ARE SMART TECHNOLOGIES AN INSTRUMENT OF ACTIVE CITY DWELLERS?

Natalya KOSTKO
University of Tyumen, 6, Volodarskogo street, Tyumen, Russia
n.a.kostko@utmn.ru

Mariya BATYREVA
University of Tyumen, 6, Volodarskogo street, Tyumen, Russia
m.v.batyreva@utmn.ru

Irina PECHERKINA
University of Tyumen, 6, Volodarskogo street, Tyumen, Russia
i.f.pecherkina@utmn.ru

Oksana LAZAREVA
University of Tyumen, 6, Volodarskogo street, Tyumen, Russia
o.p.lazareva@utmn.ru

Abstract

A lot of modern cities adopt the concept of a "smart city " as a management model. It is significant to determine indicators of the successful implementation of the concept from sociological and human-centered point of view. One of the key elements of the concept structure is a smart city dweller, defined as a socially active person who uses smart technologies in his daily and professional life as a tool for expanding his social activity and participating in the development of the city.

The relevance of the article is determined by its appeal to a civic-oriented approach to the concept of a "smart city". On the basis of sociological data, the authors showed the links between the introduction of smart technologies and the increase of citizens' social activity on the example of one of the cities of the Russian Federation. The city of Tyumen has its own peculiarities: geographically, it is located in the center of the country; economically, it has a high standard of living. Due to these, it is often chosen as an experimental platform for implementation of plans for the development of the country.

We believe that it is the city dwellers' active participation in the management with the usage of smart technologies that makes people smart. Being smart means being a subject of urban processes. In its turn, the subjectivity of city dwellers makes a city smart.

Keywords: smart city, social space, identity, social activity of citizens, values and norms

1. INTRODUCTION

The modern world is actively changing and cities are changing along with it. Urbanization process has affected all countries of the world. Today, megacities produce a higher GDP than the economies of entire countries. It is obvious that cities have become the most important elements of the economy and the

society development (Urban World: Mapping Economic Power of Cities 2011). At the same time cities face a number of problems, the solution of which influence the future of countries, national economies, and standard of living.

To solve urban problems, we should find new management models and mechanisms for the development of cities. That is why the concept of a "smart city" bringing digital change has widespread around the world. A new digital society needs strengthening of the management in all spheres of life to engage them in modern transformational changes. Development of information technologies, and digitalization of the society radically change a human and everything that surrounds him.

The main advantage of the "smart city" concept is an idea of involving citizens in managing its development through smart technologies. That means interaction between all active participants in urban processes.

Today, the participation of the population in the development of cities is provided in various forms within the framework of local self-government, which guarantees institutional, regulatory and legal conditions for active role of citizens in the life of the municipality. However, the experience of many countries shows that these legislatively established forms are not enough. The concept of a "smart city" with an idea of smart management and a smart city dweller using smart technologies, seems to expand opportunities for people to participate in city management. The introduction of smart technologies into all spheres of life is seen as a tool for expanding public participation in management. But there are a few questions that can arise:

▪ Can we consider smart technologies to be a tool to increase city dwellers' participation in city management?

▪ Can we say that smart technologies actualize the existing forms of population activity?

▪ -Do smart technologies perform their function of involving the population in managing the development of the city today or do they require additional efforts and actions from both the authorities and the population?

These questions are very important. The development of a "smart city" and the success of its implementation depend on a city dweller, his activity, his intelligence, the effectiveness of using smart technologies for his self-development and the development of his city. Modern municipal management with its focus on improving the level and quality of life, and the development of human capital, can be supplemented by social indicators that characterize the social activity of people in terms of participation in the management of city development using smart technologies. The researchers consider the connection between the social activity of the population and smart technologies as a possible resource to enhance the connection between different elements of social space. Here we can include urban identity,

social activity of city dwellers and such social values as trust and solidarity. Being an integrated social indicator, the social space of the city can be used in the city development management.

The article consists of two parts. The first part describes the theoretical background of the problem through the prism of social activity of city dwellers in the city management. The methodological framework of the study is based on the principles of macrosocial analysis of trends and prospects for the development of modern cities; microsocial analysis of individual indicators of the social space of the city, namely the social activity of the city dwellers.

The second part of the article presents the results of our empirical sociological study, which show the presence / absence of a connection between the use of smart city technologies by city dwellers and their social activity, and also their participation in the management of a city development.

2. THEORETICAL BACKGROUND OF THE STUDY

Progressive development of a city presupposes strengthening the effectiveness of the social elements of its functioning. The social space of a city is a concentrated activity of its social elements. In our study, we take into account the state of the parameters of the city's social space and argue for its importance as a development resource. From the point of view of management, the appeal to social space allows us to minimize the risks and losses in case of a discrepancy between management actions and the nature and properties of the social elements of the city. The experience of many countries shows that taking into account and adjusting certain indicators of the social space of a city when implementing a model of its development has a positive effect. Russia can use his experience, too.

Social space is a multifaceted phenomenon, which complicates its use in management practice. For managers, the concept of "social space of the city" is abstract in nature. Nevertheless, this abstract concept can be converted into analytical management practice through its indicators. We proceed from the idea that the social space of a city is a set of social connections and interactions, collisions of interests of different groups of city dwellers within the space-time boundaries of the city. The key characteristics of the social space are the social activity of people and their identity with the city, the level of trust and solidarity between active participants of the urban community.

This article focuses on evaluating the impact of the use of smart technologies on the social activity of city dwellers, which is significant from the point of view of defining the characteristics of social space and managing a city development.

Sociality in cities is characterized by the search for a balance between the material and non-material elements of the social space of the city and an attempt to design it, according to the trends and interests

of the main subjects of the city. This approach is close to the ideas of E. Giddens, P. Bourdieu, and A. Lefebvre about the social construction of space and the reproduction of certain relations through this space (Giddens 1976; Bourdieu 1989; Lefebvre 2009).

The interrelation and interdependence of the development of a city dweller and the social space of a city, the management of these relations directly affect the achievement of the goals of a smart city. Due to the change in the nature of the city, the essence of management also changes. More specifically, we can speak about updating the principles of management, defining forms, mechanisms, and tools for constructing space as a condition for forming a model of a "smart city".

The city, its social space, prospects and development trends cannot be considered in isolation from the general vision of the ongoing transformative changes. That is why many researchers pay close attention to modern theories of risks (Beck 1992), current modernity (Amin, Thrift 2002), informational type of a society (Castels 2010), postmodernity (Rosa 2013), etc. Nevertheless, using a huge number of characteristics for description of modernity, we pay our attention to the leading role of management in social processes and phenomena at different levels of the social hierarchy. For example, U. Beck considers his society of risk in the close connection with management (Beck 1992).

The ideas of E. Giddens (Giddens 1976) and N. Luhmann (Luhmann 1991) about contemporary risks, their origin and development prospects are significant in the analysis of urban processes. N. Luhmann's theoretical views on the society and social system are basic in defining the essence and characteristics of a city as a social system (Luhmann 2012).

The analysis of works on critical social theory and critical urban theory (Brenner 2009; Brenner, Schmid 2015; Scott 2017), allows us to look at the prospects for the development of cities, including Russian ones, from a different point of view. The city acts simultaneously as a generator and a repeater of modern changes in the society, its problems and development prospects. This situation requires new approaches to city management.

In Russian literature, there are three approaches to defining the nature of modern management: resource approach (Drozdova 2019, Veselova, Khatskelevich, Ezhova 2018), object approach (Kolodij, Ivanova, Goncharova 2020), and subjective approach (Vorobieva, Manzhula, Yashina 2019).

In the study, we try to combine all three approaches, as, in our opinion, they are interrelated. The resource approach allows to determine the basic factors that are significant for the development of a city. The problem of finding development resources is important for the management of modern cities (Bramwell 2020). It must be admitted that the popularity of the smart city concept is largely due to the fact that a smart city itself is already a resource (Sheltona, Zookb, Wiigc 2015). The resources are searched for in

the field of non-material elements (Morozova, Miroshnichenko, Semenko 2020). The resource should be not only competitive, unique, effective, but most importantly, accepted and used by the community. The fulfillment of this condition is possible if city dwellers are active, and accept and correlate their identity with the identity of the city, and also with the values and norms of the urban community. Social resources, or social factors, of the city development, are a synthesis of material and non-material elements of the results of activities and interaction of people within certain space-temporal boundaries to achieve the development goals of the urban community. Social space of the city also belongs to such development resources. This resource is unique and specific for each city, and this fact cannot be ignored in the practice of city management.

The object approach is aimed at representing a person as a goal in the sociological understanding of this issue, which fits into the framework of the concept of "smart management", focused on strengthening the social factors of social development (Tikhonov, Bogdanov 2020). "Smart management" correlates with the concept of multilevel management in Europe (Grisel, Van de Waart 2011).

Subjective approach allows us to distinguish active people, who are interested in and accept this kind of management.

When we talk about combining the three approaches in development management of a city, we understand that development resources are the resources accepted and mastered by active city dwellers. We can assume that active city dwellers correlate their identity with the identity of the city, its values and norms. In a cross-country study, 20% of experts noted that lack of interest among citizens is a problem that makes it difficult to manage city development (Cruz, Rode, McQuarrie 2019). The city dweller is accepted as the goal of management, but he is not a passive consumer of smart technologies, or an object of management, he is its active subject.

In this paper, we adhere to the concept of "smart management", focused on strengthening the social factors of social development. Institutional and non-institutional grounds for involving citizens in management were significant for our research.

Acceptance of the thesis about the subjectivity of a city dweller not only as an active element of urban life, but also as a participant in the city management system requires compliance with certain conditions. We pay attention to the content and nature of the subjectivity of a city dweller, the ability to create, solidarity, trust and community in solving collective goals and objectives. The framework of the solution is the social space of the city. Today, UN documents highlight the importance of the role of city space in cohesion, equality and integration between members of the society (New Urban Agenda United Nations 2021).

We can speak about the ability of city dwellers to manage the development of the urban community, about the ensurance of interaction between a city and city dwellers. Synchronization of the production of goals, values, images and prospects between active subjects of urban relations is an indicator that characterizes the quality of the social space of the city. This indicator acquires features of a development resource.

As a methodological basis for the study of the city dwellers' social activity we accept Giddens' theories of structuration, the theory of L. Thevenot and L. Boltanski about the social involvement of city dwellers (Giddens 1983; Thevenot 2001). Studying social activity, and considering the theory of social movements, we rely on the classification of J. Alexander, who presented an overview of the authors on this issue (Alexander 2003).

In this paper, we do not present a complete analysis of the theory of civil society. Firstly, because our emphasis is on urban unorganized activity, and not on organized manifestations of civic activism. Secondly, we proceed from the thesis that there is a whole complex of factors that influence the formation of civil society (especially in the countries of the former socialist camp) (Rumbul 2016). The factors are significant both from the scientific and practical point of view, but they are not included in the problem area of this article.

The classical meaning of social activity of the population determines the methodological framework of the study. Nevertheless, we should mention the peculiarities of the manifestation of activity in different countries. According to some Russian researchers (Aksenova 2020), analysis of the relationship between the main reasons of activity, namely, freedom of choice and freedom of action (in favor of the latter in our country), is less functional. Supporting and developing this thesis, our attention is largely drawn to the everyday, local urban practices of participation of city dwellers in the management of the city development. Self-assessment of city dwellers was taken as an indicator of such participation.

The social activity of city dwellers is not seen as a protest, but rather as an activity aimed at solving the problems of urban life and community development. A number of Russian authors (Zhelnina, Tykanova 2019) argue that the study of urban local activism takes a great place in Russian social and political sciences. By the middle of 2018, about 150 scientific works devoted to collective action of the city dwellers had appeared in Russian science.

Urban practices are a non-systemic form of people' activity, which, in terms of the nature and goals of the action, can be classified as situational. This statement agrees with the concept of urban commons, which is associated with the solution of everyday tasks of self-government at the neighborhood level (Chernysheva 2020). Goal-orientation, actions of citizens to solve the problems of city development as a

specific urban area, and the problems associated with this, make urban practices an integral part of the population's participation in the life of the city, and in its management.

We do not discuss whether urban practices are elements of informal civic infrastructures creating conditions for civic engagement (Zhelnina, Tykanova 2019), but we proceed from the fact that smart technologies help increase the activity of city dwellers.

Urban practices of city dwellers are significant from the point of view of their locality, goal-orientation of actions and interaction between the subjects of these practices. Smart technologies are only a tool, which promotes city dwellers' participation in solution of urban problems. Whether the use of smart technologies makes people smarter is just a rhetorical question here (Joss 2018).

Our research is focused on description of how people use technologies to manifest their social activity. We tried to find out how new tools (i.e., smart technologies), along with the existing institutional forms of city dwellers' participation in city management, are used. Besides, we studied what the purpose of their use is and what role they play in the management context of implementing smart city initiatives.

We assume that a smart city dweller is a person who consciously, within the framework of his daily life, interacts with other subjects (representatives of authority, business, civil society) for the purpose of participating in the management of the city's development and uses smart technologies for this. We agree that public participation of citizens in city management should not be limited only to consumption and creation of smart technologies (Cardullo, Kitchin 2017), to a secondary role in the management process (Vanolo 2016), or having to participate in digitalization (Barassi 2019).

We tried to find out if there is a direct link between the use of smart technologies and the increased activity of city dwellers in city development management.

3. DISCOURSE ABOUT THE CONCEPT OF "SMART CITY"

The concept of a "smart city" is the dominant category among the 12 key modern urban development models (Joss, Cook, Dayot 2017). A number of researchers give a detailed description of approaches and views on the concept of a "smart city", and its main structural elements (Albino, Berardi, Dangelico 2015; Joss et al. 2019). The authors emphasize the importance of the city dweller', the urban community in understanding the nature of the concept. There is a direct relationship between the characteristics of a city dweller, his adaptive abilities to modern conditions of digitalization of life and the implementation, development, and effectiveness of the "smart city" concept.

We believe that among the significant characteristics of a smart city dweller (in addition to human capital) stand out: urban identity, norms of trust, cohesion and collectivism in direct connection with his urban

activities, which all together determine the nature of the development of the social space of a city within the framework of the concept of a "smart city".

The social component of the "smart city" model in the personality of a smart city dweller can be characterized through his social activity, participation in management to achieve the goals that are defined by the "smart city" concept. Mutual contribution and effectiveness of the state and individuals lead to achievement of these goals. The contribution of the state and authorities of different levels is not considered in this work. The main attention is paid to city dwellers as active subjects of social action.

The implementation of the concept of a "smart city" implies not only the adoption of this concept by the city dwellers, and the use of smart city technologies for consumption, which definitely characterizes the growth of the quality of life. Of particular importance is the role of a person in the implementation of this concept (whether his role is subordinate in nature, or whether a person acts as a real subject in urban relations between all interested parties in the process of urban development).

Today, a certain list of technologies has been adopted as a basic indicator of the "smartness of a city". These technologies ensure t functioning of various spheres of the city and the urban community. A set of technologies, information about them, application in professional, social and everyday practice are considered as a universal model of a smart city. The analysis of literature showed the presence of a discussion about the role, influence, the future of smart technologies, about the attitude towards them in the society. There are at least three areas of research in this field.

The first direction reveals the leading role of smart technologies in the development of cities, in economic growth, competitiveness, improving the quality of life, success, etc. (Bakulakova 2020)

The second direction of research is based on criticism of the use of smart technologies and dependence on them (Biczyńska 2019), loss of privacy and social justice in modern society (Vanolo 2014), reducing sociality in politics and increasing control over people (Schindler, Silver 2019).

Finally, the third direction of research considers smart technologies only as a tool that creates possibilities, and people decide which possibilities and for what purposes to use (McFarlane, Söderström 2017).

We support the third alternative, which presents optimistic attitude to smart technologies. We insist on the fact, that an individual uses a set of smart technologies in his everyday life according to his opinion about a "smart city" and reality (Votcel, Kuznecova 2018). We agree that smart technologies and smart platforms should be considered as new forms of life democratization, of engaging citizens into social- economic and social- political processes of the state of total welfare (Anttiroiko 2016).

We assume that smart technologies are a potential instrument of city dwellers for city development management, an instrument of active and productive participation in urban life. In connection with this it is important to study the interrelation between smart city technologies and city dwellers. In other words, we try to learn if city dwellers use technologies of a smart city to participate in city management. It should be noted that our article does not deal with the management of citizens with the help of smart technologies.

The main aim of the paper is to check the relationship between smart city technologies and their use in city development management as a social factor of implementation of a "smart city" model.

4. MATERIALS AND METHODS

The article uses materials from a survey of residents of the city of Tyumen, conducted in April-June 2020 in the online format using the SurveyMonkey service.

Tyumen is the first Russian city in Siberia. Today it is a large industrial center with a population of 807.3 thousand people (on January 1st, 2020), located in the very center of the Russian Federation. The object of the research were residents of Tyumen aged 18 - 70. We interviewed 907 people, and analyzed 877 questionnaires. The sample represents the population of Tyumen by gender and age. The sampling error does not exceed 3% for one feature.

There are some characteristics of the sample: 85% of respondents have lived in the city of Tyumen for more than 5 years, 46% - for more than 30 years. 60% of respondents work, 10% study full-time at an educational institution, 17% of respondents do not work as they are retired, and 14% do not work for other reasons. 57% of respondents are married, more than 50% have juvenile children.

Self-assessment of the participation of respondents in the life of the city was carried out through their choice of one of the answer options: "I participate in the management of the city", "I participate in making decisions that are important for the city", "I participate in decision-making at the place of residence, work / study", "I do not participate in the life of the city "," I do not participate in the life of the city and do not see the need for it. " According to the results of the study, 4% were "involved in city management", and 7% were "involved in making decisions that are important for the city" (Table 1), therefore, for the purposes of further analysis, these options were combined.

The use of smart technologies was assessed using the question "Which of "smart city" technologies listed in the table are available in your city? Which of them do you use and do you see any benefit from it?" A list of 26 technologies that are available in Tyumen were provided, and among them - 4 technologies that contribute to city dwellers' participation in city management: "online platforms for voting among house

residents", "electronic government (filing complaints, letters, appeals, etc.)", "platforms for bidding or selection of suppliers", "official sites and pages of the city in social networks". The following scale was used to assess the use of technologies: "it is not in the city", "it is in the city, but I do not use it", "I use it, although I do not see any benefit", "I use it, and it makes life easier", "I don't know". For the convenience of the analysis, this scale was subsequently transformed - 1) " not informed about the technology" = "this is not in the city" + "I don't know"; 2) "I know about the technology, but I do not use it"; 3) "I use it".

5. RESULTS

Self-assessment of participation in the life of the city as an indicator of social activity shows that at the level of the urban community, citizens do not feel themselves to be subjects of urban policy. The answers to the question "How would you characterize your participation in the city life?" show, that only a small proportion of respondents (7%) believe that they participate in making important decisions for the city in one form or another. At the organization or neighborhood level, a third of respondents assess their role in decision-making as active. It is interesting to note that the majority of the respondents do not participate in the life of the city. Moreover, 11% of respondents do not see the need for this (Table 1).

Table 1 - Respondents' answers to the question "How would you characterize your participation in the city life?" (%)

Options to choose	%
I participate in city management	4
I participate in making important decisions	7
I participate in making decisions at the place of residence, work / study	31
I do not participate in city life	45
I do not participate in city life and I do not see the necessity to do this	11
No answer	2
Total	100

Figure 1 - Factors that deter the respondents from taking an active part in solution of the city problems, %

The study showed that factors of "technological" and informational nature prevent city dwellers from participation in urban community management and solution of local problems. In addition, they are not motivated ("no time", "no desire"), they distrust the authorities ("no one is interested in my participation"), they do not want to take responsibility ("lack of experience", "lack of public organizations dealing with the problems of the city"). The factors are shown in Figure 1.

Thus, among the reasons for "non-participation" in solving city problems, every fifth respondent named "lack of information about the ways of participation", 15% of respondents pointed out "lack of channels for interaction with city authority", every tenth - "lack of information platforms for interaction between the authorities and the population".

Therefore, it is logical to assume that the development of technologies to include citizens in city management will contribute to the development of constructive social activity of city dwellers.

Table 2 - Respondents' use of smart technologies of "city management", %

Technologies	I am not informed about the technology	I know, but do not use the technology	I use the technology	No answer
Online platforms for voting among house residents	68	16	15	2
Official websites and pages of the city in social networks	20	31	48	2
Electronic government (filing complaints, letters, appeals, etc.)	28	35	35	2
Platforms for bidding or selection of suppliers	57	21	19	3

Now, up to 35% of Tyumen residents use the "electronic government" service (for filing complaints, letters, appeals, etc.), which allows them to influence making managerial decisions (Table 2). Almost half of the city dwellers turn to the official city websites and social network pages, which can also be interpreted as a certain interest in the issues of city management, urban problems, and city improvement. However, the awareness of the sites that allow one to be involved in solving local problems is extremely low. 20% of respondents do not even know about the presence of official city sites (these are mainly the oldest age groups and respondents with a low level of education). Almost 30% of city dwellers are not informed about opportunities they have, e.g., if they need to write an appeal, or file a complaint. As for online platforms for voting among house residents and for bidding or selection of suppliers, the number of uninformed people is close to 70%.

This situation can be partly explained by the fact that people are not interested in using smart technologies, they do not have social experience, they are not ready to participate in socially significant

activities ("If I do not need it, I am not interested in it"). 20% of respondents consider smart technologies to be useful for changing the city life. The most active city dwellers are not so optimistic (Figure 2).
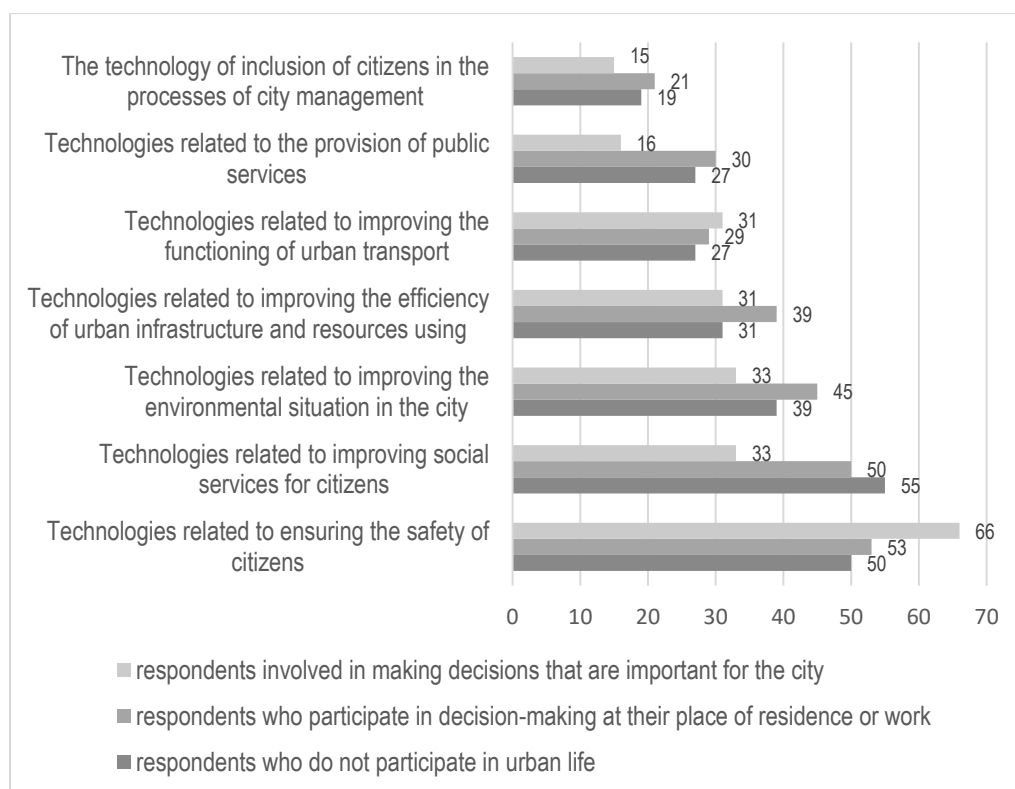

Figure 2 - Respondents' answers to the question "Which technologies will help improve the city life?", %

The research shows that experience of using smart technologies increases their value for city life. So, in Table 3 you can see that city dwellers who have experience of using such services and platforms as "electronic government" rate the importance of smart technologies for city management higher than those who have not used them yet. 27% of the experienced city dwellers think that such technologies will help improve the city life (on average, 20% from the sample).

The study cannot confirm the hypothesis that smart technologies are able to improve social activity of city dwellers. However, the respondents who use different technologies (e.g., "electronic government", official sites or pages of the city in social network) participate in public life of the city more often than those who do not use any technologies (Table 4). In particular, 54% of the respondents using "electronic government", 55% of those using "online platforms for voting among house residents", 56% of those using "platforms for bidding or selection of suppliers" and 53% of those using official sites and pages of the city in the social network, participate in the life of the city in this or that form. These numbers are much higher than among the respondents who do not use these opportunities.

Table 3 - Respondents' answers to the question "Which technologies do you think will improve the city life, in connection with the use of "Electronic government" service?" %

	Electronic government (filing complaints, letters, appeals, etc.)				On average in the sample
	We have it in the city, but I do not use it	We have it in the city and I use it, but I do not see any benefit of it	I use it, and it makes life easier	I do not know	
Technologies ensuring safety	52	61	54	46	52
Technologies improving the ecological situation	37	43	38	45	40
Technologies improving public transport system	30	28	23	28	27
Technologies improving social services	58	34	50	59	53
Technologies involving citizens into city management processes	12	25	27	18	20
Technologies improving the efficiency of the city infrastructure and resources	35	35	37	33	34
Technologies providing public services	29	15	31	31	28
Other	1	0	0	1	1
	100	100	100	100	100

Table 4 - Respondents' participation in city life according to the usage of smart technologies, %

Use technologies		Participation in city life			
		Participate in making important decisions	Participate in making decisions at the place of residence, work / study	Do not participate	Total
Electronic government (filing complaints, letters, appeals, etc.)	I am not informed about the technology	10	22	67	100
	I know, but do not use the technology	8	32	60	100
	I use the technology	14	40	46	100
Online platforms for voting among house residents	I am not informed about the technology	7	30	63	100
	I know, but do not use the technology	19	38	43	100
	I use the technology	21	34	46	100
Platforms for bidding or selection of suppliers	I am not informed about the technology	6	29	64	100
	I know, but do not use the technology	16	36	48	100
	I use the technology	19	37	44	100
Official websites and pages of the city in social networks	I am not informed about the technology	11	19	70	100
	I know, but do not use the technology	9	24	66	100
	I use the technology	12	41	47	100

Thus, the main factor that undermines the indicator of participation in the city life is the lack of information about technologies which help include citizens into city management. The biggest amount of people who "do not participate" are not aware of the existence of such technologies (63-70% vs 56% on average in the sample).

We can watch an inverse relationship as well. The active participants of social life more often use technologies of "engaging citizens into processes of city management" (Table 5).

Table 5 - Respondents' participation in city life according to the usage of smart technologies, %

Use technologies		Participation in city life			
		Participate in making important decisions	Participate in making decisions at the place of residence, work / study	Do not participate	Do not participate and do not see the necessity
Online platforms for voting among house residents	I do not know + We do not have it	40	65	76	76
	I know, but I do not use it	28	19	12	13
	I use it	32	16	12	11
Total		100	100	100	100
Official websites and pages of the city in social networks	I do not know + We do not have it	18	12	21	38
	I know, but I do not use it	26	21	39	31
	I use it	56	67	41	31
Total		100	100	100	100
Electronic government (filing complaints, letters, appeals, etc.)	I do not know + We do not have it	26	20	30	47
	I know, but I do not use it	23	36	41	25
	I use it	51	44	29	27
Total		100	100	100	100
Platforms for bidding or selection of suppliers	I do not know + We do not have it	36	52	67	64
	I know, but I do not use it	30	25	19	17
	I use it	34	23	13	19
Total		100	100	100	100

The table shows that 32% of the respondents (vs 15% on average in the sample), who take part in making important decisions, use "online platforms for voting among house residents", 34% (vs 19% on average in the sample) use "platforms for bidding or selection of suppliers". In addition, among all the respondents

participating in city life the percentage of those who use the official site of the city (56-67% vs 48% on average in the sample), and those who use "electronic government" (44-51% vs 35% on average in the sample) is much higher. On the contrary, people who do not participate in city life are uninformed about smart technologies improving city dwellers' social activity.

6. CONCLUSIONS

Thus, a conscious consumer of smart city technologies takes an active part in the urban community. A conscious consumer uses technologies as modern tools for city management. His involvement in social activity, together with high adaptability to modern technologies, proves the connection between his social activity and the social space of the city. Technologies help active city dwellers involved into the construction of the city social space at the institutional level, or at the level of the city management system. This fact once again confirms the idea of the importance of the active attitude of city dwellers to their city.

The results of our empirical research show the importance of creating conditions for active participation of the population in the social life of the city. These conditions include public awareness of the technological resources. These forms should include knowledge not only about the possibilities of solving various life problems, or improving city dwellers' quality of life, but also information about their application in social practice.

Today, a share of city dwellers interested and, what is more important, actually participating in the city life and in the city's development management is very small. Our study confirmed the assumption that non-active city dwellers are indifferent to the use of smart city technologies to enhance their participation and involvement in city development management. Most of them use "smart city" technologies for personal consumption, for improvement of their own quality of life. They do not think about the potential of the use of "smart technologies" for handling development of the city, or urban community. This situation indirectly indicates the degree of individualization, indifference to the processes happening in the city social space.

We can suggest that the prospect of increasing social activity with the use of smart technologies should go together with the creation of conditions by the authorities, business, education for a city dwellers participation in city development management, so that such participation will be seen as natural and necessary aspect of people's everyday life.

7. DISCUSSIONS

Our research conclusions about the nature and degree of involvement of city dwellers in the management issues of city development correlate with the results of studies of our European colleagues (Joss 2018).

They confirm the need to study institutional conditions, mechanisms, and norms for expanding public participation in the life of a city taking into an account the whole city context and its social space. It is not enough to provide institutional and instrumental foundations, even though they will be in the form of smart technologies. The problem will be solved only when development goals, identity, norms and values of a city and city dwellers are synchronized. The issue should be studied more thoroughly from critical expert's point of view.

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