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Technologies of Crowdsourcing in Regional Government

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Abstract: The study provides a critical analysis of the implementation process of crowdsourcing technologies in the practice of regional management. It presents a new look at the manipulative and imitative nature of civil practice. The stduy represents the complex model of the risk categories of crowdsourcing technologies and the off setting model used to minimize the risks of the social technology implementation. These models were verified through the empirical regional study.

Key words: Crowdsourcing, social technologies, regional management, risks, verified

INTRODUCTION

Examining the modern society and considering it as a booming, evolving system, the changing of which is due to often uncontrollable construction of external and internal factors it is difficult to ignore one of the stable dyadic factors forming social progressive tendencies.

Factors included in the dynamic dyad belong to the category of crisis ones but each of them affects only certain segments of society and moreover, indirectly strengthens social stratification. These factors can be conventionally called "the crisis of ideas" and "the crisis of resources" (Musorina, 2011). One of them belonging to a certain strata often excludes the presence of a second problematic factor and on the contrary, suggests the presence of its antithesis in a social group.

"The crisis of ideas" is the problem which is more often formulated in this or that interpretation in the groups with enough or the most resources by the representatives of business, governing institutions, intellectual elite. Stagnation of thinking, lack of heuristics, lots of experience, criticism, detachment from reality are just a few causes of the problem. Different types of resources available and the lack of effective ideas predetermine the internal structure buildup, the creation of simulation structures and bureaucratic arrangements or the development of unviable projects.

"The crisis of resources" is a scaling factor related to the socio-economic group but we will be interested in it only considering it as an inhibitor for the implementation of innovative projects. This ideological platform can be formed by the representatives of the so called "resource scarcity" group. The marginalized layer should not be included in the group but we do include the layer of intellectually active citizens whose resources do not give them a chance to realize their heuristic potential and even create a situation of intellectual stagnation (Rumjanceva, 2009).

The energy-consuming effect of the described deficiency states is so large and bipolar (owning to the resource capacity forcing the activity of one group and the abundance of the other group) that according to the laws of synergy it contributes to the appearance of a mutually complementary social technology to overcome the two critical factors. This is the technology of crowdsourcing.

MATERIALS AND METHODS

We take into account the following principles for the conduct of the study to understand the potential of crowdsourcing technologies:

- The principle of objectivity (the search and analysis of information, allowing to make constructive conclusions and recommendations, based on the actual facts of the social situation)
- The principle of science (the development of the concept of crowdsourcing potential of the region based on leading-edge scientific expertise and modern scientific theories)
- The principle of consistency (the establishment of the system, causality and hierarchy between elements of sociological research)
- The principle of social efficiency (to assess the potential of crowdsourcing from the perspective of social perspectives and social problems in the region)

During the research we applied the following theoretical and empirical methods: systematic,

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interdisciplinary analysis and synthesis of information and data methods, content analysis of text sources on the issue of research, scientific methods of modeling of processes and systems, sociological methods of research of public opinion (including an expert survey, questionnaires, interactive forms of public opinion research and participation), statistical methods of data processing and analysis, methods of social forecasting and designing the socio-technological methods of adjusting social situations.

In 2014 a regional study "crowdsourcing of regional management" held in Belgorod region (N = 1000). Characteristics of the sample: gender, age, education, occupation.

RESULTS AND DISCUSSION

Having all the potential to solve the described problems crowdsourcing is undoubtedly more advantageous to be used in the first social group. Crowdsourcing provides a platform for social functions but it is difficult to ignore the fact that it belongs to the group of manipulative techniques. This conclusion is made based on the analysis of its technology and results.

Technologically, the initiation of crowdsourcing is first of all and most of all, connected with an obvious subjective interest of a certain micro group.

This interest may have a direct or indirect financial outcome. For example, it can be either direct profit garnered from the advertisement or the design of a new product, created by the "public mind" or indirect profit from the implementation of a number of tasks by public officials presenting an appearance of hard work.

The manipulative aspect of crowdsourcing technologies is also proved by the subjective nature of process management and the lack of transparency in the administration even despite the integrative and social ideology of its foundations.

With few exceptions, crowdsourcing presents the process combining the efforts of the group initiating the expertise thus, overshadowing the meaning of citizen participation promoted by the declaration of public projects.

And finally, it should be noted that one of the most important manipulative aspects of the analyzed technology is the inequality of benefits of the parties.

As a rule, the group of individuals initiating the process of crowdsourcing includes the representatives of the business sector and the power elite. With the minimum of resource cost they get the maximum benefit: the profit from the introduction of new technologies and products, the increase of the legitimacy level and authorities' loyalty, the support from non-targeted groups (self-identified volunteers and contributors) in confronting the challenges and performing different functional tasks. Most frequently the organization of the crowdsourcing project gives the opportunity to get the net profit.

More often than not, social groups involved in the project get moral satisfaction from the opportunity to show the heuristic willingness and level of intelligence from the synergy of teamwork and the social significance of the purpose from the expert recognition. Another social benefit of group members is the satisfaction with the public participation results. There are not so, many examples of crowdsourcing projects demonstrating the opportunity to reward the best contributors to the greater result (Musorina, 2011). And even in these rare cases, the initiators' profits are thousand times greater than the costs of the project.

Perhaps these benefits cannot be compared but the manipulative aspect of crowdsourcing is primarily all about the situation in which one group has a clear and precise view of the nature and amount of benefits and the other group of participants is kept unaware of them. And even more the initiator determines in advance the dispositional and motivational block of the public that will be broadcast an open call for solutions to.

Getting the maximum benefit from the intentional use of techniques influencing the consciousness of people is definitely characterized as manipulation which can be adequately correlated with the implementation of crowdsourcing techniques. Let us imagine that the initiator of some crowdsourcing project, calling for the public participation, openly declares that the project managers will have an enormous material gain but the participants will only show their extraordinary intelligence and share the ideas. You don't need to start that kind of project to understand that the idea is not the best and the only you can get is a zero result.

Active implementation of crowdsourcing technologies in the practice of modern regional and municipal management in Russia is due to a range of social (and other) benefits that the authorities can get from it. Creating the effect of transparency in the management, association of citizens with the officials, the recognition of intellectual potential and abilities of the public, modernization of management practices according to the current trends these are some of the aspects that create the right social mood of the contributing crowd. Among the manipulative levers being the driving force for the soliciting contributions from the public should be mentioned the following: voting rights and the illusion of participation in decision-making process, the "game of

incapability" which implies that the citizens believe that the authorities are unable to achieve the desired results without their help.

Drawing attention to the manipulative aspect of crowdsourcing we would not like to exclude those really needed public projects which have brought right social and economic effects (Map of help. 2014. Access: http://russian-fires.ru/page/index/1 (checked 25.05.2014)) (most often they are initiated by public organizations which can be labeled as probably the only aiming to obtain advantage on a macro scale rather than benefits for a micro-group of managers) (Asmolov, 2011; Rumjanceva, 2009). But at the same time, the use of this social technology as intelligent integration project makes the risk of the detection of its manipulative paradigm by the contributors, one of the core elements in the risk model of this State practice.

The detection of citizens' manipulation reduces the number of valid (capable of intellectual and heuristic activity, producing the adequate intellectual product) participants in such projects.

All the risks of introducing the crowdsourcing technologies in the regional management practice can be divided into the following dyadic groups:

- Social, organizational and technological risks
- Internal and external risks
- Risks connected with the cause and risks connected with the effect

At the same time, in our opinion, the last two groups merge the dyads-internal risks (risks of the project initiators) result in external risks (risks of the project participants). According to our opinion, the complex model of risk categories of crowdsourcing may look as follows (Fig. 1).

According to the given model relations the social internal and external risks may lead to a low efficiency that can be described as organizational and technological risk. And moreover, the problems arising in this direction of crowdsourcing implementation will present a fatal scenario that is almost impossible to change. Thus, the development of organizational and technological model aimed to reduce risks arising from the introduction of crowdsourcing technologies in the practice of regional governance is primarily associated with the formation of socially oriented macro group platform for their initiation the civil practice foundation confirming the utility, potential and unselfishness of the initiators towards the actors. The complexity of the whole process of awareness stimulation of the intellectual donors regarding their importance when identifying objectives of certain social initiatives in the region is comparable to the solution of the problem of establishing an internal motivation to public service. It is difficult to answer the question on how to change the disposition of the officials directed at the escalation of imitation practices. It is even more difficult to answer the question on how to change the attitude and the way of thinking of corrupt officials (Vetyutnev, 2008). An effective system of penal sanctions for starting an imitation practices may occur to be one of the ways out. It will give an opportunity to reduce the level of manipulative character of crowdsourcing in regional governance. Stated technical requirements specification for initiating crowdsourcing projects in regional and municipal management will also be very useful to reduce the threat of a manipulative situation arising. Some preventive measures should be applied to remove or reduce the organizational and technological risks as well as measures aimed to minimize and eliminate them.

Incentive program for participants of crowdsourcing projects reported in the media and in official administrative information resources, providing an opportunity for the project participants to understand its significance and by calculating the commercial profit, may include some forms of material reward for activist supporters.

Crowdsourcing project management program, based on the planning of the actual result which may be presented to the public as a result of collective creativity but at the same time by its very existence proves that the officials are unable to achieve it without help.

The targeted approach to the formation of human resources and expertise team aimed to support the creative process of citizens of the region. Multi-stage filtration of ideas with an individual approach to their estimation should also be mentioned as well as the possibility of pre-creation of mathematical evaluation models that would be able to help you objectively analyze the effectiveness and impact of crowdsourcing products (for example, calls filtering ideas a kind of new Mathematics-Oslon).

The symbiosis of social integration technologies, such as: crowd recruiting, crowdcasting and crowdfunding used to achieve the maximum efficiency and effectiveness of crowdsourcing.

The implementation of these activities already implies sufficient resource costs and reduces the risk of manipulation and simulation significantly, making the project obviously disadvantageous in the absence of the desired result. Thus, the variety of preventive suggestions gives an opportunity to build the organizational and technological model aimed to minimize the risk of introduction of crowdsourcing technologies in the practice of regional management (Fig. 2).

Individual modeling of crowdsourcing situations provides unlimited scope for creative initiatives of regional administrators but of course, providing the social motivation of management entity. For example,

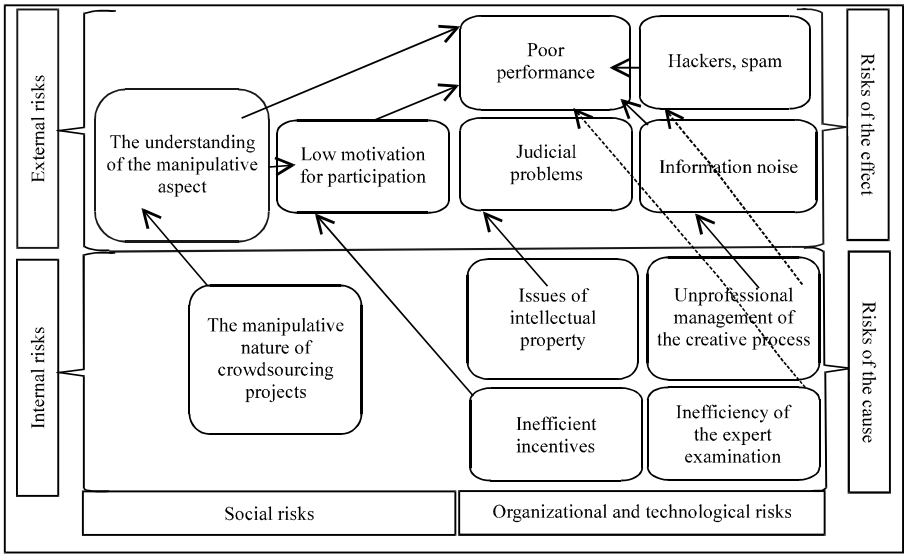

Fig. 1: The model represents the formation of the complex of risk categories that can arise when implementing crowdsourcing technologies into the process of regional management

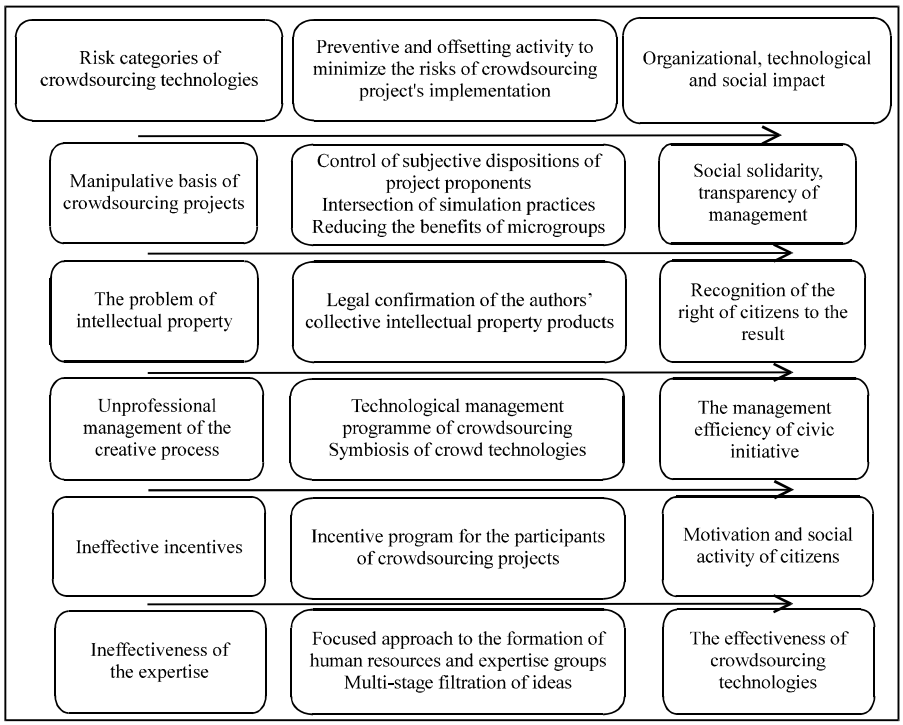

Fig. 2: Organizational and technological model aimed to minimize the risk of introduction of crowdsourcing technologies in the practice of regional management

under the strategic foresight planning when a united society becomes an objective of regional management it is reasonable to refer to the modified form of crowdfunding which can be designated as project corporatization.

The introduction of such a form involves not just joint funding of the projects by the citizens (which has long been successfully used in the world) but in case of commercial profit it will also provide the participants with the project revenue, according to the campaign

contribution. In this case, the civil shareholder becomes a par with the regional (administrative) entity getting profit according to the contribution. Small projects are the best testing ground for the experiment with these kinds of public participation in order to avoid the risk of pyramid scheme.

The efficiency of the developed models has been corroborated in a regional study of Belgorod region "crowdsourcing of regional management" held in 2014 (N = 1000).

When determining the reasons preventing the participation of citizens in the management of the region, the following were named in the first three: inactivity of citizens (47.88%), disinterest of the executive group (31.41%) and underestimation of the role of public opinion by the officials (29.65%). The important reasons for crowdsourcing projects' failure are the corruption (22.94%), the absence of precedent (20.35%) and the opacity of governance system (18.82%) (Table 1).

It really requires some social activity and motivation of the management stuff to use non-manipulative and non-simulation-based schemes of social integration (as it was mentioned above). A total lack of trust and loyalty, a lack of social involvement in the management process can form strong rejection and passive attitude of the citizens.

The readiness assessment of civil actors to participate in crowdsourcing practices showed that the crowdfunding projects are the least popular among the population (only 23.20% are ready to participate), the civil assessment projects are the most popular (73.07%) (Table 2).

We consider the first reason for which people prefer not to participate in the costly projects is that they neither believe they will ever get the result nor are they sure that the proposed projects are actually needed. The lack of unity of the authority and people makes the latter become a user (evaluator) of the services, excluding the possibility of taking the role of regional management partner seriously.

At the same time, in spite of the positive responses to the possibility of participation in the proposed projects of social cooperation, citizens highlight the limited experience of that kind. The participation in such civil projects comes down to the fact that people visit political party websites (48.94%), do online voting (46.24%), express their opinions on social and political issues in blogs, social networks and on news websites (29.79%), make charitable contributions (17.73%). As can be seen from the data presented, none of these public activities apply to a group of crowdsourcing technologies (Table 3).

The reasons for the refusal to participate in the proposed initiatives of citizens are in the suspicion of hidden manipulation («I do not believe that my participation will bring real results», 30.47%) in the unwillingness to do someone else's job («I believe that this should be done by government and municipal authorities», 32.40%) in a low evaluation of their own potential («I do not have necessary skills», 26.33%) in the problem of copyright («Most likely, the results of my participation will be assigned to other people», 14.20%) (Table 4). The verification of our theoretical constructs by mass survey data confirms the accuracy of the proposed antitheses to minimize the risks of crowdsourcing technologies.

Table 1: Reasons preventing the participation of citizens in the management of the region

What in your opinion is the biggest obstacle to the participation of citizens in the management of the region?	Percentage
There is no clear system which can provide the public with information on the work of public authorities	18.82
The officials underestimate the role of public opinion	-
The citizens are passive	47.88
There is a lack of participation tradition	20.35
The senior management of the region is not interested in a wide discussion of the decisions and their implementation	31.41
The corruption of authorities	22.94
Difficult to answer	3.76
The officials underestimate the role of public opinion	29.65

Table 2: The willingness of citizens' participation in crowdsourcing projects

Would you like to participate on a voluntary basis?	Number	Percentage
In the financing of regional projects		
Yes	232	23.20
No	556	55.60
Difficult to answer	212	21.20
In offering new ideas on how to develop the region		
Yes	481	48.10
No	288	28.80
Difficult to answer	231	23.10
In voting for certain regional projects		
Yes	730	73.07
No	167	16.72
Difficult to answer	102	10.21
In the formation of groups aimed to develop certain regional projects		
Yes	470	47.05
No	310	31.03
Difficult to answer	219	21.92

Table 3: The experience of citizens' participation in crowdsourcing projects

Which of the following did you do on the internet over the last year? (you may select up to three answers)	Percentage
Express the opinion on social and political issues in blogs, social networks and on news websites	29.79
Visit the websites of political party, public (non-profit) organizations, statesmen	48.94
Put the information about local and regional problems online using centralized services	6.38
Disseminate information on social and political issues and events	9.79
Participate in online voting on public issues	46.24
Join the groups of political parties/leaders in social networks	5.11
Participate in a public examination of bills	6.24
Donate money to charitable foundations or unfamiliar people in need	17.73
None of the above	9.22

Table 4: The reasons for citizens' refusal to participate in crowdsourcing projects

Specify the reasons for the refusal to participate in the proposed initiatives	Percentage
I do not believe that my participation can bring real results	30.47
I do not have necessary skills	26.33
Most likely, the results of my participation will be assigned to other people	14.20
I believe that this should be done by government and municipal authorities	32.40
I grudge the time and effort	6.51
I do not trust the authorities	7.40
Difficult to answer	11.69

Table 5: Motivation of civil participation in crowdsourcing projects

What in your opinion are the reasons and the motivation of the majority of people for participation in the work of public authorities and crowdsourcing projects?	Percentage
Financial benefit	23.80
The awareness of the fact that you have been a part of something important for yourself and the society	45.80
Self-actualization	15.10
In order to bate the curiosity	0.40
An opportunity find a new job (noticed-invited)	7.50
Public recognition	8.20
The opportunity to express own opinions freely	7.20
Difficult to answer	8.80

The study of possible motivation of citizens to participate in crowdsourcing projects on one hand, provides information on how it might stimulate public activity and on the other hand, confirms our assumptions about the nature of benefits received by civilian actors.

The social purpose, the public idea, the building of a better world, the possibility of being involved in a global campaign these are the main factors to stimulate citizens (45.80%). Of course there is a great number of people wishing to get financial benefits (23.80%) there is another group of citizens who want to demonstrate the intellectual capacity to prove the importance of their ideas and maybe even share their intellectual property (15.10%) (Table 5).

Thus, the opportunities of citizens to the public initiatives are sufficient to initiate a series of large-scale crowdsourcing projects but the attitude, experience and in general civil preparedness, predetermine the failure of crowdsourcing initiatives.

CONCLUSION

The described regional studies confirm the fact of civil ill-preparedness to the introduction of crowdsourcing technologies which stands as a simulation result of a poor performance of public officials. The elitist arrogance of the administration became a vivid stereotype and that is why an ideological donor cannot but assume the manipulative nature of the proposed initiatives, distrusting their credibility, usefulness or effectiveness.

It is possible to change the attitude of people but they must be provided with some positive cooperative experience in that kind of interaction and it will take time. Crowdsourcing as well as other technologies of public participation in the regional administration, requires a certain mix of civil loyalty, management transparency and compassionate society.

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