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Problems And Decision In The Field Of Distance Education

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Abstract

Article is devoted to actual problem of modern education - to distance learning. The main objective of article - to prove and reason distance learning as new form of education. The article gives analysis of forms of education, gives main directions of development of distance learning are, and shows differences of distance learning from the traditional. It allocates problems solved by students and teachers in distance learning. It is shown that efficiency of distance learning is defined by use of pedagogical technologies which underlie design and implementation of remote courses. The conclusion that distance learning can be considered as independent form of education because possesses essential differences which can't be implemented in a traditional form is drawn

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1. Introduction

Distance learning, having arisen at the end of the 20th century, enters 21 century as one of the most effective and perspective systems of specialists training. Emergence and active distribution of remote forms of education is an adequate response of education systems of many countries to processes of integration occurring in the world, movement to information society. Consortia of the leading universities representing a wide range of remote educational services are created in Europe and North America. So, DE association unites in its structure five thousand educational institutions in the USA. UNESCO conducts work on the organization of the virtual distributed university training in which will take place in virtual space, regardless of moving and borders, without restrictions

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on time.

In Russia and many other countries remote forms of education weren't applied on a large scale until recently because of a number of the objective reasons - generally because of insufficient development and a wide circulation of technical means of new information and telecommunication technologies. Now technical preconditions for wide use of distance learning in education are created. Moreover, lag of implementation of DE ideas from the opportunities provided by technical means became noticeable.

Obstacle for the wide introduction of DE systems is absence of developed techniques of the DE organization, including structural, methodical and organizational decisions. The purpose of this review is attempt to systematize various aspects of this problem and to consider versions of decisions on a number of questions, arising in the course of development of DE systems and preparations for carrying out remote occupations.

Relevance of DE development is obvious to all countries of the world. For example, according to Department of Education of the USA only 43% of students of higher education institutions of this country are younger than 25 years, only a quarter - youth of 18-22 years. Other part of students - adult people burdened with family and business cares. Internal forms of university education are rather problematic for them. Distance learning meets the requirements of modern life, especially, considering not only transportation costs, but also expenses on the organization of all system of resident studies. That's where raising interest to DE, and not only university one comes from.

The early seventies can be considered as a reference point in development of open remote education in the world. The seventies are marked by active process of creation of higher educational institutions, universities of new type.

Geographical distribution of higher educational institutions in the world, offering distance learning now, is given in fig. 1. It shows that in countries of the Middle East and Central America development of DE lags much behind other regions. Thus in these countries level of education of the population is the lowest.
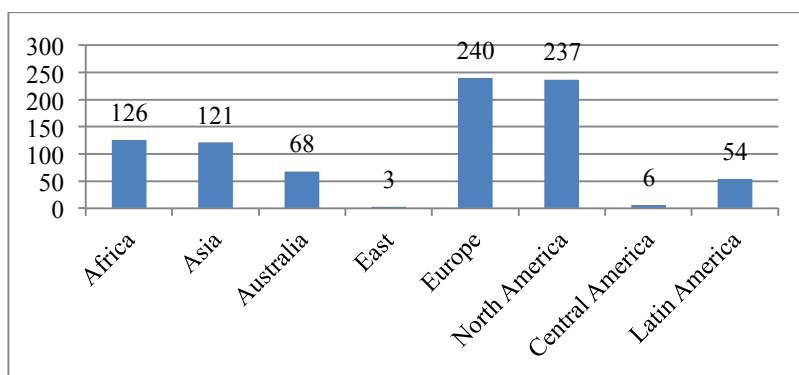

Fig.1. Geographical distribution of higher educational institutions offering distance learning in the world

Special relevance of DE systems creation in Russia today is caused by a number of factors. Among them are huge territories and a concentration of the scientific and technical centers in large cities, formation of new requirements of population towards contents and technologies of education, development of market economy, population shift strengthening, etc.

Development of DE in Russia will allow not only to provide population of our country with access to quality education, but also will give Russia chance to take certain place in the world market of educational services.

As to potential market of educational services of DE actually in Russia, according to experts it estimates, for regular forms of education, about 1,5 million students a year. It is lower bound, and by optimistic estimates about 3 million people can be users of DE systems within professional educational programs in the country.

DE system is needed by the following groups of the population in Russia: pupils of high schools in rural areas, in settlements, the small cities; managers of various level; heads of regional governing bodies; redundant army officers; the dismissed and redundant persons registered in the Federal employment service; persons, wishing to get

a second higher education or to complete retraining; the persons, wishing to increase the qualification in any field of knowledge; persons with limited freedom of movement: disabled people; the Russian-speaking population in CIS countries and foreign countries.

2. DE technique

DE is especially effective for the following categories of trainees: the most capable students who already possess essential knowledge and want to complete educational program in a short time; trainees who want to combine study with a business activities; the trainees, wishing to execute special educational programs consisting of courses, provided by various educational institutions, including educational institutions of different countries; the trainees who have been geographically isolated from educational resources required by it; the persons, wishing to change profession; the persons who haven't got finished educations in youth; persons who prepare for entrance to college or university; the persons, seeking to find opportunity to fill the gaps in separate courses; mobile students; children of foreign workers, military or constantly migrating families; the trainees having physical, physiological or emotional problems; special students, that is those who seriously is engaged in art, with sports and doesn't wish to interrupt education.

The main idea of of distance education technique is creation of the educational information environment including computer information sources, electronic libraries, video and audio collections, books and manuals. Component of such educational environment are both trainees, and the teachers which interaction is carried out by means of modern telecommunications. Such educational environment gives to trainees unique opportunities for acquiring of knowledge both independently, and under the guidance of teachers.

While developing training courses emphasis is placed on independent work of trainees their collective creativity, carrying out mini researches of various level.

A large number of tasks for individual study is provided, with possibility of receiving consultations daily.

World experience of distance education shows that at such organization of educational process, interaction of trainees and teachers on individual basis happens much more often and more effectively, than at other forms.

"The ideal model" of DE represents integrated environment, with role definition of various components - methodical, organizational, pedagogical and technological - such, as printing materials, broadcasting, television and use of computers.

3. Economic expediency of DE

The system of developing distance learning is economically expedient both for the state budget, and for trainees, in particular with transition to the international level.

Use of high-quality training programs, materials, information resources by the widest range of trainees reduces training cost.

Possibility of concentration of intellectual and financial resources on creation of widely duplicated high-quality training materials and programs causes high level of professionalism of the trained that is economically sound for each state.

Due to the absence of "walls" in open educational institutions maintenance costs of buildings and hostels are reduced.

Expenses on moving to study and accommodation place are absent or significantly cut down.

Opportunity to combine production activity and training, make training of that part of population which can't or doesn't want to interrupt a production activity economically possible.

DE development is necessary not only to educational institutions of new type, but also to traditional universities. First, to expand the range of provided services and to solve economic problems. Secondly, to sustain competition from other, nonconventional developers of training courses both from their region, and from other regions and even the countries.

DE divisions at traditional universities work, as a rule, at the principles of self-sufficiency. Achievement of effect of economy from the scale of rendering remote educational services can make significant income.

4. DE organizational models

Analysis of university education development in the world shows that under the influence of modern computer and telecommunication technologies, and also in the course of formation in education of market relations new models of university are formed. Traditional education and some main types of institutional forms (organizational structures) of distance learning unite. These are such institutional forms, as DE divisions at traditional and open universities, consortia of universities, teleuniversities, virtual classes, virtual universities.

DE divisions at traditional universities.

Traditional universities around the world are of great importance for development of new system of university education. Being the educational centers in which the leading experts are concentrated, traditional universities possess considerable potential to become the centers for development of modern remote university courses. Development of DE special divisions at traditional universities is at the heart of it.

Such DE divisions can develop and deliver, first, remote courses within the university, especially when university buildings (units) are located at considerable distance or there are branches in different cities; secondly, develop remote courses for the market of educational services.

Let's consider university of Ulster (Northern Ireland) and university Victoria (Victoria, British Columbia, Canada) as examples of implementation of such model.

Need of DE development at university of Ulster is connected with its structure: it was formed by merge of several educational institutions and consists of four separate university territories, remote one from another at distance more than 72 miles. Merge of several institutions in one on the one hand, means rationalization of process of training as the same course can be given in different campuses. On the other hand, reading one course in different places meant, for example, that the professor of university has to make 1740 miles between campuses each semester. It stimulated development of the DE methods. The growing pressure upon universities from the government with the requirement of increase of efficiency of expenses of training which put existence of the courses developed for a small number of listeners into question was other incentive. Development of the DE methods allowed to include people from different places in group of listeners of a course and by that to collect group of a sufficient size.

Thus, the need of using DE methods in University of Ulster was realized generally under pressure of economic facts.

The resort of University of Victoria to DE sphere was also connected with economic problems - in the early eighties the university became object of serious financial restrictions while demand for education at university and postuniversity levels constantly increased. Besides specifics of Canadian province where in the huge territory small city and rural communities are widely separated, called for the DE development. In the sixties in the province tuition by correspondence had a certain development at which interaction between teachers and students was carried out by materials sent on a surface mail. However introduction of telecommunication technologies stimulated their application, and in the late seventies at Victoria's University the first experiment on use of satellite communication in DE was made. In the early eighties in the province the special organization was created - Management of open training - for assistance to higher educational institutions in development and distribution of the educational programs by means of artificial satellites and cable television.

Characteristics of these decisions are presented in table 1.

Table 1. DE technologies

Case technology	Network technology
Text and workbooks (TWB) at the courses, united in a portfolio (case) according to the training program: printing training material and tests according to each section of a course.	Network electronic library: placement of TWB in computer network, web sites with a training material and tests.
Intramural lessons with the tutor of training center: introductory seminar, intramural consultations 1-2 times a week, total seminar, check tests by tutors.	Independent studying of web sites material, sending of tests to the tutor by e-mail.
Consultations with the tutor by means of phone, fax, e-	Consultations with the tutor by e-mail: student

mail.	has the right to ask tutor 5 questions, answer period of tutor - 3 days.
Intramural examination in training center.	

Remote and open universities. These educational institutions of new type develop, in many respects leaning on model of part-time education, upgrading it on the basis of use of modern computer and telecommunication technologies.

Universities of part-time education at which training was carried out until recently on the basis of printing materials, often have developed infrastructure, rich pedagogical and organizational experience of training at distance which are used for development of new system of university DE. Along with printing materials in educational process more and more place is taken by audio-and video disks, radio - and telecommunications.

Examples of such educational institutions were already reviewed above - UNED in Spain, Open university of Great Britain and the International DE center "LINK" in Russia.

Thus, the consortium of universities unites and coordinates activity of several universities on the basis of modern information technologies. It is possible to tell that the consortium of universities carries out broker communication between students and traditional universities for distance learning. The consortium of universities can provide both courses of higher school, and postgraduate courses, programs of the continued education and training courses for entrants. The most important thing is that the consortium of universities gives a chance to receive degrees and certificates of those universities which are included into consortium remotely.

Such institutional model is extremely actual for many countries as it allows to unite educational resources of many traditional universities.

Considerable experience in development of this institutional form of university DE is accumulated in Australia, where Open learning of Australia (Open Learning Australia - OLA) successfully functions. It is the consortium of eight traditional universities giving opportunity to all Australians to study courses of these universities using not only printing materials and mail, but also new information technologies.

OLA now offers 150 university training courses covering such subject domains, as art, social sciences, business, technologies and applied researches.

5. Conclusion and suggestion

1. Modern world education is characterized by the following tendencies:evolution of knowledge in the main source of cost in information society; education becoming the most important factor of overcoming of backwardness in development of a majority of mankind; transformation and expansion of concept of education. Education ceases to be identified only with formal school and even high school training; transition from the concept of functional preparation for the concept of development of the personality; concept of continuous education and development of education of adults; transformation of knowledge into goods and development of the market relations in education; integration of educational systems and transition of education to category of universal priorities.

2. The listed tendencies define main directions in development of new educational system which is focused on implementation of high potential of computer and telecommunication technologies.

Technological basis of new information technologies allows to implement one of the main advantages of new educational system - training at distance else called, distance learning.

3 . Distance learning is a new form of the educational process organization, based on the principle of student independent training with the help of developed information resources. The environment of training is characterized by that students generally are remote from the teacher in space and/or in time, at the same time they may at any time endorse a dialogue by telecommunication.

DE systems are economic for the state, educational institutions and trainees owing to the following major factors.

Use of high-quality training programs, materials, information resources by the widest range of trainees reduces training cost.

Possibility of concentration of intellectual and financial resources on creation of widely duplicated high-quality training materials and programs causes high level of professionalism of the trained that is economic for all society.

Due absence of "walls" in open educational institutions maintenance costs of buildings and hostels are reduced.

Expenses on moving to study and accommodation place are absent or significantly cut down.

Opportunity to combine a production activity and training, make economically possible training of that part of population which cannot or does not want to interrupt production activity.

The main problem of remote education is lack of high-quality methodological support. However a number of researchers separately allocates its organizational and technical problems: development of the uniform standard (format) of storage of training information resources; ensuring efficiency of communication of teachers and students; creation of remote education process control facilities; development of effective planning of educational process (curricula); effective representation of training material; ensuring of collaboration of pupils; ensuring remote access to information resources.

The methodical opportunities implemented in remote education: flexibility of educational process structure, allowing to consider requirements and communication within course and thematic conferences both "vertically" (center periphery), and "horizontally" (between removed trainees, both in e-mail mode, and in conference mode); efficiency increase (speed, completeness and, the main thing, objectivity) checks of student activity and learning control, thanks to cross checks easily realized in networks; basic expansion of available information funds and methods of access to them; interests of trainees and rates of their advance on studied material; possibility of practical use of the materials received on networks or generated during distance learning in current educational activity.

Key tendencies of remote education development: simultaneous expansion (variety growth) and rapprochement of technologies; changes in the relations between teachers and students; changes of relations between educational institutions; emergence of steady traditions.

Possible strategy of remote education development:

1) development of interaction between educational institutions (a demand of new approaches to programs development as remote education is able to extend out of limits of distinctions between intramural and correspondence course and even preparation and retraining of personnel)

2) working out of the organization and management of remote education development for more flexible use of new technological capabilities according to the needs of specific programs (priority of multienvironmental approach)

3) definition of purposes and prospects of remote education, width and depth of introduction of distance learning

4) development of model of interaction, reflection of potential relations with high school, technical schools, with business and industry, and also other educational institutions of the region, all state and other countries

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