Information Transparency in Education:

Governmental Policy Efficiency Issues

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Abstract. Based on results of a series of studies in the area of information demand and supply that have been shaping within the Russian education system in the last 3–5 years (monitoring studies covering the population of the most part of Russia as well as community polls among parents and teachers) it has been discovered that the education system openness has been growing and is approaching 100% with education running ahead of other social services. The author is raising a question, whether it is possible to judge the efficiency of information supply based on numbers reflecting the extent of filling information resources with content, and whether it is possible to complete the development work in that area having reached peak values. The system of informational openness of Russian education unlike business area shall be considered three-sided rather than two-sided with the third and the most active side being the government. The situation with informational openness in Russian education can be described as an extensive development of information resources being performed mostly under the influence of governmental regulatory control. Having said that, the development efficiency study even as a part of a task set by the government gives reasons for considering it as the one not being sufficiently efficient.

Keywords: education informational openness, governmental regulatory control, informational openness efficiency criteria, user query, informational asymmetry, community liaison.

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Information transparency issues are widely discussed in the context of every life domain: from politics and government control to public social services, such as healthcare, education, or housing and utility. Such visibility is largely provided by the active national policy.

The importance of information transparency in education is enhanced by information asymmetry which is typical for education as a social service. This asymmetry is also accountable for the growing interest researchers show to the exchange of information between different elements of the education system (institutions, governing bodies) and consumers of education services or other parties concerned.

Russia and other countries mostly investigate social transparency issues in political studies, using the context of relationships between constituents and elected bodies or that of developing a civic society. These contexts are supported by a certain tradition tracing back to Karl Popper [1992].

Research on information transparency in education applies mainly to higher education [Trow, 1996; Dill, Soo, 2004; Cooper, 2007] and, in a narrower scope, to accountability [Salmi, 2009; Barber, 2011]. However, even basic terms like "accountability" or "transparency" have not yet been clearly determined, and neither have the mechanisms and conditions of their interaction and mutual influence.

The notion of "open education"[1] was first coined by the synergistic approach aiming to overcome the institutional limitations of education. "Open education" was understood as "education throughout one's lifetime". Later, the interpretation of terms "education openness" and "open education" underwent a significant metamorphosis. Today, transparent education is approached from various scientific perspectives including synergetic, systems, anthropological, and axiological approaches [Galaktionova, Kazakova, 2012; Mozhaeva, 2007; Andreev, 2002].

The present-day use of the term in Russian education *practices* tends to be distributed among three models:

- operational transparency, i. e. equal accessibility of education for everyone, independent from inherent characteristics (age, current knowledge level), which is provided, inter alia, by means of distance learning and non-system educational services; possibility of learning at a pace which is comfortable for the student;
- institutional transparency, i. e. trying to consider interests of all education process participants; providing to education consumers the possibility of taking active participation in building and developing the education system, in assessing and managing the quality of educational services (including through governance boards: governing councils, community councils, etc.); consideration of external sociocultural conditions and demands of contemporary society by the education system;
- information transparency, i. e. providing a two-way exchange of information among different players of the education process or any other parties concerned to ensure that stakeholders' demand for information about activities of the education system is satis-

[1] **Translator's note:** The multivalent term "открытый" is used in two different meanings in the original version: (1)"open/open-ended" and (2)"transparent". As applied to education, the former gradually transformed into the latter with time. Non-cognate words are used to discriminate between the two meanings.

fied and that educational institutions and/or governing bodies can get the necessary feedback.

Obviously, not only information transparency is inherently important but it is also a prerequisite for efficient implementation of operational and institutional transparency, which explains the increased attention of researchers and government officials.

This paper is not intended to provide a detailed insight into the information interaction between the education system and the public, which includes education consumers and other parties concerned. Rather, this is an attempt to analyze transparency of Russian education in order to determine and articulate the key information transparency assessment criteria, to identify the existing gaps and contradictions between the actively developing national transparency policy and the consumer wants, which affect transparency.

This review uses data of different studies on information supply and demand that have been conducted in the Russian education system over the last 3–5 years. They include global studies, including monitoring, that cover population of most regions of Russia and may be considered representative of the whole country, with certain reliability[2], as well as results of sociology surveys and questionnaires among parents and professional educators conducted by the NRU—HSE Institute of Education as part of various research and experimental projects implemented in 2012–2013.[3] Some of these studies have local importance and do not provide results to extend over the Russian education system as a whole, but they can still be used to identify certain problems and contradictions that arise during exchange of information.

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[2] Data of Federal Statistical Education Monitoring, Federal Statistical Monitoring and research of the Foundation for Internet Development on how population uses information technology and information and telecommunications networks, Rosstat Monitoring of Information Community Development in the Russian Federation, Monitoring of Education Markets and Organizations conducted by the NRE HSE and including a series of issues relating to information transparency in education, Our New School (national education project) Monitoring assessing all Russian schools using various criteria including transparency and interaction with the public, rankings of information transparency among Russian executive authorities provided by the Institute for Information Freedom Development, official educational website rankings provided by RIA Novosti in cooperation with the NRE HSE as part of the Social Navigator Project, and results of surveys on using the Internet in Russia conducted by the Public Opinion Foundation (FOM).

[3] Monitoring of Education Markets and Organizations (2011–2013); "Rating the Information Transparency of Official Websites of Local Education Authorities", the program implemented by the NRU HSE Applied Research Development Foundation (2013); activities to provide analytical, sociological, information, and media support for national education development programs implemented in Moscow (2012–2013).

1. The Race to the Peak of Transparency: Extensive Development Outcomes

Information transparency results from information globalization and the snowballing growth and proliferation of information and communications technologies, so the phenomenon appears natural for the whole modern society.

Statistics shows that social transparency (not limited to education) in Russia has improved considerably over the recent years, with more websites, information, interactive services, and communication opportunities available. In the most reliable international rankings [Aksyonov, 2014] which evaluate, whether directly or not, the development of information and communications technology, the role it plays in governmental activities, and the information transparency of social life, the Russian Federation demonstrates a stable growth of indicators, improving its positions every year.

While ranking the preparedness of Russian regions for an information society, the Institute for Development of Information Society analyzed the integrated development of the information and communications infrastructure[4] in regions of Russia, and the outcomes also revealed a stable positive dynamics [Ershova, Khokhlov, Shaposhnik, 2012]. At the same time, different subjects of the Russian Federation have been gradually equalizing their information and communications environments. By 2010, the gap between the highest and the lowest indicator values was 4.01 times, which is 2.5 times lower than the 10.26-time gap in 2006.

Russia has been promoting actively the idea of transparency, paving the way for introducing transparency policies in all spheres of social interaction, from politics to public social services:

- by developing and enacting a number of normative legal documents (decrees of the President of the Russian Federation, resolutions of the Government of the Russian Federation, federal laws and amendments to them, bylaws) to determine and regulate the level of transparency in government, education, and other social spheres (altogether over 20 documents);
- by implementing federal programs and projects, first of all the Information Society (2011–2020) national program of the Russian Federation and the Transparent Government project.

Considerable funds are being allotted for the abovementioned projects and regulatory compliance. The results of such effort on the part of the state are quite tangible.

Today, every government agency has its own official website. The proportion of educational institutions with websites tends to 100%.

[4] Information and communications infrastructure is a complex of computer equipment, telecommunications facilities, data transmission channels, information systems, patching and data management facilities, and institutional structures ensuring their efficient operation.

Figure 1. **The proportion of educational institutions with websites that provided the comprehensive statutory information in the academic year 2013/14** (Rosstat, %)

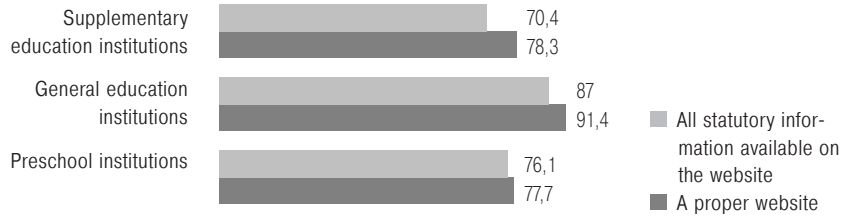
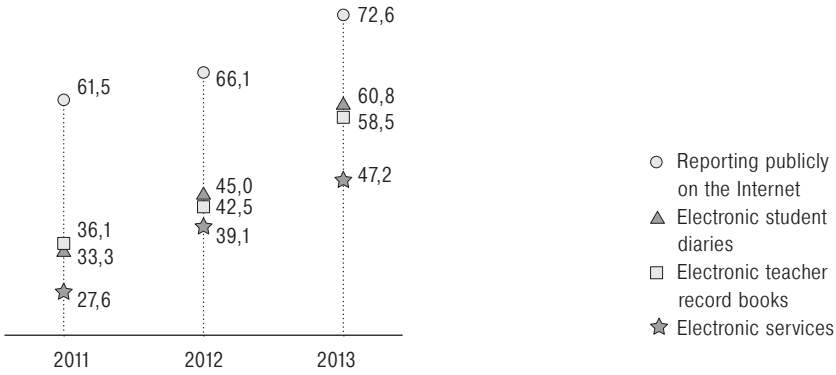


Figure 2. **The dynamics of information transparency indicators in Our New School monitoring** (average values across the Russian Federation, %)



According to Rosstat (Federal Service for National Statistics), 77.7% of kindergartens had websites in the academic year 2013/14, although kindergartens normally fall behind in the information race (Figure 1).

A monitoring of implementation of Our New School national education initiative[5] embraced general education schools in all the subjects of the Russian Federation, making it possible to trace the dynamics of indicators since 2011. The results show a steady growth of information transparency in education (Figure 2).

The Federal Ministry of Education and Science has been improving its own transparency year after year. As reported by the Freedom of Information Foundation[6], the Ministry ranked 26th in transparen-

[5] http://www.kpmo.ru/nns/info/nns.html

[6] No research methods are specified here or below, due to their large volume. For each study and ranking, we provide relevant web links.

cy among supreme executive authorities in 2006, with the final coefficient of 27.7%[7]. By 2013, it ranked 5th with the coefficient of 91.7%.

The integrated index of transparency of executive authorities[8] published by RIA Rating in 2013 and assessing the website and other transparency indicators, the Ministry ranks 16th (of 32 authorities, i. e. in the middle ground), hitting the top ten in "opportunities for participation of the public in activities of the federal executive authority and for getting feedback from the public."

The websites themselves are constantly changing, being updated, using new services and technology. According to Rosstat, over 70% of supplementary education institutions provided complete statutory information for the academic year 2013/14 (Figure 1). Other types of educational institutions demonstrate even higher rates.

The ranking of official websites of local education authorities provided by RIA Novosti in cooperation with the NRU HSE as part of the Social Navigator project[9] shows an increase in information transparency, too (Figure 3). Interestingly, even such qualitative indicator as "navigation convenience" is improving mostly due to the increase in content: newsfeeds, links to portals of government and municipal services, standard site search and site map services.

As we can see, the development of information resources in education has been quite intense. It's now time to make conclusions, correlating the effort spent with the results obtained and evaluating the latter. At the national level, this is realized through various monitoring studies assessing websites of educational institutions, information activity of governing agencies, etc.

Quantitative indicators give reason for optimism: information transparency in education is growing to reach 100%, with the other social services dragging behind (Figure 4). Rosstat reports, in particular, on the considerable superiority of education in the "use of information and communications technology for system development", with the average index being nearly 25% higher than in medicine and more than twice as high as the same index in culture.

This phase of developing the information transparency in Russian education is where we face two crucial questions, the answers to which may quide its further development.

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[7] The Institute for Information Freedom Development. Monitoring of authorities' official websites http://www.svobodainfo.org/ru/node/6

[8] RIA Rating, PRIME, RBC Group. Transparency Ranking of Federal Executive Authorities http://riarating.ru/macroeconomic_study/20130516/610560838.html

[9] Information transparency ranking of official websites of local executive education authorities http://ria.ru/sn_edu/20130211/921954855.html and http://ria.ru/sn_edu/20131216/984375071.html; Information transparency ranking of official websites of general education institutions of the Russian Federation http://ria.ru/sn_edu/20130417/931512013.html

Figure 3. **Average indices of information transparency of official websites of local executive education authorities by assessment criteria, 2012–2013** (RIA Novosti, NRU HSE,%)

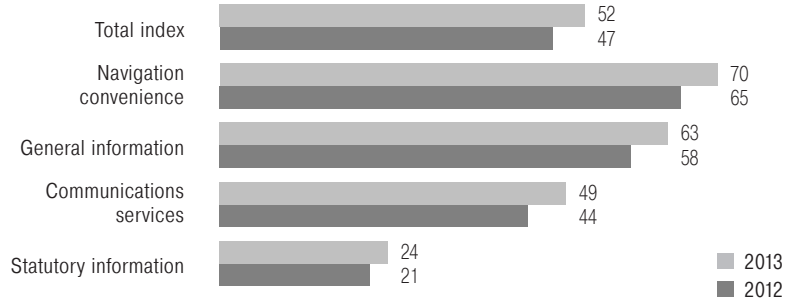
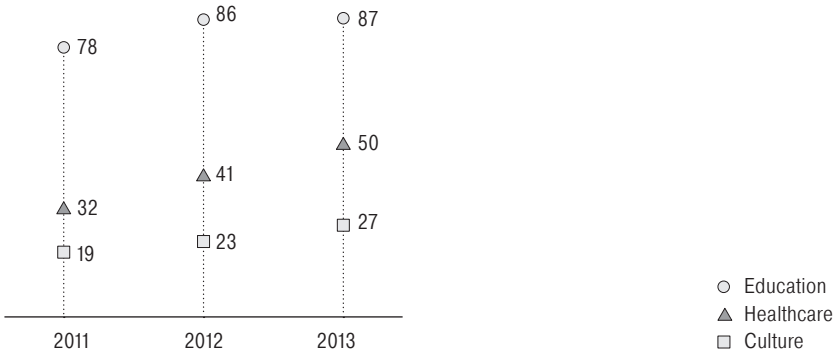


Figure 4. **The proportion of social institutions having Internet websites** (Rosstat,%)



First, we need to determine whether the existing system of Russian education can be considered transparent. Can we say, relying on the quantitative indicators of the amount of data and documents on web resources, that the communication system is really efficient?

The other essential question is partly coming out from the first one but requires an individual solution: can we talk today about ending the process of education "opening"? is it possible to curtail the active project initiatives in this field after the maximum level (100%) is achieved?

2. How to Assess Efficiency

The indicators of information transparency specified above turn out, under a more detailed analysis, to be insufficiently demonstrative in terms of assessing the efficiency of processes. To justify or disprove

this statement, we need to make sense of the principles underlying such assessment.

In order to summarize the efforts put to enhance transparency in education, two fundamental characteristics should be specified:

1) Who is the customer?
2) What goals and objectives did the customer set when placing their order?

3. Transparency Enhancement Order

The state acts as the customer of information transparency in education.

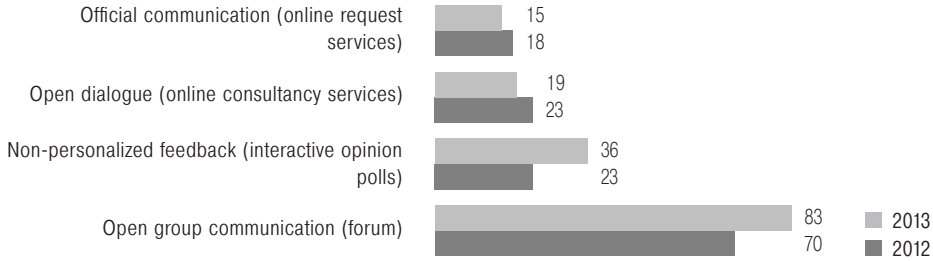
Originally, when Russian education was only learning to be transparent, educational institutions sometimes initiated the process themselves, though in isolated cases only. The most advanced schools, universities, and colleges constructed their websites being guided, on the one hand, by the tasks they wanted to solve this way and, on the other hand, by the interests and needs of their target audience.

Later, as the role of the state grew stronger, these initiatives were strangled by the government control. Extensive normative requirements cut essentially the chances of educational institutions to implement their own projects, as they lack personnel, time, material resources, etc. The centralized practice of creating standard websites for educational institutions, which is actively promoted in Moscow, Udmurtia, Tatarstan and some other regions of Russia, is a good example. As a result of forcing websites built around the uniform template which is first of all designed to satisfy normative requirements, many unique sites developed by schools and users have gone. With all their good qualities [Mertsalova, Chernyshova, 2013], standardized websites lose to unique information resources in a number of user-important parameters including intensity of communication, availability of sectors with relevant up-to-date information, etc.

At the same time, the lack of resources (mostly human) causes sections unmentioned in normative documents to disappear or stop working even on unique school and kindergarten websites in regions that do not use standard website templates. Unfortunately, there is no research of educational institutions to trace the process in dynamics, but changes in the criteria used by the independent All-Russian Ranking of School Websites (RoSNOU, Prosveshcheniye, NRU HSE) prove that less focus is put on usability: the most recent versions dropped the parameters assessing design, interface, and user friendliness.

Also indicative are changes to the websites of regional education authorities, which can be traced when looking through the results of the Social Navigator ranking (RIA Novosti, NRU HSE, 2012–2013). While there is an obvious increase in the number of websites

Figure 5. **The change in the proportion of websites of regional education authorities using communication services** (Social Navigator, academic year 2012/13,%)



offering services stipulated in the normative documents that regulate provision of e-services to population (online requests and consultancy), the proportion of sites using non-prescribed feedback services is going down (Figure 5).

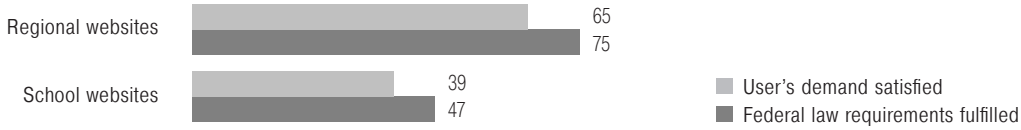
Due to the active intervention of the state in information transparency, state-imposed normative requirements replaced users' interests and demands, becoming the driving force for creation and development of websites by Russian educational institutions and education authorities. This is proved by the ranking of official websites of regional education authorities and general education schools conducted by RIA Novosti and the NRU HSE as part of the Social Navigator project in the academic year 2012/13.

Both methods of ranking (used for regions and schools) assessed websites by the availability of informative documents and materials, whether included in normative requirements (stipulated by Federal Law No. 8-FZ[10] for websites of regional education authorities or by Federal Law "On Education" as in force for the time being and the relevant Resolution of the Government of the Russian Federation No. 343 as of 18 April 2012[11] for school websites) or not. It turned out that the availability of information required by the law was 15–20% higher than that of all the positions that mattered for users, including the ones prescribed by normative documents (Figure 6). The gap will be even wider—about 1.5 times—if we compare how normative requirements and users' demands beyond the normative list are satisfied.

[10] Federal Law No. 8-FZ as of 9 February 2009 "On Ensuring Access to Information about Activities of Government and Local Government Authorities" (amended as of 11 July 2011)

[11] Federal Law No. 3266–1 as of 10 July 1992 "On Education" (amended as of 1 April 2012); Resolution of the Government of the Russian Federation No. 343 as of 18 April 2012 "On Approving the Rules of Posting on the Internet and Updating the Statutory Information".

Figure 6. **The extent to which official educational websites satisfy users' demands and fulfill normative requirements** (RIA Novosti, NRU HSE, academic year 2012/13,%)



Emergence of the state as the third party inside the game of *two* players (the education system and education consumers) is quite precisely described by the principal-agent relationship model applied in a social services quasi-market situation [Shishkin, 2000; Gailmard, 2009; Androushchak, 2008]. Quasi-market is a system of relationships among economic agents where producers compete for the right to render services to consumers whose expenses are funded by the state. The works by Y. Kuzminov, G. Androushchak, M. Yudkevich, etc. describe in detail the social sector quasi-market mechanisms in the context of Russian education.

The predominantly state-specific nature is one of the most essential properties of information interaction between producers and education consumers. In this regard, information transparency in Russian education should be regarded, unlike business, as a three-sided system, rather than two-sided, with the state acting as the third and the most active party. In the Russian education system, when information asymmetry is getting aggravated, the state assumes regulating functions.

Figure 7 presents a simple diagram illustrating the interaction between information transparency agents in education.

The state exerts a profound influence on both groups of agents—the education system and the public—and also on the very information field and streams of information these agents exchange. The state formulates normative requirements to educational institutions and education authorities to control the content, formats, channels and even intensity of information interaction. At the same time, by improving information transparency in all spheres of social life and especially in government control, the state is building the electronic culture of population and the culture of transparency in a civic society. Intensity and signs (+/-) of these culture are to be discussed separately but information and communications experience obtained by population provides relevant demand and information activity among education consumers.

For instance, general education schools use their websites to post public reports, which had been widely introduced in a number of regions of Russia even before all schools were obliged to create web-

Figure 7. **Agents of information interaction between the education system and the public**

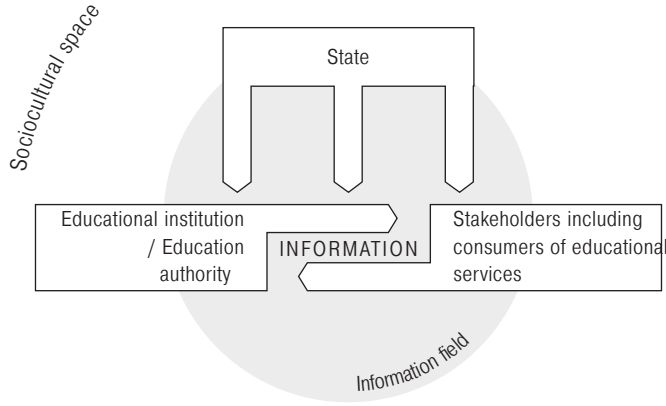
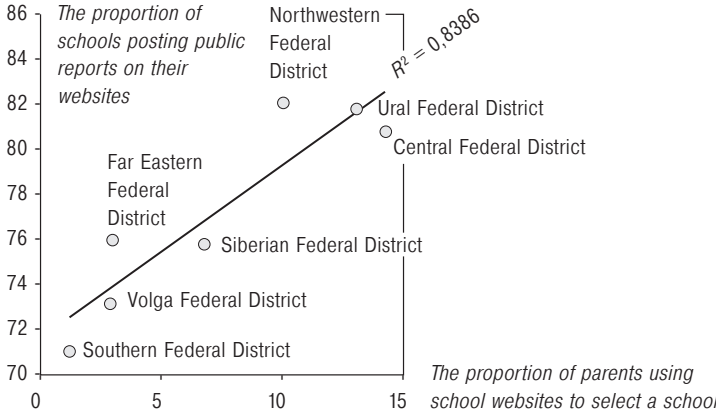


Figure 8. **The correlation between the availability of public reports on school websites and the use of school websites by parents when selecting a school for their children** (Our New School, 2013; Monitoring of Education Markets and Organizations, 2013, %)



sites. There is close correlation between the proportion of schools posting such reports on their sites (according to Our New School monitoring of 2013) and the proportion of parents using school websites as a selection criterion (according to Monitoring of Education Markets and Organizations, NRU HSE, parents survey, 2013) (Figure 8). Unfortunately, these and other indicators can only be compared in terms of federal districts, but even such perspective shows an impressive result: the Pearson correlation coefficient is 0.839, which is virtually a linear dependence. The same correlation, though

with a lower coefficient (0.564) is found between the availability of a public report on a school website and the use of school websites by parents to extract information about the school and the ways of communicating with teachers.

The fundamental contradiction of the existing situation is that neither producers nor education consumers demanded for such state regulation.

There used to be a specific system of win-win school-consumer interaction. When there was any discontent, new forms of communicating and informing were naturally searched for. Thus, certain educational institutions adopted the practice of providing public reports to parents and to the local community much earlier than the top-priority national project "Education" began to promote it (2006).

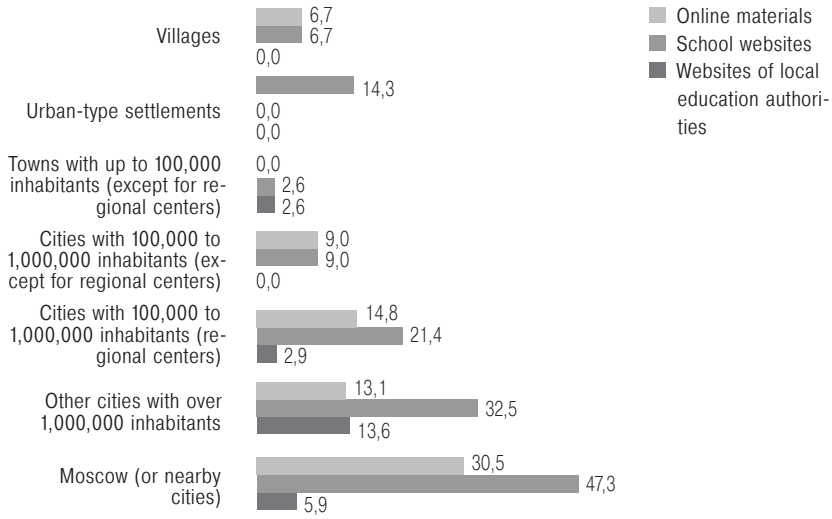
The reforms coming from above since 2006 have been largely borrowed from abroad, particularly from British and American experience. However, they barely took into account the fundamental differences between the education systems in Russia and in the West, such as much greater autonomy of schools in Great Britain. The requirement to introduce accountability and transparency applied to all Russian schools, whether it be public, non-commercial, or autonomous institutions. The private sector of Russian education found itself in less stressful conditions, as its transparency was slightly less controlled by education authorities. The availability of websites among private educational institutions for children is still lower than among public ones in Russia, although Barber [2011; 2004] believes that autonomy is one of the paramount forces that drive educational institutions to accountability and information transparency.

The Russian state joined the process of communication between the school and education consumers long before it became actually needed. The look-ahead supply marketing strategy is really efficient in business: for example, mobile phone producers offer their consumers a complete set of services to boost sales, while only 10% of pre-installed software is used at the best. Yet, the advance supply methods are inadequate as applied to the interaction between the state and education consumers.

In the context of information transparency, the state as the principal of the education quasi-market requires that the agent—the education system—provide an excessive range of information services consumers have never used or needed (demanded).

This logical construction has its exceptions, though. First, it's educational institutions of higher professional education. This education sector exists in a situation of choice (choosing between universities), high candidate mobility rates (one can go through the whole country to the university of choice), and competition. Therefore, information transparency matters to universities like to no other educational institutions in Russia, with the obvious focus placed on online information and communication formats. This is also partially true, though

Figure 9. **The use of online resources by parents when selecting a school** (Monitoring of Education Markets and Organizations, 2013, % of parents who actually selected schools)



on a much smaller scale, for initial and secondary professional education institutions.

Another exceptional group includes educational institutions large cities of Russia with a wide choice of schools, kindergartens, and supplementary education institutions, where people are used to getting information distantly, as it's more convenient. However, the situation here is not that unambiguous as it is with universities. According to Monitoring of Education Markets and Organizations (NRU HSE, 2013), slightly over 35% of parents actually selected schools for their children even in Moscow. School websites were used as a selection criterion by less than half of them (47%) (Figure 9).

On the whole, the role played by informative websites in school selection is much higher in all large cities. However, the same cannot be said about using school websites to obtain information on the school or to communicate with teachers and administrators: only Moscow citizens take a very active part, as compared to parents from other localities (Figure 10).

The fact that Moscow parents give preference online information resources is also confirmed by local studies like the survey of parents of students of Moscow general education schools conducted by the NRU HSE in 2013 among the activities to provide analytical, sociological, information, and media support for national education development programs implemented in Moscow. It should be noted that the leading positions are held by official school websites based on the template posted on the single information portal of Moscow

Figure 10. **Information and communication resources used by parents to interact with school teachers and administrators** (Monitoring of Education Markets and Organizations, 2013,%)

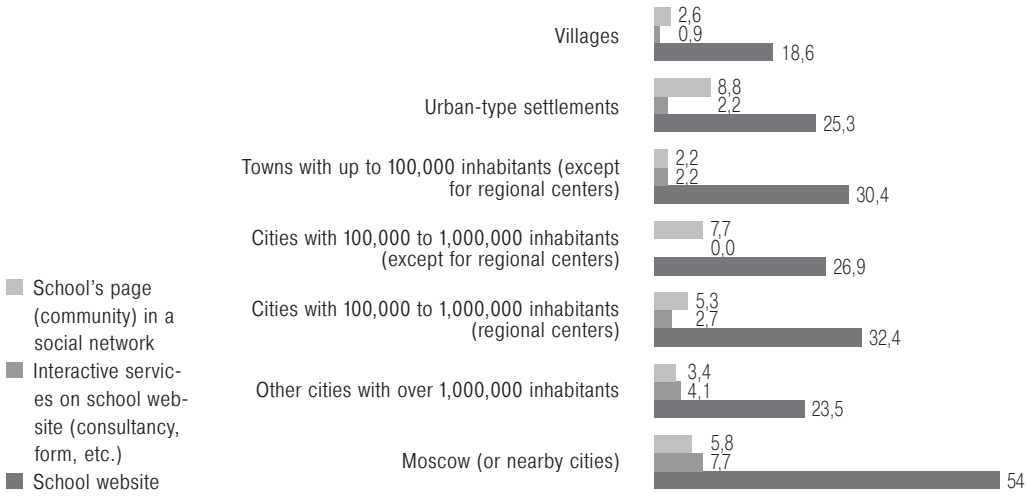
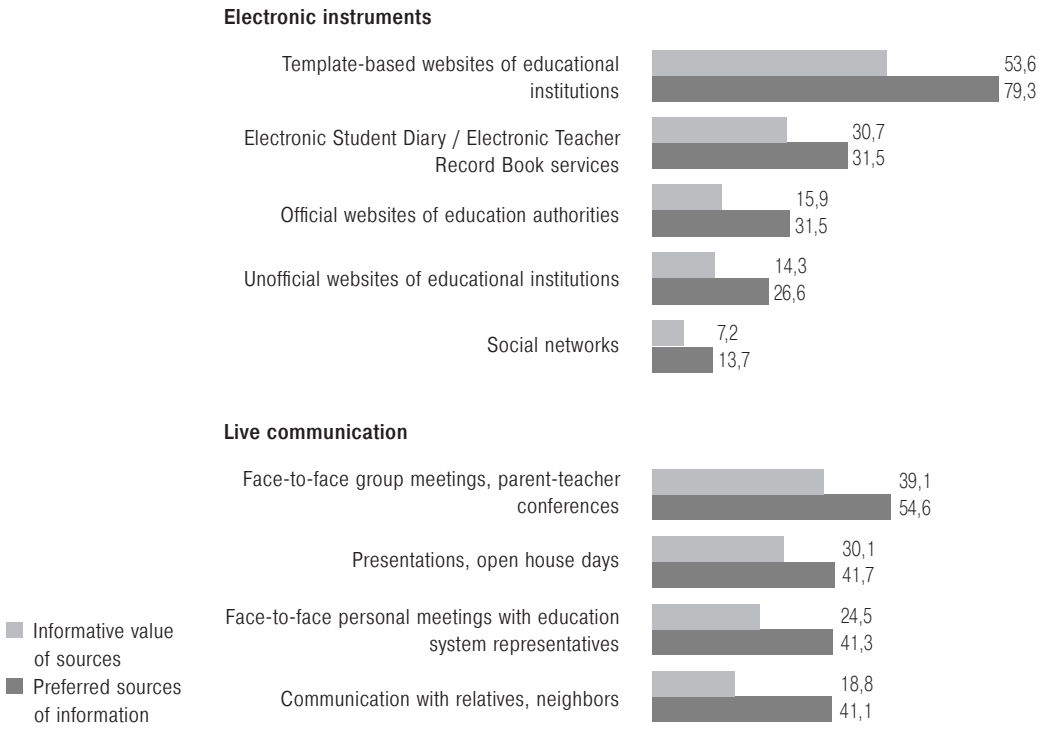


Figure 11. **Preferences of Moscow parents regarding the sources of information about educational institutions** (Institute of Education, NRU HSE, 2013,%).



Department for Education (Figure 11). However, their informative value is assessed by parents as leaving much to be desired, just as the informative value of any other sources of information about educational institutions.

4. The demand lagging behind the supply

The results of studies provided above allow for an assumption that the demand for informative online resources in education is currently dragging behind the supply initiated by the customer, i. e. the state. The hypothesis can be verified, in particular, by the data on educational website traffic.

A 2013 survey conducted by the Foundation for Internet Development revealed that only 7% of teenagers and 9% of their parents use educational portals [Soldatova et al., 2013]. This statistics correlates with the analysis conducted by the NRU HSE Institute of Education based on the open source data of traffic counters[12] used by school websites participating in the Social Navigator project rankings (RIA Novosti, NRU HSE, 2013). The average daily traffic of school websites (daily unique visitors) in September and October 2013 was 7% of all students studying in the relevant institutions. There was almost no gap between the average proportions of rural and urban students but the differentiation inside the group was higher in the city.

In the curve showing distribution of school websites by the proportion of unique visitors to the total student body (Figure 12), the overwhelming majority of websites are under 20%. However, the sample includes few educational institutions (about 2%) with over 50% of daily unique visitors. What's the secret of this popularity? What differs demanded websites from non-demanded ones? Answers to these questions should be searched for, inter alia, by analyzing the needs and information preferences of the principal users.

Electronic Student Diary and Electronic Teacher Record Book are the main information competitors of school websites today. Monitoring of Education Markets and Organizations (2013) informs that electronic diaries and/or record books are more popular with parents than school websites, except for regional centers with 100,000 to 1,000,000 inhabitants (Figure 13).

One of possible explanations to this is that the electronic services provide specific, personalized information on each student, as well as the latest updates on the things going on in the school. That's what parents are concerned about most of all: the grades their kids have, the homework they receive, teachers' remarks, upcoming events, etc.

[12] Open source traffic counter data on daily unique visitors defined by IP hosts and/or cookies.

Figure 12. **The distribution curve of school websites by the proportion of daily unique visitors to the total number of school students** (NRU HSE, 2013)

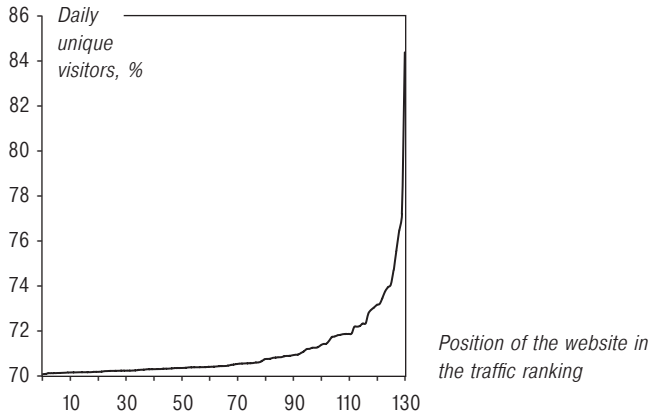
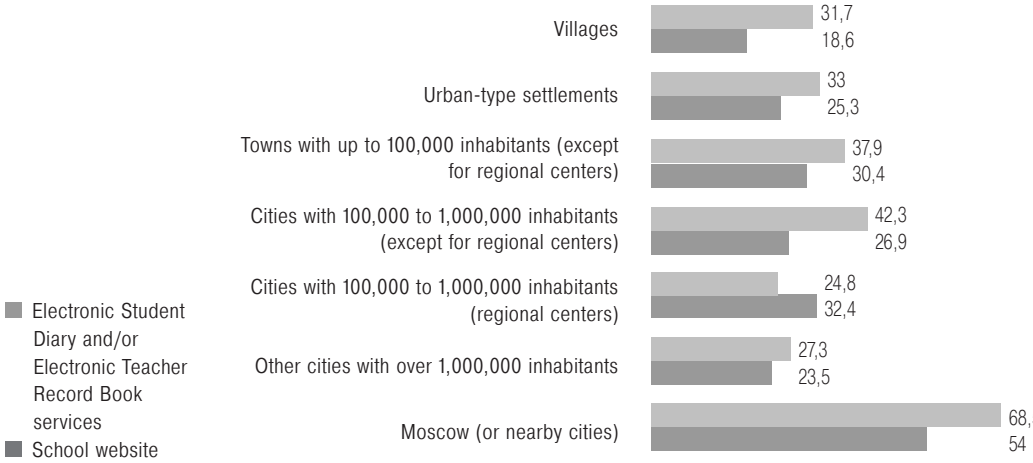


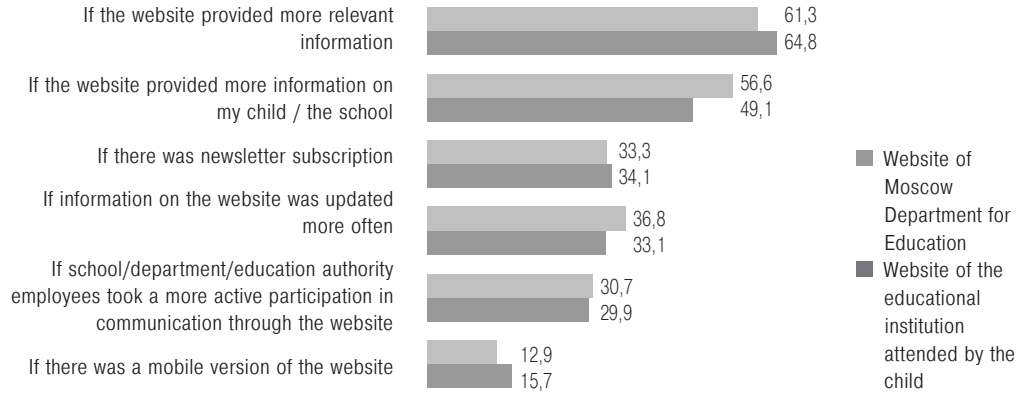
Figure 13. **The use of electronic instruments by parents to stay informed and communicate with school teachers and administrators** (Monitoring of Education Markets and Organizations, 2013,%)



The significance of up-to-date information and personalized data on students as factors of website popularity is confirmed by results of the survey of Moscow parents (NRU HSE Institute of Education, 2013). Among the conditions that would increase traffic to official educational websites, it's these two that top the list (Figure 14).

Figure 14. Conditions that could increase the traffic of students' parents to the official educational websites in Moscow (Institute of Education, NRU HSE, 2013)

Figure 14. **Conditions that could increase the traffic of students' parents to the official educational websites in Moscow** (Institute of Education, NRU HSE, 2013)



Of course, Electronic Student Diary and Electronic Teacher Record Book services have other advantages, too, like those related to their communicative functions. Anyway, the fact that users prefer these services to school websites calls for a detailed analysis of their specifics, beginning from the goals and objectives of these educational resources.

5. Aims and Objectives of Transparency

Knowing the objectives that prompted the customer to promote greater information transparency in Russian education, we can determine the extent and quality of their implementation.

The law of management says: efficiency can only be reachable if there is exact understanding of the result to obtain and its assessment criteria. That's where the next tangle of contradictions appears. Along with "external" aims of transparency promotion declared by the state as a customer, there may as well be real, or "internal", aims. Only declared aims can be reconstructed precisely enough, while internal (real) ones give free scope to imagination.

The state formulated the following major aims in policy and normative documents relating to different phases of enhancing transparency in Russia education:

- *providing information necessary for consumers to choose* the place and the conditions of learning (choosing between educational institutions, education programs, etc.);
- *fighting corruption*.
- An addition was made later (in 2012):

- *independent assessment of quality* of educational institutions' activities and educational services provided.

As envisaged by the customer, execution of these objectives would contribute to enhancing the quality of educational services.

Let's dwell on how these aims have been achieved in the official information field that has developed in Russian education by now.

5.1. Providing information necessary for consumers to choose an educational institution

The choice of educational institution is only relevant for professional, especially higher professional, education. The aim is inapplicable to preschool, general, or supplementary education of children. According to Monitoring of Education Markets and Organizations (NRU HSE, parents survey, 2013), only 30% of parents in the whole Russian sample considered two or more options when choosing a school for their kids. The proportion is even smaller in small towns (15%) and villages (under 10%).

Unfortunately, there is no similar reliable statistics on the choice of preschool institutions but the experience leads us to conclude that choosing between two or more options is even more unusual here. The choices also reduce with the active enlargement of schools and their merging with preschool institutions. Geographical proximity is the most significant factor of choice (based on the parents survey, Monitoring of Education Markets and Organizations, academic year 2012/13) between educational institutions of this type, and no official online resources are needed to obtain information about what kindergartens are located nearby.

The average rates of using official educational websites when choosing a school are as follows (Figure 9):

- using school websites: 31% of parents actually selecting a school (9% of the total sample);
- using websites of education authorities: 7% of parents actually selecting a school (2% of the total sample).

The rates are rather low but the customer-oriented approach implies that needs of all consumers should be considered and satisfied, however insignificant their number might be. So, what can official educational websites offer consumers using them to select an educational institution?

The low efficiency of information transparency for the choice of an educational institution can be exemplified through the state portals of most subjects of the Russian Federation. Information about specific educational institutions is most often restricted to their names, full names and telephone numbers of their principals, address data (postal address, email, URL), and geographic coordinates (latitude and longitude). The latter may only be appreciated by in-car navigation system owners.

Specific quantitative data on the conditions and quality of educational services provided, if any, is specified, at the best, down to the municipal level. More often, it represents *summarized* statistics on the whole subject of the Russian Federation. As a rule, the sets of specific quantitative indicators used include only the USE scores (the average score across the region or municipal locality). Information about school staff salaries is even less common and also summarized for the whole subject of the Russian Federation. Finally, it is virtually impossible to come across information about the education programs applied, the supplementary services provided, the specifics of learning and school life, or even the quality of staffing, which ranks second among the factors important for parents making a choice (according to Monitoring of Education Markets and Organizations, 2013).

This restricts essentially the ways of using such "transparent" data for the benefit of education consumers, as selecting an institution based on this data is simply impossible.

Similar problems await consumers on the websites of education authorities. As judged by the Social Navigator ranking (RIA Novosti, NRU HSE, academic year 2012/13), official websites of regional education authorities do not always provide information about early childhood development centers or summer recreation camps. Information about subordinate municipal authorities, educational institutions of other departments (culture, sports, healthcare, etc.), and private institutions is only available on 50% of regional websites. Besides, such important information as description of education programs used is also practically impossible to find on these websites [Mertsalova, Kosaretsky, 2013b].

The supply-demand gap becomes obvious when the role of information materials (the proportion of users who rate them as important) is compared to the level of their availability on educational websites (the proportion of websites that provide such materials). A local study organized by the NRU HSE Institute of Education in a region of the Central Federal District in 2013 included a survey: users were asked to evaluate the subjective importance of information materials and documents posted on official websites of municipal education authorities. Later, the websites were monitored for such materials.

While a direct comparison of these two proportions would be clearly incorrect, the imbalance is blatant (Figure 15). Thus, only 4% of municipal websites posted information about summer camps, which is important to 84% of users.

As a result, websites of educational institutions are the only official online source of information that can help choose the appropri-

Figure 15. **The importance and actual availability of information about educational institutions on the websites** (NRU HSE, 2013,%)

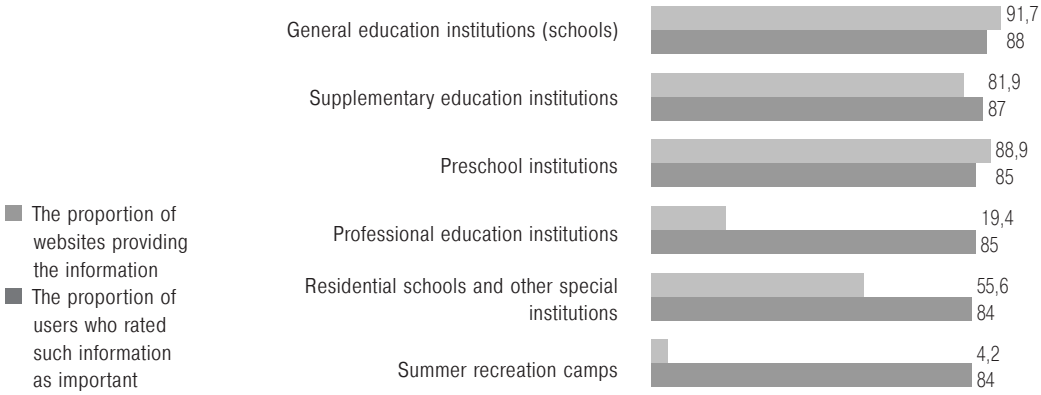
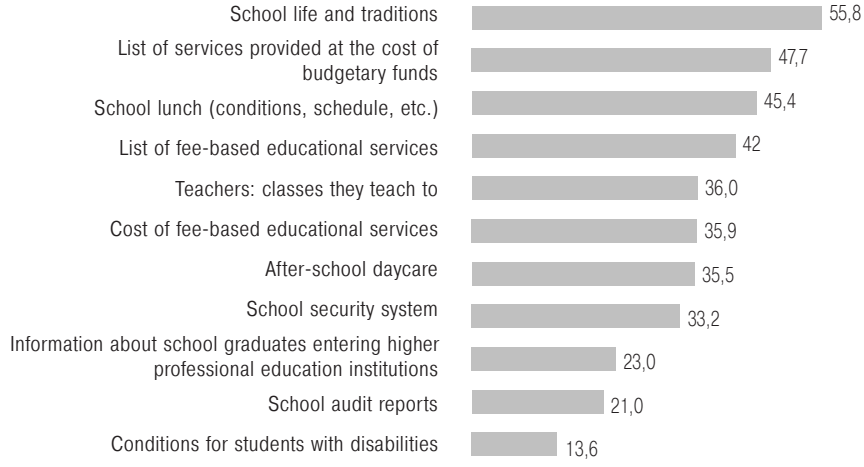


Figure 16. **Online availability of specific information important for school selection** (The proportion of schools providing the respective information, Social Navigator, 2013, %)



ate institution to some extent. However, the opportunities are limited even here (Figure 16)[13].

The list of examples illustrating information limitations in choosing educational institutions goes on and on. Yet, even the abovementioned is enough to see the whole picture.

[13] Здесь и ниже использованы результаты «Рейтинга информационной открытости официальных сайтов общеобразовательных организаций Российской Федерации» http://ria.ru/sn_edu/20130417/931512013.html

Figure 17. **The proportion of school websites providing business and financial documents** (Social Navigator, 2013,%)

5.2. Fighting corruption

The key principles of fighting corruption include:

- transparency in all processes and mechanisms of institutions and systems, especially in enrollment, business and financial activities, and graduate examinations;
- possibility of communication on the issue (official appeals and complaints, either confidential or public) [Mertsalova, 2012].

Let's dwell on the two most vivid, to our mind, examples of educational websites lacking the information important for fighting against corruption.

First, information about business and financial activities is missing. The normative requirement to provide expenditure (financial) reports applies to websites of both schools and education authorities but none of them touches upon "voluntary" contributions/donations officially. Consequently, there are no reports demonstrating how and to what extent the money is used.

Even the cost of official fee-based educational services is only available on every third school website (Figure 16). Nearly the same proportion (35%) of regional websites, in accordance with the Social Navigator ranking (2013), provide information on how the allotted budgetary funds are used by the regional education authority. The situation with school websites is slightly more optimistic (Figure 17).

Over 20% of websites of education authorities do not provide reports on the plans, programs, or projects that are heavily funded from national and regional budgets. In cases where reports are available, they are often organized in a way that makes it really hard for people with no specific economic education to understand where and how the allocated funds were spent.

Audit reports were only found on every fifth school website (Figure 16). Websites of regional education authorities show a much higher rate of 60% but only three out of 84 ranked websites provide information about all educational institutions mentioned in the site.

This way, reports and other documents that could allow the public to get the idea of business and financial activities in education remain unseen, i. e. the fact that educational institutions and regional education authorities have websites does not itself contribute to reducing corruption risks.

Figure 18. **The proportion of websites of regional education authorities providing services and information materials for electronic messaging** (Social Navigator, 2013,%)

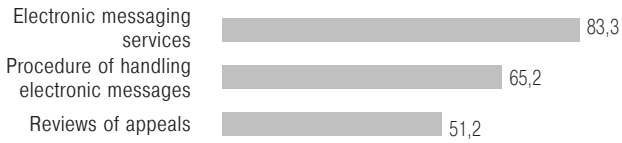
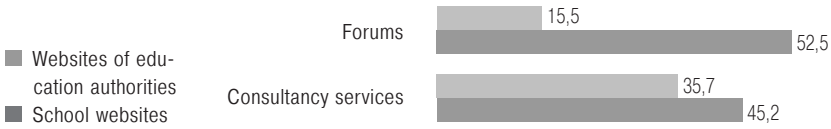


Figure 19. **The proportion of websites using open communication services** (Social Navigator, 2013,%)



Another mechanism of fighting corruption is the willingness of the system to communicate openly with the parties involved and to provide constructive feedback to them. A number of complications apply here, too.

As judged by the ranking of websites of regional education authorities (Social Navigator, 2013), official electronic messaging services are used by 83% of ranked websites (Figure 18). However, only two thirds of sites provide information on how these services work (the procedure and terms of handling electronic messages, feedback formats). As for overviews of appeals, answers to them, and measures taken, they are even more difficult to find.

The indicators improved in 2013, as compared to 2012 [Mertsalova, Kosaretsky, 2013a]. Yet, this was rather possible due to the exclusive public rating than any real corruption fighting efforts.

The specifics of anti-corruption complaints is that they are not always safe to send openly. Thus, providing confidentiality for senders matters a lot. Electronic messaging services do not always comply with this requirement. Often, they function in Q&A mode, which implies absolute transparency of correspondence to the public, and sometimes they are integrated into consultancy services, which are designed only to consult on organization and content of education (an information desk, in fact).

At the same time, open complaints and discussions can sometimes help prevent corruption risks easily. In this case, consultancy services and forums become indispensable but creators of official websites for education authorities and educational institutions are very reluctant to use them (Figure 19). Normative requirements to

websites do not even specify or regulate these communication services in any way.

5.3. Independent assessment of quality of educational institutions' activities

Numerous obstructions also stand in the way of attempts to use open information sources of the education system to perform an independent assessment of educational institutions' activities. An interested user normally finds that:

- quantitative indicators characterizing the conditions and quality of education are missing on open data portals and official websites of education authorities;
- statistical data is summarized at municipal and regional levels;
- the information on websites of education authorities and in public reports is purely descriptive;
- the data published on websites and in public reports is inconsistent and coming in disparate formats.

6. Transparency Assessment Criteria

The abovementioned monitoring studies and rankings of official educational websites allow for a suggestion that transparency does not perform the functions assigned to it by the customer of information transparency enhancement initiatives. It appears that the customer, i.e. the state, is of the same mind. It initiates numerous monitoring investigations and audits, checking for websites, their compliance with federal law requirements, the number of databases published on open data portals, etc. However, the analysis described above demonstrates that this narrow format based on testing for presence/absence of specific elements is not enough to assess the efforts made to enhance transparency in education.

Information transparency assessment criteria have never been specified by the national policy, which is one of the reasons why transparency is failing.

How do we assess whether an educational institution or an education authority is "transparent" or "nontransparent"? Can we judge it only by whether a website provides or not information and documents required by federal laws and bylaws?

The basic criteria for assessing information transparency in education can be deduced from understanding the importance of user's demands (information should be available and demanded) and recognizing the applied nature of objectives set by the state in this sphere (information should be useful). The result is three criteria.

1. *Availability* of information, data, and documents. In the context of the Russian education system, assessment of transparency efficiency should consider not only availability of normatively prescribed data and documents but also availability of information relevant to users' demands.

2. *Demand* for information and services ensuring communication (transparency). The rate of demand is determined by how often users address to the information sources and what type of information they would like to find there.
3. *Utility* (usage) of these services and information to solve specific applied problems. It should be taken into account how information sources and materials are used by each of the three players: the customer (consumer of educational services), the agent (the educational institution), and the principal (the state).

It must be acknowledged that the existing data and materials are insufficient to provide a high-quality and reliable assessment of information transparency based on the abovementioned criteria. The only data available to us is quantitative indicators of specific information sources and materials provided by Rosstat statistical reports, departmental monitoring studies (like those of Rosobrnadzor[14]), and independent rankings (Social Navigator by RIA Novosti, All-Russian Ranking of School Websites by RoSNOU, etc.).

Demand for and utility of information resources and materials has not yet been subject to profound investigations or detailed measurements. Individual local projects realized in this area (including by the NRU HSE) remain extremely vulnerable in terms of accuracy and relevance. Obviously, large-scale research is needed to assess these properties of information resources in education.

7. Prospects for Information Transparency Development

We can see that the answer to the second of the questions raised by this study—can we talk today about ending the process of education "opening"? is it possible to curtail the active project initiatives in this field after the maximum level (100%) is achieved?—is obvious. Development should go on, as transparency doesn't solve all the existing problems at this stage. It is important though that we determine the main vector of efforts correctly and outline the prospects for development of information transparency in education, which concerns both individual educational institutions and the overall national policy in this area.

It's not only poor efficiency of the existing information transparency system that requires further enhancement. Another fundamental reason is changes in the psychology, the information culture, and the communicating practices of population, which are caused by technological achievement, information globalization, and the focused national policy.

Many IT sociology and marketing studies report about the rapidly changing user characteristics. Particularly, they document a boost

[14] Federal Service for Supervision in Education and Science.

in the number of Internet users in Russia. For example, over 60% of Russians today are active Internet users according to the Federal Statistical Monitoring (FOM)[15]. Research conducted by the Public Opinion Foundation shows the annual increase of 9% in the number of Internet users going online at least once a month and 14% in the number of daily users [FOM 2013].

Although FOM reports a slowdown in the dynamics of Internet penetration in Russia over the last three or four years, the number of Internet users is still growing. Curiously, the best part of the increase over the recent years has been provided by women and people over 35 [FOM 2012], who form the main group of active parents.

The Foundation for Internet Development has found out that 90% of 12-to-17-year-olds and over 50% of their parents go online every day or almost every day. Every second adult and three out of every four teenagers consider themselves confident users of PC. Only 17% of teenagers' parents in large cities (over 100,000 inhabitants) do not use the Internet, while the proportion among teenagers is zero [Soldatova et al., 2013].

Some researchers of information behavior of users of social services state that the most important result of Internet technology expansion is the change in preferred ways of obtaining information, i. e. the increased demand for distant forms of information interaction. «Convincing someone to go to a library when necessary information is available on the web is just as difficult as making them change from car to ox-cart» [Dolgopolova, 2012].

Further development of electronic information resources in education should place more focus on organizing information and communication interaction with education consumers and other parties concerned by means of websites, forums, social networks, and other IT services.

Taking interests, needs, and possibilities of education consumers into account when defining the criteria for assessing efficiency of information transparency in education complies absolutely with the markets laws (even if it's a quasi-market) which require a certain balance between supply and demand.

There is no such balance with information transparency, as judged by the data provided above. The supply is obviously higher than the demand, satisfying it only to some extent.

In order to assess the quality of information transparency and, consequently, to develop the strategy and tactics of further enhancement, we need to describe the information consumer, i. e. to define the actual information behaver in the context of Russian education.

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[15] Federal Statistical Monitoring on how population uses information technology and information and telecommunications networks (based on a sampling survey of population in October 2013), Rosstat.

The active implementation and promotion of applied projects "from above" resulted in an imbalance between the theory and the practical expansion of information transparency which is way ahead. The lag of analytical research and theoretical justification of mechanisms, conditions, and principles of information transparency in education is one of the reasons for formalization of processes and simulation of transparency improvement through expansive development. There is a tendency towards increasing the number of information environments, channels, and units that often remain non-demanded and do not actually "open" anything to the public.

Quality of transparency in any social system depends largely on understanding of user's interests and possibilities. The significance of information consumers and strategy of treating them by the "owner" of information, i. e. the institution that provides it, can be observed, for instance, in classifications of Western political studies [Ferejohn, 1999; Behn, 2000; Gailmard, 2009], particularly in the selection of classification criteria.

Classification of information transparency by the channel of obtaining information:

- proactive transparency provided by the information institution (the institution owning the information);
- reactive transparency provided on demand and requiring that the user makes additional efforts to access the desired information (demand/request).

Classification of information transparency by the extent to which information is disclosed to consumer:

- non-transparent transparency, where all consumers see is the final result of an institutions' activity;
- clear" transparency, where the whole process of an institution's activity is transparent.

These classifications look rather inadequate when applied to the education system. For instance, information on demand (the reactive type) is mostly typical for education authorities, being used much less by educational institutions. At the same time, it would be useful to describe in more detail the proactive type of information transparency to apply the criterion of how an institution selects information it provides to consumers.

The proactive type of information transparency will then be divided into three subtypes:

- customer-oriented (user-oriented) transparency: the institution selects information to disclose based on research and consideration of interests and demands of users, i. e. education consumers and other parties concerned;

- state-oriented transparency: the institution grants public access to information required by government regulations;
- institution-oriented transparency: the institution (e. g. school) posts information in its own interest only.

None of these three subtypes of information transparency can exist in their pure form in practice. However, the analytical discrimination between these approaches to information selection in the proactive model leads to apprehending the fundamental information (communication) strategies of educational institutions.

Numerous oeuvres stress the need to recognize the key role played by information consumers in information interaction and to investigate their interests, needs, and demands to ensure real and demanded information transparency of the system. Nevertheless, information consumer is paid little attention in research on information transparency in education. Most similar studies in business and politics treat consumer as a *passive subject* or, not infrequently, even as an *object* of information influence.

Thus, ample research on communication strategies tends to describe mostly strategies used by producers of products/services and political authorities. Communication strategies of consumers, as well as constituents, remain in the realm of social and cognitive psychology. Studies on information transparency only mention them in passing. The existing psychological conceptions are neither discussed nor used for development of specific projects aiming to enhance information transparency in education.

Making interests of the information "owner" a priority in research and development is partially justified, especially when it comes to business transparency models. The very nature of market relationships, the laws of supply and demand dictate that producers of products/services research proactively the needs and wants of consumers, search and use various instruments and mechanisms of supplying information and getting a feedback. Otherwise, producers will be uncompetitive in the market. In this model, consumer is an active participant of information exchange, staying a passive subject of information interaction, except for conflict situations where consumer has to communicate actively with the producer of product/service.

However, the mechanisms described above do not work for the Russian education system, which is mostly represented by public-funded institutions. The market laws do not apply here. It's not the supply-demand balance but other factors indirectly prescribed by the principal that determine competitiveness in the quasi-market of Russian education (Bendukidze K., Demidova L., Koryttsev M., Kuzminov Y., Shishkin S., Yudkevich M., etc.). That's why public-funded educational institutions have no natural (market) need to develop information interaction with education consumers. Meanwhile, consumers remain passive subjects of information exchange, and all of

this results in the imbalance described above. The imbalance can only be corrected through active investigation of consumers, their information needs and demands, and through developing the information activity of education consumers.

It goes without saying that the declared freedom and equality of all information exchange players are actually only a myth, as even the most informal websites serve their authors' interests. The recent ideas in the information space stress the need to adjust information sources in the interest of users, up to providing them with the possibility to modify the content and structure of websites[16]. The need for such adjustments is even more critical for official information sources. Claiming that information interests of consumers are the top priority cannot become a real customer-oriented practice without recognizing the equality of subjects of this interaction and understanding both parties' interests and information demands, which have not yet beet studied or described.

8. Conclusion

As we can see, the existing situation with information transparency in Russian education may be described as expansive development of education system information resources mainly guided by normative regulations enacted by the state-principal.

Meanwhile, analysis of such development, even in terms of the objectives set by the state, reveals insufficient efficiency and the need to continue improving information processes in the Russian education system actively.

There is still much uncertainty around strategic priorities and tactical points of the national policy that should be determined based on consumers' interests, which have not yet been studied enough.

State monopolization may turn regulation of information transparency in education into a self-sufficient, self-looped process. If interests and positions of the other two parties to quasi-market relationships—consumers and producers of educational services—are not taken into account, the expansive development may lead to critical transparency phases (e. g. excessive transparency fraught with stagnation of production, etc.).

A profound complex research is needed to investigate individually into each player of the *consumer—education—state* information interaction scheme. However, it should be remembered that the current state of information transparency is highly dynamic. Many of the indicators and data used in this paper could have gone out of date even while the paper was written and prepared for publication. Dynamics is one of the positive factors of development of information transpar-

[16] Site Management to Users!—http://habrahabr.ru/company/brainlook/blog/198430/

ency in Russian education, as it provides for some real opportunity to balance supply and demand in this unique services industry.

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