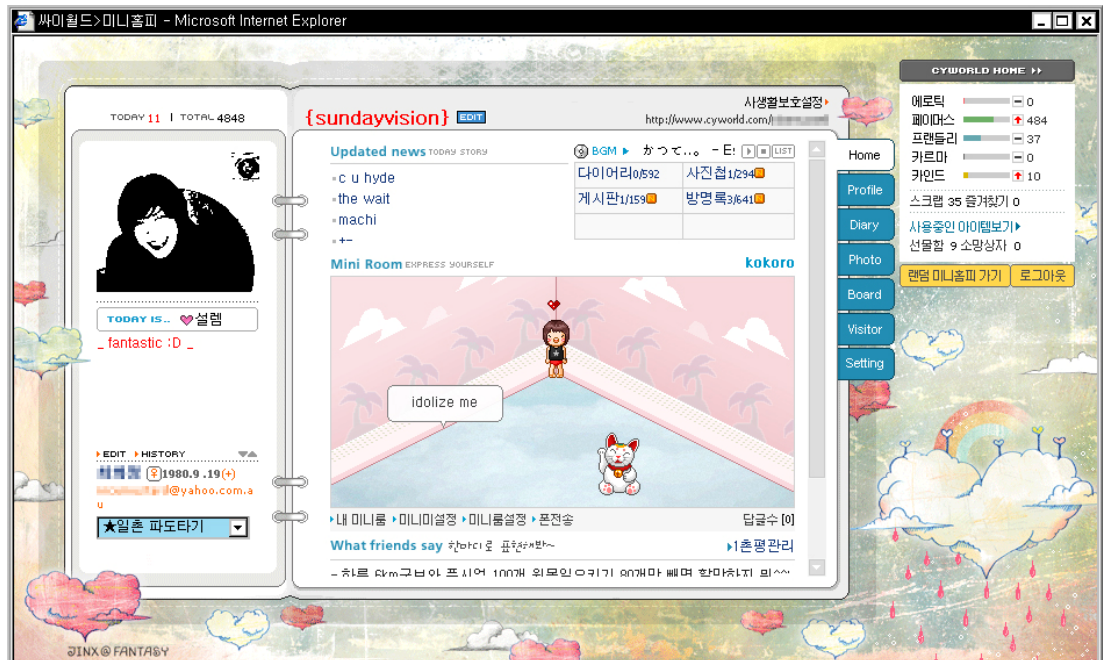


Figure 3. Mini-hompy in Cyworld

In his view, Hyong, the founder of Cyworld, noted that its initial purpose – originally named ‘people square’ – was to facilitate trust-oriented information sharing amongst people (precisely in the transyouth demographic – university students and young workers) based on what he calls *personal resource program*. He stated, “Personal resource is unique. It accumulates as the person ages. Everyone has it regardless of how much financial resource they may have access to. The personal resource is only exchanged through social networks.” Furthermore, ‘people square’ had a human resources function with which the user could search through one’s contacts to locate the most suitable candidates for a particular employment position, for example. Therefore, while Cyworld was situated at the seam between the business and social, its initial design appears to have leaned towards pragmatism more than pleasure. According to Hyong, the affiliation with SK Communications in 2003 has steered Cyworld away from its original trajectory since it was founded in 1999, essentially to widen the user demographic and increase the revenue channels. With this understanding, it is plausible to suggest that the key force behind recreating Cyworld as a social space was the users – transyouth – themselves. This is in much resonance with the girls’

pager revolution in Japan (Fujimoto, 2005) where young Japanese girls turned the pager from a business-oriented to a social and playful medium to connect with their close social ties. The rising presence of the girls in public spaces was found to be intricately interconnected with the rising technological paradigm shift of the pager. Similarly, young Koreans in need of their own space of connection saw an opportunity to create such a space with the existing technological (e.g. broadband and Cyworld as a system) and social (e.g. globalisation and ontological insecurity) infrastructures, not only leading to Cyworld becoming an SNS embedded in their everyday life today, but also to a paradigm shift of social networking in contemporary urban Korea.

4.2 Cocoon House

A similar shift has been occurring in the domain of residential properties development, led by the industry in response to needs and desires arising in emerging lifestyles of young Koreans. A cocoon house is an example of such a shift. Although it is also known as *livingtel* or *goshitel*, ‘cocoon house’ is most descriptive of this particular space. It is a new type of small residential establishment that has been spreading rapidly around Korea, especially where a high volume of young and mobile populations are present. There are clusters of cocoon houses around universities, business districts, and subway stations in large cities, particularly in Seoul. Similar with bangs, many cocoon houses are part of a building in which differently-purposed spaces coexist – for example, the building may contain a restaurant on the ground floor, and different bangs on the floor above with a cocoon section somewhere in between. Jeong, the owner of a women-only cocoon house in Seoul confirmed in my interview that these residences are essentially targeted at young people. In fact, a synonymous term, *goshitel* derived from *goshiwon*, a rental-room housing that caters for young people preparing for judicial, civil or similar examinations. Like *goshiwon*, a cocoon house is extremely small in size; the total area of each room commonly varies from approximately 6.5 to 15 sq. metres inclusive of some shared spaces such as the corridor. This is an advanced form of *goshiwon* with modern facilities including a broadband connection, cable television, security cameras, swipe-card access, and a private bathroom in some cases. The room is fully furnished with a

single bed, a desk/chair, mini-refrigerator, a cabinet, and a wardrobe, necessitating a very high in spatial efficiency (Fig 4).



Figure 4. Example of a cocoon house

The kitchen (with basic utensils and food), dining room and laundry are shared with other tenants and maintained by the management. This convenient and accessible housing, especially for young and mobile people, requires no need to save for a deposit, purchase furniture, or organise Internet or cable TV connections. Naturally, cocoon housing appeals to both domestic and overseas university students, as well as young unmarried workers living alone and unable to afford more private and spacious accommodation. As the notion of share-housing with strangers remains uncommon in Korea, a growing number of young people are living in cocoon houses, paying between 300,000 to 700,000 KRW (approximately US\$280 - 650) per month.

It should be noted that similar concepts have been spreading widely in the hospitality industry, initially in Japan followed by the rest of the world. Known as capsule, pod, or cube hotels, they provide small, no-frills yet ultramodern, broadband-connected cubicle-like rooms at a lower cost than conventional hotels

(The Economist, 2007). The Qbiq, citizenM, and Yotel are examples of such hotels flourishing in Europe. Japan's *Manga Kissa* is a slightly different type of establishment containing booths that are equipped with broadband connected entertainment systems and single mattresses as well as access to a large library of *Manga*, Japanese comics. Although the cocoon house shares similarities with mini-hotels and Manga Kissa, status of the cocoon house as a socially accepted long-term residential establishment makes it a unique phenomenon. Single-person households are growing rapidly in number in Korea and are expected to make up nearly 25 per cent of the entire Seoul households by year 2030 (Korea National Statistics Office, 2008). Perceptibly, there will be numerous changes occurring in many fundamental social concepts, such as 'home' and 'family.' This is also evident in the sense of loneliness felt by the research participants in their small rooms, and the consequent excessive use of media to alleviate such a feeling by immersing themselves in media such as games or aimless net-browsing, or connecting to others on and offline. Furthermore, the extremely limited spatial availability discourages the occupant from having physical social interactions in their cocoon house. This suggests an upcoming broader paradigmatic shift in social constitutions. For example, reinterpretation of Oldenburg's notion of *first place* (home), *second place* (work), and *third place* (community interaction) place is one of the areas we would need to consider in this regard, particularly in relation to de-clustering of the city (blurring of home, work, and play spaces) and the urban nomadism supported by hyper consumerism of 24/7 service economy and ubiquitous computing. Foth *et al.* (2008) have explored the notion of network sociality in an urban village neighbourhood. The need to reconceptualise social networking – more specifically, the fluid oscillation between the collective and networked sense of community membership facilitated by network technologies – is crucial in imagining localised development of urban technosocial environments, and on a broader level, of cities.

4.3 u-City

u-City is the driving force of future urban development in Korea conceived by National Information Society Agency (NIA). According to the organisation's director Hwang, NIA is a "think-tank agency" providing advice to the Korean

government regarding the future ICTs and ICT-related policy trajectories. The prefix u- stands for ubiquitous. The u-City concept envisages the city as a holistic and intelligent system of ubiquitous technologies (*cf.* Hwang, 2009). u-City can be developed through three stages, which are also its three foundational qualities: real-time data gathering; context-awareness (in processing the gathered data to provide the optimum solution within the given context); and finally, autonomy in its operation, turning the city into an intelligent and autonomous network system. Hwang stated that this was a unique project, which differs from similar projects around the world, most of which predominantly focus on establishing physical network infrastructures. He predicted that the next ten years would see Korea reaching the first phase of the u-City development. Though such a short timeframe may sound overly ambitious for many, he asserts that its possibility is high because of two reasons: firstly, the current policy is favourable to building new technological infrastructures (e.g. next generation broadband networks); and secondly, both political and commercial sectors show intense propulsion in deploying new technologies, understanding yet essentially overlooking possibilities of failure. This is due to Korea's situation in the global economy. As a small nation with limited technical advantages and resources, Korean government and businesses are forced to roll out their products and services as quickly as possible because extensive testing and risk management are likely to cause delays, and thus decreased competitiveness at the international and domestic level. This also resonates with the well-acknowledged *ppalippali* (hurry hurry) ethos of the Korean public, who in turn are eager to adopt and adapt the 'next big thing.'

Hwang emphasised that u-City still remains at a conceptual level considering its embryonic state of development. Therefore, NIA limits its current discussion on u-City to formulating an authoritative definition of the term itself without much consideration to issues pertinent to other domains such as sociology and the humanities. Meanwhile various new towns around Korea have come up with their own definitions of u-City and started using the term to promote themselves at the national level. On a smaller scale, as discussed earlier in the article, various bangs provide typologically obscure spaces presenting opportunities for re/deterritorialisation (Deleuze & Guattari, 1987) for the user. Given this context,

it is plausible to say that despite the seamless environment that the current u-City project paints as the future the Korean city is likely to be built on infrastructural ‘messiness’ (Bell & Dourish, 2007, pp. 139-41) or ‘overspill’ (Choi & Greenfield, 2009, pp. 27-8). Hence for the u-City to be successfully established and sustainable, it must not only imagine the city as an efficient network system. Rather, even at a cost of decreased operational efficiency, it should ensure, if not endorse, possibilities for the users to recreate their own spaces at junctures of multiple technosocial realities. This is a concept that is lacking in the current u-City vision – understandably so in view of its pre-developmental stage – and must be given significant consideration in its further progress.

5. Conclusions

This article has examined the technosocial environment of contemporary Seoul, one of the most connected and rapidly transforming cities in the world. I have argued that growing up in the midst of continuous massive and rapid changes has produced ontological insecurity amongst Seoul transyouth. Such insecurity has engendered a fervent integration of network technologies in their everyday lives as a social device to counter the constant feeling of discontinuity and pressure. By utilising ubiquitous media within their daily lives, transyouth have appropriated autonomy in (re)creating personal spaces of social networking (*cf.* Choi, 2009 forthcoming; Choi, 2009 in press). Bangs are the manifestation of such spaces in both mediated and non-mediated forms. Bangs exist at junctures of multiple geographic, technological, and social reality layers, connecting people, technology, and place.

As the reality layers change for individuals en masse, broader social changes follow. Commercial ventures such as Cyworld and cocoon housing indicate that a demand for transformations in how society is imagined and lived is high and present. For Korean transyouth, demand is expressed by a propensity to flexibly create their own bangs to manage their activities as individual nodes within shifting technosocial networks. From the urban development perspective, such user-driven spatial recreations present both difficulties and new possibilities for future cities as urban networks. It is in this contested space at the crux between the users and authority (in the city as a not only technological and sociocultural but

also civic network) that ubiquitous technologies play a crucial role as the medium of negotiation. This negotiation continues to (re)shape the contour of micro- and macro-connections within the city.

What then, are the steps that all of us in our varied roles in the society can take to ensure better and sustained negotiation between the topdown and bottomup or macro and micro influences? As one would logically expect, there is no one-fits-all solution. At the core of this conundrum is a twofold issue of 'context and scale.' These two aspects are inherently inter-related. Measuring contextual importance is vital in terms of making – or rather, rebuilding – a locally specific technosocial environment (for example, as stated at the outset, the Korean context is certainly different to that of a different society). Amongst myriads of contextual elements that 'a single moment' encompasses, what are the most critical ones? By answering this question a generic model of the 'most relevant context' consisting of 'most pertinent contextual elements' can be established at a particular moment in time. This then invokes the question of scale: on what scale should the context applicable? Would it be individual / community / regional / national / global, for example? Furthermore, the issue is also emphasised as the scale of media convergence increases from multi- to ubiquitous media, consequently requiring design and development of media products to respond to diverse desires and needs of users. The potential difficulties of creating media contents that are interoperable across various platforms and adoptive of / adaptive to the user's ever-changing preferences of users is obviously immense. This is particularly accentuated in a large-scale construction of a contemporary place, as we have seen in the case of u-City.

However, the distributive nature of network technologies not only presents difficulties but also opportunities for novel methods of finding ways to identify, understand, and respond to such difficulties. The government's effort to open their communication channels to the citizen can benefit greatly from the democratic potential of network media. Therefore, the future of socioculturally sustainable communities will need to involve innovative ways to allow if not encourage voluntary participation in continued recreation of the community via communication technologies that are intuitively designed according to the locally

specific context. On a broader scale, through similar participatory civic engagement, the democratic potential of the city as an urban network could be realised to create positive changes in society at the local and global level. Many urban centres around the world are already facing an imminent and immanent era of ubiquitous media. In confronting the challenges of building a sustainable and desirable city for its users, we need to acknowledge existing technosocial infrastructures built and sustained by users themselves. The future of cities based on ubiquitous computing is not going to involve environments with seamless interactions but full of messy overspills – across people, technology, and place. The connections amongst these are the fabrics of the city without which it cannot exist. The city is connections.

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References

- Arnett, J. J. (2004). *Emerging adulthood : the winding road from the late teens through the twenties*. New York ; Oxford: Oxford University Press.
- Baumeister, R. F., & Leary, M. R. (1995). The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation. *Psychol Bulletin*, 117(3), 497-529.
- Bayne, S., & Ross, J. (2007). The 'digital native' and 'digital immigrant': a dangerous opposition. Paper presented at the Annual Conference of the Society for Research into Higher Education. from http://www.malts.ed.ac.uk/staff/sian/natives_final.pdf
- Bell, G., & Dourish, P. (2007). Yesterdays tomorrows: notes on ubiquitous computings dominant vision. *Personal and Ubiquitous Computing*, 11(2), 133-143.
- Benkler, Y. (2006). *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven and London: Yale University Press.
- Bureau of East Asian and Pacific Affairs (2007). Background Note: South Korea Retrieved May 16, 2007, from <http://www.state.gov/r/pa/ei/bgn/2800.htm>
- Castells, M. (1996). *The rise of the network society*. Cambridge, MA :: Blackwell Publishers.

- Choi, J. H.-j. (2006). Living in Cyworld: Contextualising Cy-Ties in South Korea. In A. Bruns & J. Jacobs (Eds.), *Uses of blogs* (Vol. 38, pp. 173-186). New York: Peter Lang.
- Choi, J. H.-j. (2007). All Things Big and Small: Rising Importance of Mobile Media in South Korea. Paper presented at the China East Asia Media New Media Conference.
- Choi, J. H.-j. (2008, Sep 25-27). Searching the Self in Seoul: Transyouth and Urban Social Networking in Korea. *Communications in the 21st Century: Mobile Communication and the Ethics of Social Networking* Budapest, Hungary.
- Choi, J. H.-j. (2009 forthcoming). Searching the Self in Seoul: Trans-youth and Urban Social Networking in Korea. In K. Nyiri (Ed.), *Communications the 21st century: Mobile Communication and the Ethics of Social Networking*. Vienna: Passagen Verlag.
- Choi, J. H.-j. (2009 in press). The City, Self, and Connections: Transyouth and Urban Social Networking in Seoul. In S. Hemelryk Donald, T. Anderson & D. Spry (Eds.), *Youth, Society and Mobile Media in Asia*. London, New York: Routledge.
- Choi, J. H.-j., & Greenfield, A. (2009). To Connect and Flow in Seoul: Ubiquitous Technologies, Urban Infrastructure and Everyday Life in the Contemporary Korean City In M. Foth (Ed.), *Handbook of Research on Urban Informatics: The Practice and Promise of the Real-Time City* (pp. 21-36). Hershey, PA: IGI Global.
- Debord, G. (1977). *Society of the spectacle* ([Rev. ed.]. Detroit, Mich: Black and Red.
- Deleuze, G., & Guattari, F. (1987). *A thousand plateaus : capitalism and schizophrenia*. Minneapolis: University of Minnesota Press.
- Donne, J. (2004). *Devotions Upon Emergent Occasions*. Whitefish, MT: Kessinger Publishing.
- Dourish, P. (2001). *Where the action is : the foundations of embodied interaction*. Cambridge, Mass.: MIT Press.
- Foth, M., Choi, J. H.-j., Bilandzic, M., & Satchell, C. (2008, Oct 7-9). Collective and Network Sociality in an Urban Village. *Proceedings of the 12th international conference on Entertainment and media in the ubiquitous era*, Tampere, Finland.
- Foth, M., & Hearn, G. (2007). Networked Individualism of Urban Residents: Discovering the Communicative Ecology in Inner-City Apartment building. *Information, Communication & Society*, 10(5), 749-772.
- Fujimoto, K. (2005). The Third-Stage Paradigm: Territory Machines from the Girls' Pager Revolution to Mobile Aesthetics. In M. Ito, D. Okabe & M. Matsuda (Eds.), *Personal, portable, pedestrian : mobile phones in Japanese life* (pp. 77-102). Cambridge, Mass.: MIT Press.
- Gelézeau, V. (Producer). (2007a, Jan 11, 2009) How Did Korea become a Land of Apartments? The Korea Society Podcast. Podcast retrieved from <http://www.koreasociety.org/external/podcast.html>.
- Gelézeau, V. (2007b). *The Republic of Apartments (Apart Gonhwagook)*. Seoul: Humanitas.
- Goffman, E. (1975). *Frame analysis : an essay on the organization of experience*. Harmondsworth [etc.]: Penguin.
- Gudykunst, W. B., & Matsumoto, Y. (1996). Cross-Cultural Validity of Communication in Personal Relationships. In W. B. Gudykunst, S. Ting-Toomey & T. Nishida (Eds.),

Communication in personal relationships across cultures (pp. 19-56). Thousand Oaks, Calif: SAGE Publications.

Hall, E. T. (1976). *Beyond culture* (1st ed.). Garden City, N.Y.: Anchor Press.

Hartley, J. (1999). *Uses of television*. London ; New York: Routledge.

Hazlett, T. W. (2004). *Broadband Miracle* Retrieved May 16, 2007, from http://www.manhattan-institute.org/html/wsj-broadband_miracle.htm

Hjorth, L., & Koo, O. (2007). Collect Calls. [Editorial]. *M/C Journal*, 10(1).

Hofstede, G. H. (2006). *Geert Hofstede Cultural Dimensions* Retrieved November 4, 2006, from http://www.geert-hofstede.com/hofstede_dimensions.php

Hwang, J.-S. (2009). *u-City: The Next Paradigm of Urban Development*. In M. Foth (Ed.), *Handbook of Research on Urban Informatics: The Practice and Promise of the Real-Time City* (pp. 367-378). Hershey, PA: IGI Global.

International Telecommunication Union (2007). *World Information Society Report: Beyond WSIS*. Geneva: International Telecommunication Union.

Ito, M., & Okabe, D. (2004). *Intimate Connections: Contextualizing Japanese Youth and Mobile Messaging* Retrieved October 1, 2004, from <http://www.itofisher.com/mito/archives/itookabe.texting.pdf>

Jenkins, H., Clinton, K., Purushotma, R., Robison, A. J., & Weigel, M. (2006). *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century* Retrieved November 6, 2006, from http://www.digitallearning.macfound.org/site/c.enJLKONIFiG/b.2108773/apps/nl/content2.asp?content_id=%7BCD911571-0240-4714-A93B-1D0C07C7B6C1%7D¬oc=1

Jyoti, C., & Lee, H. (2004). *Broadband development in South Korea: institutional and cultural factors*. *European Journal of Information Systems*, 13(2), 103.

Katz, J. E., & Aakhus, M. (2002). *Perpetual Contact : Mobile Communication, Private Talk, Public Performance*, from *Connect to e-book on Ebook Library* http://gateway.library.qut.edu.au/login?url=http://www.qut.eblib.com.au/EBLWeb/patron?target=patron&extendedid=P_202130_0&

Kim, M.-S. (2002). *Non-western perspectives on human communication : implications for theory and practice*. Thousand Oaks, Calif.: Sage Publications.

Kim, S. H. (2004). *City of the Bang*. 9th International Architecture Exhibition 2004 Venice Biennale Retrieved May 8, 2007, from http://www.korean-pavilion.or.kr/04pavilion/e_2004_02.htm

Kim, S. H. (2005). *The Paradox of Public Space in the Asian Metropolis*. Paper presented at the Germany-Korea Public Space Forum. from <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>

Korea National Statistics Office (2008). *2005-2030 Future Household Estimates*. Seoul: Korea National Statistics Office.

Lau, T. Y., Kim, S. W., & Atkin, D. (2005). An examination of factors contributing to South Korea's global leadership in broadband adoption. *Telematics and Informatics*, 22(4), 349-359.

Lessig, L. (2005). *Free culture : the nature and future of creativity*. New York: Penguin Books.

Markus, H. R., & Kitayama, S. (1991). *Culture and the Self: Implications for Cognition, Emotion, and Motivation*. *Psychological Review*, 98(2), 224-253.

- MIC (2008). Survey on the Internet Usage. Seoul: Ministry of Information and Communication.
- OECD (2009). OECD Factbook: OECD.
- Owen, M. (2004). The myth of the digital native Retrieved December 3, 2007, from <http://www.futurelab.org.uk/resources/publications-reports-articles/web-articles/Web-Article561>
- Prensky, M. (2001). Digital Natives, Digital Immigrants Retrieved August 6, 2006, from <http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>
- Shin, G.-W. (2003). The Paradox of Korean Globalization Retrieved April 7, 2007, from http://koreanstudies.stanford.edu/publications/paradox_of_korean_globalization_the/
- The Economist (2007). Capsule hotels: Thinking small Retrieved Aug 20, 2008, from http://www.economist.co.uk/business/displaystory.cfm?story_id=10150321
- The World Bank (2006). Korea as a Knowledge Economy: Evolutionary Process and Lessons Learned - Overview. Washington, DC: The World Bank.
- Vanderbilt, T. (2005). Circuit City. [Commentary]. Artforum, 44(3), 65-66.
- Yoo, H. O. (2005). Cyworld Storm Heads for Asian Countries Retrieved July 11th, 2005, from <http://times.hankooki.com/1page/special/200502/kt2005022320383545250.htm>
- Yoon, K. (2003). Retraditionalizing the Mobile: Young People's Sociality and Mobile Phone Use in Seoul, South Korea. European Journal of Cultural Studies, 6(3), 327-343.