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DEVELOPMENT OF DISTANCE EDUCATION SYSTEM IN ICIT TANE

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Abstract: *In the presented material particularises of functioning of the distance education centre as well as consultant centres are considered. Also we consider development of such education system in Institute of Computer Information Technologies (ICIT) of Ternopil Academy of National Economy (TANE).*

Keywords: - distance education system, educational environment, information system

1. INTRODUCTION

In conditions of economic development of Ukraine the serious preconditions to the development of distance education system were outlined. Fast changes and structural reconstruction of economy require training of considerable amount of specialists, particularly in computer engineering, and also retraining of other specialist according to new standards.

Distance education, which is complex of educational services which are granted to the great amount of people in Ukraine as well as abroad with help of specialized information-educational environment at any distance from educational institutions.

The objective of distance education system creation is to increase the quality of preparation of students along with simultaneous lowering of material expenses both of enterprises, where the students work and of the students. Thus the distance teaching methods, based on modern technological achievements (informational, telecommunication, computer, video and other technologies), will perform the basic role[1].

2. PRINCIPLES OF DISTANCE EDUCATION

During distance education system development in ICIT TANE it is needed to take into account such important points:

1. Flexibility: the students as a rule do not attend regular classes in form of lecture, but work in suitable time, in suitable place and in suitable tempo. Each can study so much as much as one need to learn the material and to pass the examinations.
2. Educational technology: teaching materials, proposed for studying are accumulated in special courses and modules, prepared for distance education and based on Ukrainian and international educational standards as well as in data and knowledge banks, libraries, videos, et cetera.
3. Modularity: each separate course is must create an integral conception about certain subject area. This allows forming an educational program from independent courses-modules.
4. Student authentication: in distance education it is practically impossible auto control who is actually on "other end" of the Internet-connection and answers the questions of the teachers[3].
5. Educational environment: it provides a contact between geographically remote teacher and pupils. This approach is based on application of new hardware, software and telecommunication means.
6. Lack of alive intercourse with the teacher. In distance education intercourse environment and hardware environment is modelled. The result of such modelling can be: multimedia educational courses; specially developed educational and

testing programs-trainers; programs imitating equipment for laboratory works of students.

7. Qualitative level of educational modularity courses: There should be a teaching - control process interaction (whole educational block, created on base of objective model, with dynamic possibility to be linked according to speed and amount of knowledge digestion).
8. Control: In distance education control must perform more wide functions, such as knowledge checking, determination of not knowledge digestion reasons, and forming of new sparring block (module) taking into account the results of control.
9. Economic efficiency: average estimation of world educational systems shows, that distance education is 50% cheaper than traditional education forms. Experience of home distance education centres shows, that their expenses on specialist preparation are approximately 60% lower than the expenses on specialists preparation according to usual form.

In addition to principles of distance education, the important component is determination of contingent. Potential consumers of the distance education system are:

- specialists, who already have education and care about raise of its qualification, to get new knowledge or to get second education;
- vast consumers contingent of traditional education system due to impossibility to combine studies with work;
- persons, who serve in the army now, and officers transferred to the reserve;
- persons, who have the medical limitations for getting of regular education in stationary conditions;
- persons, who want to get education in foreign educational institution;
- foreign citizens, who want to get education in Ukraine, but not have possibilities to arrive for studies on diverse causes;
- talented individuals, who press towards additional knowledge, second parallel education, to pass the educational program in undertime;
- different categories of specialists , who need retraining and raising the level of own's skill, in particular, teachers of different educational institution;
- persons, who want to do special educational programs, which consist of courses from different educational institution including educational institution from wide range of foreign countries;

3. POSSIBILITY AND NECESSITY OF DISTANCE EDUCATION SYSTEM

At present time there are following views on possibility and necessity of distance education system

1. New requirements to education (in particular, availability, not high teaching cost, limitations at teaching times, etc.);

2. Limitation capacity of institute of higher education, faculties of raising the level of skills and other types of education institution;

3. Rising number of people who want to get a higher education due to rise of education prestige and necessity retraining of servicemen transfered to the reserve, specialist of military-industrial establishment and other persons;

4. Appearance and development of new funds of information technologies and brightly expressed society informatization process;

5. Reinforcement of international integration etc.

These arguments are external and, certainly, do not fully reflect a necessity and possibility creation of teaching system in telecommunication computer educational environment. Basic cause of raised attention to this teaching system is possibility abrupt increase of volume of educational services without considerable explicit costs on development of regional teaching centers.

4. COMPETITION ADVANTAGES USING DISTANCE EDUCATION SYSTEM

In conditions of hard competition on market of educational services it is vitally important to raise quality of educational process together with lowering of explicit costs for any educational institution. Besides, a knowledge acquisition process has to pass in the most comfortable form for student. It is practically impossible to reach this using traditional methods. In this paper we want to consider technology of construction information system for realization of distance education project. Prototype of distance educational system of ICIT TANE is shows in figure 1.

Educational institution obtains a wide range of competition advantages using a system of distance education[4]:

- increasing of potential students;
- reducing of expenditures for salary of teachers;
- possibility reducing of educational areas and expenses with them concerning;

- increasing of education quality;
- reducing of expenses on library fund;
- possibility of organization of comfortable sessions schedule, final examination and passing of graduation thesis, etc.;
- possibility to attract specialists of higher qualification to educational process.

Student get a better knowledge and in greater volume using distance teaching scheme. He has a possibility to get knowledge in comfortable form using comfortable schedule. Expenses are considerably reduced for getting to the place of education and for accommodation during examinations. Besides, such scheme has the unrestricted possibilities to get a different specialization. Corporate clients have interest to the distance education systems too. Companies can save money on unpaid leave when many of company's employees get the education using distance education system.

Today we can see increasing of retraining and raising the level of skill segment. In nearest time this will considerably raise a necessity of knowledge acquisition using distance education systems.

Reduction of computer prices and increasing quality of telecommunication systems allow approaching a cost of distance education to cost of instruction by correspondence.

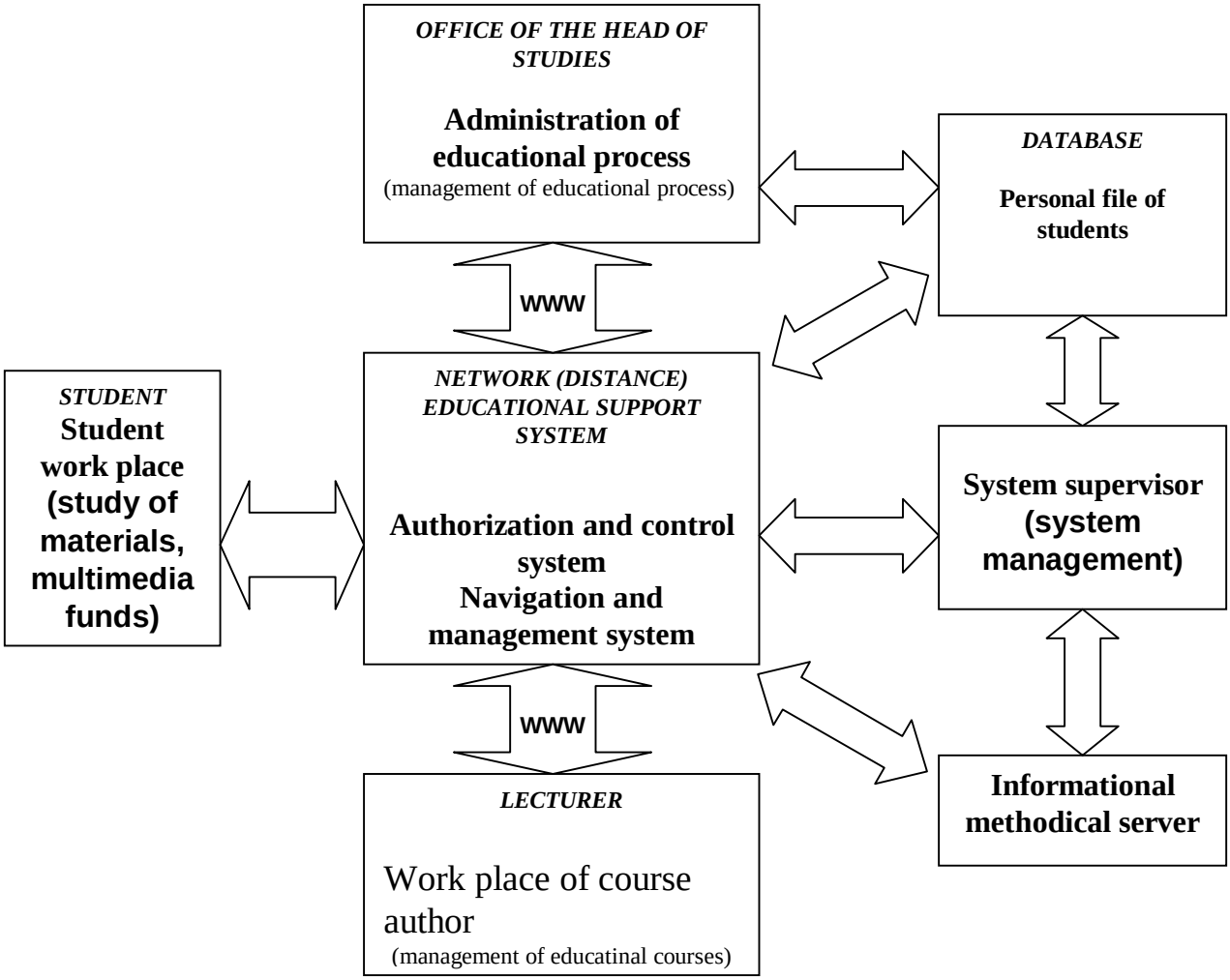

Fig.1 - Prototype of distance educational system of ICIT TANE.

Proposed automated teaching system allows to organize distance education and include the electronic textbooks, computer testing and knowledge control, newest multimedia funds and etc. The following basic functional possibilities is assume in this system as a basis:

- realization of all of accessible teaching algorithms;
- knowledge control;

- realization expertly-consulting procedure;
- interactive composition of educational programs with help elements and etc.

Essential advantage of represented system is making intellectual of computer funds, detailed and developed reflection of studied domain, deviation from hard management of cognitive activity. With all this going on the organizational limits of using computer to teaching stay former - a computer is the teacher helper for organize of individual cognitive activity.

5. CONCLUSION

To total, we can say, that the distance education:

- will give an opportunity to have education, not abandoning an inhabitation place and during production activity;
- will provide a wide access to native and world educational resources;
- will give an opportunity to get the education for decision of diverse vital tasks and for any level of elementary education and skills;
- will give an opportunity to organize the self-education process using most effective method for person and getting all of necessary self-education funds;
- will give an opportunity to interrupt and to continue education process according to individual possibilities and wants;
- considerably extends a peoples circle, who have access to all types of educational resources without age limitations;
- reduces educational expenses due to wide availability of educational resources[5];
- allows to form the unique educational programs due to the combining of educational institution's courses;
- allows to raise a level of society educational potential and education qualities;
- satisfies the requirements of the country in qualitatively prepared specialists and skilled workers;
- raises a social and professional mobility of population, his entrepreneurial spirit and social activity, mental outlook and consciousness level;
- is instrumental of knowledge increase accumulated by native educational system.

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