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Network interaction in distance education: Analysis of Russian experience

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Abstract

In this report the results of analysis of the experience of networking Russian educational institutions, their willingness and ability to networking with national and international partners and offer a promising model of development of networking universities are presented. The experience of the association “Siberian open university” in organization of network interaction is defined as the most effective. The model of the network distributed structure of professional skill improvement of the scientific and pedagogical personnel created on basis of leading higher schools of Russia is described. E-learning and distance technologies are considered as the factors promoting development of network interaction.

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1. Introduction

In the conditions of globalization the development of network interaction of educational institutions is a leading tendency in the formation of a new paradigm of education. The process of Russia integration into international educational environment becomes obvious and inevitable. It brings up to date the problem of establishment of the system of higher schools network interaction providing information and consulting mutual aid of universities for encouraging their participation in integration processes within the education field.

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Favorable conditions for development of such interaction are created by rapid development of electronic education and virtual mobility (Ruiz Corbella, Marta, & Garcia Aretio, Lorenzo, 2010). The possibilities of modern information technologies allow to realize the concepts of a network and network interaction as bases of the scientific-educational environment, which provides the equal rights and possibilities of members of a network: establishments of science and education, teachers and students.

Under network interaction in this case we understand the interaction of autonomous subjects, which have a voluntary nature of participation in solving the general task, availability of materials of joint activity to all subjects of a network, existence of necessary technical support (possibility of use of networks of telecommunication in an interactive mode). As the basic properties of network interaction we recognize the uniform interaction environment, multitude of interdisciplinary communications, nonlinear mode of interaction, and an open form of information exchange with the environment.

The drawback in network interaction development is caused by variety of problems and fast change of external operating conditions of networks, possibility of solving problems with various effectiveness, mixture of network interaction variants which take place in development of problems of inter-regional and inter-university interaction, project approach to elaboration of co-programs, inside-university interaction of groups and project teams.

Leading higher education institutions of Russia actively develop strategies of cooperation with domestic and world partners.

2. Method

In this paper we present the results of analysis of the experience of networking of Russian educational institutions, their readiness and ability to networking with national and international partners and offer a promising model of development of networking universities.

Analysis is built on the studying of the experience of organization of network structures by Russian universities, the experience of realization of educational programs through network interaction and use of information and telecommunication technologies, the experience of organization of distributed learning in the universities of Russia, experience of organization of network interaction of Russian universities, aimed at the development of academic mobility.

The study includes data collection, data processing using scientific methods and comparative analysis of the results. The study analyzed the experience of Russian educational institutions and consortia on the basis of a comparative analysis of the materials posted on the Internet, publications in the Russian press, Russian conference materials.

The study was conducted according to the following criteria: the presence of the network structure, the duration of its existence and activity, the presence of joint educational programs, the experience of the implementation of joint educational programs.

Objects of research became more than 10 different associations of universities, which position themselves as network structures. Among them there are: the Association of Russian classical universities, Association for Engineering Education of Russia, International Association of Continuing Education, the Association "Siberian Open University" and others.

3. Results

Interesting experience of organization of network interaction is associated with the integration of Russia into the international educational space and formation of the organizational structure that coordinates the development of higher vocational education in the context of the main directions of the Bologna Declaration. On the solution of this problem was aimed the project "Networking interaction of universities in the main areas of the Bologna process on the basis of information and communication technologies", which was implemented in 2005. In the framework of this project was conducted the research of existing and well-functioning in European countries information networks in the sphere of science and education, was developed a list of technical requirements to ensure compatibility of the Russian system with the European analogs and was suggested the model of network interaction of Russian

universities in the main areas of the Bologna process. Joint educational activity was not provided by this project and so the mechanisms of the organization of such activity were not worked in the framework of this project.

As another example of the organization of a network interaction between universities should be noted the concept and experience of creating a network of intermunicipal methodological centers of the Academy of National Economy. United organizational structure of the system has distributed nature. The support tools are the training system of highly qualified pedagogical staff of training centers, unified information-technological, technical and communication infrastructure of the system, unified training complex. However, this network structure is designed for implementation of one educational program, the success of which confirms the effectiveness of the network activity.

The analysis of the Russian experience in organizing networking structures and implementation of joint educational programs shows that the most active network interaction is carried out in the framework of various consortia and associations.

The most effective mechanisms for networking interaction are developed by participants of the association "Siberian Open University", which unites more than 40 educational and research institutions in Russia and Kazakhstan (Practice of National research Tomsk State University, 2010). Unlike other networks, the association "Siberian Open University" not only declares the principles of network interaction, but has working models and real experience of the implementation of network education programs.

With activity of association is connected the creation in 2002 of the model of educational institution of open type (interregional university complexes), which with preservation of specifics of the educational environment of each higher education institution allows to integrate the scientific-pedagogical potential and information-educational resources for improvement of the quality of education. Such experience exists in other countries, for example, in the UK (Reid, G.M., & Dennis, R.M., 2001).

The essence of the model consisted in the organization of joint programs by higher education institutions, participating in the association, on the basis of which are created the branch of association and branches of other higher education institutions of consortium. It was thus supposed that higher education institutions enter into the contractual relations with association, which through her branch coordinates training programs of all universities – participants of association, combining the general courses for various universities and specialties, selecting teachers from various higher education institutions, participating in this activity. As a result of such activity higher education institutions could involve teachers of the highest qualification, and the students, participating in experiment, could have an opportunity to be trained at the best teachers in any of the agreed higher education institutions.

But the Russian legislation did not allow to realize this model. The establishment of inter-regional university complexes was confronted by the problem of absence of legislative base for network interaction and joint activity on basis of distance education as well as by apprehension of some higher schools to have strong competitors in the partners of the association in their region. The absence of law regulating the status, principles and technologies of e-learning made the task more complicated.

New stage in the organization of joint educational programs of the association started in 2008-2013. The higher education institutions of association at the initiative of National Research Tomsk State University developed the model of the network distributed structure of professional development of university teachers, based on application of distance technologies and containing basic elements of the unified educational environment: infrastructure of the resource centers and education establishments; system of access to educational resources, support and managements of educational process, monitoring of quality of education; set of joint programs; organizational, technological and staffing providing.

Network partnerships, formed within model, contribute to the creation of unified supporting infrastructure (the resource centers, the centers of collective using, etc.), the creation of unified services (career guidance, recruitment of students, unified library, etc.) and the creation of network educational programs (student's exchanges, applied bachelor degree, joint postgraduate study, internships).

The developed model of network interaction is realized in the centralized and decentralized forms. "Centralized" form assumes the development of an educational program by one higher education institution in which realization teachers of other higher education institutions can be involved. The universities can sign the contract about the cooperation, one of which conditions will be the assistance to development of network forms of interaction.

The "decentralized" form is based on joint development and implementation of programs by two or more universities: the program is approved by each institution and is implemented on the agreement about joint activity. Student is free to choose which modules to study and in what university. Having studied a certain number of the modules, student can address in any higher education institution, realizing the program, with a request to pass total certification and to receive the document about professional development. This option is possible, if the program is joint (it is approved by each higher education institution and it is carried out on the basis of the contract about joint activity). In this case any of participants of such network can become responsible for an educational program for the period of its realization, including a set of educational groups. At such approach a network participant can become any university that has the capacity and desire to participate in the development and implementation of joint educational programs.

Both options (centralized and decentralized) of network interaction are successfully tested on 38 network programs and are realized in 27 higher education institutions of Russia. According to these programs in 5 years more than 1500 specialists from 89 Russian higher education institutions (43 regions of Russia from 8 federal districts) were trained.

It allows to speak about creation of really operating system of the interuniversity interaction, providing an effective information exchange and joint activity in scales of all country. In TSU is created the resource center, which coordinates the activity of participants of network structure, organizes new network projects and supports information system of network interaction.

The stored knowledge of "Siberian open university" association testifies the efficiency of the co-programs organization on basis of network interaction that results in progress of virtual academic mobility, expansion of common educational environment, and upgrade of distance technologies.

4. Discussion and conclusion

Our results show that accumulated in Russian universities experience demonstrates the effectiveness of joint programs on the base of network interaction, which leads to the expansion of virtual academic mobility, development of unified educational space and improvement of distance technologies.

But the awareness of education institutions of mass introduction of e-learning was insufficient, and the development of network interaction was hampered by isolation of higher schools, absence of conditions for electronic educational environment operation and scanty level of attainment of staves.

The higher schools interaction in the field of e-learning demands an umbrella approach to normative documents, electronic training resources, as well as decision of various personnel, organizational, technical, technological, financial problems. However, the question of budgetary funds distribution in realization of network educational programs is left open. The strict adherence to international standards in the field of e-learning and information resources is an important item.

The work results on the development of the network distributed structure of higher schools interaction are of importance for creation of open network of the backbone Russian universities providing mass distribution of best practice and innovative results in higher vocational education system. There are good prospects of the sustainable development of network interaction experience at all educational levels, introduction of results of innovative educational programs, application of new educational technologies and development of in-Russian mobility of students and teachers.

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