

Knowledge Cities - a New Concept?

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ABSTRACT

This essay discusses the background of different concepts relating to the sociology of cities, and the emergence of the “knowledge cities” in particular. It argues that cities as entity of research can best be understood by drawing on different disciplines, from urban planning to cultural studies to communication theories. The knowledge city approach adds a new dimension to existing perspectives on cities, as it describes the interrelations between physical and intangible urban spaces.

บทคัดย่อ

บทความนี้กล่าวถึงความเป็นมาของแนวความคิดที่แตกต่างซึ่งเกี่ยวข้องกับสังคมวิทยาของเมืองและการเกิดขึ้นของ “เมืองแห่งความรู้” โดยมีกรณีศึกษาว่าเราสามารถเข้าใจเมืองที่เปรียบเสมือนองค์รวมของการวิจัยได้โดยการศึกษาหลากหลายสาขาตั้งแต่ด้านการวางผังเมือง จนถึงการศึกษาวัฒนธรรมและผู้ที่ถูกสื่อสาร แนวคิดเรื่องเมืองแห่งความรู้ได้เพิ่มมิติใหม่ให้แก่มุมมองที่มีอยู่แล้วเกี่ยวกับเมือง ซึ่งอธิบายถึงความสัมพันธ์ซึ่งกันและกันระหว่างพื้นที่เขตเมืองทางกายภาพและที่จับต้องไม่ได้

World Cities, Design Cities, Creative Cities, Knowledge Cities, Green Cities, Cultural Cities – the roles and functions of cities as socio-economic spaces can be analysed from different angles and perspectives.

In recent years, both popular and scholarly journals published city rankings to benchmark cities; such as *The most creative Cities 2009* ranking of US magazine Fast Company¹ or *The Most Liveable Cities Index* by Monocle, a UK trend magazine² While many of these popular listings seem to be based on city marketing materials and rather questionable models of assessment, these surveys draw the attention to cities as spaces that require concerted effort and know-how to make them “liveable” spaces.

A growing number of cities today face deteriorating urban infrastructure and services on water supply, sanitation, waste management, transport, and worsening environmental conditions. Development agencies and international organisations respond to these challenges by establishing centres to monitor and understand cities and urban developments, such

as the new UN city think tank³, the UNGC Cities Programme, which aims to provide “a unique model for cities across the globe to develop innovative and sustainable solutions to long-term and intractable challenges”. It is based on the premise that any city contains the capacity to resolve the issues it faces offers a framework for building constructive, all-sector taskforces between business, government and civil society, to produce practical responses in areas where single-sector initiatives have previously failed. Building capacities through combining know-how from different agencies and stakeholders in a city shows that knowledge-based urban development thinking is gaining more attention.

The Asian Development Bank (ADB) initiated an “Urban Community of Practice” to help city leaders confronted with increasingly complex challenges to manage cities and particularly mega cities.⁴ Mega-cities is defined by the United Nations as a metropolitan area with a total population of more than 10 million people, and their sheer size and complexity of problems would probably make them a special case of knowledge cities.

¹ <http://www.fastcompany.com/multimedia/slideshows/content/fast-cities-2009.html?page=3> retrieved on 3 July 2009

² See Monocle issue 25, volume 3, July/August 2009 “The Most Liveable Cities Index”

³ UNGC was set up in 2008: <http://citiesprogramme.org/index.php/about/>, retrieved on 15 July 2009

⁴ <http://www.adb.org/urbandev/news.asp>, retrieved on 9 July 2009

The idea of knowledge city is often associated with the concept of a knowledge-based creative economy. Industrial cities were places with repetitive patterns of living and working, whereas creative cities have a high percentage of independently-minded people with diverse working patterns. To better understand aspects of cities as knowledge-creating spaces, UNESCO initiated a "Creative Cities Network" which highlights the role of culture in urban renewal and economic policy planning. Cities "harbour the entire range of cultural actors throughout the creative industry chain" and are "breeding ground for creative clusters."⁵

These global initiatives are an attempt to develop new methods and ways of thinking in a world where urban populations outnumber rural growth for the first time and new, complex challenges emerge, all of them require building on existing know-how, absorbing and acting on new knowledge.

Sociology of Cities

The city as object of academic research goes back to the early 19th century, which was the beginning of a specialized field within sociology, the sociology of cities. Sociologists started to study the complex division of labour, occupation patterns and other aspects of the socio-economic environments, as well as social psychology of the city, the social interaction and relationships between different groups in the city. Others analysed the physical and social environment and the interrelationships between them, as well as urban problems such as violence, housing, disparity between rich and poor city dwellers, etc.

The early city sociologists also thought about the city as a personality, with a "soul" and a "mental life." Georg Simmel's "The Metropolis and Mental Life" published in 1903 is perhaps one of the earliest notions of the intangible dimensions of a city. His essay has become a classic text for students in urban studies and architecture. Another early contribution of sociology to the concept of knowledge cities is the Chicago School, a group of urban sociologists who conducted socio-ethnographic research on Chicago between the 1920s and 1930s, which looked at human behaviour as determined by physical and social structures and environments. Using terminology from biology, they saw cities as microcosm largely determined by intended and unintended internal and external factors, but there were also "natural forces" in the environment, emerging patterns that could be observed but not directly controlled. This thinking about cities as ecosystem is reflected in the newer literature on cities and creative ecologies such as John Howkins "Creative Ecologies" published in 2009.⁶

⁵ http://portal.unesco.org/culture/en/ev.php-URL_ID=26390&URL_DO=DO_TOPIC&URL_SECTION=201.html retrieved on 5 June 2009

⁶ Howkins, John. 2009. *Creative Ecologies: Where Thinking is a Proper Job*. Queensland: University of Queensland Press, p 81

Today, research on cities is often conducted as multi-disciplinary collaboration between different fields such as architecture, human geography, and social sciences. The Urban Age research centre at the London School of Economics states that "the first part of the 21st Century will be the age of the city, the 'Urban Age.' Stating that "investment in urban real estate, infrastructure and renovation becoming the driving force behind economic growth, the physical and social landscapes of the city are being powerfully altered," it shows that the intangible dimensions of city planning, those dealing with the intelligence and the "soul" of a city, are still not by definition in the curriculum of urban studies.⁷

The concept of the knowledge cities is only beginning to gain the attention from city planners, urban economists, and architects, despite the long tradition and contributions of social scientists to the field.

Knowledge-based Urban Development

In 2006 the Journal of Knowledge Management published a special issue on knowledge cities.⁸ While knowledge management originally was an approach to understand value creation in organisations, there is a growing number of publications on the emerging concept of "knowledge cities." Viedma (2005) suggest a framework for measuring and managing intellectual capital of cities,⁹ which takes intangible assets of cities into account. Such assets include networks of information and knowledge flows between and within certain industry sectors or groups of individuals working in certain fields, the human capital of a city (education level, attractiveness for talents, diversity of workforce and general population, etc). Infrastructure capital includes not only the physical infrastructure of a city, but also the ease of access and moving around in a city, the quality of connectivity and interconnectedness, and coordination and planning competencies of agencies governing a city.

A knowledge perspective on cities shall answer questions about the long-term sustainable development of a city, whether a city can attract and retain talents in knowledge-intensive industries, such as financial services and creative industries.

The key role of creative industries for city development, particularly design has already been discussed before the concept of "Knowledge Cities" came up in the discourse. Since design and design-

⁷ <http://www.urban-age.net/> retrieved on 5 June 2009

⁸ Journal of Knowledge Management, Vol 10, no 5, 2006

⁹ Viedma, J.M. (2005), "Cities' Intellectual Capital Benchmarking System (CICBS): A Methodology and a Framework for Measuring and Managing and Managing Intellectual Capital of Cities: A Practical Application in the City of Mataro, in: Bounfour, A.; L. Edvinsson (eds). *Intellectual Capital for Communities, Regions and Cities*. Burlington: Butterworth-Heinemann, pp 317-335

related industries can be seen as part of knowledge-based industries, a review of the literature on design in cities could contribute to the understanding of knowledge cities.

Design Focus

In 2008, Turin was World Design Capital, appointed by the International Council of Societies of Industrial Design (ICSID). The World Design Capital (WDC) is a biennial global competition open to all cities in the world. According to ICSID, the title is given to cities where design played an essential role in reinventing the cities to meet evolving needs in the world and is part of the urban economic development of a city. Design cities are cities where design, in a broad sense, is used for the social, cultural and economic transformation of the city.

The World Design Capital project took part just after the Winter Olympics (2006), which led to transformation of parts of the city. Both events repositioned Turin on the global map and were part of an intended renewal process of the city planners. Traditionally, the image of the city was dominated by the automobile company FIAT, but with the automobile industry becoming a symbol of the industrial world, the city wanted to reflect on the urban changes due to changing working and living habits.

The city planning process to renew Torino's image from an old industrial city to a modern European city, in which development is based on a combination of innovation and creativity, started from a solid tradition of entrepreneurship and planning which were the basis for an opportunity to design new ways to develop the territory. Design is understood in the widest sense, and includes design of work flows and social relationships with an industry or public space, as well as design applied to public policy, education and services, how citizen organise the city life and how cities develop strong identities of which characteristics are part of the branding efforts of city marketing agencies.

One of the themes during the WDC year was on flexible city planning. Cities can be "labyrinths of roads, agglomerations of buildings, mazes of relations". In 2050, over 90% of the world's population will live in cities, places that already today are characterised by growing complexity. The urban panorama is a system of close-knit connections between material objects and immaterial factors produced by man. An often chaotic space, that conditions, restrains and sometimes paralyses movement, considerably reducing the space for manoeuvre of individuals.¹⁰ Flexibility in city planning approaches and re-urbanisation allows a different response to the changing needs of a space. Flexibility is intended as the ease with which a system or components of it can be modified and adapted for use in different

applications or settings to the ones for which they were originally designed (rewrite), e.g. use of former industrial spaces for creative industries.

Such "rewriting" of space can be observed in many cities, where old industrial buildings are transformed into spaces for the creative industries, such as design companies, artists, and software companies.

These transformation processes are lead to confrontation between traditional city planners and planner with a knowledge-based development perspective, as the former often based their planning on maximising the financial value of commercial use of land, whereas the latter include the intangible value of city regeneration, which includes understanding the value of local characteristics and existing social networks. Commercial developers often follow different model when accessing the value of inner city spaces, and public city planning administration are only beginning to adopt sustainable urban regeneration.

An example for this changing perception is the discourse on the role of public spaces in cities. From a knowledge perspective, public spaces are part of the "common wealth" of a city community. Public spaces became an organizing factor in connecting the city different areas and functions. Central park in New York City has many connecting functions and serves as a focal point for different activities, between business and culture, private and public intersection of city life, but it also a place is "owned" by citizens across all social and ethnic backgrounds.

Designing public spaces often fails. There are many examples where public spaces are not adopted by the city community, often because the existing social complexities of a place are not understood and architects and developers are largely guided by aesthetically, financial or technical considerations. Organically grown public spaces may not look perfect from a city designer's point of view, but informal structures and even partially dilapidated buildings are important for a liveable environment. Such "informalities" are important to understand in urban design and regeneration.¹¹

Culture and Creativity Focus

Culture and creativity as differentiating factors in identify and image forming of a city were popularized in the beginning of the 21st century according to Kunzmann,¹² and today new ideas are more likely to emerge from an urban environment. The crowds, clusters, connections, contradictions, and cultural diversity are the "humus" of the creative ecology which generates ideas, opportunities and

¹⁰ http://www.torinoworlddesigncapital.it/portale/en/content_2.php?sezioneID=289 retrieved on 9 July 2009

¹¹ Comment by an architect at an Urban Regeneration event organised by the Financial Times on 13 July 2009 <http://www.ftconferences.com/urbanregeneration2009/Agenda/>

¹² Kunzmann, Klaus R. 2004. Culture, creativity and spatial planning" in: TPR 75 (4), pp. 363-403

markets for people with ideas. Howkins describes the eco-system of a city as “prime energy exchangers,” “they attract people who are both producers and buyers: people who want to learn, adapt and explore new perceptions and who are discriminating and spend above-average amounts on novelty and style (...)”.¹³ Cities are places with real markets (physical and virtual ones), and its attractive-ness to creative people, talents, determines the competition among these different places, which causes city governments, local, regional and national economic development agencies to develop city marketing plans. Howkins suggests that the key question for creative people today is: *Where* do we want to think?

Knowledge City Focus

The emerging concepts of knowledge city attempt to understand the intangibles assets and flows of an urban ecology using the language of intellectual capital which was previously mostly used in the context of organisations. Terms such as human capital, social, structural and relational capital can be translated for city managers and planners, e.g. human capital has already extensively been described by Richard Florida’s terminology of “creative class”; structural capital has been discussed in the framework of cluster analysis, which included competency clusters as well as innovation networks and network dynamics. Structural capital also refers to city governance systems and institutional and societal framework. Other intangible assets are image of a place, culture, values and traditions as well as openness and ease of access of a place, in a tangible and intangible sense.

Intangible capacities of cities mentioned in the literature are: openness, initiative, vision, experimentation, learning, use of information and communication technologies, connectivity, cohesion, self-reflection and leadership. These terms can also be used to describe individual and organisations capacities, and in the context of cities refer to capacity of a city to create the conditions for an environment for dynamic and sustainable development. By describing cities that failed to do so over a long period of time, North and Kares (2005) suggest that it seems easier to describe cities governed by “ignorance” rather than “knowledge.”¹⁴

The history of cities is full of examples of cities that could be described as “knowledge cities,” able to exploit all dimensions of their intellectual capital, e.g. Florence and Venice during the renaissance period in Europe, Paris, Vienna, and Berlin at the turn of the 19th century, but could not sustain their knowledge advantage, or in knowledge ecology terms, were not resilient enough.

North and Kares assess a city’s intelligence by asking question about the different capacities, for example, whether a city is able to capture new trends, ideas, and development, assess its strengths, weaknesses, and limitations, build networks of citizens and communities and motivates citizens by transparent and good leadership.

While the emerging literature on knowledge cities offers some new perspectives on how to understand the dynamics of an urban creative ecology, it leaves some question marks regarding the balance of intended planning and space for unintended developments, the emerging spaces for new ideas. To what extent can a city be purposely designed without becoming an “urban machine”?¹⁵

Singapore, referred to as “urban machine” by a local city planner, recently launched the Lee Kuan Yew World City Prize.¹⁶ The biannual international award shall “recognize individuals and organisations responsible for urban initiatives that display foresight, good governance or innovation in tackling the many urban challenges faced by cities. These urban initiatives can include (...) urban planning projects, urban policies and programmes, urban management, as well as applied technology in urban solutions”.

While the prize shall award holistic urban planning, it is also focusing on “practical and cost effective solutions,” which are not necessarily solutions conducive to a knowledge and creative city ecology with its “informalities” and imperfections necessary to stimulate creative people, and easily found in natural creative city environments such as Bangkok, Taipei or Mumbai.

There are no recipes for finding this balance between planned and “unplanned” city development that would allow the intellectual capital of a city to flourish in all dimensions. In “The Art of City Making” Charles Landry¹⁷ discusses the skills required as foundation for this art which go beyond conventional city planning approaches in architecture, engineering and land-use planning.

¹³ Howkins, John. 2009. *Creative Ecologies: Where Thinking is a Proper Job*. Queensland: University of Queensland Press, p 81

¹⁴ North, Klaus and Stefanie Kares. 2005. *Ragusa or How to Measure Ignorance: The Ignorance Meter*, pp 253-264, in Bounfour, Ahmed and Leif Edvinsson. *Intellectual Capital for Communities: Nations, Regions, and Cities*. Burlington: Elsevier

¹⁵ Term used by Liu Thai-Ker, formerly the CEO of the Housing & Development Board for 20 in Singapore at an Financial Times event on Urban Regeneration, 13 July 2009, in Hong Kong. He compared cities to a machine; a city “should be like an aesthetically pleasing car, where all parts are well assembled”.

¹⁶ <http://www.leekuaneyeworldcityprize.com.sg/home.html>

¹⁷ Charles Landry. 2006. *The Art of City Making*. Earthscan

The concept of knowledge cities is still an emerging field of theory and practice, and few cities apply intellectual capital models in their city planning strategies in a comprehensive way. However, with a growing number of cities competing to become attractive and “liveable” places, understanding, managing and monitoring the intellectual capital of a city is critical for a sustainable and dynamic city development.

While there is a long history and vast body of knowledge on cities and city dynamics, the knowledge city perspective contributes to a better understanding of the intangible dimension of a city.

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