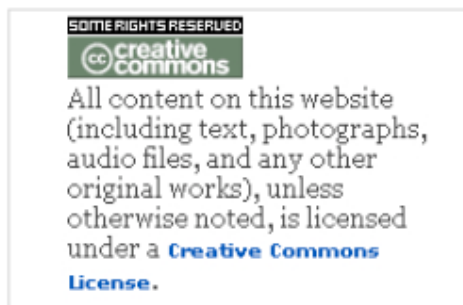


Systemic Complexity for human development in the 21<sup>st</sup> century  
**Systemic Complexity : new prospects to complex system theory**  
7<sup>th</sup> Congress of the UES **Systems Science European Union** Lisbon, Dec. 17-19, 2008



**ShareAlike**

This work is licensed under the  
**Creative Commons**  
Attribution-NonCommercial-NoDerivs  
**License**

**Ce travail est protégé par une licence**  
**Creative Commons**

(559 Nathan Abbott Way, Stanford, California 94305, USA)

**au profit de l' association**

**APOCOSIS**

**ISBN: 978-972-9059-05-6**

**Il peut être copié et distribué gratuitement, uniquement dans un but non-commercial, mais sans modification, et à condition que soit indiqués**  
**It can be copied and distributed, only in a non-commercial purpose, but without modification, and provided with the indications of**

the origin/la source : <http://www.afscet.asso.fr/resSystemica/Lisboa08/goncalvesMJ.pdf>

the title/le titre : [Cities and emerging networks of learning communities.](#)

the author/l'auteur : **GONCALVES Maria José**

the pages/la pagination : **9 p.**

the year/l'année : **2008**

& the book/la publication: [7th Systems Science European Union Congress Proceedings, Lisboa, Portugal.](#)

Attribution Non-Commerciale, Partage À l'Identique  
Urhebernennung, Nicht-kommerziell, Gegenseitigkeit  
Atribución No comercial, Compartir en igualdad  
Atribuição Não-Comercial, Partilha em Igualdade



# Cities and emerging networks of learning communities

Maria José Gonçalves

New University of Lisbon (UNL) – Faculty of Sciences and Technology (FCT) – Education and Development Research Unit (UIED)

[mj.goncalves@fct.unl.pt](mailto:mj.goncalves@fct.unl.pt)

## Abstract

In the 21<sup>st</sup> century the majority of people live in urban settings and studies show a trend to the increase of this phenomenon. Globalisation and the concentration of multinational and clusters of firms in certain places are attracting people who seek employment and a better living. Many of those agglomerations are situated in developing countries, representing serious challenges both for public and private sectors. Programmes and initiatives in different countries are taking place and best practices are being exchanged globally. The objective is to transform these urban places into sustainable learning cities/regions where citizens can live with quality. The complexity of urban places, sometimes megacities, opened a new field of research. This paper argues that in order to understand the dynamics of such a complex phenomenon, a multidisciplinary, systemic approach is needed and the creation of learning cities and regions calls for the contribution of a multitude of fields of knowledge, ranging from economy to urbanism, educational science, sociology, environmental psychology and others.

Key words: learning cities; globalisation; complexity; urban places; sustainability

## Introduction

Cities are extremely complex human creations. Globalization brought about the concentration of great multinationals and clusters of firms in certain places of the world, causing huge migrations to cities and regions situated in those places, thus creating new and unstoppable phenomena – megacities. These phenomena have highly increased the complexity of those concentrations of people, giving rise to some problems and widening other existing ones. States, local authorities and civil society itself are now facing new challenges. In such a high level of complexity, challenges have to be transformed in opportunities to reach economic, social and cultural development of those cities/regions and extend quality of life to every resident. From the intentionality of several actors, the idea of transforming those places into learning cities/regions came into light and a new field of research has emerged, that calls for a plurality of insights and contributions from several fields of knowledge – economy, social sciences, sciences of health, urbanism, psychology, namely environmental psychology, educational science, just to name a few. And because there is intentionality, there is a need to manage all this complexity that creates a multitude of interactions. From the interactions between several actors, institutions and organizations new knowledge is being created leading to innovation and implementation of new solutions to new challenges.

## Learning city/region – a conceptual framework

The concept of learning city/region can be considered to have its origins in an OECD initiative in 1973, to establish the *educating city*, with the objective of prioritizing education in developing strategies. Seven cities were invited to pilot this programme: Adelaide, Edmonton, Edinburgh, Gothenburg, Kakegawa, Pittsburgh and Vienna. The objective was to put education at the forefront of their strategies and policies to improve economic performance. After that, many other cities around the world have been experiencing strategies and practices that foster a sustainable economic development and a better living for their citizens. More and more municipalities worldwide define themselves as “learning cities”, learning towns” or “learning villages”.

Since 1980, the expression “learning city” has become more common, with a subtle shift from “educating” to “learning”, reflecting the idea that both individuals and organizations shape their own paths instead of being mere objects of institutions (Sanky and Osborn 2006). There is a consensus about the idea that people, not places learn, and that learning occurs within a context and culture, in social interactions, because it is socially constructed (Lave and Wenger 1991; Nishiguchi 2001; Nonaka and Nishiguchi 2001; Krogh 1998; Wenger 1998). “Hence all communities learn, especially when they share the same goals, their members engage in activities to attain these goals and they can seek and give information and knowledge” (Gonçalves 2007).

Using lifelong learning as an organizing principle, learning cities/regions promote the collaboration of civil, private, voluntary and education sectors in the process to achieve two common objectives – sustainable economic development and social inclusion (DfEE 1998). Besides the recognition that all sectors can provide learning resources, this definition contains the key notions of the learning city concept: different actors’ responsibility in facilitating Lifelong Learning; creation of explicit and co-operative connections between them; inclusion of every person, and simultaneously commitment to economic development. Thus, by placing people at the centre of policies, the objectives of learning cities/regions are as follow: to support lifelong learning; to promote social and economic reconstruction through partnerships, participation and action; to create a culture of intentional learning (DfEE 1988; Longworth 2003).

In this sense, “learning can mean practising, studying, or reading about something. It can also mean being taught, instructed or coached. This is so you can develop skills, knowledge, abilities or understanding of something. Learning can also be called education or training. You can do it regularly (each day or month) or you can do it for a short period of time. It can be full or part time, done at home, at work, or in another place like college. Learning does not have to lead to a qualification. We are interested in any learning you have done, whether or not it was finished” (NIACE 1997).

## Historical evolution of the concept and of its practical application

The growth of these learning communities (learning towns, cities and regions) has been rapid since 1996, the European Year for Lifelong Learning, when OECD and UNESCO published two reports on lifelong learning. Both documents emphasized the multiple contexts of learning and firmly link the concept to the economic, social, cultural and environmental challenges that communities face. Several initiatives started developing in different geographic regions – European Union and OECD initiatives for learning cities/regions; the UK, where pioneering national government initiatives and the development of

Learning Communities Network took place to foster learning city development and analysis; the state of Victoria's Learning Towns Network and the creation of the Melbourne-based PASCAL Observatory on Place Management, Social Capital and Learning Regions.

Inspired by these initiatives, literature on learning cities/regions started to develop, reflecting different perspectives and models of analysis. In the middle of 1990s, more literature on this theme came into light, now also influenced by the new developments in different fields of knowledge – neuroscience, with its advances on brain development research and learning theory; social capital theory and its connection to human capital, urbanism, and environmental psychology. Literature on learning cities/regions shows significant divergences in terms of theoretical and political convictions. However, they all try to understand the social dynamics and meaning of these new phenomena that opened a new field of research. It is our belief that the complexity of such phenomena demands a reflexive, multi-disciplinary, systemic approach in order to capture this new and multifaceted reality.

Some authors, like Faris (2006) give these communities the generic name of *Learning Communities of Place* that possess unique features or characteristics: places that explicitly use lifelong learning as an organising principle and social/cultural goal – political jurisdictions; residents define operational boundaries; ICT is used to network within and among learning communities of place. Besides, these communities of place have the following strategies, mission and actions in common: responsibility of a range of actors to facilitate learning; creation of explicit partnership and cooperation between actors; social inclusion, and sustainable economic development (Faris 2006; Longworth 2006; Duke et al 2006).

For innovation, social inclusion and active citizenship to be achieved, the following strategies should be followed: a bottom-up approach and people's commitment in the transformation of communities. This implies fighting against the decline of the political activity; encouraging consumers to practice and participate in services planning; promoting commitment of private entities; promoting social inclusion, and modernising and reinforcing local democracy (UN-HABITAT 2006)

## 21<sup>st</sup> century cities/regions and knowledge sharing

Nowadays, the vast majority of people all over the world are living in towns and cities. There are now more than three hundred city/regions around the world with populations greater than one million, and the proportion of the urban population between 1950-2030 shows a trend to a sharp rise of the urban population in all regions of the world, including Europe. By 2030, 80 percent of the world urban population will live in cities of developing countries (The State of the World Cities Report 2008/9). According to the same report, harmony for such cities hinges on two key pillars: equity and sustainability. However, these city/regions present many new and deep challenges to researchers and policy-makers in both the more developed and the less developed parts of the world. This process calls for innovation to find out new ways of dealing with these distinctive phenomena that Scott (2002) generally refers to as "global city-regions", the advent of which is intrinsically related to intensifying levels of globalization (idem). Generally speaking, cities are very complex. They are a network of interacting complex adaptive systems and they learn interacting with each other and also through the interaction of several systems within each of

them. To cope with their enormous challenges that require immediate action, many of them are becoming incubators of innovation and share their best strategies. It can be said that “a new urban community is emerging in which cities are collaborating with each other in the global market place” (Michael Bloomberg 2008). Traffic jams; overcrowded buses and trains; air pollution, and also vital services like water supply, energy production, and waste management are new challenges. These challenges demand trial and error experiences and successful experiences are being shared all over the world, expanding new knowledge and best practices. Among those best practices are *traffic reduction plan* – London, Stockholm and Singapore experiences; *developing the climate-change strategies* – Berlin experiences for the renewable energies, and green-roof policies; *innovative transit improvement* – Hong-Kong, Shanghai and Delhi experiences; *pedestrian and cycling upgrades* – Copenhagen experience; *plan to plant one million more trees* – Chicago and Los Angeles experiences; *transit oriented development policies* – Amsterdam and Tokyo experiences, and *Plans for Bus Rapid Transit* – Bogota experience.

### An economic perspective

According to economist Allen Scott, initiatives undertaken by learning region/cities are a way of taking advantage of globalization. Those cities/regions have created a new organisation that “consists, above all of a hierarchy of interpenetrating territorial scales of economic activity and governance relations, ranging from the global to the local, and in which the emerging system of global city-regions figures permanently” (Scott 2002:13). Still following the same author, such hierarchy obeys to four principles:

1. A huge and ever growing economic activity that occurs in extensive cross-national networks – G7/G8 group; OECD, World Bank, IMF, and World Trade Organization. While these particular political responses to the pressures of globalization remain limited in scope and really authority, they are liable to expansion and consolidation as capitalism continues to globalize.
2. As a corollary of those pressures during the last decades there has been a proliferation of multination blocs, such as European Union, NAFTA, MERCOSUR, ASEAN, APEC, CARICOM, and many others. These blocks, at the forefront of which is the European Union, are also institutional responses to the expansion of national capitalisms beyond their traditional boundaries.
3. Sovereign states and national economies remain prevailing elements of the contemporaneous political and economic scene, although they are suffering a clear deep transformation. National states no longer have the sovereign autonomy they once had and their capacity to protect regions under their jurisdiction is lower because of a more and more intensified globalization
4. Accordingly, there has been a resurgence of region-based forms of economic and political organisation, with the clearest expression of this tendency being found in certain large global city-regions (...) The economic and political trajectories of these city-regions cannot be fully understood except in relationship to the complex hierarchy of interpenetrating territorial scales referred above (Scott 2002: 14)

## A sociologic perspective

Sociologist Peter Jarvis (2007) analysis this issue taking into consideration the lost of sovereignty by states that launch many lifelong learning policies as a shock absorber for the negative effects of globalization. He argues that with the diminishing power of the sovereign states, the governments wish to encourage citizens to take an interest in their democratic possibilities trough lifelong learning that is viewed as the cushion against the harsh realities of the forces of the global markets. Thus, education is expected to become “the key to the door of social inclusion” even if it is “no more than a step on the ladder towards social equality”.

Jarvis affirms that the world has reached a situation where the state is no longer sovereign but needs the investment of the economic sub-structure, and this is the reason why states claim for partnership with economic world. According to this author, partnership is an acknowledgement by politicians that they have lost the sovereign power in their own societies and they need the financial support of the subs-structure.

Giddens (2004) has a slight different view, when discussing urban renewal. He argues that such renewal will depend both on a strong political local leadership and a wide democratic citizens' participation, the residents having a growing role in decision taking processes. Besides, he defends that public funds should be used in a way that would attract private investment through the market. In this process, education, debate and information sharing will be crucial. Giddens also stresses the crucial role of mayors in this process. In fact, “as world urban population grows, reforms and policies should be more and more directed to populations that live in urban areas. Cities' governments will be necessary and vital partners in these processes” (Giddens: 598).

## New Urbanism – another point of view

Cities should be more attractive to attract people to live, work and socialize within them. They should help developing a sense of community and security. Quarters should be more interconnected to encourage people to walk, to cycle or to use public transportations (Giddens 2004). Under this perspective, “urban renewal is not only the recuperation of the centre areas the town, but also the sustainable development of the regions that surround the town” (idem: 584). These ideas are shared by The Congress for the New Urbanism (CNU), founded in the United States in 1993 by a group of architects whose aim was to create buildings, neighbourhoods, and regions that provide a high quality of life for all residents, while protecting the natural environment. They started an organised movement they called new urbanism. Since then, CNU has expanded its members in twenty countries, aiming at promoting policies to make cities and towns more liveable than ever. Their annual congresses are interdisciplinary and gather architects, landscape architects, planners, economists, real estate agents and developers, lawyers, government officials, educators, citizen activists, and students to discuss issues related to the health and vitality of regions, towns, and neighbourhoods. These new urbanists consider that creating shared places in towns and cities where citizens can meet, dialogue, and feel proud of their communities is profoundly interdisciplinary. Plazas, squares, sidewalks, cafés and porches provide rich settings for public interaction. As it is stated in their mission, they develop practices to support the restoration of existent urban centres and the reconfiguration of sprawling suburbs into communities of real

neighbourhoods. New urbanists have special concerns with the common use of public spaces and believe communities should be designed for the pedestrian as well as the cars. Moreover, urban places design should take into account and preserve local history, climate, ecology, and building practice (Charter of the New Urbanism, CNU 2001).

Despite some criticism (UN-HABITA, 2003) this movement has generated new ideas and successful experiences, although many problems still persist.

### The environmental psychology perspective

Environmental psychology is an emerging field of knowledge within applied psychology, which is linked to studies carried out by researchers coming from other areas – architects, geographers, anthropologists and sociologists interested in the relationship humankind-environment or relationship behaviour-environment. The rapid growth of the environmental psychology, both in Britain and in the United States was mainly due to the needs of two fields of knowledge: architecture and urban planning, and natural-biological sciences (Carrus, Fornara and Bonnes 2005). The aim of this new discipline is to “collaborate with other domains, disciplinary and technical, committed to the organization, change and management of human physical environments” (idem: 87). Unlike traditional psychology that stresses the negative effects of population overdensity on city residents, it is argued that there are no proofs that such element influences, by itself, significantly in a negative way, leading to anomy, and the loss of social links in the urban space. Social isolation induces pathology and this one induces social isolation. There is evidence that these two phenomena are closely interconnected and that sociological they are associated to urban areas where social integration is poor (Leighton et al, cited by Soczka (2005: 108). However, according to Soczka (2005), social isolation is not the rule in the city, which is a *multicultural mosaic*, with a multitude of social worlds. It is a space of intergroup relationships that interpenetrate at different levels. With their own values, these groups constitute networks of social support that allow urban people to survive, as well as neighbourhoods and family networks.

In higher economic and cultural classes social relationships are established according to criteria of cultural or ideological identification that surpass the geographic boundaries of the residential place. In fact, a doctor or an engineer can ignore his neighbours and frequently meet friends living several kilometres away. Unlikely, in poor quarters daily relationships are more determined by neighbourhood proximity.

Following Aristotle, Speller (2005) concentrates on the concept of “place”, defining it as the dimension of the relationship between the person and physical environment, a relationship that leads to the evocation of feelings of belonging and allows the linkage between the individual and his collective past, present and future. This concept of place cannot be confused with the concept of space and should be considered when building new houses for people living in slums.

### Challenges to face and lessons to learn

As Kofi Annan once stated, “the problem is not urbanisation per se, but the fact that, in many developing countries, urbanisation did not give rise to a higher prosperity or to a more equitable distribution of resources”. As a matter of fact,

wealth produced in cities and regions does not automatically lead to diminishing of poverty. There is evidence that inequalities in the access to services, housing, land, health care and employment in cities and towns have socio-economic, political and environmental repercussions – growth of violence, urban tumults, environmental degradation, and under-employment (UN-HABITAT 2006). In these new urban spaces, there is a growing cultural and demographic heterogeneity induced by migration into the large cities, which is associated on the one hand to explosive dangers and, on the other hand, to creative opportunities of social mobility and social justice. There is also an accentuated change in the morphology of the spaces in these cities/regions. They are becoming more and more polycentric or multiclustered agglomerations. The gap between rich and poor in economic, social and spatial terms is evident (Scott 2002). Other unwished effects of megacities are the negative environmental impact, traffic jams, overloaded buses and trains, with a consequent delay to reach workplace, air pollution, overloading of essential services – energy production, trash management, and water supply. All these factors are translated in a low quality of life.

However, urbanisation also demonstrates positive aspects as strength for human development. Highly urbanised countries exhibit higher incomes, more sustainable economies, stronger institutions, more opportunities for employment and investment in cities, other than being able to resist to global economy volatility.

Based on well succeeded experiences, Faris (2006) refers to learning cities/regions as innovation incubators, where a global urban community emerges as a result of networks of learning cities and regions that collaborate with each other in the solution of common problems while they compete among themselves in a global market. These municipalities are prone to solve problems requiring immediate solution and to develop projects inspired in lessons learned from other cities. According to the same author, the study of several initiatives demonstrate that there is not a unique model of learning city/region, because each city has its own, unique context (historical, geographic, economic) and also because values and aspirations of citizens varies according to contexts. However, three priorities emerge: economic development, urban regeneration, social inclusion and extensive ICT use for educational and economic purposes.

Yarnit (2000) enumerates the following six emerging themes from best practices in the United Kingdom: family learning; basic skills (literacy and numeracy); commitment to community; citizenship skills; learning how to overcome job mismatch; networks of learning centres, and sustainable schools and communities. In British Columbia initiatives, Faris and Peterson (2000) devise the six more common finalities: education for citizenship; health promotion; economic development; environmental sustainability; rural/urban development, and socio/cultural development.

## Discussion and conclusion

In an attempt to reach a better understanding of the dynamics of learning /cities regions, we tried to see this complex phenomenon under several perspectives coming from different fields of knowledge that have been giving their contribution to respond to the challenges of these new communities of place. None of these perspectives *per se* can give a whole understanding of this phenomenon, and solve the many problems today's cities and regions face.



Especially in developing countries, these city/regions show spatial forms that reflect a tremendous gap between rich and poor, with massive poor communities living in slums while the high middle class and the rich dwell in spacious and well equipped communities, quite often surrounded by security devices that sometimes assume forms of fortress settlements, to protect themselves from crime and violence generated by complex social frictions caused by segregation, inequality and even misery. The negative side of globalization, with its extreme competition, ICT and the explosion of information are creating a materialistic, mass culture that often deprives populations from their sense of community of place, from the history of their lives and heritage and challenge a sustainable environmental, economic and social future.

Counteracting against these negative trends, the so-called cities/regions have been emerging all over the world. They are willing to preserve their values, beliefs and quality of life. Because they want their places to be unique, municipalities, the private sector and citizens, are working on innovative ways to reach equity and sustainability. Successful experiences are globally shared with other communities and learning is expanding.

A systemic, holistic view is needed from different fields of knowledge that overlap each other. Experiences of cities renewal and housing construction to extinguish slums have demonstrated that architecture and urban planning are not able *per se* to make people feel well, with a good quality of life and keeping their cultural references. Health and social sciences are called to give their contributions; a new field of psychology is developing widely – environmental psychology – and science education is absorbing new findings from neuroscience and the new theories of individual, social and organizational learning. As Scott (2002) remarks, the great challenge for the future lies in the creation of new and responsive frameworks of regional governance capable of sustaining economic development, instigating a sense of cooperative regional identity, and promoting innovative ways of achieving regional democracy and economic fair play. To reach such a goal, it is our belief that a correct management of existing knowledge and the creation of new one are needed to mobilise different disciplines and activate the networks where knowledge is embedded and expand it in higher and higher spirals.

## References

- Bloomberg, M. (2008) «The city club». *The Economist. The World in 2008*, pp. 64
- Carrus, G.; Fornara, F. and Bonnes, M. (2005) «As origens da psicologia ambiental e os “factores externos”» in Soczka, L. (Org.), *Contextos Humanos e Psicologia Ambiental*, Lisboa: Fundação Calouste Gulbenkian, pp. 67-89
- Congress for the New Urbanism. 2001. *Charter of the New Urbanism*. [http://www.cnu.org/cnu\\_reports/Charter.pdf](http://www.cnu.org/cnu_reports/Charter.pdf).
- DfEE (1998) *Learning Towns, Learning Cities – The Toolkit – Practice, Progress and Value*. Sudbury:DfEE, <http://www.lifelonglearning.co.uk/learningcities/>
- Duke, C. et al (2006) *Making knowledge work: sustaining learning communities and regions and regions*, Leicester: NIACE
- Faris, R. (1996) *Learning Cities Annotated Bibliography. In Support of the Vancouver Learning City Initiative*. Canada: Vancouver <http://members.shaw.ca/rfaris/docs/VLC%20Bibliography.pdf>
- Giddens, A. (2004) 4<sup>th</sup> edition *Sociologia*, Lisboa: Fundação Calouste Gulbenkian
- Gonçalves, M.J. (2007) «Portuguese Entrepreneurial Women: fostering learning communities», *Lifelong Learning in Europe*, Volume XXII, issue 2/2007, pp. 82-89
- JARVIS, P. (2007) «The Learning Regions and European Policy: a Sociological analysis», *LLinE Volume XII, Issue 1/2007 Learning Regions – Learning Cities*, pp.8-15

- Krogh, G. von (1998) «Care in knowledge creation», *California Management Review*, Vol. 40, NO. 3, spring 1998, pp. 133-153
- Lave J. and Wenger, E. (1991) *Situated learning: Legitimate peripheral participation*, Cambridge: University of Cambridge Press
- Longworth, Norman (1999) *Making Lifelong Learning Work: learning cities for a new century*, London: Kogan Page
- Longworth, Norman (2003) *Lifelong Learning in Action: transforming education in the 21<sup>st</sup> century*, London: Kogan Page
- Moss, P. (2005) «Dedicated to Loris Malaguzzi, The Town of Reggio Emilia and its schools». *Refocus journal*, Issue One Summer 2005, UK, pp.22-25
- NIACE (1997) *The learning divide: a study of participation in adult learning in the United Kingdom, NIACE, 1997*
- Nishiguchi, T. (2001) «Coevolution of Interorganizational Relations», in Ikujiro Nonaka and Toshihiro Nishiguchi (eds), *Knowledge Emergency. Social, Technical, and Evolutionary Dimensions of Knowledge Creation*, New York: Oxford University Press, pp. 197-222
- The Habitat Agenda Goals and Principles, Commitments, and the Global Plan for Action*  
[http://www.unhabitat.org/downloads/docs/1176\\_6455\\_The\\_Habitat\\_Agenda.pdf](http://www.unhabitat.org/downloads/docs/1176_6455_The_Habitat_Agenda.pdf)
- Nonaka, I. and Nishiguchi, T. (2001) «Knowledge emergency», in Ikujiro Nonaka and Toshihiro Nishiguchi (eds), *Knowledge Emergency. Social, Technical, and Evolutionary Dimensions of Knowledge Creation*, New York: Oxford University Press, pp. 3-9
- OECD (Organisation for Economic Co-operation and Development (2001) *Cities and Regions in the New Learning Economy. Education and Skills*. Paris: OECD Publications
- Sanky, K. and Osborn, M. (2006) «Lifelong Learning region where other learning doesn't reach», in R. Edwards et al *Researching learning outside the academy*. London: Routledge
- Scott, A.J. (edit.) (2002) *Global cities-regions: Trends, Theory, Policy* New York: Oxford University Press
- Soczka, L. (2005) «Viver (Na) Cidade» in Soczka. L. (Org.), *Contextos Humanos e Psicologia Ambiental*, Lisboa: Fundação Calouste Gulbenkian, pp. 91-131
- Speller, G. (2005) «A Importância da Vinculação ao Lugar» in Soczka. L. (Org.), *Contextos Humanos e Psicologia Ambiental*, Lisboa: Fundação Calouste Gulbenkian, pp. 134-167
- UN-HABITAT (2003) *The State of the World's Cities. The Challenge of Slums. Global Report on Human Settlements 2003*. United Nations Human Settlements Programme
- UN-HABITAT (2006) *State of the World's Cities 2006/7. The Millenium Development Goals and Urban Sustainability*. United Nations Human Settlements Programme
- UN-HABITAT (2008) *State of the World's Cities 2008/9. Harmonious Cities*. United Nations Human Settlements Programme
- Wenger, E. (1998) *Communities of Practice: Learning, Meaning, and Identity*. USA: Cambridge University Press