

# Problems of Distance Learning Development in Ukraine

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## INTRODUCTION

Distance learning hasn't yet reached the quality of traditional education. However, there is no alternative to the processes of informatization and globalization in the world education. Informatization and globalization are just identified with the system of distance learning.

At present the system of distance learning is in the process of formation. At The National Technical University "KPI", Kievo-Mogilyanskaya Academy, "Lvov Polytechnick", The Inter-Regional Academy of Personnel Management, The National Technical University "KhPI" and some other universities the base of distance learning has been created.

However, there are some of problems, which hold up the development of distance learning. To make a comparison with distance learning we will bear in mind the most widespread scheme of distance learning based on Internet resources use.

## PSYCHOLOGICAL PROBLEMS OF DISTANCE LEARNING

### *The problems found*

- **Lack of visual and audio contact.** Results in losing the significant part of training information. Nonverbal part of information is missing, and such the process of perceived matter correction is hampered and the time for studying each topic is increased.
- **Anonymity of work and communication by means of Internet.** It avoids the number of communication barriers, which are conveyed by the appearance of a student or a teacher.

### *The ways of development suggested to overcome the problems under consideration*

The use of Web-cameras or appliances for videoconference communications through Internet of Polycom type for corporate consulting centers.

The use of appliances for videoconference communication and the systems of personality identification.

- **Necessity of working experience with the latest informational systems.** The interaction with some training programs interface, operation and the development of thinking must proceed under ecologically artificial key-display environment using the key-motor intelligence. The analysis has shown that some training programs create an artificial barrier for the students who have little working experience with various computer programs.
- **Language barrier.** Potential opportunity to distantly study the course at one's own option represented at any university of the world appeals to our students. However the interfaces of the majority of distance learning programs have one language, more rarely - two, and the translations suffer from their imperfection. The training programs that are used in many countries of the world with the Ukrainian interface, we haven't found (fig. 1). The Ukrainian students can work in the Russian and Ukrainian languages with confidence.

To make overcoming this barrier easier we need to develop interfaces of new generation. Presently the personality formation arises with new types of features— computer cooperativity and telecommunicativity due to which the computer technique will be taken as natural and necessary technical facility of education for future generations, in other words this barrier will lose its acuteness through natural development.

The creation of perfect auto translation systems and international training programs development.

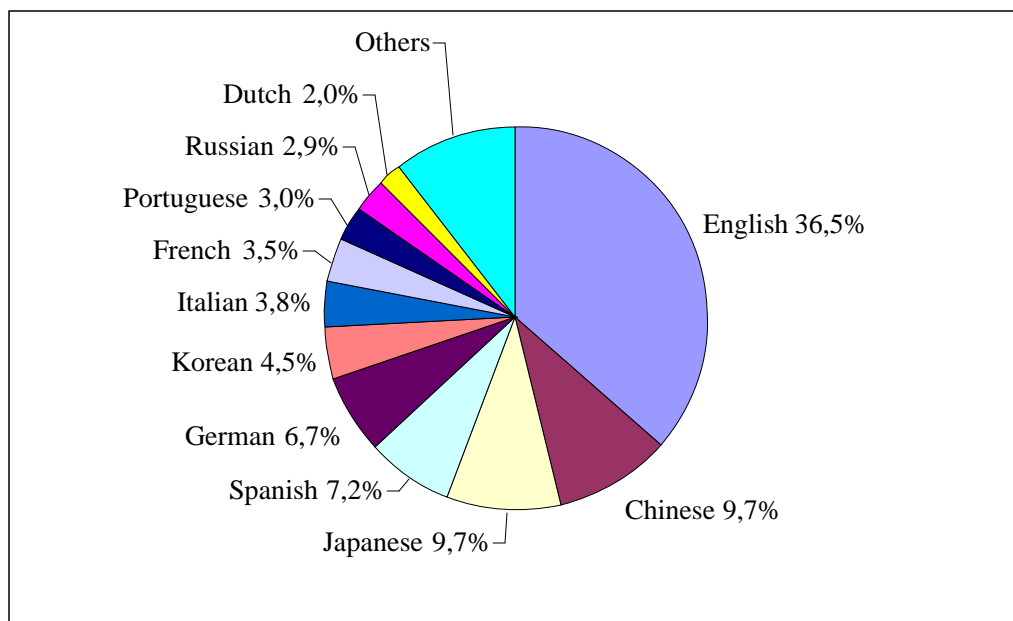


Fig.1. Language contents of Internet users based on Global Reach data for the end of 2002.

# TRAINING AIDS FOR DISTANCE LEARNING

## *The problems found*

- **Training aids quality.** In relation to electronic training aids there is no expertise system, like text - books in the form of books. The lack of unified standards and operative quality control over educational services to some extent resulted in devaluation of the idea for distance learning.
- **The structure for training programs knowledge system.** The educational aids available are not many-sided, and this doesn't allow to easily update them. The main part of programs has been created for specific subject fields, methodology of decision making for the tasks of this field only.
- **Adaptation of educational system level to the knowledge and skills of a student.** There is no problem in traditional educational methods but when speaking of distance learning it can be decisive for its attractiveness and the ability to be called of some or other training systems. The demands for realization of the "teacher's model" and the "student's model" were defined long ago, however the algorithms of "tailoring" the program to specific capabilities of a student haven't become widespread yet.
- **Maintenance of the remote training aids quality up to the level.** This problem is identified with the actualization of filling the remote control system. By the moment of putting these electronic facilities into operation in fast - developing fields of knowledge there arises the threat that their content will have already grown old as well as the ways of presentation.

## *The ways of development suggested to overcome the problems under consideration*

The application of unified standards to all subjects in various states. Taken for an example, in informational technologies study— Computer Curricula 2001: Computer Science.

Universal technological basis usage to build informational system of educational programs. According to the analysis carried out, it's more reasonable to use semantic networks to describe the problem fields.

Creation of adaptive adjustment of the contents of the training program system. The use of the multi-agent approach in the training programs.

The idea of the creation of systems is quite prospective here. The systems will be able to automatically form the subject filling of distance learning systems and control, and to regularly carry out the procedure of renewal. Presently this idea is being worked at. Some modern training courses have already included the procedure of searching some educational information in Internet as a component Formal basis for such procedures offers methodology KADS (Knowledge Acquisition and Documentation Structuring).

## LEGAL SECURITY AND THE COST OF EDUCATION

The fact of increasing number of remote training courses has brought up the problem of private interest security in educational space for universities. We can consider uncontrolled development of remote methods as interference in educational system of universities and the state on the whole. One should remember that all countries as well as of the European Unit have appropriate educational standards and there is the controlling system over these standards observation.

### *The problems found*

- **Readiness of regulatory base.** The regulatory base of distance learning in Ukraine has not been elaborated in full. The major documents are the laws of Ukraine “About education”, “About the national informatization program”, the decree of the President of Ukraine of 31.07.2000 # 928/2000 “About the measures towards developing the national component of the world wide net Internet and providing wide access to this net in Ukraine; the order of the Ministry of Education and science of Ukraine “About developing Ukrainian center of distance learning” of 07.07.2000 293, the order of the President of Ukraine of 17.04.2002 347 «About the national doctrine of educational development”, the resolution of The Supreme Soviet of Ukraine of 19.08.2002 1223 «About acknowledging the measures of realization of the National educational development doctrine for 2002 – 2004” and others. In these regulatory act has been defined the possibility to apply the methods of distance learning, worded their purposes and objectives, and determined their target group.
- **Copyrights for electronic training aids.** There is a law system in Ukraine regulating relations in the field of copyright. However, to date they are observed not in full. The result is the situation when the authors are not compensated for the developments and are not interested in developing these systems.
- **Educational services’ consumer protection.**

### *The ways of development suggested to overcome the problems under consideration*

The development of new regulatory acts for this problem. The law about distance learning and educational technologies in Ukraine is necessary to protect educational space, and to stimulate technologies of distance learning.

The development of regulatory acts controlling relations in the field of distance learning that must be completely harmonized to the legal system of other states in view of international character of distance learning.

- **The cost of distance learning.** Communicational costs clearing accounts for considerable part of expenses in distance learning. For example we can point out that the cost to send 1 Mb in the conditions of Kharkiv is \$0,06 to \$0,12; at dial access they are more likely to take payment for time within \$0,38 to \$0,75 per hour of work (average monthly wages within Ukraine is some \$100 a month).

The number of Internet providers in Ukraine is growing and there is a trend toward decreasing cost for access to the net. This is most likely to affect the popularity of distance learning methods.

## CONCEPTUAL FUNDAMENTALS OF COMPLEX AUTOMATION OF INFORMATIONAL PROCESSES IN EDUCATION

An independent subsystem of knowledge control is necessary to the system of distance learning. The objective of the subsystem of knowledge control is realization of feedback that is destined to:

- assess the extent of mastering the information of study;
- develop operating influences for individual control over the educational process;
- optimize training schedule of the specialty under which the students are trained.

One of the most complicated functions of a teacher is to objectively assess the knowledge of a student, and in distance learning it is a function of the computer program. In view of the fact that interaction through Internet is symbolic so the feedback must have a specific function, aimed at checking the adequacy of perception by a student of the content of educational subjects.

On the whole this problem must be considered as the problem of control over cognitive activity quality.

The assess of mastering level of the educational subjects and developing some operating effects for individual management is brought to the monitoring of the students' knowledge and application of controlling effects on inclinations in the level of knowledge found.

According to the informational model of educational process, its model of optimization is considered to be a rational formation of the content of educational subjects. Informational model of educational process is a hierarchical structure containing several levels: requirements to the qualification – skills – knowledge – training discipline – problems (fig.2).

The skills lay the foundation to qualification characteristic; each of them identifies the set of essential knowledge, which can be based on the knowledge of different fields of science. At the same time each field of science can provide the knowledge to form several skills.

The range of disciplines and a number of components of the knowledge involved form the ground level of the educational process macro-model. The detailed elaboration of each discipline to the level of separate educational problems enables to create a hierarchical model of a training discipline, which can be used to settle the question of including some or other fragments of knowledge into the training course program of one or another discipline. It simplifies the development of typical and base training programs.

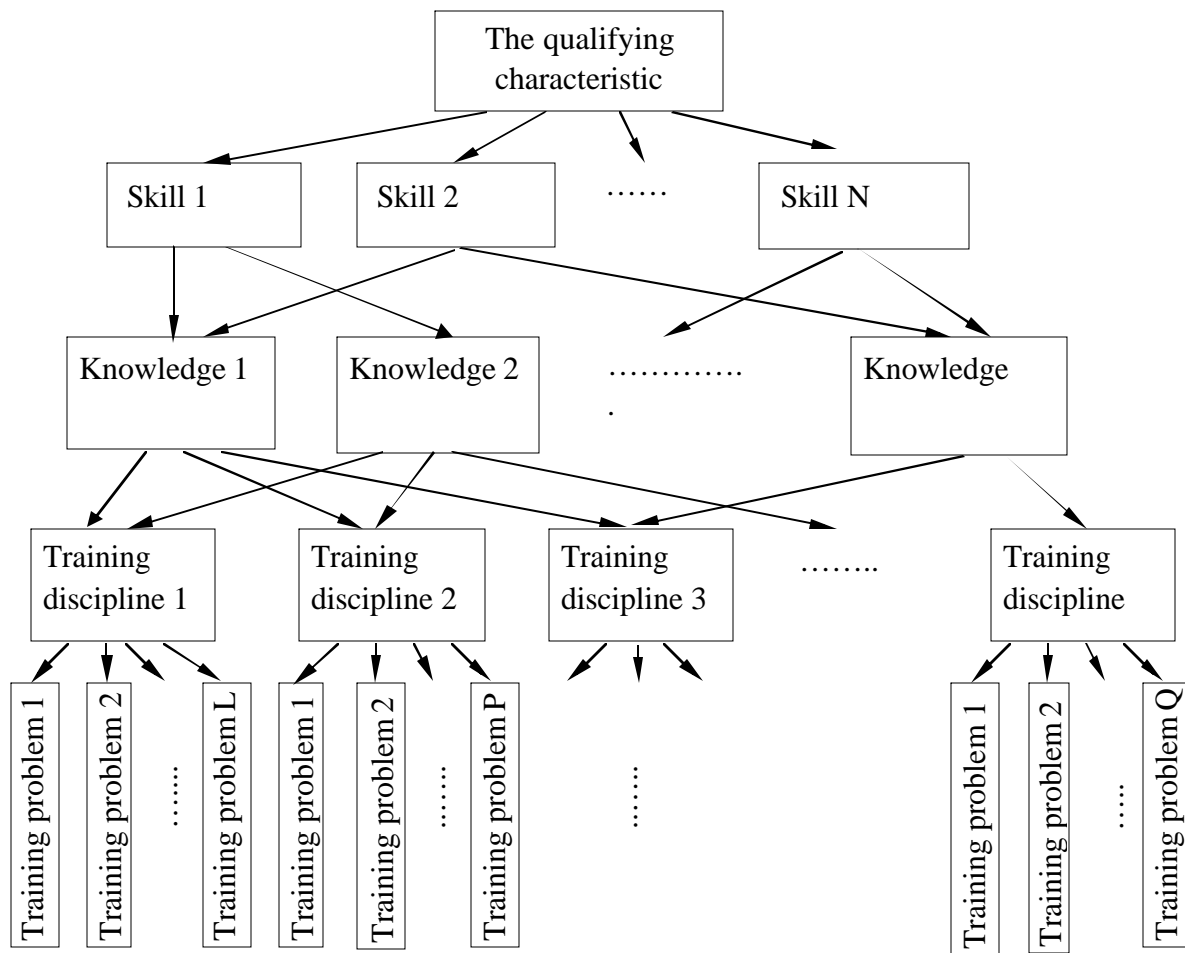


Fig. 2. Hierarchical structure of the educational process up to the level of training disciplines and problems.

## CONTINUOUS EDUCATION

### *The problems found*

- **Ageing of knowledge.** Knowledge grows old continuously and as time goes by some professions disappear. People must be taught new things.
- **The necessity to increase places in universities.**

### *The ways of development suggested to overcome the problems under consideration*

There is a possibility to automatically settle this problem by means of distance learning.

Aggressive development of distance learning enables to settle this problem.

- **Receiving professionally oriented high education.** Together with theoretical training the students must pass some of practical training – familiarizing, computing, practical and others. It allows to gain professional practical skills.

By means of distance learning it can be partly realized in computer models, but in general it is unreal.

## CONCLUSION

In spite of the problems, which, as we consider, occur in the process of distance learning of Ukraine, the distance learning has indisputable advantages. They are:

- exterritoriality of education, independence of a student's place of location and educational system,
- individuality of education determined by adaptive schemes of the system operation and is potentially provided with high quality education,
- the opportunity to attract the best teachers,
- wide access to education for invalids,
- continuity and informality of education,
- the possibilities for exporting one's technologies and systems to other countries and some others.

At the same time one should point out that presently distance learning can't replace classical education, which also settles the problems of socialization of the personality. Teaching working experience with the use of computer training systems has shown that the training programs can't completely replace a teacher working with his students in a creative way, they only must assist him. We should also emphasize the limitation of distance learning methods by the sciences, which don't require application of experimental equipment and technologies.

So at this stage of distance learning development it's inexpedient to oppose it to traditional forms of education.

And in conclusion, there is a change of educational paradigm in international education, explanatory-illustrative training is replaced by actively - perceptive independent activity. Distance learning in the best way possible corresponds this activity. In our century the advantages of distance learning will become decisive.

The ways of settling some of the problems of distance learning are reported here and the authors will appreciate all who will tell his point of view on the questions discussed.