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## **SMART CITIES AND SOCIAL FUTURING**

**WORKING PAPER SERIES NO. 7/2019**



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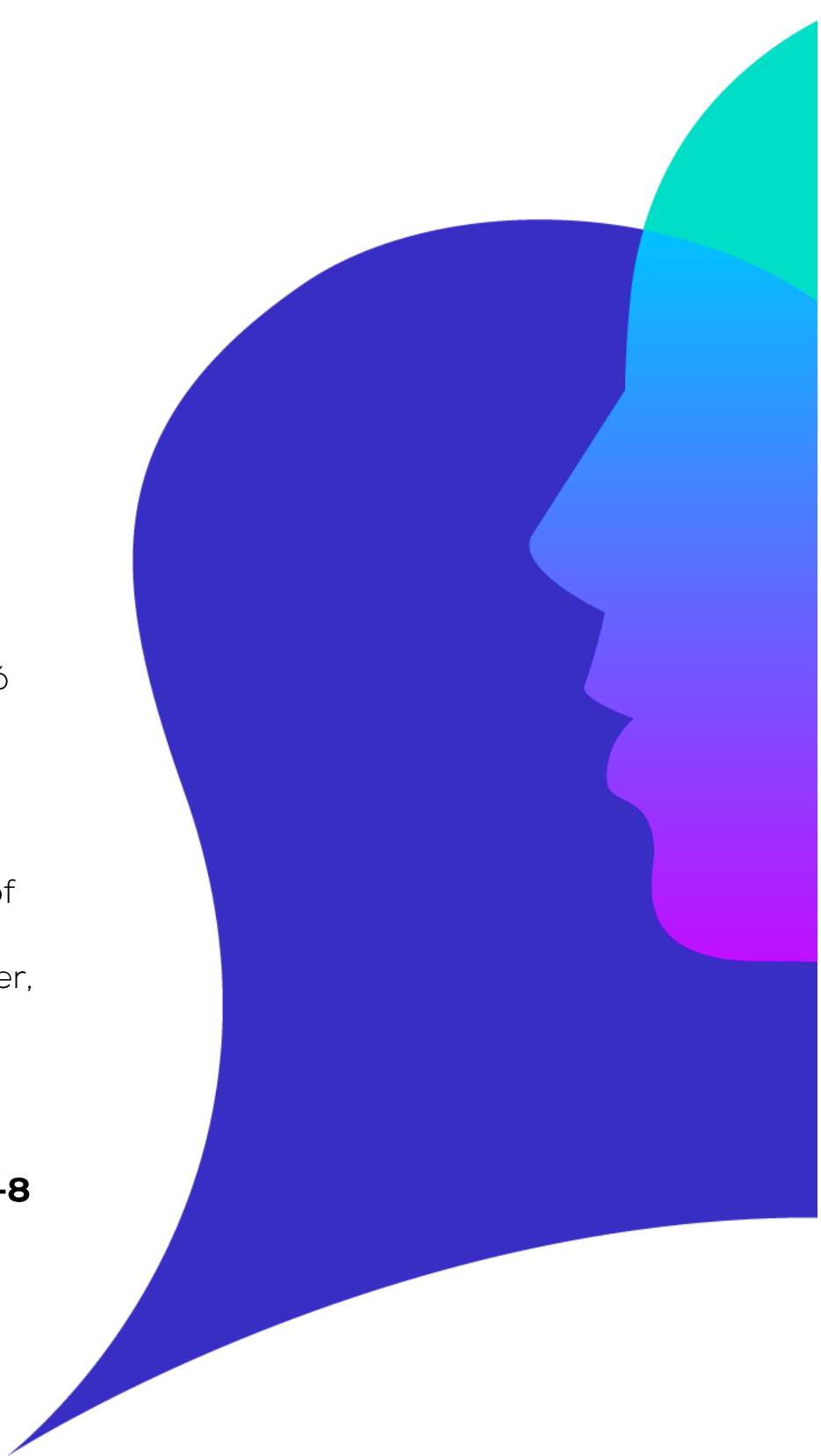
**Publisher:**

Corvinus University of  
Budapest,  
Social Futuring Center,  
Budapest 1093  
Fővám tér 8.

**ISBN 978-963-503-813-8**  
**ISSN 2560-2357**

**Online version:**

[www.socialfuturing.com](http://www.socialfuturing.com)



# 1. INTRODUCTION

The definition and nature of cities and the criteria by which they can be distinguished from other types of settlements are the subject of multiple types of discourse in various disciplines and approaches.<sup>1</sup> Cities have exhibited two key characteristics during their long history. On the one hand, they have offered people living outside their limits a number of services which can be provided appropriately and efficiently both in concentration and together with other services. A city is, then, the hub of some network covering a large geographic area and it constitutes a dense network itself, where a number of actors perform complementary and highly specialized activities while engaged in a fast and intensive exchange of information, and where the main role is played by the actors' knowledge and experiences rather than the physical facilities, houses and machines.<sup>2</sup> On the other hand, cities have always made an attempt to move away from everyday reality to higher spheres in order to symbolize both the community and some lofty ideal, in the form of a ziggurat, a square pattern of streets as a symbol of cosmic order, a cathedral, a castle or even a parliament building.<sup>3</sup>

Cities operate highly sophisticated systems to perform their activities and to maintain a framework for those activities. A lot of times such systems only become visible when they are exposed to a serious risk due to a dysfunction. The majority of such systems is designed for the present in response to most hypothetical dangers, such as floods, fires and wars, which threaten the city from outside at a given time.

However, a high number of the thousands of cities that have disappeared during history did not lose their inhabitants as a consequence of a disaster or an external attack. Instead, they declined over a shorter or longer period for their inability to give a proper response to changes in the natural and social environment or technology.

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<sup>1</sup> Mumford 1937; Short 2000.

<sup>2</sup> Mumford 1986; Jánossy 1966.

<sup>3</sup> Bacon 1967; Meggyesi 2005; Soja 2000.

In a way, cities always had to be “smart” with the systematic use of existing knowledge and with its efficient implementation by organizations. This, however, typically happens in the form of routines and traditions where certain activities take shape by a slow accumulation of partly spontaneous knowledge. Such knowledge provides a firm ground but, if it becomes rigid, it can prevent the given city and community from managing a variety of challenges as they arise.

Just like cultures and civilizations, cities can be in their prime. Some of them do so more than once in different periods when they excel in a typical activity. But such periods usually come to an end within a few decades.<sup>4</sup> It has long been a burning question if this is just the hand of fate or the result of development by conscious policies and, if the latter, what and who has a (potential) role to play in that and what is the nature of such role.

Greater efficiency, catching up and enhanced competitiveness are relevant matters even for cities that are more liveable, do better and are more successful, if to a lesser extent and from a narrower perspective, than others. As cities have reinforced their economic role again<sup>5</sup> and gone through a polycentric development<sup>6</sup>, their success has become a key factor for the efficiency of broader regions or even countries and has come to the focus of economic policy.

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<sup>4</sup> Bacon 1967; Meggyesi 2005; Soja 2000.

<sup>5</sup> Sassen 2018.

<sup>6</sup> Clark 2000.

## 2. CONCEPTS OF THE SMART CITY

The past ten years have witnessed the emergence of two paradigms that look at two different sides of adaptation and enhanced efficiency.

*The idea behind smart cities* is to make a more efficient and innovative use of the existing systems for enhanced efficiency by the coordination and synergy of different subsystems. This includes an intensive use of digital and network technology, and the integration of social, physical and digital subsystems.<sup>7</sup> While the original definition heavily relied on sustainability and the involvement of the resources of inhabitants, this has been sidelined in practice.<sup>8</sup> The side of inhabitants has only come into focus again in recent times due to the poorer than expected results of predominantly technology-centered development projects. The consequences of this partial turn remain to be seen. So far only the problem has been identified with commitments to consider user needs rather than actual initiatives or big steps taken in this direction.

The prevailing discourse currently underlying the idea of smart cities is the predominantly technological approach, i.e. a type of technical determinism.<sup>9</sup> This primarily takes the form of network development, the interconnection of networks and an innovative analysis of large quantities of digital data (big data). Ultimately, the current paradigm of smart cities, including the sub-paradigms of intelligent and digital cities, together with the idea of information society of a similar origin, is mainly aimed at a more efficient operation of current technologies.<sup>10</sup>

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<sup>7</sup> 56/2017. (III. 20.) kormányrendelet.

<sup>8</sup> Z. Karvalics 2016.

<sup>9</sup> Gere – Kocsis 2019.

<sup>10</sup> Dobos et al. 2015.

The key approach of the new millennium is a *knowledge based society*<sup>11</sup> or creative city<sup>12</sup>, a part of social conditioning as opposed to technological determinism. These ideas focus on the role of local communities and social capital instead of technology.<sup>13</sup> Perhaps the popularity of the notion of creative class has slightly declined recently but innovation, developments based on local communities, participation, and creativity remain in the center of thinking and efforts aimed at competitive and liveable cities.

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<sup>11</sup> Stehr 2002.

<sup>12</sup> Florida 2003.

<sup>13</sup> Putnam 1993; Orbán 2017.

### 3. SOCIAL FUTURING AND SMART CITIES

Futuring, the ability of adaptation to change, aptitude, the ability to envisage and bring about reforms and the strategic management of preparations for the same, requires a different kind of “smartness” of smart cities and is essentially future oriented. However, taking future risks, limitations and opportunities into consideration and looking at forecasts is only one side of the coin. Any prediction is limited because radically new challenges as opposed to expectations may emerge even in the medium term. Therefore, futuring includes the ability to give responses to unexpected events. Both ideas attribute a key role primarily to local communities, networks and the knowledge of relations, resourcefulness and organization skills.

Social futuring places future oriented scientific and political thinking in a wide, diverse and complex context from localities, institutions and organizations to countries and nations, including their alliances.<sup>14</sup> The notion of futuring helps to grasp many kinds of abilities of interpretation and action at a time, taking into consideration ecological, (geo)political, technological, socioeconomic and cultural-spiritual criteria within a multi and interdisciplinary framework.

The simplest and perhaps the best indicator of success for localities and regions is the change in the number of population<sup>15</sup> – “people vote by their feet”. A dramatic decline in the original population of a country or locality for a variety of reasons poses a risk for its long-term survival. There are a few key conditions which, if met at the same time, allow for futuring while the lack of any of them prevents the same.<sup>16</sup> Such necessary conditions include the place’s (1) self-awareness, identity, and self-constitution, (2) capability of functional operation, (3) ability to maintain itself in the long run and to hand down itself, (4) ability to create a framework for a “good and orderly life”, such as peace, security, attachment and care (enrichment and freedom), satisfaction,<sup>17</sup> and (5) ability to prepare for acting, organizing itself and various forms of action based on its strategic

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<sup>14</sup> Szántó 2018.

<sup>15</sup> Kocsis 2007.

<sup>16</sup> Szántó 2018.

<sup>17</sup> Csák 2018.

vision which affects its expected environment and operation from time to time.

Futuring for social entities can be ensured by agents and groups of agents, subject to the necessary conditions, that are capable of implementing the different forms of attitude to expected changes from time to time, provided that they are able to (1) bring about changes or to prepare (2) for affecting the expected changes or (3) for neutralizing the limitations of the expected changes / tapping potentials or (4) for managing the risks involved in the expected changes. In our view, the above conditions, whether individually or in any combination, allow for social futuring, including its creation or shaping, maintenance and enhancement in various forms.

Clearly, futuring focuses on society; its target group of research includes individuals capable of interpretation, decision-making and action, organized in various groups and “embedded” in specific networks of social relationships (families, communities of relatives, friends, co-workers or neighbors etc.). These people and their groups are key agents in the creation and enhancement of social futuring.

Social futuring has three basic types. The *proactive* type covers the interpretation, causing and promotion of expected changes from time to time, and preparations for any action to influence them. Such modes of action are directly aimed at changes, and the agents of social entities manipulate changes according to their own shared goals and interests or, at least, make preparations for this, attempting to bring about changes that they find positive or beneficial and to promote their completion, and trying to prevent changes that they regard as negative or disadvantageous. This is a form of strategic creativity as one of its goals is to shape the future in the desired direction in consideration of the existing limitations. In the Antiquity, such cities included Athens at the time of Pericles or Rome in the early imperial period; in more recent times, in the late 19th and early 20th centuries, London, Paris and Berlin, while today New York, Shanghai and, after a major gap in the 20th century, London again. In sum, this group of global cities<sup>18</sup> includes those with

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<sup>18</sup> Sassen 2005.



a comprehensive effect and a multi-sector service network, capable of innovation and setting global trends. Some cities are able to adopt a world-class proactive behavior in a few partial areas, such as Los Angeles in culture and Milan in fashion. Some cities have lost this ability in recent times, such as Tokyo in the field of creativity and futuring, and Hong Kong with a decline in its political autonomy and economic position.

In the case of *active* social futuring, the potential agents of social entities prepare for neutralizing the intrinsic limits of future changes and/or taking positive opportunities. As with the previous type, this is also a kind of creativity, although aimed at the potential consequences of change in an innovative way. This partly includes global cities with a key regional role, such as Mumbai, São Paulo, Chicago, Paris, Frankfurt, Berlin, Sydney and Toronto but cities ranking high in terms of liveability, including Vienna, Melbourne, Copenhagen and Geneva, are also primary members of this group.

*Reactive* futuring refers to the attempt of social entities to manage the risks involved in change from time to time. This means not some form of creativity but a kind of strategic adaptation, at least in the sense of focusing on responses to the inevitable future risks in the form of adaptation or even a kind of resilience.<sup>19</sup> Big cities in and around Hungary that exhibit such properties include Budapest, Warsaw, Prague, Cracow, Bratislava and Cluj Napoca. Clearly, this is a larger group characterized by the spread of economic activities with a higher added value and by the ability to attract and keep qualified workforce.

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<sup>19</sup> Aczél 2018.

Futuring requires permanent efforts to maintain and improve the situation, even if a part of it is hard to manage consciously as the systems involved are highly complex. Perhaps Detroit is the prime example of a city with an undoubtedly proactive behavior, which played a global role in car manufacturing, a particularly important area, and virtually lost its inhabitable and liveable nature within a few short decades due to the combined effect of mismanagement and its peculiar social background.

For the above reasons, the different forms of creativity and its appearances on various levels are important guarantees for futuring, although not in the extended meaning as suggested by the approaches that have become common in recent times.<sup>20</sup> Creativity is regarded more as a prerequisite and the emphasis is rather laid on the innovative milieu, primarily through the ability to shape the future.<sup>21</sup> Perhaps the notion of smart city is best likened to the third type mentioned above, the one adapted to challenges, where adaptation means greater efficiency in the operation of the current systems.

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<sup>20</sup> Florida 2003.

<sup>21</sup> Hall 1998.

## 4. SHORT SUMMARY

The three basic forms of futuring are hierarchically related to each other. The ability to shape the future is a rare gift for a city or region. Indeed, it usually occurs in one of the partial areas, such as arts, science and technology, social-economic organization.<sup>22</sup> The creative milieu aimed at taking advantage of changes and “riding the wave” is much more common in the life of an area or locality, and specialization between the different regions and cities is perhaps the easiest to achieve by conscious public policies, even in the form of networks. Adaptation is the most frequent. Smart city rather means common sense in the operation of cities with a more efficient and innovative use of existing conditions, means and procedures.

As the processes of globalization are gaining strength, cities and agglomerations are facing newer and newer challenges. This partly involves a set of relationships and links covering a much bigger area with an exponentially higher number of actors related to each other by mutual competition and relationships than ever before. The real challenge in the foreseeable future seems to be the increasing speed of technological changes, the emergence of challenges in local and regional environments, the transformation of political systems, challenges caused by demographic processes and social changes, and the formation of the spiritual side of society.

The comprehensive approach of social futuring, based on an analysis of local society, may give clues to the emergence of a more proactive and more active milieu and support for the utilization of technology in line with tasks and challenges.

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<sup>22</sup> Hall 1998.

## NOTES

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