

# Map of Innovation Leaders in Education in Russia

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#### Abstract

We believe that if there are challenges, then there are those who address them, those who are looking for and proposing solutions. There are always those who are ready to take responsibility for being pioneers, innovators, leaders of change. In 2016 we conducted a unique study of leaders of innovation in education in Russia.

We took for this the "snowball" method, as a tool for constructing a social graph. To do this, we asked leaders of innovation in education three types of questions: about the project and the leader, about their goals (challenges), obstacles and needs, and about the leaders of innovations in education they can recommend.

Thus, we have built a social graph of innovation leaders in education in Russia and conducted an analysis of the social network. This will allow us to better formulate lists of people invited to various events for more effective diffusion of innovations.

We have identified what challenges the leaders face, what obstacles and what needs they have. This will help us and everyone who is familiar with the results of our research, to formulate an agenda for their events with a clearer emphasis on real requests from opinion leaders.

We have confirmed some hypotheses about the direction in which educational innovations develop.

And most importantly, we met a thousand of people who have an exciting job, who work with all their soles and warming the entire world with their energy. We believe that the community of innovators in education represents a colossal social potential for the whole of Russia and beyond.

We want to share our approach with the whole world, which has received positive feedback from the leaders of innovation in education, and the results of our research, which, in our opinion, will give a new impetus to the development of the education ecosystem.

EISC "SOL" is a non-profit organization established in 2014 and funded by Russian entrepreneurs. We strive to develop the Russian education ecosystem. We conduct research aimed at identifying leaders of educational innovations, involve representatives of the authorities, media, funds, entrepreneurs and other participants of the ecosystem, bring technologies to equip entrepreneurs with the best world practices.

Keywords: Innovators in education, leaders of change, education ecosystem, social graph, snowball, educational innovations

#### 1. Why we created the Map

Education Innovation Support Center is a private Russian non-profit organization. We chose education as the focus of our activity, because it is through this sphere that we can most effectively change the world for the better.

It is generally accepted that the current system of education does not answer the challenges of the 21st century:

- Competences of the XXI century
- Digitalization
- Individual educational paths throughout one's life
- Globalization
- Private investments

If there is a challenge, a problem, then somewhere there is a solution. We just need to find those who already have this solution, and help them with its scaling to the system level. How can we identify those who are ready to take the responsibility to be pioneers, innovators, leaders of change? With this goal in our mind we have created the map of leaders of education innovations in Russia, presented here.

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The European experience of Ashoka, an international organization supporting social entrepreneurs, inspired us to choose the form of research. Analysis of the social network was carried out by the Austrian Institute of FAS Research.

#### 2. Snowball

To identify leaders of innovation in education, we have used the "snowball" method. The essence of the method is that, at the interview, respondents recommend those who should be interviewed too. This widens the research sample.

The method of snowball does not show enough representative or even complete sample, but it is convenient for constructing a picture of social ties in the community, where such connections are not easily revealed by other methods. Unfortunately, the format of the article does not allow us to elaborate on the methodological side of the study. We are ready to tell you in a private talk the details about problems and decisions of a methodical nature.

As a starting point for the snowball, we took a list of 80 leaders from a small study of innovative scalable and sustainable educational projects in Russia we did in December 2015. Most of the projects that entered the study were not older than three years, many were based on digital technologies, others offered a fundamentally different approach to career guidance, but all of them were private initiatives in the segment of extra basic curriculum.

The recommendations question we left as open as possible: "Who could you recommend as the leader of educational innovation in Russia?" This allowed us not only to gather the brightest people, but also to see how widely the educational community actually interprets "innovations in education".

In this context, it is important to distinguish innovations, changing the meanings from innovations that bring new tools. In some cases, instrumental innovations through scaling can lead to innovation of meaning. For example, uchi.ru (online platform for studying mathematics for 7-11 years old schoolchildren) is only a tool, but with a mass transition of teachers to a new way of working with students, the system of relations in school changes, dependence on marks decreases, the students start forming personal educational trajectory. And this is a significant semantic innovation.

#### 3. Potential impact

An important characteristic of the activity led by the Leaders is the potential impact, which is determined by the level of impact to the students.

Level 1. **Training.** To the first level, we included activities aimed at students directly. This activity is conducted by 73% of the projects. These are schools, training centers, online courses, etc.

Level 2. **Methodology.** The second level is occupied by activities aimed at developing those who work with students. This activity is conducted by 27% of the projects. These are refresher courses, teacher contests, pedagogical universities, tools for teachers and directors, IT systems to support school management, etc.

Level 3. **Infrastructure**. At the third level are activities focused on the development of second-level projects. This category includes 6% of projects [1]. These are infrastructure projects, such as state development institutions, private and public funds, competitions and support programs for projects, educational development centers, associations, etc.

One of the tasks that we set for ourselves is the spread of innovations in education. This activity will be the more effective the higher the level of impact our innovators are in. If we teach the projects how to reach a higher level of impact, this will increase the efficiency of our activities. The "smart" scaling of social impact is not to scale the organization with its organizational structure and costs, but to build networks (or, even better, use existing networks) that will take on the job of spreading innovations.

Foreign experience shows that effective scaling of impact can be carried out, for example, through the creation of movements, ecosystem initiatives, joint development of methodology and implementation of legislative initiatives.

#### 4. Who are the leaders of innovations in education

The result of 304 interviews was 1883 recommendations or, on average, 6 recommendations per interview.

The proportion of men among the Innovation Leaders in Education at the Map is 60%, which is comparable to that in Europe, where the proportion of men among social entrepreneurs is the same 60%. It is curious that the proportion of men decreases as they move away from the social core of the community. If among the leaders who received 1 recommendation, men ratio is 56%, then among those who received more than 10 recommendations, they are as much as 83%. Such a bias is also





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observed in the European communities of leaders of social innovations. Although studies show that female leaders increase efficiency of organizations [2].

The average age of leaders of innovations in education is 42 years. This is significantly higher than what we expected (and saw) at the beginning of our study. However, this result is in line with the results of the US studies of 2009 and 2017, which showed that the greatest number of technological discoveries is made by people aged 45-50 years.

Most of the leaders from our map live in Moscow. This is explained not only by the fact that Moscow is the most populous city in Russia, but also by the already formed mass demand from the population of Moscow for modern educational products (for comparison, the proportion of Muscovites among authors on the Facebook network is 52%). 2% of the recommended leaders of Russian educational projects live outside the Russian Federation and develop Russian or global projects.

## 5. Projects of leaders of innovations in education

We conducted an analysis of the projects that the recommended leaders of innovations in education are engaged in. Here are just some of the conclusions from this analysis.

Only 19% of projects are based on IT solutions. This was surprising for us, because initially we were looking for innovations in technologies. Observing the dynamics of IT projects development, we can see that the sector is developing in accordance with the trends of digitalization, globalization and personalization of education. Moreover, we see how IT affects the education system as a whole, qualitatively changing its meanings, and not just technology. The most visited educational site in RuNet is Dnevnik.ru, which plays the role of a school management system and social network.

Among innovative projects, there are 40% of commercial projects, while the rest are split by non-profit and state organizations. Since 2010 more than half of innovative projects in education are being created in the form of commercial organizations, despite legislative restrictions on the implementation of educational activities by commercial organizations.

Private companies are winning more and more territory from public educational institutions. We see an increase of the number of M&A transactions in education and the transition of many entrepreneurs from traditional business to education.

The investments in education are characterized by lower expectations (or lack of expectations) for a return on investments and by the attention to social impact. At the same time, special attention is paid to the impact on the world, which can also be quantified to calculate the effectiveness of such investments. We, EISC "SOL", are actively working in this direction.

Of 425 projects, the launch date of which we know, almost two-thirds appeared after 2010 and almost 40% appeared in 2013 or later. We draw from this the conclusion that the number of new innovative projects is growing faster.

#### 6. Social graph analysis

Let's look at our map as a social graph. We see on the map a small connected core and a very rich periphery. In a kernel all are connected with all, there are a lot of communications. This makes the connections strong. The further we go to the periphery, the fewer links we see, the weaker these links are.

The periphery is just as important for the development of the community as the core, they simply have different tasks. Firstly, the periphery can serve as an inexhaustible source of new innovative ideas for the entire community. Secondly, it is the sparse network periphery that ensures the rapid spread of new ideas throughout the community. Indeed, within the tightly connected core of the network, new ideas do not spread, since the existence of strong links ensures the unity of approaches and ideas. People are more receptive to new ideas coming through weak connections. This phenomenon has been described in the article "The strength of weak ties", written by Mark Granovetter [3]

#### 7. Challenges, barriers and needs

Meeting with leaders, we studied what challenges they face, what barriers hinder them and what needs the leaders have. And it was important to identify this from the position of the Leader, his Project and the Environment (the education ecosystem) as a whole. We wanted to identify the semantic links between the leaders of the community, in order to hold events united by common meanings in the future.

After each interview, the interviewer marked each answer with one or more tags from the list of 349 tags, which allowed to determine how often one topic arises in interviews of different leaders.



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We built all the tags in a tree, from the general to the particular. If you select all the most common tags, then we actually get a list of topics that most concern leaders of innovations in education. The most popular needs are the needs for systemic changes. And the main challenge, as it should be for the community of true leaders, is to change the existing system, change the paradigm.

It is very interesting to look at the specific needs of different groups. For example, the specific needs of the "Youth" group, uniting the Leaders under 35: "We need promotion support", "We need personal development of the leader and the team", "We need to unite the efforts of educational projects". Such leaders, as we can see, face operational problems and want to unite to solve them.

## 8. Conclusion

The "snowball" method chosen by us clearly allows us to broaden the understanding of the situation in the educational market.

On the resulting material we saw confirmation of all major global trends in the field of education, mentioned in the introduction.

Analysis of the social network of innovation Leaders in education has shown that the leadership community has a great potential for further development, thanks to the rich periphery and extensive web of weak links that ensure the diffusion of innovative ideas.

Also, we now better understand what the agenda of activities should be in order to make them as useful to leaders as possible.

#### References

NGO "Education Innovation Support Center "SOL"

[1] One project could carry out activities at several levels of exposure.

[2] According to the ICTSD, the profitability of 25 companies from the Fortune 500, which had a large number of women in leadership positions, was 18-69% higher than in other companies.

[3] <u>https://sociology.stanford.edu/sites/default/files/publications/the\_strength\_of\_weak\_ties\_and\_exch\_</u> w-gans.pdf