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Choi, Jaz Hee-jeong (2010) ***Transforming people, place, and technology : towards re-creative City.*** In: UNESCO Creative Cities Network International Conference : New Technology, New Media, and Creative City Synergy, 06 -09 December 2010, Shenzhen, China.

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UNESCO Creative Cities Network
International Conference: New Technology, New Media, and Creative City Synergy
6 -9 December, 2010, Shenzhen, China

Transforming People, Place, and Technology: Towards Re-creative City

// Thank you

It's a great honour to be here today, sharing ideas with pioneering thinkers and actors in various fields, in an effort to make an input to imagining and with hope, building, a better future or futures for the world we're living in.

// Introduction to myself and the Urban Informatics Lab

I am part of the Queensland University of Technology's Urban Informatics Research Lab, a fantastic place where creative minds with various expertise and interests come together to imagine, design, and create network media and technologies for more engaging urban experiences at the intersection of people, place, and technology (For further information see http://www.urbaninformatics.net).

The focus of my research and development has shifted over the years: from digital media production to cultural studies, and now to ubiquitous technology in relation to food and sustainable futures in urban environments. As such, my understanding and experience with this session's theme has also evolved over time – one of the main differences being the recognition of the significant role that urban spaces play in the use of media and creative economy.

Before I begin the main part of this address, I'd like to briefly mention two illustrative cases of this. First is Brazil's MovieMobz (http://www.mobz.com.br), the company that has innovated the deeply troubled local film market, particularly the impoverished independent film sector, by connecting theatres, as well as people through digital networks. As the film distribution costs are high MovieMobz provides means for the general public to select the films they would like to see at a cinema, then mobilise a set number of audience members for the chosen film. When the number is reached, the film is transferred via bittorrent to the selected cinema to be screened for the organised

session. We can easily imagine a side of a large building in Shenzhen – and there are many, it seems – or the walls of an empty warehouse that could be used as a cinema screen by using a digital projector, which are fast becoming very affordable and portable (i.e. Samsung's Pico Projector – http://tinyurl.com/34wbx4t), turning spontaneous and relatively affordable Video-on-Demand (VOD) experience to a Cinema-on-Demand (COD) Flashmob.

Another example that has been gaining much attention recently is 3D projection mapping around various urban areas across the world, so far mainly for advertising purposes (e.g. Samsung projection in Amsterdam, http://www.youtube.com/watch?v=sM-uyhv6Dec | ACDC Iron Man 2 soundtrack at Rochester castle, http://vimeo.com/11160666). With information and tools required for its production already openly available online, and again, with affordable technologies, augmenting urban spaces beyond existing public/urban screens or the cocooning effect of listening to one's ipod while walking on the street is fast becoming an everyday urban experience for many, presenting new possibilities for creative developments.

// Main talk

This session is titled *TRANSFORM! Opportunities and Challenges of Digital Content for Creative Economy*. Some of the key concepts for this session include:

1. City / Economy
2. Creativity
3. Digital content
4. Transformation

All of us would agree that these terms describe pertinent characteristics of contemporary world, the epithet of which is the 'network era.'

I was thinking about what I would like to discuss here and what you, leading experts in divergent fields, would be interested to hear about. As the keynote for this session and as one of the first speakers for the entire conference, I see my role as an initiator for imagination, the wilder the better, posing questions rather than answers.

Also given the session title *Transform!,* I wish to change this slightly to *Transforming People, Place, and Technology: Towards Re-creative City* in an attempt to take us away a little from the usual image depicted by the given topic. Instead, I intend to sketch a more holistic picture by reflecting on and extrapolating the four key concepts from the urban informatics point of view. To do so, I use 'city' as the primary guiding concept for my talk rather than probably more expected 'digital media' or 'creative economy.' You may wonder what I mean by *re-creative* city. I will explain this in time by looking at the key concepts from these four respective angles:

1. Living city
2. Creative city
3. Re-creative city
4. Opportunities and Challenges

to arrive at a speculative yet probable image of the city that we may aspire to transform our current cities into. First let us start by considering the 'living city.'

1. Living City

At the beginning of the 20th century, there were only sixteen cities in the world with more than a million people (Harvey, 2000, p. 7). Today, more than half of the global population live in cities. A rough calculation shows that since the beginning of my talk here, over 30 people have started calling cities their home (UNFPA, 2007, p. 1). This rapid growth in global urban population accentuates the dynamic and transformative nature of urban environments and calls for continued re-examination of changes that are necessary in order for us to create a positive outlook for the future.

Throughout history, cities have been the cultural and technological hubs where existing social configurations were challenged and wider transformations were initiated. History also shows that world economies centered around cities 'if not always, at least for a very long time' (Braudel, 1992, p. 24). As such, the city has often been viewed as a machine – an economic generator – that can be prefigured to produce specific output.

This way of thinking was grounded in economic and technological determinism, which were strongly evident in early urban studies discourse. As Harvey (2000, p. 29) notes, the deterministic approach was based on the 'persistent habit of privileging things and

spatial forms over social processes. It presumed that social engineering could be accomplished through the engineering of physical form.' Thankfully, however, over time, we have learnt to accept what Jacobs (1961, pp. 372-373) famously and provocatively conveys in her statement:

> To approach a city, or even a city neighborhood, as if it were a larger architectural problem, capable of being given order by converting it into a disciplined work of art, is to make the mistake of attempting to substitute art for life. The results of such profound confusion between art and life are neither life nor art. They are taxidermy. In its place, taxidermy can be a useful and decent craft. However, it goes too far when the specimens put on display are exhibitions of dead, stuffed cities.

Nobody wants to live in a dead city. Simply building a city does not ensure the coming and staying of people. In fact, simply building a city as art, not life, ensures a high probability of people never coming (back).

As key urban scholars such as Lefebvre (1996, p. 129) and Soja (1980) point out, the interpeneration amongst the vast array of contradictions are at the core of urban life. To put it simply, places shape people as people shape places.

Considering the heterogeneity of attributes and values amongst and within individuals and groups, the encounters among people, objects, and systems of the city are closer to 'dialogic processes' (Bakhtin & Holquist, 1981) rather than 'dialectic' in meaning as the encounters involve pluralistic inter-related entities engaged in dynamic, iterative processes of becoming rather than towards the state of equilibrium. The change in this case is reformation of the system as well as its constitutive elements. Therefore, the city's configuration resembles most closely to an open network that consists of an unfixed number and type of inter-related nodes, which clearly reflects the notion of the network society.

A very similar framework has been evident in approaches to economic systems, and it is based on the premise that investigating a given economic system must acknowledge that the continuously changing macro- and micro-level circumstances reshape the connection amongst constitutive elements of the system. In this regard, the design for the constantly transformative economic ecology can have no definite aspiration, but

rather, 'through the activity of design the process of production provides information for itself about itself' (Lury, 2004, p. 52 cited in Thrift, 2006: 295).

Therefore design of a usable economic system should involve making visible possibilities for open innovations within and of itself: interaction design that has both controlled and open resources for profit generation. According to Chesbrough (2003, p. xxiv), open innovation is 'a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology.'

Evolutionary economists (for example, Dopfer & Potts, 2004; Foster & Metcalfe, 2004; Witt, 2008) similarly argue that the economy is in constant transformation through dynamic endogenous changes, which include 'convergence, emergence, and divergence' (Boschma & Martin, 2007, p. 537) of economic agents. As Neff and Stark (2004) observe, the contemporary economic system is in a 'permanently beta' state, evolving through open user-centric (Von Hippel, 2005, p. 1) or bottom-up (Kelly, 1998) innovations that overcome institutional barriers. These innovations therefore often come unexpected. Thrift introduces three factors that foreground the 'absolute importance of design' (2006, p. 282) in regards to modern economies: information technology, built forms, and social group formation. These factors resonate with the core elements of urban informatics (Foth, 2009) I mentioned earlier: technology, place, and people, respectively.

Unfortunately, this idea has not been overly apparent in many initiatives around the world that are intended to promote the growth of 'creative cities': for example, implementing pre-designed creative zones and clusters as part of a large scale urban regeneration process has become a common practice particularly in developing countries. While there are valid reasons behind this practice – one being the socio-political pressure to speedily 'catch-up' with more advanced economies and some cases provide strong evidential basis for this – a deficiency in consideration for the 'life of the city' or 'the city as an organic being' remains.

2. Creative City

Let us now move on to 'creative city,' aptly so in reflection of the organisation behind this conference, 'UNESCO Creative Cities Network.' As we transition from the century of urbanisation (Harvey, 2000, p. 7) to that of networks (van Dijk, 2006, p. 2), we see the

emergence of two interrelated paradigms in urban development, which were first seen more aspirational but have become major agendas in political, economic, and institutional domains.

The first of the two paradigms is 'creative city' put forward by Landry (2000). It is based on the premise that culture or milieu of creativity can be embedded in organisation and operation of urban stakeholders, for which Landry (*ibid*) suggests a number of strategic approaches. Most of the strategies are based on acknowledging and dealing with diversity of urban constituents, convergence amongst them, and finding innovative ways to turn the city into what he calls the 'learning city' (*ibid*: 266): a reflexive city that sustains its creativity through changing times.

In this regard – and as Landry also notes – there are fundamental overlaps between the creative city and the second of the two emerging paradigms, the 'sustainable city.' The premise of the sustainable city – or sustainable urban development – is that the foundations for future development not to be compromised but to be achieved by means of economic processes that do not impeded regeneration of natural resources or social equity (World Commission on Environment and Development., 1987).

While environmental sustainability has gained much public identification and support around the world, social or cultural sustainability remains an obscure concept other than its reference to social equity and cohesion (Dempsey, Bramley, Power, & Brown, forthcoming; Polèse & Stren, 2000).

The creative city requires people, built forms, and institutions to be productively recreated through innovation. The sustainable city must be built upon diverse constituents that are creative or can continue to interact in creative ways. Therefore, for a city to be creative and sustainable, it must have pluralistic constituents with creative tendencies, and further, it needs to be seductive too: it must attract people's presence, both permanent and temporary, making it a living city as discussed earlier.

According to Rykwert (2004, p. 10), 'the city is a precious, essential, and inalienable part of the human achievement – and sometimes a splendid setting against which human actions are played out.' The seductiveness of the city then depends on the how successfully it meets the **needs** but perhaps more importantly, the **desires** of people who interact with the city.

Rykwert (*ibid*) is speaking from an architectural perspective, but the same logic can be applied to the city as an amalgam of technological (including architecture), political, economic, social, and cultural domains. The creative, sustainable, and seductive city is built upon the contested ground where multiple interactions continuously occur on the seam of control and freedom, with visible possibilities for ensuing transformation and pleasure. The image conveyed here is what I imagine as the re-creative city.

3. Re-creative City

Network technologies in particular have been developing intensively and extensively in recent years. Their impact, in particular has been manifested, amongst many other forms, in changes in dynamics amongst constituents from global to individual organisations. In this regard, the rapid advancement of ubiquitous technology accentuates the imminent and immanent convergence between entities that have previously been perceived dichotomously – such as private/public, and collective/distributed – through which continuous re-innovation, and therefore, network sustainability, takes place. As such, we must not only consider network technologies as more efficient means of communication but also, more importantly, as entities that co-evolve with political, socio-cultural, and economic systems.

Rapid decrease in the production and use cost of information communication technologies (ICTs) combined with political impetus for digital literacies (Tornero, 2004; Wynne & Cooper, 2007) as well as growing social demands for 'being connected' for communicative and social engagement (Jenkins, Clinton, Purushotma, Robinson, & Weigel, 2006; Ling & Pedersen, 2005) have been observed concurrently with the rise of collaborative amateur production and user-led innovation (Leadbeater, 2008) in recent years. The phenomenon has been described as the rise of DIY (Hartley, 1999), remix (Lessig, 2008), and participatory culture (Jenkins, et al., 2006).

Many examples of how participatory culture is enabled by recent technological innovation rely on so-called Web 2.0 applications such as Wikipedia, YouTube, Flickr, and social networking sites, which are arguably more customisable and open (though in many cases these services impose regulatory boundaries but nevertheless allow some ways for interaction and modification though external means).

In this regard, Burgess (2006, p. 206) has introduced a useful notion of *vernacular creativity*, which refers to 'a productive articulation of consumer practices and knowledges (of, say, television genre codes) with older popular traditions and communicative practices (storytelling, family photography, scrapbooking, collecting)' reducing the cultural distance between production and everyday experiences.

Widespread manifestation of vernacular creativity in turn has led to significant changes in various domains of society. Debates over digital rights management (DRM), Obama's strategic use of social media, economy of in-game items production and trading, youtube/myspace artist fame, and most recently, controversy surrounding WikiLeaks are notable examples. There are also less conspicuous cases, including how the Korean Wave was propelled by extensive accessibility to Korean pop culture made available to global audience by Koreans who took advantage of available broadband networks in the country (Choi, 2008), defying the existing 'time-space constraints and official distribution hierarchy' (Hu, 2005).

There are three main points that we need to pay particular attention here:

i. **Digital content is not confined to tangible objects**
'Communication networks have become as fundamental to urban life as street systems' (Mitchell, 1995, p. 107); furthermore, they have also become as embedded to urban space. We can see evidence of this in the extensive growth of ubiquitous, pervasive, and ambient computing as vigorous research domains.

ii. **Collaboration is more conducive to productivity than Coercion**
Many have commented on the democratic potential of network media – that it provides means to broader public to express themselves. While this quality may have some positive implications, what is more interesting and perhaps more important is not *that the voices can be made* but *what voices are actually heard*. Network media by default is dynamic, distributed, and assumes connectedness. Therefore genuinely productive interaction can only be achieved by encouraging people to collaboratively "access and re-create" the voice that is made, rather than simply coercing them to 'connect and passively listen' to it.

iii. **Innovation occurs through re-creation and recreation**
Activities that are likely to be overlooked as trivial, spontaneous, and playful

have led to significant consequences in various domains of society. Widespread use of services such as Facebook and Twitter particularly by young people and its implications in different parts of the world have been a very visible example, highlighting that *creativity should never be considered as a product, while it can be the basis of a productive process leading to innovation*. Increased access to technology and digital literacies afford more effortless and thus extensive attempts at manifestation of creativity through digital means.

Recognising these trends, there have been increasing attempts at understanding the significance of 'embedded' creative or creativity (Cunningham, 2006) as a crucial issue for 'debates about the future of the creative industries in terms of growth, employment and understanding how they add value throughout an economy' (Foth, Klaebe, & Hearn, 2008)

[Example: to be presented time permitting] Remembering the Past, Imagining the Future: Embedding Narrative and New Media in Urban Planning (http://www.urbaninformatics.net/projects/urban-narratives) as a case of 'embedding of creativity as an enabler across society.'

4. Conclusions: Opportunities and Challenges

As I expressed at the outset, my intention for this talk was to stimulate fresh ideas for the given topic of transformation, digital content, and creative economy by examining some of the dimensions that may not have been directly associated or addressed in previous discussions through the lens of urban informatics, the analytic basis of which is at the intersection of people, place, and technology. We have learnt that:

i. Both cities and economic systems exist as dynamic open networks that require real considerations for their constituents and that there is much to be gained by examining bottom-up micro interactions that result in significant transformation in and of the network.
ii. Thus thinking about the present and future of creative economy must encompass "embedded creativity" of people. In this regard, discussion should broadly focus on the notion of 'creative city' rather than specifically 'creative economies' or 'creative industries/clusters.' Embedded creativity enhances sustainability of the city in various domains including economic, socio-cultural, and environmental sustainability.

iii. As such, the re-creative city captures the inter-relatedness between the creative and sustainable city. A re-creative city is a seductive one: an open network that continuously encourages people to voluntarily interact with the existing political, socio-cultural, technological, and physical interfaces, through which innovations occur.

We can look forward to some key opportunities and challenges in the future.

1. Sustainability, especially environmental sustainability will gain greater relevance in all industries but particularly in the creative industries, fast. Of course, using network media to assist people and organisations with more sustainable practices has already been explored vigorously around the world (my current project also addresses this – see http://www.urbaninformatics.net/projects/food). The other side to this is the environmental impact of the industry itself. Manufacturing and transportation are two obvious areas that will be facing sustainability issues in an imminent future. There are also significant challenges awaiting creative industries, which heavily involves the production and use of digital / network technologies with considerable amount of carbon footprints. Recently Alexander Wissner-Gross at the Harvard University Center for the Environment provoked much discussion amongst general public as well as in academic and commercial sectors when he said that '*performing two Google searches from a desktop computer can generate about the same amount of carbon dioxide as boiling a kettle' or about 7g of CO2 per search' (Leake and Woods 2009).* This 'statistic' may in fact be controversial at best—nonetheless, the point holds that not even Google searches are without environmental impact.

2. The importance of openness in designing essential systems – e.g. economic, political, and cultural – needs to be not only acknowledged but also implemented. This is expectedly a difficult task to achieve as the notion hinges on complex dichotomous yet inherently interrelated realms such as needs/desire and control/freedom. We have witnessed proliferative growth in bottom-up civic, economic, and technological movements that challenged existing systems' configurations to better suit the groups' needs and desires. While this poses challenges to the governing body, there are equally significant if not more, incentives for them to animate the interplay between the 'interface' and 'interaction': opportunities for such animation can be found by looking at

how people, place, and technology have come together to form the existing environment.

3. Amongst these three elements, people are the only one with true re-creative capacity, as they possess the ability to process needs and desires. This is why people are the most significant transformative agents and thus must be regarded as such in envisioning the future. Their voices need to be heard and reflected in design and development of technosocial outputs that necessarily involve people's use.

4. Therefore continued effort is necessary for seeking multiple, innovative ways to identify and deal withsignificant challenges we face in order to transform our cities into increasingly re-creative ones. UNESCO has already been doing fantastic work in this regard by pioneering transdisciplinary research – esp. with Nicolescu – to tackle real-life problems. It's such a great effort for which I have much respect, and I hope to see similar efforts made by more people and organisations around the world.

I look forward to hearing your thoughts on the areas I have presented today and many other fascinating topics the conference is to cover during the next several days, and thank you very much for listening.

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