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EDUCATIONAL RESOURCES OF THE MODERN UNIVERSITY

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ABSTRACT

The modern state of education is characterized by increased requirements for the quality of training specialists, which means the constant search for new methods and tools for improving the efficiency of the educational process. Improvement of education and increase of its quality are ensured by use of the latest technologies.

The article is devoted to the description of the functioning of the e-learning system of the modern university. The educational resources of the Sumy State University are considered: the "Salamstein" automated system of distance learning, the designer for the creation of educational materials Lectur.ED, the platform for mass open online courses "Examinarium", the platform for blended learning Mix, opened by the educational resource of the OCW SSU, on-line studio, institutional repository, electronic catalogue of the library. All these environments are interconnected. The integration of electronic materials into the educational process confirms their effectiveness.

Introduction. The rapid development of information and communication technologies, socio-technological aspects of human life changes the surrounding world, affects the state of education, science and technology. Gadgets, computers, the Internet – these words are now familiar to almost every person. More and more educational institutions use educational technologies in their educational activities, improve the infrastructure of informational educational space for improving the quality of higher education, preparing the younger generation to live in a new way, be able to work not only in the information society, but by UNESCO's definition in the "knowledge society" [1]. The whole paradigm of education is changing, which is now based on the principles of accessibility, openness and continuity [2].

The amount of information that comes to the individual through virtual communications is many times greater than the amount of information coming within the limits of natural communication. The whole technology of obtaining information and working with it is changing. Along with globalization, individualization is developing, which more and more encourages an individual to go into a virtual world that is equipped with technological resources. Today, without leaving home, you can order the necessary food products, hygiene,

clothes, books, and, with the help of a telephone or the Internet, to coordinate the necessary changes or additions in both the jointly developed projects and the necessary household items. That is, practically without natural communication, which turns out to be involved only at the last moment, at the moment of delivery of a product, a person can provide himself with all the necessary goods for his life, and at the same time his full functioning in society is possible. Thus, an individual becomes more and more involved in various virtual communications and increasingly depends on them.

An important place in the educational process is the use of electronic teaching materials. Universities use different e-learning resources (ELR) to create and host them. ELR is an important tool in the educational process, has a teaching and methodical purpose and is used to provide educational activities for students, pupils and is considered to be one of the main elements of the informational and educational environment [3]. Therefore, the study of possible types of educational services is a topical issue.

Research results. The necessary component of modern university is the presence in every individual of the education the necessary tools for communication, not only within the audience, but also in a single information environment for the placement of teaching

materials and interaction with them, management of the learning process [4]. Learning environments for disposing electronic materials may include: a platform for distance learning, a platform for blended learning, a platform for posting mass open online courses, open educational resources, an institutional repository, an electronic catalogue, etc.

The functioning of the university system of e-learning SSU is provided by a set of such software and information environments:

- the automated distance learning system;
- the designer of teaching materials;
- the platform for mass open online courses "Examinarium";
- the platform for blended learning;
- the open educational resource of the OCW of the SSU;
- the institutional repository;
- the electronic library catalogue.

In addition to their own teaching resources are also widely used and external [4].

Let's observe each component of the SSU e-learning system.

There is a large number of distance learning platforms, the most well-known of which are Blackboard, Moodle, eLearning Server 3000, Web Course Tools, ATutor, Claroline, Dokeos, LAMS, OLAT, Open ACS, Sakai, Acollab, Colloquia, COSE, DodeboLMS, ELEDGE, Ganessa, ILIAS, LON-CAPA, LRN, Open Cartable, Open LMS, SAKAI, The Manhattan Virtual Classroom. Sumy State University uses the self-developed platform "Salamstein" (<http://dl.sumdu.edu.ua/>) for distance learning, which integrates with the virtual learning environment and contains the following components:

- content management system;
- on-line editor for the creation of materials for distance courses "Salamstein Studio";
- training management system;
- virtual learning environment;
- other additional modules designed to provide a comprehensive solution for organizing distance learning at the university.

Educational and methodical materials of distance learning forms are created by teachers and presented in the form of educational objects.

The educational object in the distance learning course is a software product or resource that envisages cooperation with a student. This object implements a clearly defined learning goal and has a form of presentation.

Interaction of subjects of study with educational objects can be carried out synchronously or asynchronously, individually or collectively depending on the type of educational objects.

Educational objects can be presented in text, graphic, video and audio formats [5].

Educational objects, depending on the type, are intended for studying theoretical material, contraction of practical skills and abilities, knowledge control (fig. 1).

The medium Lectur.ED (<http://elearning.sumdu.edu.ua/>) is a designer of educational and methodical materials. This is a free web service that anyone can register oneself. You need an email to register. The Lectur.ED is actually the central link that connects the university's educational resources. The materials are created here and the teacher plans to place them in the open access on the OCW SSU, on the Mix platform and the resource "Examinarium". It allows you to use external resources, as well as books, articles, guidelines, etc., which are located in the institutional repository or electronic catalogue. Educational and methodical materials created with the help of a designer are easily imported into the distance learning platform. They will be available to students after publishing according to automatically generated reference. Detailed work on the Lectur.ED environment is described in [6, 7].

The first Open Course Ware SSU ("OCW-SSU") was created in 2014. OCW-SSU is located at: <http://ocw.sumdu.edu.ua>.

The main tasks of the OCW-SSD are systematization, structuring and presentation in the web-space of educational and methodical provision of disciplines, improving the quality of educational content through the principles of open access to them.

OCW-SSU allows a flexible search for educational and methodical materials according to different parameters: by the name of the discipline, key terms, language of materials, types of materials, etc. [8].

Educational resource "Examinarium" (<http://examenarium.sumdu.edu.ua/>) is an automated system providing independent registration of users and independent recording on accessible mass open online courses or programs. All registered students in the "Examinarium" environment, starting in 2016, received free access to academic, popular science disciplines, etc. Academic courses for free access in the areas of Economics, Marketing, Management, Law, Finance, Banking and Insurance are placed here. The listener does not choose a separate academic course, but the entire direction of preparation. After successful study of the course, each student will receive a free certificate. The results of the training on the open online courses "Examinarium" can be given future students of the SSU after the admission[9].

The structure of the distance course	Notes
Organizational part	
- Introduction	
- Purpose and tasks	
- The algorithm of working with the course	
- Information about the author	
- List of literature to the course	
Module 1	
Topic 1	
- The content of the topic	
- Key terms	
- Theoretical material to the topic 1	
- Brief note to the topic 1	
- Videlectures	
- Presentations	
- Multimedia demonstrations	if necessary
- Conclusions	
- Questions for self-examination	
▪ Test to the topic 1	
▪ Interactive practical assignment to the topic 1	
▪ Practical task to the topic 1	
▪ Tasks for discussions and considerations	possible types of tasks
▪ Tasks for collaboration	
▪ Laboratory research	
▪ List of literature to the topic 1	if necessary
Topic 2	
...	
List of literature to module 1	if necessary
Module 2	
Topic 3	
Topic 4	
...	
Module N - Individual tasks	
Setting tasks	if necessary
compulsory Individual Tasks	
Methodical instructions for accomplishment	
Glossary	is formed automatically
Final knowledge control	
Final Discipline Test	is formed automatically
Complete set of tasks for final control	if necessary

Fig. 1. The course structure

MiX (<http://mix.sumdu.edu.ua/>) is a computerized environment used by teachers for full-time and part-time students. This educational resource involves the independent registration of users. It provides communication between teachers and students and has a simple, intuitively understanding interface. The teacher has the opportunity to get a complete report on the student's entry into the environment and his

work on the training facilities and to assess the student's academic achievement.

The online studio was created in 2010. It allows you to record video tutorials, audio materials, video conferencing, online tutorials and classes, and provides the ability to use a virtual touch panel.

Up to 4 teachers can work in the studio at the same time. Each workplace is sound-proof [4].



Fig. 2.

eSSUIR - (Electronic Sumy State University Institutional Repository) is an institutional repository of the Sumy State University that collects, stores, distributes and provides long-term, permanent and reliable access to academic research by professors' and teachers' staff, assistant-workers and university students. It has been in operation since January 2011. The institutional repository is a resource of open access, located on the server of the educational institution on the Internet and accessible from any place and at any time. In July 2016, the number of publications in the archive amounted to more than 44 thousand, and the number of downloads reached more than 10 million from 140 countries.

Opening scientific, scientific-popular, educational methodical literature to all interested persons became possible thanks to the worldwide movement of Open Access. The basic principles of open access to scientific knowledge are formulated in the following documents: the Budapest Open Access Initiative, adopted by the Open Society Institute; Berlin Declaration on Open Access to Science and Humanities [10].

The electronic repository of Sumy State University has taken the first position in Ukraine among similar electronic resources of scientific

publications according to the results of the July 2016 ranking of Webing Repositories from Webometrics.

In the overall world ranking SSU repository ranks 315 out of more than 2 thousand applicants [11].

The electronic catalogue of the library of the Sumy State University is located at the link <http://lib.sumdu.edu.ua/library/DocSearchForm> and allows you to search literature by author, title, year edition, language, title of discipline, availability of the electronic version and so on. The reader can order literature online and get it in the library without a queue. Electronic editions of the Sumy State University are the intellectual property of the University and are placed in the free access to the Library's electronic catalogue in accordance with the following normative base.

Learning with the use of electronic educational resources integrates different methods and forms of the educational process and provides them with a qualitatively new level.

Conclusions. The information society puts forward new requirements for the system of education. The use of educational resources in teaching activities contributes to raising the level of understanding of the material, expands access to the study of discipline 24 hours a day, gives a chance to study at an individual pace, stimulates students to perform tasks in time, develop their ability to self-education. All this advantages contribute to the training of highly skilled, competitive, competent specialists capable of effective professional activities.

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