“Smart environment”: problems of social identity

E G Krivykh

Department of History and Philosophy, Moscow State University of Civil Engineering, 26, Yaroslavskoye highway, 129337, Moscow, Russia

E-mail: preciso@bk.ru

Abstract. The article describes the humanitarian problems that arise during the implementation of the Smart City project in the real process of transforming spatial environment. The author aims to study the interaction of the sociocultural components of the urban environment and the formation of the social collective identity of the city dweller. The urban environment is analyzed as an architectural and spatial integrity, possessing the properties of conservation and translation of values, creating the possibility of communicative interaction. The author refers to the concept of multiple identity reflecting the complexity and singularity of identification in the new social environment. The novelty of the study lies in the fact that it presents specific examples of creating sociocultural codes that stimulate the formation of social solidarity by instruments of urban development. It is necessary to create in the objective world the image of the Other that is an indispensable component of personal identity. It can be represented by interaction with urban communities, the main places of formation of which are traditionally public spaces. Theoretical reflection has a practical importance, since the paper considers a new type of public spaces combining the high-tech capabilities of the digital environment and the socio-psychological sense of comfort, security and communion with the spirit of the city.

1. Introduction

“Smart City” appears as a subject of transdisciplinary research, since it includes technological, social, and humanitarian aspects. After its construction in a scientific discourse about 30 years ago, the concept of a smart city has undergone a significant transformation. Today, in our discussions, the issues of social justice in urban planning, environmental safety, information security of the individual, the formation of urban communities with an active civic position are especially relevant. There was a drift towards social and humanitarian issues. This is proved by the design of the concept of “network urbanism”, focused on the interaction of “big data” and the city as a social system. R. Kitchin emphasizes the need for reflection, criticism and processing of the results of the concept of “smart city”, including the parameters of “smart environment”, “smart lifestyle”, and “smart people”, which implies deep social, political and ethical consequences [1].

The studies of the transformation of the urban environment in the context of evolving globalization and informatisation rely on the well-known conception of M. Castells [2], new works by S. McQuire, W. Mitchell, A. Townsend [3]. M. Castells, characterizing a new type of spatial organization, introduced the “space of flows” conception. It is a global horizontal communication that forms network communication. The transition from “space of places” to “space of flows” implies the loss of spatial identity due to the formation of new cultural codes. At the same time, the need for quick
adaptation of the personality to changing conditions starts to form. Cultural plasticity seems to be a sought-after value in modern society. Urban studies, reflecting the specifics of new forms of spatial organization, turn to modern fluid forms of designing urbanized space.

Castells’ declaration of transition from “space of places” to “space of flows” was criticized, as well as the conception of the information society as a whole, since reality does not conform to the thesis that technological modernization globally and unambiguously defines urbanized space. Researchers note a request for individualization of competencies and the attractiveness of unique cities [4], which means attention to the specific sustainable and historically defined cultural codes of developing spaces. The main reason is the ability to attract economic entities that stimulate the creation of a social environment of knowledge. This concept also includes non-economic cultural contexts. They have the most important formative influence on the interaction between the processes of development of knowledge, space and the city. The authors of the monograph “Own Logic of Cities: New Approaches in Urban Studies” convincingly substantiate the request for individuality and originality, the uniqueness of the urban environment by studying the habitudes of knowledge of some cities in Germany [5].

The meaning of the Smart city project is the effective integration of physical and digital systems in technological solutions. The goal of integration is to optimize the operation of individual subsystems and city services in the systemic integrity of the city, increase the level of comfort and give citizens equal access to technology. A feature of this complex is the ability to interpenetrate and enhance the cooperative effect in the deployment of technological solutions that can cause the effects of self-organization of socio-cultural systems without the ability to accurately predict the consequences. Therefore, the issue of developing new mechanisms for controlling innovative knowledge and methods of its application is relevant. The technologies that make up the content of this complex should be socially and psychologically acceptable for residents of the city. It is necessary to form a positive emotional attitude towards the high-tech parameters of the new living environment. This is possible when they are filled with a certain value content and personality-oriented meanings.

Humanitarian technologies that meet the needs of individualization of the social environment, the use of “soft” design technologies, and compliance with environmental parameters in the creation of new technical systems are of particular importance in this context. Humanitarian technologies focus on the creation of “human-sized” constructed objects.

In this aspect, the problem of the identity of the urban environment, its connection with the formation of personal identity, is gaining importance. The concept of identity in social terms in modern literature is defined as self-awareness as a single, whole person with a consistent I [6,192]. The emphasis is on the integrity of the personality structure, its self-identity, which traditionally seemed to be the core of the understanding of personality in classical Western European culture. An important factor in the formation of identity is the impact of external social factors. In the realities of the modern world, it is necessary to consider the urban environment of a metropolis as a special type of city, concentratedly expressing the features of a new type of sociality. In the terms of the changes of the urban environment, it is critical to disclose such properties of the territory that are aimed at recognizing its value for an individual, a certain social group. The interaction of the spatio-temporal parameters of social being and new social practices is the focus of attention. Social practices as the habitual actions of people are fixed in norms and traditions; they give rise to changes in the socio-psychological structure of the individual. The formation of identity is an incomplete, never-ending process.

2. Methods

All the components and functional areas of the Smart City project are ultimately oriented towards creating a comfortable environment for human life. The methodology of this interdisciplinary project is comprehensive, reflecting the specifics of the study area, which combines the tasks of urban studies and urban computer science as a technical science, as well as social and humanitarian knowledge. Social space, social practices, cultural code, sociocultural identity and other concepts are integrated
into the Smart City project. Based on the system approach, methods of socio-philosophical and sociological analysis are applied. Socio-philosophical and sociological methods are associated with the consideration of the dynamics of social space, the concept of personality identity and urban identity. The phenomenological method is implemented as an analysis of the space of the living urban experience. The methodological approach and concepts of the theory of communication are relevant for understanding the features of social interaction in the context of network communication.

3. Results

The lifestyle formed in the metropolis leads to the loss of spatial identity due to the emergence of new cultural codes. The principle of clustering the sociocultural space is at work here, when a person constantly and freely turns to various forms of cultural experience in the mode of network communication. The concept of “Proteus” identity is being updated based on the idea of variability of the self, multidimension, and variability of personality. Among the complex of reasons that caused the emergence of the “Proteus” identity, the most important are the scale of the impact on the personality of modern information flows, the actualization of virtual worlds in its life horizon, the spread of the ideology of liberalism, eroding the conservative system of values. A person experiences the change of several cultural cycles throughout his life, which complicates the processes of personal identification.

The projects for the growth of megacities in developed countries and the implementation of the Smart City project are aimed at ensuring mobility and dynamism of citizens through the creation of high-speed transport networks based on the latest technologies. The extreme importance of this conception is explained by the idea of the “permeability” of the city. In recent years, Moscow has created one of the most intelligent transport systems in the world. But the feeling of the city is in many ways connected with metaphysical components: its atmosphere, cultural component, which is expressed in the peculiarities of architecture, mentality, originality of urban jargon, etc. In this sense, one of the significant symbols of Moscow is still the image of the Moscow metro (central ring station), the social and aesthetic importance of which contributed to the mythologization of the Soviet era.

French architects, who analyze the experience of urban construction, conclude: there were no successful options for creating large, prosperous neighborhoods from scratch. The relevant Moscow experience also indicates that as a result of the faceless mass development of the peripheral “sleeping” areas, it is possible to talk about the threat to Moscow identity. The data of sociological studies state that only a third of the population living in Moscow identifies themselves as Moscow people. It is significant that the concept of crisis does not correlate with the idea of the identity of a St. Petersburg resident as a carrier of certain culture. The cultural atmosphere of the St. Petersburgs’ historical center has a steady certainty and symbolic predetermination forming a special mentality of the inhabitants of this city.

In the design of the urban environment, it is necessary to turn to sustainable social codes, because in this new development will be carried out with the consideration of already formed cultural features of the territory. In the widely discussed and well-known projects Grand Paris and Greater Moscow, the River (Seine, Moscow River), as a generalizing code, can become the basis of a new identity for residents of capital cities as a “kind of carrier of capitalness”, accumulating historical and cultural symbols of these countries [7]. In the Greater Moscow project, conscious references to cultural meanings, traditionally associated with its image, are an appeal to elements of the Stalinist architectural style. These include the construction of voluminous arches over driveways into the courtyards of residential buildings, a return to the metric of the old city (buildings no higher than 10 floors), spire-shaped towers of tall buildings in contrast with mass buildings, stucco decoration. “Introducing” the aesthetic style of a traditional city into the context of new developing territories is one of the effective ways of constructing a single sociocultural image of a megalopolis.

The phenomenological theory states that the daily life of an individual is determined by orientations towards the “Other”, which correlates with the conception of “social action” by M. Weber. Confirmation of the existence of the Other is realized in the context of the urban environment and can be represented by interaction with urban communities, the main places of formation of which
are traditionally public spaces. As sociologists note, urban communities, subcultures are not represented significantly in the Russian cultural landscape. This feature has historical roots and arises from the collectivist type of consciousness in Russian culture.

According to the sociologist V. Vakhstein, there is an obvious interest in designing and creating public spaces of a new type as places where “social identity is forged” in modern urban planning practice. As the researchers emphasize, the “space of flows” is “a constant drift along semantic structures” [8, 19]. The flexible normativity of the living space contributes to the manifestation of multiple identities, which generally reflects a higher degree of freedom of self-determination, but also requires the development of self-reflection skills and critical assessment of one’s own behaviour. In fact, the need for the Other is implemented through multiple forms of social solidarity, what allows talking about “We-identity”.

In the discussion of this problem, scientists select various qualities of the space of social interaction; the most important are public administration, free access and security for everyone, the possibility of social contacts and social activities [9].

The most obvious changes are associated with the possibility of creating virtual spaces of social interaction with the help of information technology and producing a sense of belonging to a community, a social group. These practices are implemented in many iconic places in Moscow. Such places have become points of attraction for the most mobile groups of the population, especially young people. The observation deck on the right bank of the Moscow River opposite the Moscow City business center is a favourite place for creating a variety of selfies on the background of iconic sights. The aesthetic novelty of the buildings, the dynamic lighting and the spectacular illumination of the towers, contrasting with traditional Moscow architecture (the codes of the Stalinist building of Kutuzovsky Prospekt), create extraordinary effects of presence, construct a positive perception of a new social space and a community of hedonistic socio-psychological experience. Selfie as a cultural phenomenon has become the “basic preverbal language of communication”, the purpose of which is to reveal one’s presence in social reality and construct identity [10]. This public space of interaction spontaneously emerged as a discrete self-organizing community, which displays a common understanding of social and personal perspectives on the basis of the broadcast message (perception of a new architectural image for Moscow).

The characteristics of a new type of public space are its heterogeneity, process nature, and openness. A popular trend was the creation of new social interaction platforms focused on the so-called “creative class”. Places of the former factory buildings, industrial clusters are transformed into creative workshops, centers of modern art, educational centres, which corresponds to the concept of a Smart City. This “smart environment” acts as the spatial model that reflects the idea of professional and personal self-realization, forms new rules of social solidarity. V. Vakhstein notices that this social group has the strongest Moscow identity, regardless of place of birth [11].

A special example of creating the image of a new Moscow identity and at the same time humanizing an expensive technological project is Zaryadye Park. The technology of “natural urbanism” has become leading in the creation of a hybrid space in the very center of the capital near the sacred space of Red Square. The goal was to present the variety of natural landscapes of Russia in the image of a traditional park. The priority of the natural, proclaimed by the creators of the park, is in line with the new trend of transformation, the “return” of the artificial to its natural state. It’s the action of “appropriation” of a historical place with a powerful cultural potential by the townspeople. Instead of the bulky pompous hotel building, an interesting public space arises full of cultural, educational and entertainment functions. The cultural code of this iconic place is changing, its inherent historical and cultural meanings are returning.

4. Conclusion
In modern social sciences the city is considered as a formative element of globalization. The need for effective management of the urbanization process determines the importance of theoretical research and practical implementation of the Smart City project. In the view of researchers, now the Smart City
is being implemented rather as a technocratic project. For example, the Skolkovo Innovation Center that was conceived as an ideal model of the future smart city nowadays represents a special space for the living of an elite group of people.

V. Glazychev wrote that the most advanced form of a city appears when this form breaks with its essential content [12]. The Smart City model is rapidly moving away from the image of an industrial city, but urban culture remains a significant value in public consciousness. Urban identity as an integral space of cultural artefacts conveys the ideas of cultural continuity.

The article presented specific examples of the creation of sociocultural codes that stimulate the formation of the social identity of citizens by urban development activities. Urban planners and architects address the most significant and structure-forming images of the urban environment. The most recognizable characters are the elements of the Stalinist style in the new Moscow architecture, the return of the image of the River as a system-forming element of urban ensembles, the creation of reference high points for viewing a holistic panorama of the city, and the recreation of traditional parks in public spaces.

Public spaces of a new type fulfil an important function in the formation of urban identity. They provide opportunities for social interaction in new creative clusters. These spaces are zones of network communication and the use of virtual space with a wide variety of possibilities. Certain one-sidedness in the development of this kind of public spaces in Moscow should be noted: they are focused mainly on hedonistic pastime. However, this is the place of formation of those social groups, the self-awareness of which V. Vakhstein defined as “conquered identity” and which position themselves as an active creative force.

The Smart City project is also connected with the Knowledge Scapes concept. This concept combines the ideas about the intensity of interpersonal communication aimed at the development of knowledge, and the changes in spatial structures in the city caused by this process. This area is revealed as space for the formation of new types of identity which is a possible theme for further research.

References
[1] Kitchin R 2017 Data-driven, networked urbanism Steps 3(2) 98-116, available at: https://cyberleninka.ru/article/v/upravlyaemyy-dannymi-setevoy-urbanizm
[2] Castells M 2016 Informationalism, networks, and the network society: a theoretical blueprint PROECTiNT 41 178-95
[3] McQuire S 2018 Geomedia: Networked cities and the future of public space (Moscow: Strelka Press)
[4] Townsend A 2019 Smart cities: big data, civi hackers and the quest for a new utopia. (Moscow: Gaidar Inst. Publ. House)
[5] Goering P 2017 What is “own logic”? On the paradigm shift in urban studies Own logic of Cities: new approaches in urban studies (Moscow: New liter. Review) pp 193-211
[6] Mattisen W 2017 Own logic of urban landscapes of knowledge Own logic of cities: New approaches in urban studies (Moscow: New literary review) pp 117-192
[7] Ham H Hawken S 2018 Introduction: innovation and identity in next-generation smart cities. City, Culture and Society 12
[8] Radovic D Boomtharm D and Yamamory H 2018 Int Conf of Smart Sustainable and Sensuous Settlements Transformation (3SSettlements) Proc (Munich) pp 100-108
[9] Stimmel C 2015 Building smart cities: Analytics, ICT, and design thinking (New York, Imprint Auerbach Publications)
[10] Trufanova E 2010 Unity and multiplicity of the self (Moscow: Canon)
[11] Grumbach &Associes 2012 Metropolis of Seine: Paris-Rouen-Le Havre. PROECTiNT 31 164-177
[12] Kholodnaya A 2018 Cultural and semantic space of a modern Russian city Ph.D. thesis abstract (Moscow: Publishing house of MosGU), available at:
[13] Shuklina M 2018 From pride to idleness *Project Russia 87 City Publicspaces* 188-206
[14] Martynov K 2014 SELFIE: between the democratization of media and self-commodification *Logos* 4 (100) 73-86
[15] Glazychev V 2009 From the traditional city form to metropolis *Cities of the World - World of a City* (Moscow: Severnyy Palomnik Publ), available at: https://cyberleninka.ru/article/n/proektirovanie-prostranstva-v-globalnom-gorode-gumanitarnye-tehnologii