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Crowdsourcing Technologies in Municipal Administration: The Cases of Russian Cities

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The focal point of the paper is E-technologies in the sociocultural context of modern Russia. There is much evidence that such technologies are becoming a source of changes in the architecture of the Russian social state that has recently developed in the country's socio-cultural context. Although Russia has been known for the dominance of vertical relationships, the current situation is dramatically changing. Interestingly, Russian society is step-by-step designing the space of horizontal citizens' network interaction. Of much importance is the social change, which stems from the usage of digital technologies in management, which results in extended networking communication between authorities and citizens. What comes next is a new sociality, more adequate to the nature of the social state involving crowds of citizens in managerial decisions. The changes affect, first of all, the municipal level of management; however, the call for the introduction of digital management tools is initiated in many respects "from top-down", i.e., by the highest power structures of the state.

The purpose of the article is to analyze the possibilities of a new social practice of crowdsourcing in municipal government based on the analysis of digital interaction mechanism between government and citizens.

The paper presents the results of the research based on case-studies of 10 Russian cities which promote municipal crowdsourcing platforms as a means to form and support a new relationship with citizens at the local level. An analysis of the formation of networked electronic participation of authorities and citizens allowed us to identify the dynamics of crowdsourcing platforms as a mechanism for the formation of new relationships and to present a classification of models of emerging network communications. Models differ in the opportunities that crowdfunding platforms provide for the inclusion of citizens in the formation of the development directions of the municipality. The first model is characterized by the presence of full-cycle crowd resources (crowd project) and includes technologies such as *CrowdVoting*, *CrowdWisdom*, *CrowdCreation*. The second model allows citizens to propose the initiative and vote for a ready-made solution of its implementation. The third model contains limited opportunities for participation in decision-making and is a service for informing the citizens of the city about problems or their disagreement with the current policy. Only the first model involves joint participation in management, which was demonstrated by only three municipalities; among them there are one Moscow and two regional municipalities. The uneven development of the network interaction between citizens and municipal governments stems from several factors. However, in present-day conditions it is based on the desire or unwillingness of the authorities to transfer part of their powers to citizens.

Keywords: E-technologies, crowdsourcing platform, civic participation model, municipalities, government, city people, power, citizens, network communications, social state.

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Introduction

The transition to a digital model of development, according to expert forecasts, offers the possibility of a qualitative change in the pace of economic development and ensuring a higher level of well-being of citizens of modern social states. Strategy Industry 4.0, based on the digital economy, simultaneously involves the formation and strategy of Welfare 4.0, because economic changes must be followed by social innovations. The Industry 4.0 programs established in Russia [*Program “Digital Economy of the Russian Federation, 2017; The development strategy of the information society, 2017*] aim to achieve a balance between economic and social development, during which the primary model of the social state, adopted in 1993, is being transformed.

Sociocultural factors, which determine the type of Russian social state, contributed to the formation of its more predominantly vertical society administration than states with developed horizontal interactions and relationships with civil society. But it is precisely the municipal level of relations between the government and civil society that contains a high potential for its improvement in Russia. At the local level of government, i.e. municipal

body, the welfare state has such features as bureaucracy, secrecy, and non-transparency of management decisions making [Ahn, Bretschneider, 2011] which result in the distrust of citizens to government agencies. This distrust testifies to the crisis and has drawn much criticism [Rosanwallon, 1997], which can be overcome owing to the legislatively fixed special status of municipalities. Urban governing structures are the local authorities which have relative independence in implementing social policy to address pressing citizens' social problems, which arise on the territory of the municipality. Interestingly, urban residents themselves are granted active participation in management decisions and have the opportunity to influence them directly.

The research has shown that the established practices of power structures 'from top-down' focus municipals on the needs of authorities rather than the urban population. They are themselves positioned as a part of "the vertical of the executive power." They are not perceived by urban residents as institutions of democracy, and local people consider them as one of the mechanisms of the state apparatus. At the same time, the municipal authority is objectively interested in legitimizing its significance through the support of the citizens. Consequently, municipals are committed to new ways of interaction with local people. At the present time, according to Russian researchers, municipal governments are increasingly starting to use information technologies and means of communication with the public, including the mechanisms of "feedback," i.e., the elements of electronic monitoring and democracy [The Welfare State..., 2017]. This practice opens up new opportunities for citizens, expanding the ways they influence the municipal government to implement their civic initiatives.

Information technologies and communicative services, applied in the social sphere, offer new opportunities in such sectors as medical care, education, public services, and other areas related directly to the zone of responsibility of municipalities. The introduction of this practice is determined not only by the expansion of the participants of social partnership as a basic principle of the social state but also the qualitatively different social policy at the local level. It arises directly from the rapidly increasing flexibility and the speed of public response to citizens' [Coleman, 2012.].

Among the emerging tools of network interaction between citizens and authorities, the crowdsourcing platform is gaining rapid spread in Russia. It is especially popular at the municipal government level and testifies to the desire of city government bodies to create a "smart city" in their territories. Digital technologies, according to a Russian tradition, were forced "from top-down" and were articulated by the President of Russia. In 2013, at a seminar-meeting with the mayors of Russian cities, V. V. Putin recommended the use of crowdsourcing in municipal administration, calling it modern technology for the development of the urban environment, a mechanism for the collective selection of appropriate solutions [Putin, 2013]. The adoption of this decision was intended to accelerate the digitalization of Russian society. This fact indicates the special importance of these technologies to the processes of social and economic modernization of Russian society. According to experts, Russia is 5-8 years behind the leading digitalized countries. If the current growth rate of the Russia's digital economy will remain at the same level, according to forecasts, by 2020, due to the high speed of global changes and innovations, this gap will be 15-20 years. The sector of high technology in 2018 in Russia amounted to less than a quarter of the entire economy, allowing to take only the 44th place in the world, in 2016 the share of the Russian sector of information communication technologies in GDP was only 2.9% [Nesterenko, Simchenko, 2018].

Consequently, the appeal to the topic of our research is dictated by practical needs. It is associated with the study of the crowdsourcing platform as one of the tools of information and communication technologies that form the basis for the formation of a new social reality in Russian society. Although the desire of the highest political bodies to introduce “from top-down” crowdfunding technologies at the municipal level, not every major municipality adopts such management technologies. In some cities, there were attempts to implement crowdsourcing projects, but, for unknown reasons, they did not receive further continuation. Interestingly, the practice of crowdsourcing is actively used in municipal management in those cities, which, in our opinion, can hardly be called advanced. In addition, the functions delegated to citizens in the process of a collective and open search for solutions to problems differs from the existing crowd platforms. The indicated contradictions influenced the planning of the research presented in the article to comprehend the new social practice of crowdsourcing in the municipal government and to describe the digital interaction mechanism between government and citizens.

Literature Review

The basis of the study is the theory of the social state and its transformation under current conditions into a social service state [Esping-Andersen 1990; Abrahamson, 1995; Abrahamson, 1999]. Institutional changes in the production of public goods result in an increased role of the nonprofit/commercial sectors as representatives of civil society [Salamon 1995; Salamon, Anheier, 1996, Salamon, 2002]. In practice, ongoing processes mean that the state transfers part of its authority to produce public goods to NPOs and entrepreneurs. The delegation of authority to representatives of civil society simultaneously involves the formation of conditions and tools that expand the participation of citizens in the field of managerial decision-making, where the state plays the dominant role. New opportunities in this regard appear in communication, network society [Castells, 2009]. Sh.R. Arnstein [Arnstein S., 1969] developed one of the first concepts of public participation in public administration, based on the notion of levels of participation (the “ladder of civic participation” model), depending on the level of authority given to citizens. Later models of citizens’ electronic participation in public administration based on information and communication technologies, somehow, reproduced the proposed model [Wilcox, 1994; Smyth, 2001; Macintosh, 2004].

Of primary importance for our research is the idea that network communication is changing the architecture and social state. Network interaction methods reduce vertical, bureaucratic relations, contributing to the formation of more flexible network management models with the participation of citizens. Researchers discuss the ideas of co-management, in which the government at every level can attract the resources of the private sector and civil society for a more appropriate achievement of social goals [Donahue, Zeckhauser, 2011]. The key trends of analysis describe cooperation and partnership [Prentice, Brudney, 2016], the focus is that citizens form the core of the new relationships of the management system [European Innovation Partnership-Smart Cities, 2019].

Present-day foreign authors studies, which are of direct interest to the Russian practice of creating crowdfunding platforms, are devoted to describing the motivation of the creators of online crowdfunding platforms, analyzing the constraints of citizens in its participation, developing principles for creating effective crowdfunding platforms and tools to support

civic initiatives [Gerber, Hui, 2013]. The authors study the dynamics of crowdfunding [Mollick, 2014], identify the conditions under which crowdfunding platforms approach social innovation not only at the level of support of individual social initiatives but also at a wider level aimed at achieving social sustainability of local communities and society as a whole [Light, Briggs, 2017], describe the formation of joint involvement and its configuration [Le Dantec, DiSalvo, 2013].

There is a growing body of Russian expert research by O. N. Demushina, S. E. Lobova, S. A. Reviakin, A. V. Chugunov describing citizen participation in management based on electronic platforms. These studies analyze the opportunities of crowdsourcing in Russian practices of regional and municipal management as a tool for including citizens in management processes. Crowd technologies are relatively new and little-studied phenomenon concerning the Russian practice of interaction between government and citizens. For our study, we utilized the models of electronic citizen participation in public administration presented in the studies. The models are based on a level approach. Of much importance is the fact that the models describe the principles of the crowd platforms' formation, the dynamics and risks of their development, the criteria for analysis and comparison, and the assessment of civic participation degrees.

Design Approach

Recognizing the fact that Russia stands behind the leading digitalized countries and e-democracies, as well as the Russian limited case studies of successful crowd technologies implementation in municipal administration, the design of our study was based on the methodology of a descriptive case study. The essence of our study is to comprehend the new social practices of crowdsourcing in municipal government and to describe the mechanism of digital interaction between government and citizens.

The main research question is as follows. What are the features of the interaction of power and citizens through online crowd platforms?

The research sub-questions are as follows.

What are the differences between metropolitan crowdsourcing platforms and regional ones?

What are the universal structures of open municipal crowdsourcing websites?

What is the context for creating municipal crowdsourcing websites?

What is the role of citizens registered on crowdfunding websites?

What tools are used to motivate citizens to participate in municipal crowdsourcing projects actively?

What is the role of the online platform in city/area management?

The object of our study is municipal crowdfunding platforms by which we mean public participation websites created not to receive individual state services but to discuss public municipal problems. The platforms serve to organize networking among citizens, municipal authorities and various state, and non-state structures with the aim of a joint transformation of urban space, increasing the level of citizens' self-government and the trust in the executive power.

There are two principles for creating crowd sites for interaction between government and citizens. 1) Bottom-up, when the initiator of the platform is a group of active persons, a community of citizens, a nonprofit organization. In this case, the initiative gets up from "the

civil grassroots.” Consequently, the online platform is more independent, less vulnerable to administrative manipulations. However, there is a high risk of government bodies ignoring this resource, which leads to its low efficiency. 2) Top-down, when the initiator of the resource is the municipal or regional executive authorities. In this case, the crowdsourcing platform will undoubtedly be vulnerable to administrative manipulations and fabrications, the imitation of network interaction and bottom-up communication. Nevertheless, such online sites have great potential for implementing the technologies of Government 2.0. They have the opportunity to use a wide arsenal of Web 2.0 digital tools, i. e., cloud Internet technologies, and mobile applications. They are capable of organizing direct interaction between representatives of civil society and industry departments/divisions of the municipal government. In this case, the requests and initiatives of citizens posted on an online resource is automatically sent (without intermediaries) to those responsible persons (as it happens, for example, at the portal of State services).

In our study, we consciously concentrated our attention only on the second group of municipal and regional crowd platforms, which are created “top-down” at the initiative of the authorities. Such a model of interaction is more natural for municipalities, which, as we noted above, are more oriented to the requests of higher authorities than to the initiatives of civil society.

At the selection stage of our study, we analyzed more than 20 urban electronic public services in each Russian federal region. We excluded the services that only informed the population of the existing problems and decisions of the municipal government without transferring to citizens the right and authority to make these decisions. As a result, only those online resources that suggest, in one form or another, public participation of citizens in the discussion, adoption, and monitoring of the implementation of government decisions got into our analysis sample. The sample featured 5 regions that are included in the list of pilot sites of the Open Region Federal Program: Moscow, Kazan, Khanty-Mansiisk autonomous district —Yugra, Tula Oblast, Magadan and 5 regions that are not included in the official list of pilot regions: St Petersburg, Belgorod, Perm Territory, Rostov-on-Don, Lipetsk Region.

The list of crowd platforms selected for analysis and their metadata are presented below:

No. 1. Crowdsourcing online resources of the Moscow Government (<https://crowd.mos.ru/>, <https://ag.mos.ru>, <https://gorod.mos.ru>), Moscow, the requesting initiator is the Mayor of Moscow;

No. 2. Our St. Petersburg (<https://gorod.gov.spb.ru/>), St Petersburg, the requesting initiator is of the Governor of St. Petersburg;

No. 3. Indifferent citizen of Yugra (<https://ng.myopenYugra.ru/>), Khanty-Mansi Autonomous Okrug-Yugra, the requesting initiator is the Governor of Yugra;

No. 4. We manage together (<http://permkrai.ru/program/>), Perm Territory, the requesting initiator is the Governor of Perm Territory;

No. 5. National expertise (<https://narod-expert.ru/>), Belgorod, the requesting initiator is the Department of internal and personnel policy of the Belgorod region;

No. 6. Active Rostovite (<http://ar.rostov-gorod.ru/>), Rostov-on-Don, the requesting initiator is the Administration of Rostov-on-Don;

No. 7. Open Region (<https://or71.ru/>), Tula Region, the requesting initiator is the Government of the Tula Region;

No. 8. Open Kazan (<https://open.kzn.ru/>), Kazan, the requesting initiator is the Mayor’s office of Kazan;

No. 9. We are developing the Lipetsk region together! (<https://artamonovigor.ru/>), Lipetsk Region, the requesting initiator is the interim Head of Administration of the Lipetsk Region;

No. 10. Open Magadan (<http://www.openmagadan.ru/>), the city of Magadan, the requesting initiator is the Mayor's office of Magadan.

The main method of collecting information is the analysis of documents. We define documents/information carriers as follows: the content of crowdsourcing platforms (action plans, announcements, statistics, and other written evidence of events), analytical reviews dedicated to these cases.

The analysis and comparison of crowdsourcing platforms were based on the following parameters:

1. platform context (creation date, initiator);
2. statistical/quantitative indicators of the platform (the number of registered subscribers, the number of completed projects, the ratio of implemented decisions to the total number of proposals);
3. high-quality indicators of the platform (project topics, feedback format, design);
4. functionality delegated to citizens. The first three parameters made it possible to single out the universal structures of crowdsourcing platforms and compare metropolitan and regional resources in terms of productivity and the degree of civil society coverage.

We structured the functionality delegated to users of municipal crowdfunding platforms into the following list of options available to citizens:

- the option to leave a complaint;
- the option to post a question/topic for discussion;
- the option to take part in a public discussion of the proposed solution;
- the option to share/repost information;
- the option to vote for the decision (to put a “like”, to rate, to choose from the proposed alternatives);
- the option to propose a solution/idea (make changes to ongoing projects, propose an alternative);
- the option to get feedback from authorities;
- the option to comment on other users, express their attitude to them (horizontal interaction)

Comparison of platforms according to these parameters allowed us to assess the degree of public participation of citizens – registered users of the resource – in municipal management, city development, and solving urban problems.

Results

The analyzed proportion of active citizens registered on the crowdfunded platforms varies depending on the region and ranges from 1.5% to 25.4% (see table 1).

In our opinion, the level of public participation of citizens through municipal/regional crowdsourcing online platforms arises from the general potential of civic engagement in our country. The same indicators have repeatedly become the study subject of the largest Russian research agencies. For example, the Levada Center in 2014 [*Volkov, Goncharov, 2014*]

Table 1. Quantitative indicators of citizen involvement in public participation on crowdsourcing platforms¹

№	Crowdsourcing platform title	City/region	Population base ² (people)	The number of users	Users to the population ratio, %
1.1	The Crowdsourcing projects of the Government of Moscow	Moscow	12 692 466	218 048	1,7%
1.2	Active Citizen			3 224 250	25,4%
1.3	Our City			1 560 767	12,3%
2	Our Saint Petersburg	Saint Petersburg	5 392 992	172 927	3,2%
3	A non-indifferent citizen of Yugra	Yugra	674 676	10 452	1,5%
4	We manage together	Perm region	2 599 260	86 000	3,3%
5	People's Expertise	Belgorod	394 142	70 753	18%
6	Active Rostov Citizen	Rostov-on-Don	1 137 904	180 485	15,8%
7	Open region	Tula region	1 466 025	Unknown, the service does not require registration	
8	Open Kazan	Kazan	1 257 391	Unknown, the service does not require registration	
9	We are developing the Lipetsk region together!	Lipetsk region	1 139 371	35 735	3,1%
10	Open Magadan	Magadan	140 149	5 290	3,8%

recorded that only 2% of the population in the entire country is ready to create and play an active part in civic initiatives, organizations, and self-government. In Moscow, this indicator increases to 5%, in large cities to 6%. As we can see from Table 1, in most of the regions included in the sample, the number of registered participants does not exceed 3–4%, which corresponds to the civic activity indicator of the population given above. At the same time, several cities (Belgorod, Rostov-on-Don, and Moscow) stand out. In these cities, the number of registered users exceeds the all-Russian trend by 4–6 times. But in these cases, one must also be critical of the results obtained, since awareness and registration on such services do not mean active involvement in the activities.

Our expert assessment of the performance of municipal and regional crowdfunding platforms allowed us to conclude that most of these resources are created according to the standard structure and have a similar site map which is as follows:

- the description of the platform with the appeal to citizens;
- the description of the conditions of participation and the mechanism of citizens' work to solve the task;
- the participations' conditions and the forms of motivation;
- ongoing projects;
- implemented projects indicating decisions that were taken for execution;

¹ According to the data on May 21, 2020.

² Rosstat data as of January 1, 2020.

- statistical indicators of the portal;
- links to organizations responsible for the implementation of decisions

After analyzing 10 crowdsourcing platforms, one metropolitan and 9 regional, we can conclude that the level of interaction between authorities and citizens in solving urban problems in the online environment is uneven and depends on the status of the city, the resources available to the initiator the platform, and the degree of administration openness. As can be seen from Table 2, most often municipalities and regional authorities, firstly, attract citizens to vote on various initiatives, thereby striving to gain public confidence and support for planned innovations. Secondly, crowdsourcing platforms provide the opportunity to report on a problem that is obligatory for consideration by relevant structures. It also provides the opportunity to propose an idea/leave a wish about possible directions for the development of urban space. In cases when a request is published on the platform for the generation of ideas, crowdsourcing full-cycle projects, followed by an expert selection of the proposed initiatives, open voting and the implementation of decisions that have received maximum support among citizens, are still a minority practice in leading municipalities and regions (such as Moscow or in Khanty-Mansi Autonomous Okrug).

Table 2. Functionality delegated to users of municipal crowdfunding platforms

Available Options	Crowdsourcing platforms											
	1.1	1.2	1.3	2	3	4	5	6	7	8	9	10
	Moscow	Moscow	Moscow	St Petersburg	Khanty-Mansi Okrug	Perm Region	Belgorod	Rostov	Tula	Kazan	Lipetsk	Magadan
to leave a complaint			+	+		+	+		+	+	+	
to post a question/topic for discussion		+			+			+			+	
to take part in a public discussion of the proposed solution	+	+			+			+				
the option to share/repost information		+										
to vote for the decision (to put a “like”, to rate, to choose from the proposed alternatives)	+	+			+	+	+	+	+		+	+
to propose an idea without an obligatory feedback			+			+	+	+	+		+	
To offer a decision (full-cycle crowdsourcing)	+				+							
to get feedback from authorities	+	+	+	+						+		
to comment on other users, express their attitude to them (horizontal interaction)								+				

It is natural that the Moscow crowdsourcing system for interacting with citizens has the most complex structure, detailed elaboration of the design, timely feedback, and interesting motivation for citizens to participate.

In total, 3 crowd services are available for Muscovites. These services set various targets, provided in one personal account:

“The Crowdsourcing Platform of The Government of Moscow” — a crowdsourcing full cycle-platform on which the task (crowd project) is located. It accumulated citizens’ ideas, published information on the expert selection of ideas, organized the vote, and presented results and future actions of municipal authorities for their implementation. The platform was created in 2014. Throughout the entire period of existence, 23 projects were implemented, approximately 3 projects per year. 218 048 users are registered on the site, which is about 1.7 % of the total number of residents. Since 2014, 104 thousand ideas have been proposed, 4000 have been accepted for implementation, so the proportion of ideas accepted for implementation is 0.4%. This share is greater in projects dedicated to cultural issues, and less in projects that solve problems in the field of education and health. The general response of citizens to the statement of the problem and the number of proposed ideas varies from the project’s subject. Such crowdsourcing projects as children’s polyclinics, Moscow (adults) polyclinics, and Moscow libraries got the most interest. In addition to the topics mentioned above, the portfolio of this platform includes projects in the field of social services for senior citizens, the environmental situation, urban transport, wild animals in the city (including the maintenance of wild animals at home), the optimization of the work of digital resources of governing bodies.

“An active citizen” is a platform for crowd voting on various issues and events to transform the urban environment, the topics of which can be offered by the residents themselves.

“Our city” is a crowdsourcing portal where any resident of Moscow can “complain”, report any problems with the organization of mandatory feedback from authorities.

Active participants in these portals receive a material and non-financial reward. An active citizen has a quest task system, which means receiving points for participating in the voting and proposing the idea for a new vote. The points received can be spent on exclusive souvenirs, theatre tickets, museums, workshops, on public transport discounts. The range of possible prizes is constantly changing, taking into account their demand among portal visitors.

The Government of Moscow’s portal of crowdsourcing projects implies non-financial reward, i.e. the public recognition of citizens who have proposed the most constructive ideas through the publication of their photos and full name on the portal.

Two regional crowdsources platforms are as close as possible to the above-described mechanics of cooperation between authorities and citizens. This is “A non-indifferent citizen of Yugra” and “We manage together” (the Perm Territory). Moreover, the design of these online platforms is almost identical to the metropolitan, detailed, and compares favorably with other regional websites.

“We manage together” (the Perm Territory) provides for 4 areas of interaction between the authorities and citizens: reporting a problem, crowd voting, crowdsourcing projects, open data on the functioning and development of the Perm Territory. The portal has registered 86000 residents from various settlements. Each crowdsourcing project involves about 1% of registered users who offer, on average, 1.5 ideas. Such a small proportion of

active participants in individual projects is because platform users live in different cities of the Perm Territory, and not all projects fall into the scope of their interests.

The platform “A non-indifferent citizen of Yugra” provides residents of the Khanty-Mansi Autonomous Area with 3 formats for interacting with the region’s authorities: crowd voting, crowdsourcing projects, a book of proposals. The platform is relatively new; it was created in 2017 and currently has 10452 registered participants. Over 2 years, 30 social surveys, 5 votes and, and 8 crowdsourcing projects were conducted, in which 2236 portal users participated. They proposed 336 ideas.

The remaining regional crowdsourcing platforms offer a limited format of interaction with the authorities. In two cities (St Petersburg and Kazan), such portals provide citizens with the opportunity to only complain about existing problems in the city without the opportunity to participate in the search for optimal ways to solve them. It should be noted that the population of these cities amounts to millions, and unofficially they belong to the level of capital cities. In Kazan, an individual can report on problems in the housing and communal services sector and city improvement, and in St Petersburg, in addition to housing and communal services, accessible problem areas include employment and social sphere. Crowdsourcing in the format of a message about a problem which implies obligatory feedback, i. e., all messages automatically arrive at the relevant city services, which must resolve the problems and timely report to the crowdsourcing users their progress.

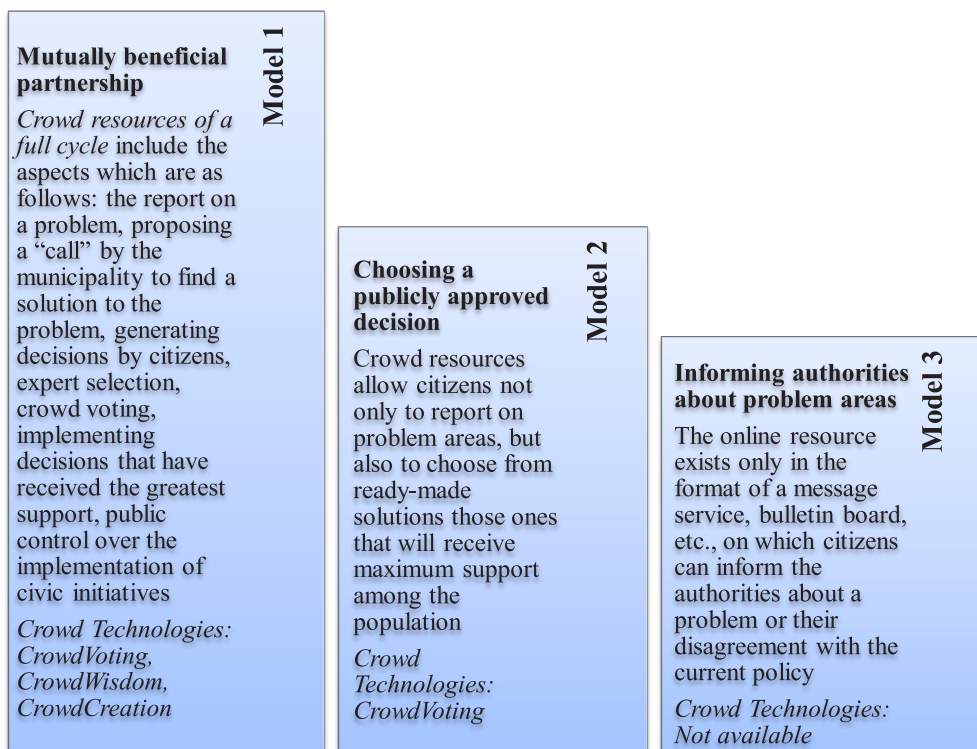
In several regions and municipalities (Belgorod, Rostov-on-Don, Lipetsk, and Tula region), citizens are offered the opportunity to formulate an initiative themselves, which, after an expert evaluation, can be placed on the crowdfunding platform for subsequent discussion. But this is not quite an appeal to the “crowd” with a request to solve the problem; it is a desire to choose the one that receives the maximum support among the population from ready-made solutions. Citizens come forward with their initiatives for public discussion (Belgorod, Rostov, Lipetsk region), and combine their efforts with representatives of authorities in the process of preliminary personal discussion (Tula region). In the future, crowd resource users vote for the proposed ideas, and the administration makes decisions based on the results of the crowd voting. This can be either a simple vote, i.e., “for/against” or a detailed vote (a certain number of users must vote, of which more than 70% must speak in favor so that the municipality or regional authorities take into account any public initiative).

And one of the crowd resources we have analyzed (“Open Magadan”) operates only in the form of crowd voting on the initiative projects of the city administration. Throughout the period of the resource’s existence, 20647 votes were given; all the results are presented on the website. “Open Magadan” uses a similar format of material incentives for participants as “Active Citizen in Moscow” — for participating in surveys, registered users receive points that can be exchanged for city services.

Discussion and conclusions

Based on the data of our study, we developed the classification of model of interaction between the government and citizens through crowdsourcing platforms, according to which citizens are given various opportunities to participate in the development areas of the municipality.

Chart 1. The models of citizen involvement in the development of municipalities with the help of crowdsourcing platforms described in the research



By implementing Model No. 1 “Mutually beneficial partnership”, the municipality may declare that it implements network interaction with citizens and makes decisions based on the principle of joint management. In Russian practice, this model is used by individual municipalities. In our sample, these are Moscow and the Khanty-Mansiysk Autonomous Okrug, the administration of which is guided by a digitalization leader and strives to meet the approved standards of interaction with citizens, but has significantly fewer opportunities and scope.

Model No. 2 “Choosing a publicly approved solution” is most attractive for leaders of municipalities and regions who are not ready to delegate initiative to citizens in developing prospects and development directions. In this model, the crowdsourcing is only an arena for public discussion and decision-making by authorities.

Regardless of the model used, citizens have the opportunity to influence only “simple” decisions outside the strategic plans for the development of the territory/industry. And as a result, there is an imitation of crowdsourcing, the simplification of the role of citizens, accountability to the rules established by the authorities. This practice weakly contributes to the development of civil society.

Summing up the analysis, it can be noted that crowd technology in municipal and regional management is only at the beginning of its development. The share of citizens

included in this process is, on average, at the level of 3–4% of the total number of residents of the territory. This small number of people is involved in solving the problems settled by crowdsource platforms, and the proportion of ideas adopted for implementation is negligible. In this regard, the following logical questions arise, “Is the decision made in the process of interaction between the authorities and citizens in the online environment, through the crowd platform, the result of an open public discussion? Does the opinion of the minority reflect the position of the majority of citizens? Are “amateurs” able to systematically consider the problem and propose a constructive solution?” This is only a small part of the discussion fields related to the use of crowd technologies in municipal management, which indicate the prospects for further research.

We associate the continuation of the study with the research of online platforms, based on which crowd projects initiated by citizens themselves are developed. Similar Russian practices of civic activism going “bottom-up” are few, but are already becoming the subject of research [Bershadskaya, Chugunov, Trutnev, 2012; Chugunov, Kabanov, Misnikov, 2017]. The interest of citizens in expanding their powers in city management, their motivation should be attributed to one of the key research areas that allow not only diagnosing but also following changes in the characteristics of such participation [Kersting, 2013].

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Краудтехнологии в муниципальном управлении: кейсы российских городов

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Е-технологии становятся источником изменений архитектуры социального государства, сложившейся в социокультурном контексте российского общества. Характерное для государства доминирование вертикальных отношений неожиданно начинает меняться, постепенно формируется пространство горизонтальных взаимодействий с гражданами. Применение цифровых технологий в управлении, благодаря которым распространяется сетевая коммуникация власти и граждан, мы рассматриваем в качестве фактора социальных изменений. Происходит воспроизводство новой социальности, более адекватной природе социального государства, предполагающей широкое участие граждан в принятии управленческих решений. Изменения затрагивают прежде всего муниципальный уровень управления, при этом запрос на внедрение цифровых инструментов управления инициирован во многом «сверху», т. е. высшими властными структурами государства.

Цель статьи — проанализировать возможности новой социальной практики краудсорсинга в муниципальном управлении на основе анализа механизма цифрового взаимодействия власти и граждан.

В статье представлены результаты исследования, основанного на изучении кейсов десяти российских городов, имеющих опыт разработки и продвижения муниципальными органами управления краудплатформ как способов формирования и поддержки новых отношений с гражданами на локальном уровне. Анализ становления сетевого электронного участия власти и горожан позволил нам выявить динамику краудплатформ как механизма формирования новых отношений и представить ее в виде трех моделей формирующихся сетевых коммуникаций. Модели сетевого участия различаются возможностями, которые предоставляют краудплатформы для включения горожан в формирование направлений развития муниципалитета. Первая модель характеризуется наличием краудресурсов полного цикла (крауд-проект) и включает такие технологии, как *CrowdVoting*, *CrowdWisdom*, *CrowdCreation*. Вторая модель позволяет горожанам предложить инициативу и проголосовать за готовое решение по ее реализации. Третья модель содержит ограниченные возможности для участия в принятии решений и представляет собой сервис по информированию власти горожанами о наличии проблем или о своем несогласии с проводимой политикой. Совместное участие в управлении предполагает только первая модель, которую продемонстрировали всего три муниципалитета, среди них один столичный и два региональных. Неравномерность развития сетевого взаимодействия граждан и муниципальных органов управления определяется рядом факторов, но в современных условиях ее основу составляет желание или нежелание власти передать часть своих полномочий гражданам.

Ключевые слова: E-технологии; краудплатформа; муниципалитеты; общественное участие; управление; горожане; власть; граждане; сетевые коммуникации; социальное государство.

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