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## ON-LINE COMMUNITIES AND DIFFUSION OF CIRCULAR AND SHARING ECONOMY PRACTICES

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### *Abstract*

In modern Russia, as well as throughout the world, the practices of circular and sharing economies are becoming increasingly popular. But the implementation of these practices at the grassroots level is difficult, because it is against the will of the authorities and without the support of business. Thus, in Russia there is still no infrastructure for waste separation, municipalities are not working on collecting and redistributing things, the work of NGOs is complicated by bureaucratic obstacles, and there is almost no environmental education in schools. However, the development of the consumer society has led to the saturation of the needs of citizens in many household things, which increased the willingness of the population to streamline their treatment. A hypothesis was put forward that a specially organized acquaintance with the activities of ecologically oriented online communities can enhance the position of citizens on this issue. A study was conducted to test the hypothesis. Research participants were users of the social network Vkontakte. The study was carried out through three stages. First, interviewees were asked questions regarding their attitude to a certain range of circular / sharing practices. Second, the participants had to get acquainted with the activities of several online communities that implement circular / sharing practices. Finally, a second interview was conducted to study changes in the opinions of interviewees regarding activities of considered on-line communities. The results of the study demonstrate a significant degree of influence of information intervention on the positions of participants.

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**Keywords:** Circular/sharing economy, online local communities.



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## 1. Introduction

Today, advanced societies are actively introducing the idea of developing CE as the most promising method of overcoming the environmental crisis. In essence, this is the reincarnation of the idea of sustainable development (Geissdoerfer, Savaget, Bocken, & Hultink, 2017). However, today, for many, the excessive technological and economic orientation of this concept has become apparent. There are doubts that the current economic systems can become completely stable due to the introduction of CE principles in the form of organization of closed material loops and energy cycles by the business, if the nature of the product is not changed. The most widespread description of the circular economy today does not focus on the need to transform existing patterns of consumption, for fear of encroaching on a system of deep values redefined and pre-established by people in the course of their daily lives (Chiappetta Jabbour et al., 2019). Rather, today it is the other way around – everyday practices of more responsible people, oriented towards advanced environmentally friendly practices stimulate the development of sectors in the CE that fall out of current practical managerial and scientific discourse. Business and government still orient the society towards measuring the effectiveness of the transition to a circular and sharing economy through categories of productivity growth against the background of a decrease in material consumption and other externalities. Recall that the Sharing economy (further – SE), which is also part of the circularity model, also does not in all cases contribute to sustainability, in some cases it leads to an avalanche increase in the volume of services, which has negative environmental consequences (Martin, 2016; Belk, 2017). In this aspect, development is still perceived as growth - if not material consumption, but productivity. At the same time, in an imperceptible way, everyday life influences how society measures and evaluates economic well-being, its dynamics and development (Krueger, Schulz, & Gibbs, 2017). That is why we must distinguish between socially oriented environmental innovations and technocratic ones in order to describe the humanistic meaning of micro-social innovation, which has a greater human significance than indicators of economic productivity growth.

First of all, we should separate the SE organized by corporations and SE practices, organized on a much smaller “human” scale. Social experiments of this kind are carried out quite locally and are not designed to be multiplied by large social associations.

It should be noted here that social SE practices in their essence are often not just abstractly institutionalized actions, but a set of human agreements that are implemented on a specific platform - a place that in turn determines the nature of the social activity that is carried out on it. This conceptual approach proposed by Schatzki (2015) seems very important to us in the context of the social practices that we are studying.

It should also be determined that by social practices after Schulz Hjaltadóttir and Hild (2019). we will understand not only the everyday repetitive activity of individual entities, but also the organization of space and infrastructure that occurs to ensure the normalization of these activities (Schulz et al., 2019). At the same time, by space we mean not only physical (geographical) space, but also virtual space that allows one or another type of activity to be realized, as well as a social space that allows you to appeal to your social environment at any time to find support in solving everyday life tasks. At the same time the rationalization of what is happening, which manifests itself in self-explanations of the meanings of actions

and their sequence, should be considered as integral components of CE and SE practices as well as a set of actors that are significant for rationalization and interactions within the frames of those practices.

A feature of the ecological modernization of the socio-economic model of production and consumption in modern Russia is the following: the state not only does not support, but in many respects inhibits the development of a number of circular practices, suggested by Russian environmental and civil activists for implementation and diffusion (Nikitina, 2019; Ermolaeva, 2019). In particular, by hindering the separate collection of waste, the state actually devalues consumers' efforts to choose the most environmentally friendly packaging in stores, which is a strong demotivator for environmental activists (Barbarossa & de Pelsmacker, 2016). The lack of commercial organizations within walking distance to sell their own recyclables also largely disappoints citizens, depriving them of the opportunity to identify themselves as an environmentally concerned citizen (Biel, 2017). Accordingly, a lot of companies that would be able to contribute to the environmental optimization of economy are deprived of line of opportunities in commercial promotion of their environmentally friendly goods.

Under these conditions, certain practices of collecting recyclables, as well as exchanging unnecessary and unclaimed things, and renting things and equipment are more a challenge to the system than carried out in accordance with its official regulations. Note, these practices do not bring particular commercial benefits, although they make miserable economic sense for actors at the micro level.

Being inherently a grass root type phenomenon, this kind of circular practice, including their sharing components, is carried out to a greater extent due to the availability of opportunities for virtual network coordination, as well as the easier search for like-minded people in the modern Webspaces (Nikitina, Korsun, Sarbaeva, & Zvonovsky, 2020).

At the same time, the group of people who consciously implement these practices is quite limited in numbers, which is caused by a number of reasons, including: the lack of a comprehensive environmental education, lack of information on existing innovative environmentally friendly practices, lack of experience in the non-profit sector and other barriers (Singh & Giacosa, 2019). A greater role in inhibiting the spread of environmentally friendly practices in society is also played by low economic well-being, which hinders the more rational use of resources. Some of these barriers can be removed experimentally using the Method of persuasive communication (Muranko, Andrews, Chaer, & Newton, 2019) or the information intervention method.

## **2. Problem Statement**

Infrastructure, i.e. those tangible and intangible objects that allow you to perform certain actions regularly, giving them a certain meaning, is important for the implementation of all types of social practices. As for the best practices that are legally implemented in the field of waste management in the city of Samara today, there are not many of them. Specific online communities in the social network Vkontakte were created in the last 2-3 years as a result of the obvious lack of such infrastructure. Let's name two prominent local online communities that have been constantly carrying out separate recyclables collection campaigns for several years - the public group "Recyclables for Charity" and another one -online community for collecting organic waste "Grow, my city". These communities have several organizers and supporting group of volunteers; people meet offline in one or another composition at the same places twice per month.

Volunteers use their own transport; there have agreements with organizations that accept separately collected waste for money, which is then transferred to charity. At the same time, the group members are not officially gathered in NGOs, because the existing Russian legislation makes it difficult for them to work as legal entities. Both of those online communities conduct a constant information campaign, publish and discuss the results of their work, publish infographics, and various interesting materials on the topic.

Thus, in the field of separate waste collection in Samara today there is no stable official material infrastructure for citizens, but there is a virtual infrastructure, which is supported by some material objects and a social base that allows environmentally concerned citizens to carry out separate waste collection as a relatively regular CE practice.

The remaining practices are related to the global Economy, which is implemented mostly thanks to the virtual infrastructure. We will include numerous online groups, including those in the social network Vkontakte, which allow their members to exchange and transfer things for free, as well as sell them. Note that there are offline organizations that also distribute second-hand items: on the one hand, these are commercial organizations, and on the other – these are charitable foundations. An important difference in this case is the rationalization, i.e., defining the meaning of the activities of such organizations. In our study, we focused on the activities of only those online communities that pay attention to the environmental aspects of their activities.

Note that such virtual groups usually do not have their own physical infrastructure other than a virtual platform, but there is a certain social base in the form of subscribers that allows for continuous exchange activities. These online groups include groups that exchange or donate clothing, furniture, cosmetics, household appliances, unclaimed building materials, medicines, etc.

Another set of online communities are groups united by the idea of creative refurbished things and in particular, the exchange of small things for artistic creativity, as well as communities for the exchange of plants. In these cases, the virtual infrastructure is most important, since the participants themselves do the rest in their private interactions.

The next type of SE practice is the transformation of goods into services. In our study, such practices are carried out in the form of rental of various goods, such as children's goods and items for the care of the disabled and elderly, and rental of other things. In this case, in addition to the virtual infrastructure, it is important to have a physical infrastructure, since things must be stored somewhere for a certain time.

The online communities we study are important as objects of virtual infrastructure, but also as carriers of a certain rationalization, which sees both social significance and an environmentally important component in the activities carried out. Only in this case, the online group is considered by us as an actor in the development of the sharing economy.

However, it is not so simple to unambiguously determine the nature of some online communities that unite people with different motivations and different initiatives in terms of goal setting and methods. It is also difficult to understand why online communities in the same topic attract more or less followers, for what reason their effectiveness and social composition differ.

The potential of such online communities to spontaneously spread informal environmentally friendly practices without deeper research is unclear.

In a theoretical aspect, it is important to understand the whole spectrum of CE and SE practices that could be attractive for different social groups, and could create an innovative atmosphere leading to complex change in the way of life in the city as a whole.

In the applied aspect, it is important to study the process of involving citizens in alternative environmentally friendly practices by familiarizing themselves with the activities of specific local virtual communities active in social networks.

### 3. Research Questions

Turning to the study of the attitude of the participants of our experiment to such online communities in the social network Vkontakte, we emphasize that they were not members of these groups before the experiment. In order to determine how they relate to the activities of the online communities described above, and whether such practices are attractive to them, we conducted an interview regarding the participants' own background.

We identified their own experience of SE practices, as well as their rationalization and social context. Here we noted the meanings that respondents gave to this type of activity. Do people (in their experience and opinion) carry out such practices for the purpose of generalized social solidarity, or is it support for a generalized vulnerable social group? Is it possible to maintain the solidarity of one's own small group-family and friends, or is it a charity aimed at supporting unfamiliar people who need help? What is such assistance for the interviewee—an action useful for their well-being, or a serious sacrifice? Is accepting things a way to reduce the amount of waste thrown away, or an opportunity to take advantage of material support? Thus, an important research issue is to determine the nature of the motivation attributed to the CE and SE practices by its potential participants.

Several research questions were raised in this project:

- What are the features of the attitude of our research project participants to such practices of circular economy as separate collection of recyclables, composting of organic waste and creative refurbish of things to extend their life cycle? The concept of "attitude" was considered through the following questions: How deeply do the participants of our research project understand the environmental meaning of such practices? Do they notice the infrastructure opportunities for their participation in separate waste collection around (online and offline)? Do they have experience in the implementation of separation of recyclables? Are they ready to participate in such practices now and in the future?
- What is the attitude of the interviewees to the phenomenon of consumption of disposable things? What risks and benefits do our research participants associate with this phenomenon? What is the discourse about the disposability of things can be found in their ideas?
- Are such SE practices, such as the exchange of clothing, food, medicines, construction materials and furniture, institutionalized in the views of the study participants? Are these practices acceptable and/or attractive to modern citizens? Do they have any experience of this kind? What infrastructure exists or should exist to implement such practices? What social agreements support the practices of the sharing economy? What social environment gives rise to what practices?

- What is the reaction of the study participants to learning about the activities of online communities that carry out exchange and circular economy practices? Is information intervention effective enough to involve them in the implementation of the described practices?

#### **4. Purpose of the Study**

The purpose of the study is to determine which conditions for the implementation of circular and sharing practices presented in various online communities are so attractive that they make the townspeople want to join this activity after receiving information about it. To do this, it is necessary to identify the features of the virtual and material infrastructure of the activities of such communities that are important for ensuring this attractiveness; describe the socio-economic, environmental and cultural motivations of citizens to participate in the activities of various thematic online communities.

#### **5. Research Methods**

The participants in this study were users of the VKontakte social network who have no specific experience in participating in the implementation of circular economy practices (including sharing economy). The study involved participants who agreed to allocate time for interviews and completing tasks for viewing online groups involved in the performance of certain practices of circular economy, including practices of sharing economy. This study involved 62 people, 30 men and 32 women, half of whom represented a group of young people (under 30 years old), half - a group of people of older working age (from 35 to 60 years old).

The study design is three-part. At the first stage, an interview was conducted in which study participants were asked about their attitude to such circular economy practices as: (a) separate collection of waste, (c) composting of waste, and (c) the use of disposable items. The interview also examines the participants of our research project' attitudes toward sharing practices, such as: (a) exchanging clothes, (c) donating them for charity, (c) food sharing, (e) exchanging medicines, furniture, and building materials.

The second stage of the work was carried out by the study participants for a week on their own. During this time, they have to follow the links sent by the interviewer to their personal VKontakte account, which lead them to a number of online communities involved in the above-described practices of the circular economy, including sharing practices. The study of the content of these communities was not strictly formalized; however, participants were warned in advance that in the second part of the study they would be asked to rates the online communities that they had virtually visited.

The third final stage of the study was to find out the reaction of the study participants to visiting the proposed online communities, including their degree of interest in the basic ideas of these online communities, its activities, quality of design, willingness to join the group as an active participant or member. Collected information was used to estimate the impact of informational intervention performed.

#### **6. Findings**

Speaking about the attitude of the interviewees to the practices of the circular economy, we note that understanding of the meaning of separate waste collection is quite limited and comes down to general words

about the environmental benefits. Only a few interviewees are aware of the need for recycling to reduce the use of primary natural resources. Two of them mentioned such an unexpected aspect as the unforgivable loss of nutrients that are lost in a landfill, although they could enrich the soil. However, no one mentioned that waste separation makes burning safer. As for their own experience in implementing this practice, none of the participants in the study said that they shared the waste constantly.

Despite the fact that the infrastructure for waste separation, which includes about a dozen options for receivers for recyclables, existed in the city of Samara at the time of the study and is described by some interviewees, almost half of them don't notice its existence. Such "invisibility" of the infrastructure indicates the absence of institutionalization of the practice of separate waste collection.

That means, that material infrastructure for waste separation is not sufficiently developed to engage the townspeople into that massively, but it is sufficient for those for whom this is especially important. Moreover, the topic of economic incentives for separate waste collection was mentioned study participants once only. In addition, local and federal authorities was practically not criticized due to the fact that separate garbage collection was not carried out. All this indicates the weak concern of Russian citizens about the lack of a systematic approach to the separate collection of waste. As for the future, most of the participants in our research project expressed their consent to separate waste collection if a convenient and affordable infrastructure for recycling is created, although a number of participants in our research project had a problem finding a place to store separately collected waste inside the apartment.

Of interest is the negative attitude of the interviewees to composting. It was considered as a relic of the past, suitable exclusively for rural residents and summer residents, and for the modern city dweller this practice was considered as something unhygienic and dangerous, which indicates a very serious fact of a low level of biological culture, in contrast to the technological one. Referring to the lack of time, representatives of the younger group very rarely spoke about their willingness to participate in this CE practice, some of the older study participants is ready to compost their organic waste, but only if they had their own infrastructure near the cottage with a plot. The interviewees placed all responsibility for organizing composting in the city on municipal authorities.

The second research question was to study of interviewees attitudes toward disposable items has also demonstrated the limited environmental discourse in modern Russian society. Only few interviewees consider in sufficient detail and systematically disposable items as costs of a consumer society, while at the same time referring some of them to progressive phenomena that are currently extremely important for humanity. There were two of biggest announced advantages of disposables: epidemiological safety and time savings. Other interviewees hardly remember some categories of disposable items, forgetting either medical supplies or promotional stuff. Other participants of our research project almost do not remember some categories of disposable items, forgetting about medicines or advertising materials, while men often forget about hygiene products. The main attention is paid by interviewees to plastic disposable tableware, as well as plastic in general, in this connection, it can be argued that the image of plastic itself now is postulated as the biggest environmental threat (Ellen MacArthur Foundation, 2017). At the same time, within the framework of the CE ideology, plastic does not necessarily need to be stigmatized, it is necessary to use its potential more competently, since this material is hygienic, convenient, and has low energy costs when recycling. From this point of view, it is important to take in consideration a deeper understanding of

the problem, shown by some interviewees, indicated that they are trying to make plastic items reusable in order to combat their disposable nature. "I don't understand why I need a synthetic bag if I can use a plastic bag for a whole year if I handle it carefully".

With regard to attitudes to the exchange of clothes, the exchange of food, the exchange of medicines, building materials and furniture - the study participants showed a variety of opinions based on their own life experience and circumstances. Interestingly, after the experiment, its participants distributed both their opinions and their participation between groups very evenly, but very selectively. The only group that was thoroughly criticized was the medicine exchange community, however several interviewees also wanted to participate in the activities of this group.

First of all, the following general features of almost all participants in our research project are highlighted. The vast majority of them have experience sharing at the micro-social level, mainly in the family. Secondly, almost all participants in the study are ready to give their own things, but more often than not this is not considered as a victim, but rather, as a release from excess clothing. From this point of view, the fact that people are not ready to accept things is very indicative. More than half of the participants in our research project relate to other people's things with fear and disgust, while others will feel humiliated. Moreover, most of the participants in the study describe themselves as wealthy compared with those who need clothes or food, stigmatizing this group, calling the recipients of things old people, orphans, homeless people and alcoholics. At the same time, environmental motivation for using other people's things is rare, when compared with economic motivation, which sounds more often and more obvious.

The discourse of research participants regarding food sharing is very diverse. The very concept of "food" is filled with too different content by our participants, depending on which the response to the question follows. For some of them, food that can be shared is their own harvest from the summer cottage, for others it is food bought in a store, in some cases food is understood as ritual dishes. It should be noted that very often the initial negative reaction to the idea of sharing food is replaced by a more positive one as the arguments continue, since there are options that do not jeopardize the health of the recipient. However, it is noticeable that people who are far from socially vulnerable segments of the population are less likely to encourage such practices. For them, the importance of food quality is more important than its availability. On the other hand, there is a large group of interviewees who view food sharing as a very socially important practice. At the same time, the joint use of food products is not actually considered as an exchange of ready meals, but stops at the level of a charitable transfer of food products to those in need. Environmental discourse and comments on the consumer role of unclaimed food consumers are practically absent.

For themselves, the participants in our research project do not exclude participation in projects for the exchange and transfer of unused things, they see a more socially charitable meaning in such events, but a small part of the participants in our research project indicate that the possibility of "getting rid of garbage" is a good way to improve quality own life.

Of great interest was such a type of exchange as the exchange of building materials, but for most such practices were unfamiliar. Some participants in our research project expressed confidence that building materials are too expensive to share.

Speaking of responsibility for organizing exchange practices in the city, most of the participants in our research project consider it necessary for state and municipal authorities to participate in providing

infrastructure and conducting advertising campaigns. At the same time, participants in our research project note that the role of authorities should be limited by financial and organizational support, and the creative part should be performed by public organizations and various activists.

## 7. Conclusion

The results of the experiment demonstrated a significant impact of information intervention on the attitude of the participants in the experiment to the ideas and activities of online communities promoting CE and SE practices. Even the small amount of information received by the study participants during the first and second stages of the study, as well as acquaintance with specific virtual communities on the Russian social network Vkontakte, immediately gave several effects, expressed with different intensities. The articulated intention of the experiment participants to join the practices of the considered communities is most common, the second is joining the existing communities “just in case” without a clear decision to participate in their activities, the third is the desire to study existing CE and SE practices more deeply for subsequent their implementation. There was not a single participant in the experiment on the opinion and / or behavior of which the information intervention did not affect. According to respondents, for the successful development of CE and SE practices in casual life, both virtual (information) and material platforms are needed. Among the actors who institutionalize these practices, respondents name those who are already implementing these initiatives, as well as municipal authorities. CE and SE practices should be promoted both by the initiators of virtual communities and municipal authorities, which should support them both informational and financial. Under such conditions, CE and SE practitioners will be able to DIFFUSION quickly enough and everywhere, which is not just the opinion of the majority of the participants in the experiment, but is confirmed by their practical behavior.

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## References

- Barbarossa, C., & de Pelsmacker, P. (2016). Positive and negative antecedents of purchasing eco-friendly products: A comparison between green and non-green consumers. *Journal of Business Ethics*, 134(2), 229–247.
- Belk, R. (2017). Sharing versus pseudo-sharing in web 2.0. *Anthropologist*, 18, 7-23
- Biel, A. (2017). Environmental behaviour: Changing habits in a social context. In B. Hansson (Ed.), *Individual and Structural Determinants of Environmental Practice* (pp. 11– 25). London: Routledge.
- Chiappetta Jabbour, C. J., Sarkis, J., Lopes de Sousa Jabbour, A. B., Scott Renwick, D. W., Singh, S.K., Grebinevych, O., . . . Filho, M.G. (2019). Who is in charge? A review and a research agenda on the ‘human side’ of the circular economy. *Journal of Cleaner Production*, 222, 793-801.

- Ellen MacArthur Foundation (2017). The new plastic economy: Rethinking the future of plastics. Retrieved from [https://www.ellenmacarthurfoundation.org/assets/downloads/EllenMacArthurFoundation\\_TheNewPlasticsEconomy\\_Pages.pdf](https://www.ellenmacarthurfoundation.org/assets/downloads/EllenMacArthurFoundation_TheNewPlasticsEconomy_Pages.pdf) Accessed: 04.12.2019.
- Ermolaeva, Y. V. (2019). Zero-waste megacities in Russia: implementing an effective waste management scheme in Russia according to an expert survey based on the example of Moscow and Kazan. The scientific result. *Sociology and Management*, 5(1), 96-108.
- Geissdoerfer, M., Savaget, P., Bocken, N. M. P., & Hultink, E. J. (2017). The circular economy – A new sustainability paradigm? *Journal of Cleaner Production*, 143, 757-768.
- Krueger, R., Schulz, C., & Gibbs, D. C. (2017). Institutionalizing alternative economic spaces? An interpretivist perspective on diverse economies. *Progress in Human Geography*, 42, 569-589.
- Martin, C. J. (2016). The sharing economy: A pathway to sustainability or a nightmarish form of neoliberal capitalism? *Ecological Economics*, 121, 149-159.
- Muranko, Z., Andrews, D., Chaer, I., & Newton, E. J. (2019). Circular economy and behaviour change: Using persuasive communication to encourage pro-circular behaviours towards the purchase of remanufactured refrigeration equipment. *Journal of Cleaner Production*, 222, 499-510.
- Nikitina, B. (2019). “Zimnyaya Vishnya” and the “Yardovo” landfill as two sides of the same coin: Difficulties in comprehending the obvious. *Bulletin of the Institute of Sociology*, 10(1), 28-57. DOI: 10.19181/vis.2019.28.1.555 [in Rus.].
- Nikitina, B., Korsun, M., Sarbaeva, I., & Zvonovsky, V. (2020). Development of the practice of sharing economy in the communicative information environment of modern urban communities. In S. Ashmarina, A. Mesquita, & M. Vochozka (Eds.), *Digital Transformation of the Economy: Challenges. Trends and New Opportunities. Advances in Intelligent Systems and Computing*, 908 (pp. 376-394). Springer: Cham. DOI: 10.1007/978-3-030-11367-4\_37
- Schatzki, T. (2015). Spaces of practices and of large social phenomena. Retrieved from <https://eprints.lancs.ac.uk/id/eprint/139781/> Accessed: 04.12.2019.
- Schulz, C., Hjaltadóttir, R. E., & Hild, P. (2019). Practising circles: Studying institutional change and circular economy practices. *Journal of Cleaner Production*, 237, 117749.
- Singh, P., & Giacosa, E. (2019). Cognitive biases of consumers as barriers in transition towards circular economy. *Management Decision*, 57(4), 921–936.