The organization of a distance education system in Siberia

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In the era of new informational technologies (NIT) the system of education experiences complex organizational and structural changes. These changes were caused by the crisis of educational system, which became apparent during the last years of the XXth century in spite of excrescence of education. Its typical features in the higher school are the following:

- abrupt increase in educational demand, greatly outgrowing the possibilities of higher education institutions;
- decrease in the quality of education . Traditional pedagogical technologies do not provide full knowledge adoption; updating teaching materials do not keep pace with up-to-date knowledge. Besides, the conservation and improvement of pedagogical staff quality is relevant for this problem;
- education differentiation. Technocratic tendencies in training specialists have resulted in the narrow professional education, its fundamental nature lost. The consequences of this disproportion become apparent now in the epoch of the socio-economic crisis.

In this situation informatization of education starts being considered as one of the ways to overcome the crisis.

Since the beginning of the1990s national informatization programs of education involving all the levels of the educational system have being expanding all over the world. Similar programs have been developed in Russia. They are aimed at realizing the conception of informatization by means of effort consolidation on the main directions of educational system development. One of such programs, "The conception of developing a system of distance education (SDE) in Russian Federation", was worked out in 1995.

Solving organizational, technical, methodical, staff and regulatory problems of SDE establishment was provided by the program step by step (up to 2000). Lack of funding made the implementation of this program impossible, but it was this program that gave a push to initiative projects of Russian institutes of higher education in the sphere of distance education.

1. Organizational structure of the educational system in the era of NIT.

Organizational structure of the traditional educational system is a net of institutes of higher education that provide training courses for professionals on the basis of state educational standards on a specified set of specialties.

However, in spite of the presence of necessary formal signs for institutes of higher education's accreditation, it is evident that regional peculiarities, differences in the technological base and human resource structure influence the quality of education, and the fact that young people prefer to study in leading educational centers is quite understandable.

Besides, studying at the institute according to strict educational schedule deprive a student of realizing an individual educational program.

Thus, formal education in the existing system limits fundamental education acquisition, students' mobility in the choice of the institute (institutes) and the educational program.

What can NIT do to improve the educational system?

First of all it should be mentioned that digital tools and educational technologies have been described from both positive and negative point of view!

No doubt that possibility of quick access to informational resources, processing and storage of huge data amount are advantages of NIT. But education is not only information (knowledge) transfer; it also includes pedagogical technologies, that should contain not only ways (methods) of professional teaching, but also methods of general development (upbringing) of personality. It should be noted that the last-mentioned one is necessary not only in early stages of personality development, but also in institute of higher education, where forming of world outlook is one of the conditions of getting fundamental education.

In this regard it is difficult to understand the advocates of "self-education" – the technology of acquiring knowledge based on open access to information, where teacher's participation is minimized or is replaced by tutor's consultation at best.

There is also no doubt that restriction of face-to-face communication between a student and a teacher leads to decrease in education quality. And if distance education is considered self-education, it will not be better than education by correspondence. The only difference is that post is replaced by email.

Proceeding from the content and aims of education, the main mission of distance education is to provide equal educational opportunities for students in compliance with their requirements. Furthermore, both urban and rural students should have equal opportunities. However in this regard it is necessary to develop an open educational system based on distance education technologies. And the more perfect these technologies are the higher quality of education a student can get.

Without going into details of pedagogical aspects of distance education, which is a topic for another article, we will enumerate the conditions necessary to fulfill distance education:

- direct participation of a teacher in educational process using on-line technologies;
- using interactive multimedia programs for self-study training.

The role of these pedagogical technologies depends on a number of factors. The main factor is a teacher's professionalism.

What organizational structure can the open educational system work in?

There are several organizational forms of implementation of educational programs based on distance education technology. Consortium (association) of leading educational centers is the most optimal in our opinion. The principle of distributed education can be realized on their base. This principle supposes that all institutes – members of consortium should participate in a training process according to integrated educational programs.

Such an approach to developing an open educational system helps to solve several problems at once:

- creation of a wide range of educational programs, which gives a student an opportunity to choose;
- acquisition of better quality education by means of involving leading professors from the institutes into educational process;
- improvement of scientific and educational potential of peripheral institutes;
- increase in the effectiveness of educational programs;
- decrease in expenses of every institute spent on creating an educational area.

Furthermore it should be noted that partner relationship of the institutes (members of association) and their teamwork make it possible to overcome a negative factor of information technologies – packing education market with educational programs of poor quality

2. The association "Open University of Western Siberia" is a model of a modern open university.

The idea of establishing Siberian universities' association appeared as a result of initiatory activity of three universities: Altay University, Novosibirsk Technical University and Tomsk State University. In 1997 the institutes of higher education concluded a treaty for collaboration in the sphere of distance education. The aim was to develop a range of joint educational programs based on distance education technology. However, it became evident afterwards that organizational structure was needed to coordinate joint actions basing on appointed principles. And in 1998 three universities founded an Association of educational and scientific institutions "Open University of Western Siberia".

The main aim of the Association was to create an open educational area on the basis of NIT and distance education technologies. The primary goals of the Association were the following:

- creation of a continuous system of personnel training for teachers and specialists working in the distance education system;

- creation of methodological support for the distance education system;
- creation of a united data bank of the Association.

Educational activity of the Association depends on personnel. It should be noted that a teacher working in the distance education system is a new personality in the educational system. Alongside with professional knowledge a teacher has to be able to use up-to-date informational technologies, distance education technologies and to know a lot about matters that may be beyond his competence. To solve the problem of personnel training it is supposed to organize within the Association a range of seminars and retraining courses involving experts in different fields of knowledge.

Developing methodological support is the most difficult and resource-intensive task. The matter is not only in transmitting typographical texts into electronic ones, but in developing brand new didactic materials based on multimedia. Evidently, such work can not be performed by one institute of higher education. But it is necessary to set a priority of educational programs while involving Association opportunities into developing new educational programs. So alongside with common educational blocks development we are going to create specialized programs which are defined as the most important ones for each institute of higher education.

Developing a united data bank presupposes forming such an educational area based on computers and data exchange technologies that would contain automated system of managing educational process and data bases of the institutes. This complicated problem requires preliminary conceptual elaborations and carrying out an experiment.

Certainly, creation of an open educational system is not confined to solve only these problems, but they are an important part in a range of different problems of building a new educational system.

Conclusion

The Association's popularity among the institutes of higher education became very high. Its ideas are congenial for each institute. At present difficult conditions the main idea is the one of unification. Now the Association consists of 13 universities of Siberia and Far East and 3 Research Institutes of the Russian Academy of Sciences. Among them Amur, Irkutsk, Kemerovo, Omsk, Surgut, Tyumen, Khakas, Yakut State Universities, Tomsk State Architectural University, Siberian State Medical University, Institutes of High-current Electronics, Physics of strength and Material science, Atmosphere optics of RAS.

The seminar-conference held in October 1998 was organizational. It defined the nearest goals of the development the Association. In 1999 a range of seminars and refresher courses on different directions of Association activities are to be held.

Now it is important to move from the organizational stage to the production stage, from organization of separate courses to realization of joint programs. It will allow not only testing by experience modern educational technologies but also involving into our activity new people: teachers, specialists - the main success factor of the new educational system.

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