

UDC 004:37

***THE INSTITUTIONAL FOUNDATIONS OF DISTANCE LEARNING
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The results of pilot projects aimed at implementation of distance learning (e-learning) technologies in higher education on the example of the Lviv Academy of Commercial (LAC) are considered. They are based on information and communication technologies. The paths of institutional support for distance education technology, providing including reducing the uncertainty in the behavior of teachers in the development and implementation of distance learning courses, regulating their activities in some way are proposed.

Keywords: *e-learning, institutional support for distance learning technologies, distance learning courses.*

Introduction

The implementation of information and communication technologies (ICT) in Universities is one of the most important precondition in the development process towards the international standards.

Nowadays, the quality of schooling in Universities is conditioned by capabilities and skills to use ICT for getting new knowledge and realization the modern leading principles, such as “education for all” and “lifelong learning”.

In confirmation of this the best suits the phrase of John Chambers, the head of corporation Cisco Systems, the best innovator and business leader in 2009 (Silicon Valley Foundation): “In our lives, there are only two main tools of economic equalization: internet and education” [1].

So, the actual questions to be answered are: which topics and courses must be examined to enhance the efficiency and provide the adequate knowledge in modeling of new approaches and programs for schooling and re-qualification (including not only students, but the tutors in Universities too) during the whole life? The paper out-line the key position of innovations and e-learning, based on ICT and distance-learning technologies.

In Ukraine such an approach is basing on numerous official documents, which foresee forming of system and centers for providing the distance learning [2], accomplishing the Government program “Information and Communication Technologies in Education and Science” [3].

It's obvious that each changes (in the field of science too) are taking place in certain institutional environment. In the theory of institutional economy the problem of definitions is present. The most popular is D. Norton's determination, which gives the next explanation of institutions: “Institutions are the rules of the game in society or, rather, invented limits, which turn human interaction towards the well structured direction in political, social or economic areas”

The changes in rules of the game differ one social-economic system from another. Institutions decrease uncertainty in human and companies behavior, regulating their activity. They identify options for the behavior of any agents in the process of their interaction, limiting them by established regulations and unwritten rules. Thus, institutions "consist of formal written rules, and, of course, unwritten codes of conduct that underlie the supplement of formal rules [4].

Analysis of institutional support for implementation of distance learning technologies in Ukrainian universities [2, 5-11] shows the following: there is a number of problems in this area that require immediate resolution. This, above all, improving the regulatory framework: standardization of the teaching staff during the creation and usage of distance learning courses (DC), certification of students whose learning is based on e-learning technologies etc.

Currently, in accordance with Regulations [2] the directors of Universities make decision by themselves about the entry of the University into the system of distant learning (SDL) and provide:

- required steps which enable Universities to conduct distance learning (DL) for selected subjects;
- staff training to implement distance learning;
- submission of the certification unit, developed by the institution;
- scientific guidance and logistical support of the DL;
- quality control by the decision of experts' commission.

The purpose of this paper is to represent the experience, gained during the pilot projects, aimed to implement e-Learning technologies in Lviv Academy of Commerce (LAC), highlighting the testing results of these projects.

Approaches to Institutional Support for Distance Learning Educational Technologies in LAC

The distance learning center – Web-Center LAC [12] – is working on basics of the UNESCO's branch department "New Information Technologies in Education for All", and subdivision of the International Scientific Centre of Information Technologies and Systems National Academy of Science and Ministry of Science and Education of Ukraine. Web-center LAC is based on such a Learning Management Systems (LMS), as MOODLE – Modular Object Oriented Distance Learning. It is distributed as Open Source-project, and has the following characteristics:

- based on philosophy of pedagogy and social constructivism theory of progressive educational measurement;
- suitable for remote and for full-time study;
- has "easy", efficient, compliant Web interface;
- simple installation on any platform that supports PHP, needs only one database;
- supports databases like MySQL, PostgreSQL, Oracle and others.

There are different organizational models of distance learning in educational activities of the Web-Center LAC. The classification of these models is presented in an analytical study conducted by UNESCO Institute [13].

Educational services in the Web-Center LAC provides by the design model of distance learning. This model is used usually for projects within the public educational or research programs. In this model the key role is played by scientific center, where qualified personnel develop distance learning technologies and courses. Distance learning courses are created in this center, broadcast on a certain audience or those of other universities. Training is temporary and stops when the project is completed so that fulfilled its purpose.

Organizing the implementation of DL in LAC expected under the project, currently consists of three sub-projects:

- Development and implementation of the departments' learning environment for students' independent work supported by PC (2004-2005);
- Development of modern information and communication technologies and development of educational activities LAC (2005-2006);
- Development of distance education technologies courses, support and expand the functions of Web-Center LAC (2007-2008).

The main results of design models of DL in LAC:

- the Web-Center LAC developed approaches to adapt the system to Moodle running Linux;
- Web-Center has developed three DC and new methods to provide courses and seminars for training teachers and staff in LAC;
- set up two banks of DC, certified by branch of the UNESCO: 1) masters and specialist of "Economic Cybernetics" (over 70% of subjects qualification level), 2) prototype of DCs for seminar participants;

- conducted approbation of distance education technology for the Bachelors and Masters in Economic Cybernetics;
- the proposals on the promotion and regulation of teachers work in the creation and implementation of distance learning courses are conducted.

Also Web-Center LAC developed the following legal instruments for institutional support of distance education technology:

- The introduction of distance learning in the LAC.
- Regulations of ownership and copyright protection in the field of DL at LAC.
- the recognition of information resources LMS LAC and their elements as teaching works.
- Approaches to the standardization of work at the faculties in the creation and use of distance learning courses.
- Regulation of students' assessment enrolled at LAC-based distance education technology.
- Regulations of uniform course requirements, which are placed in the Web-Center LAC.
- Provision of expert committee on distance education in the Academy.
- Regulations on Distance Learning Center LAC.
- Regulations on students' re-education in the Academy with a degree in "Economic Cybernetics".

It's important to emphasize that given the legal documents provide for reducing the uncertainty in the behavior of teachers in the development and implementation of distance learning courses, regulating their activities in some way. In fact, the proposed regulatory documents defining the options of the agents' of online education behavior and limit them in the process of interaction. Some of the documents mentioned are temporary only for a period of adoption of state standards.

Fig. 1 is a general scheme structure of SDL in Academy.

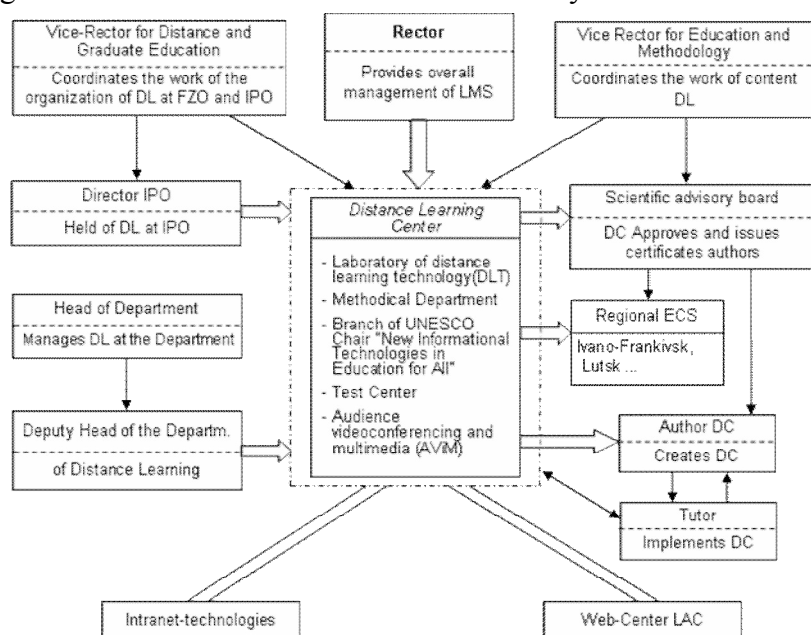


Fig. 1. Shem of organizational structure of the SDL LAC

Fig. 1 recalls “transformer”, which has a head, torso, arms and legs. Left hand formulate the problem (or task), a process which occurs in *Distance Learning Center*. Right hand represents the solutions to improve the quality of education based on the introduction of distance education technology.

Besides the important role played by DLS staffing. This problem can be solved on the basis of distance training seminar and work in a Web-LAC center aimed at training teachers and staff of the academy.

Fig. 2 shows the technology support interaction among participants of distance learning courses in Web-Center LAC. This figure shows that the basic units of LMS should primarily serve as the organizational and scientific methods of learning, not only do the system house and logistical support.

Lets also note, that in presented support technology, important role belongs to the expert commission, which determines the accordance of distance learning courses due to created standardized requirements.

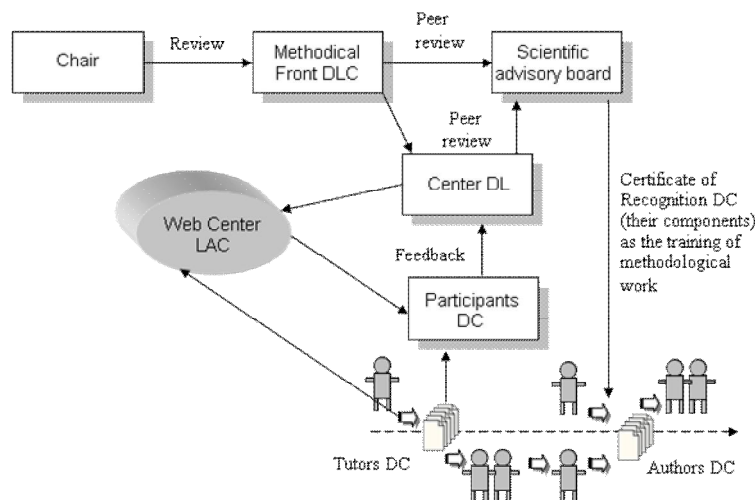


Fig. 2. Technology support and communication interactions of participants of distance learning

Expert evaluation unit can be used to create a bank certified Academy distance learning courses and motivations of their authors.

Conclusions

Coming up with summaries and generalization of material, it's possible to conclude the next statements:

1. Distance learning is an innovation, which demand scientific researches in the sphere of ICT and readiness of tutors and students for the process of implementation distance form of learning, purchasing it on the market of education service. Forming the system of distance learning in Universities must include the limits, provided by the results of monitoring, including ICT's development and society's readiness for adaptation distance learning.
2. The professional trainings can be provided by the Web-Center in Lviv Academy of Commerce (LAC) during complex of seminar and practical trainings. After finishing, the participant will be able to model and support the distance learning programmers in the system Moodle, know how to use all the required tools.
3. The organization and the development of distance learning courses demand the clear mechanism of standardization and motivation of scientific and technical work of the teaching staff, at the same time protecting their copyrights, while forming certified materials and distance learning courses.

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