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What is a smart city project?
An urban model or a corporate business plan?

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Abstract

This paper aims at bringing to light some weaknesses in smart city projects and holds a rhetorical debate supported by a progressive fraction of the population. Smart city projects are important for urban policies in as much as they allow for a reinvention of territories. We must not only consider the large energy networks and/or technologies, but also take into consideration the distribution and management of tasks and networks run by citizens as they promote civic goodness and social sensibility. The "smart city'' is a good programme because it can aim at developing a new form of ''modernity and civilization'' of the productive platform. Numerous aspects of the territorial policy can enhance the competitiveness of the territories, in particular social cohesion, the diffusion of knowledge, creativity, accessibility and freedom of movement, the usability of the environment itself and the quality of the landscape, as well as the wellbeing of citizens.

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1. Being Smart or Being Just a City?

The term, *smart city,* was coined in the United States of America, inside the business environment of two corporations, IBM and CISCO, to indicate a point of view of an idealized city connected to topics of automation. The main one is the Information and Communication Technology (ICT) chains that have been demonstrated to be the most important elements for urban intelligence[1].

The concept of *smartness* was developed during some cities' debates on urban politics, at the beginning of the '90s, in the United States of America (Burchell, Listokin, Galley, 2000; Downs, 2005). It is a paradigm of another concept i.e. *smart growth* (Knaap, Talen, 2005), a North American notion and was coined by the *New Urbanism* movement. It elaborated on a debate around the anti-sprawl problematics to define a strategy linked to a sustainable development. The concepts of *smart growth* and *smartness* are closely linked to the questions of economic environment and social equity (Scott, 2000).

The concept of *smartness* is mainly applied to *smart growth* because it has a pragmatic and technical dimension (Bulkeley – Betsill 2005). It is important to make a distinction between these two terms, also because a lot of cities adopt the concept of *smart* in their *policy-making* agendas. It is linked to another two notions: *growth* and *shrinkage* (Pallagst, 2009). The term *smart* is linked to the standards of *good practices* and *smartness policy* is connected to the spatial and sectorial dimension (*policy agenda*) (Herrschel, 2013).

Not only do the ICT chains make economic value, but they also exert social and spatial influences (Graham, Marvin, 1996; Florida, 2002). However, there is a problem linked to the use of the term *smart* as it can be interpreted in many ways e.g. the adjective *smart* implies the concepts of urban technological innovation and the changes that can be made through the application of ICT, but, at the same time, informatics and digital technologies are used to connect e-governance[†], social learning and/or to solve sustainable environmental and social problems[‡]. Indeed, numerous problems are involved in the definition of *smart* tags within a debate on a technological and creative city. Moreover, these problems do not only involve the definition of meanings, but also the governing rules and regulations. In fact, it is uncommon to find critical analyses of debates on the *smart city* - apart from Holland's innovative contribution (2008) – which is similar to what has been written by those who contested the *business city* (Harvey, 1989), the neoliberal actions and urban spaces (Peck, Tickell, 2002) and the critical literature on urban marketing (Begg, 2002; Short, Breitbach, Buckman, Essek, 2000).

We must define a critical reflection about the interpretation of the *smart city* concept that is not connected to a technical or technological one. The international journal, *Urban Studies,* which promotes important reports like the one by Gibbs, Krueger and MacLeod, 2013; Herrschel, 2013 et al, published the first review with a space dedicated to this question. Moreover, there was an interdisciplinary workshop organized in the most important British geographic department, entitled "*Smart Urbanism: Utopian Vision or False Down?*"[§]. Other critical pamphlets and reports linked the topics of European *policies* (Greenfield, 2013; Townsend, 2013; Vanolo, 2014) to the urban studies. A critical analysis must not make a tag of a *smart city,* but should rather define a study within the urban studies themselves that can emphasize how a lot of smart concepts are nothing more than self-references (Governa, 2014). It is not important to understand if the *smart cities* are real in an empiric model, nor if the cities are successful in their urban policies, so as to keep the European *smart* policies going. The principal goal is rather one of defining how the smart tag has been used by a lot of cities, then we should make a critique about this specific urban planning. Lastly, we should emphasize the contradictions inside this urban process. It must describe how the European Union has promoted the *smart city* concept and detail the resources and laws on this project.

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[1] Smart city has been an IBM's brand since November, 2011. It is an important step inside the competition between ICT corporations to define visibility and recognition for the business of supplying hi-tech service.

[†] Eurocities, Knowledge Society, 2007, in http://www.eurocities .org/main.php.

[‡] Smart Growth Network, Smart growth online, 2007, in http.smartgrowth.org.

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The term *smart city* was inserted into the communitarian official documents in 2009. The concept was introduced for the first time in the "Strategic Energy Technology Plan", (SET). There it defines a *smart city* as "*a city that makes a conscious effort to innovatively employ information and communication technologies (ICT) to support a more inclusive, diverse and sustainable urban environment*''.

That plan describes the logical methods to use so as to achieve the *Strategic European* 2020 goals. This document makes a connection between the smart city project and economic development: *smart growth*, *sustainable growth and social inclusion*. It is based on five goals: employment, innovation, instruction, decreasing poverty and climate changes.

The urban policy, linked to the concept of smart city, is connected to the place-based approach　　　　　(Barca, McCann, Rodriguez Pose, 2012). It is, however, important to understand how to relate this strategy to specific urban realities. All of these terms are related to the economic crisis and the "fuzzy concept" trap (Markusen, 2003). It is not easy to relate the concept of smart city to digital knowledge and creativity, since both of them have a lot of meanings.

2. Identify "venture capital", connections between "economic élite" and molecular capitalism (start-up)

The questions involved in a "smart city" are linked to the *revolution*, a term used to emphasise a radical change, in modifying the production system i.e. from industrial to digital. When the production system modifies the way work is to be carried out, it not only changes the process to one of the formation of economic and social values, but also the technological system and its relationship with nature. The political system, its methods to decide and create a form of institutional representation, are in evolution. Everything is changing within social organization: the hierarchy, the consumption models and even life-styles. These changes may be sudden or organized by social processes i.e. have long development periods and may also be influenced by a series of demands, knowledge, techniques and systems. So as to understand the current global crisis we must analyse, not only today's reality, but also what is difficult to change.

The word "smart" even became a brand in 1996, when a spokesperson of the Daimler A.G. group produced a small economic car i.e. one that was good for the city with innovative technologies. From then on the word "smart" became not only a brand, but also a new way of being so as to emphasise: agility, urbanism, the welcoming of new technologies and innovations. Indeed, such a car is only a symbol that represents this innovative "way of being" i.e. goods characterized by the system of industrial production in the1900s.

The most important sign of the First Industrial Revolution was the creation of the railway system which crossed both the USA and Europe. During the second part of the Industrial Revolution the building of motorways and airport systems also left their mark. At the end of the 1900s, the global chain moved from material to immaterial. As from 1995, internet (interconnected network), then known as ARPNET (military programme), was born. In 1969 it became the World Wide Web of CERN and, in 1993, a chain to link study centres and universities, a public system accelerating the global success of Information and Communication Technology (ICT).

In 1992, before the introduction of the "smart city" onto the market, IBM marketed the first mobile system capable of combining a *cell 'phone function* and the management of personal data,using specific applications e.g. with the name "app" and to connect these data with other accounts and data able to overcome the limits of time and space. This was the birth and development of the "smart-phone". This was a crucial passage from the birth of material chains to immaterial ones, making it possible to analyze all the world systems as one big chain. Internet and the digital systems were then embedded into all the steps involved in the production of goods. They posed a lot of questions about the current transformations, mainly about the production models for the definition of the consolidation of collective values and specific economics, as well as political and social organization.

Question time: are we still within the industrial model of production? Is the digital system an advanced form of the industrial model of production? Is the digital system an advanced form of the industrial model of production or does it mark a new life? Indeed if it is a new line, is this new line a real revolution or just one of the many metamorphosis i.e. the social system used to "invalidate" the social contradictions? Why does the birth of the digital system make for "smart" ethics and aesthetics? Why does the model of digital production commit us to a way of being? It is important to understand numerous questions like those connected to knowledge, techniques, the creation of economics, social values and the political implications.

3. "Smart City" or "Smart Land"

At first, it was thought that a "smart city" would be like a "digital city". Over time, this vision became linked to other meanings and, nowadays, this concept has taken on the meaning of sustainable environment. Moreover, it must also be "social'' i.e. a smart city must be livable, socially inclusive and must promote the wellbeing of its citizens. In the latest public policy, aimed at implementing this programme, the "smart city" connects various topics, where investments in hi-tech and human capital are used to set-up sustainable environments and wellbeing.

The smart city project is an important appointment for Mediterranean Europe, because it allows for a *reinvention* of its territories, connecting the concept of "smart city" and "smart land" (A. Bonomi, 2013). Apart from the large energy and/or technology networks, we must also look at the distribution of tasks, management and networks run by citizens, because they provide civic goodness and social sensibility. The "smart land" is a good programme as it can push towards a new form of modernity and civilization of the productive platform. In this case, the "smart land" is an aspect of the territorial policy with the capacity to enhance the territories' competitiveness, with particular attention on social cohesion, the diffusion of knowledge, creativity, accessibility and freedom of movement, the usability of the environment, the quality of the landscape and the wellbeing of the citizens.

It proves that the concept of "smart land" is an extension of "smart city", it is connected to sustainability and "green economy". All of this is a good reality to start from so as to restructure the layout of the economy that is connected to the territories. These structures are linked to the capitalism model and are going through a structural crisis. It is important to build-up a society capable of creating new opportunities in the local system and these structures must also be able to reconvert these into economics and actions that, in turn, create networks of global flows. Although prospectives that are connected to these local and global flows must be adopted, the network of local companies cannot be responsible for it. Alliances with the representatives of companies, professions, jobs, universities and institutional structures must be established, as well as those operating within infrastructural networks, like energy suppliers, a milieu of environments and local institutions.

4. Start-up

The start-up of our scientific reflection must stem from the crisis of the economic Fordism model and the start-up of this post-industrial economy, which is based on knowledge and innovation. The job market is changing and there is currently a wide disparity between the various territories. The globalization and diffusion of numerous technologies for a lot of regions and cities in Mediterranean Europe, as all over Europe, are connected to an increase in the demand for jobs, more productivity, more occupation and higher incomes. Whilst, for others there is: unemployment, the closing of factories and lower incomes. This is the "*new geography of jobs*" that includes the European area and, for every job created by the innovation centers, there are another five in other sectors. In this setting, Mediterranean Europe risks becoming a *set of cities and industrial clusters* in decline, as can be seen in the pharmaceutics and computer industries. Understanding what underlies these differences between some regions and cities and why there is an increase in creative workers in particular areas and not in others, is very important so as to decipher and guide our economy (E. Moretti, 2013).

This analysis is connected to urban dimensions aimed at a model of governance, a system of power and of social discipline, it must use the elements that have come to light over time to create a network able to compete in the global scenario. In this period it was thought that creating a connection with the global networks sufficed to produce wellbeing, but this was a bad strategy as it damaged the "human capital", the principal element of territorial capitalism. In Italy, this connection was shown by the 3Cs: casa (house), campanile (bell tower i.e. church), capannone (warehouse). They were both private and empty spaces that created division amongst the citizens, but there were also community elements and various social levels to be considered. This is the Italian genesis of the north of Italy, known as "The northern question" (*questione settentrionale*), a north that has lived an economical boom without organized territories able to compete with globalization.

Although these economical/social flows have reconfigured the social composition of the territories, to date, there is nothing to govern the process involving the social consequences, either in the redistributive dimension on rights and duties or the one affecting the dimensions of duties and opportunities. Therefore, globalization has worsened the relationships between cities and the economic élite, which are increasingly expressions of flows such as finance, corporations, professions etc. To this analysis we must add those of the urban reality of many European cities that now have inhomogeneous outskirts and urban centres i.e. they are both fragmented. This is the dimension of a

"weak city" because it is poor in connective resources. Therefore, there is a return of the social connection so as to turn a community into a metropolis.

"Further studies on "general intellect" should be carried out to include other features like adapting the migration process. Indeed, there are some immigrants without Italian citizenship who make it necessary for their companies to adopt cultural innovations and cultural changes". They work in services, commerce and logistic platforms. Then there are the *makers- craftsmen*, a new generation of graduates who want to create knowledge and services and they connect technology and crafts to each other. They make use of temporary locations for defined periods of time shared with others i.e. they practice coworking - the social gathering of a group of people who, although working independently, share values and are interested in the synergy that can arise from working with people who place value on working in the same place alongside each other. The project of *a smart city* must start from the connection of these realities to define new territorial equilibrium.

A lot of European cities were built around the economic model of "Fordism": density, top down structures, management, creating a "company town"; a model that was based on the strong control of the chain of value, production lines connected to the mass worker. However, in this period the setting of a lot of territories is based on coworking and communication. It is a new model of capitalism[**] and defines a new relationship between factory and territory (A. Bonomi, R. Masiero, 2014). The models of the innovative companies are directed to an alternative model that is the opposite of Fordism i.e. they are based on the participation of the workers with the management of the company. This is a model that is currently present on the European territory and is striving to create an alternative system to the *big company* and *the union systems* linked to a vision of a world built around the contraposition between capital and work. In the middle of this contraposition we have the state. One such example is the territories in Mediterranean Europe where a molecular capitalism has been developed without distinctions between *worker and owner*. They are small and medium-sized enterprises (SME), managed by territorial contracts.

In this metamorphosis there is the need to start again from the concept of community, territory, horizontal organization, cooperation and synergy between *company and society*. There are signs in the "company welfare", "community welfare", makers, "green economy" and "green society" rather than capitalism, something which is more compatible and in line with the future society. At this level of analysis we must both analyze and emphasize the relationships of power and collaboration between the metropolitan system, the civic élite, the social capital, cooperative credit and the banking foundations. It is important to understand if the cooperative credit and banking foundations will be able to become the "commentary system" of proximity. The goals are to define the relationships between the credit systems and the territories and to analyze the reactions the industrial clusters unable to respond to globalization have. Both the networks of proximity and the long networks of simultaneity are valuable.

Discussion

Smartness and public approval are important topics connected to the *smart city* debate. The real reasons of so much fame around the *smart city* project is linked to certain factors which include: numerous communitarian economic resources to finance urban system reorganization, the big corporations aiming at investing capital in city digital projects, the making of a rhetoric policy that draws-up new strategies and, at the same time, gets rid of the current economic crisis. The *smart city* identifies the construction of a new system of power capable of creating knowledge, rationality, subjectivity and functionality; all of which are useful to an urban project. The principal topics are: the city as the hub of human development, no longer the State or the global society, the construction of systems to measure the cities' performances, the promotion of new partnerships between public and private assets as well as making local communities feel responsible. All of these topics are linked to *smartness* and/or *governmentality* (Vanolo, 2013). One of the goals to be achieved is that of making a strategy based on a policy of negotiations and the connection of civil society; these urban project cities can help turn some now *ghettoized people* and others into privileged persons.

The second point is linked to achieving the elimination of a technical vision of the city in a future prospective and also of making a *realistic model* of urban spaces, so that project solutions are close to the *real problems* in our

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[**] It is like Olivetti.

communities (Harvey, 2000; Davis, 2010). It has been emphasized how this kind of intervention tailored to a city works better if it is within delimitated spaces that have the same functional needs. This point of view could evidence the phenomenon of fragmentation of cities in achieving their goals by making a chain of single functional nodes or through stronger control. However, care must be taken not to create a gap between different urban spaces as to social order. Hopefully, we can define *intelligent interventions* on the bases of a sustainable urban development, taking into consideration the different and complex meanings involved in this concept.

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