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**APPLICATION OF INFORMATION TECHNOLOGY IN TEACHING
ECONOMIC DISCIPLINES**

Modern society, in which information is becoming a valuable social resource, needs highly qualified professionals who can effectively use information technology in their work place. Economy, business, and administration require not only special economic knowledge, but also information technology skills and facilities. Modern national economy needs highly qualified computer users, as well as specialists able to use the newest software to manage economic processes. These are economic professionals who can analyze economic phenomena and tasks, conduct information analysis support of business projects, plan, develop, organize, and manage projects of informatization of social and economic facilities of different levels.

Modern science pays close attention to the implementation of information technology into the educational process. Many scientists devote their research to the use of information technology in education, such as: R. Gurevych, A. Yershov, Y. Mashbyts, O. Maiboroda, V. Monakhov, O. Spivakovsky, P. Stefanenko, O. Filatov et al. These authors focused on the ways of increasing the efficiency of the organization of the educational process when using computer technology in teaching. Design and implementation of computer teaching media were addressed by M. Zhaldak, Y. Zhuk, V. Kukharenko, E. Smyrnova-Trybulska, N. Ahatova, A. Verlan, M. Holovan, A. Hurzhy, Y. Doroshenko et al. These scholars analyzed ways of educational application of innovative information technology, as well as examined individual teaching/learning software products.

Rapid development of economic education brought the issue of quality assurance in teaching economic disciplines in Ukrainian higher educational institutions to the fore. Due to the fact that education in Ukraine is built according to

the standards of integration into the European educational space, higher educational institutions train specialists not only to satisfy the needs of its own country, but also according to the requirements of foreign countries. Therefore, competitiveness of the country's prospective professionals, especially the quality of professional training in the sphere of economics and business, is of topical significance today.

The objective of the article is to analyze the current situation and prospects of application of information technology in teaching economic disciplines, to reveal rationale behind the use of distance learning.

In information and innovation economy, competitive advantages are closely associated with the use of modern information technology.

Achievements in telecommunications, including the development and broad use of the Internet, dictate the urgency of introducing information and communication technology into education.

The Law of Ukraine "On Conceptual Framework of Information Society Development in Ukraine in 2007 – 2015" declares that Ukraine trains and has the benefit of a large number of highly skilled information technology professionals; the country constantly increases the amount of and updates computer equipment, modern systems and means of telecommunication; its banking system is characterized by a high level of informatization. These prerequisites give reason to believe that domestic information technology market is in the stage of active development and, under certain conditions, it can become the foundation for the development of the information society in Ukraine [3].

The Law of Ukraine "On Information Sovereignty and Information Security of Ukraine" states that information technology is materialized on the basis of information infrastructure types, ways, and methods of application of the technical media that is designed for the creation, accumulation, storage, dissemination, and use of information [4].

L. Dybkova defines information technology as a complex of united into a technological chain methods and soft- and hardware facilities that provide accumulation, processing, storage, dissemination, and presentation of information for

the purpose of accelerating the use of information resources and increasing their reliability and efficiency [2, p. 10].

V. Monakhov notes that the notion of "new teaching information technology" emerged along with the informatization of society. It describes a complex of teaching and methodological materials, computer technology, methods and organizational forms of delivery, as well as a system of scientific knowledge about the role and place of computer technology in the educational process, forms and ways of its application to increase the effectiveness of teaching and learning. Information technology in education is a powerful way to enhance learning outcomes, which will resolve many urgent and pedagogical problems and ensure effective management of the educational process. New technologies are the tools that will allow teachers to change the nature of the methods of their work, properly develop students' individual potential, enhance cross-curricular approach and differentiation of education, systematically update the organization of the educational process [4 p. 47].

O. Spivakovsky believes that use of modern information technology in education:

- helps discover, nurture, and develop students' individual potential;
- enhances the formation of students' cognitive interests, shapes the tendency toward self-improvement and self-realization;
- assures integral study of real-life phenomena, uninterrupted connection of earth sciences, engineering, humanities, and the art; and
- constant dynamic updating of content, media, forms, and methods of education.

I. Balyahina, M. Bohorad, and H. Koval'chuk emphasize that "traditional system of education can provide only general orientation in the field of study, but it fails to ensure the formation of the high level of knowledge" [1, p. 183].

It was for the training of specialists in economics, that information and communication technology was implemented into the educational process in Ukraine. Economic curricula aim at the formation of the advanced knowledge of modern information technology, mathematical modeling and analysis, as well as the fundamental knowledge of economics.

The areas of expertise of economic professionals are the following:

- collection, systemization, and analysis of information on the management of any economic entity;
- analysis of production and economic operations, channels of communication among administrative, operational, and other processes;
- information analysis support of business projects;
- organization of and control over the operations of the information system in all stages of technological process of information processing;
- design of the technological process of collection, processing, storage, and transmission of information;
- creation, use, and adjustment of databases;
- spreadsheet and word data processing.

It appears that, in the context of the innovative society formation, the functional features of education are not only its ability to provide students with accumulated in previous years knowledge and skills, but also the ability to perceive and use new scientific ideas, technical tools and methods of production, to develop innovative abilities, initiative, and entrepreneurial spirit in the students.

Therefore, the task of modern economic education is not only to give theoretical knowledge, but also to prepare new generation professionals and to bring education closer to practice. Educational information technology, business role-playing games and activities help achieve these ambitions [1, p. 264]. Undoubtedly, each instructor uses his/her special technique, but professionals trained with the help of information technology, interactive methods, and educational information technology become more confident and experienced economists or accountants, who are not taken aback facing unconventional professional problems. Teaching accounting disciplines has its own specificity, which depends on the rapidly changing tax accounting or accounting legislation. But the transition to the education according to the Bologna Declaration requires that professors review their methods, because the quality of prospective economists' training determines how stably, rapidly the economy of our country will recover and develop in the future.

Methods of teaching economic disciplines in higher educational establishments are based on classical and innovative approaches to the students' educational and cognitive activity and are being constantly improved under the influence of the changes in economic and social processes in Ukraine. Presently, methods of teaching in the universities not only deepen and intensify the students' cognition of real life phenomena, but also focus on their humanistic content, technological components, and structural elements.

University education is to ensure the development of students' systems thinking, awareness of the need to use information and communication technology in management and decision making, as well as in the study of complex economic phenomena and processes.

University faculty and staff face a challenging task: to teach prospective economists how to efficiently apply information and communication technology, its technical capacity, and software in the economic analysis using numerous social, technical and economic indicators, standard references, and other input data. It is also necessary to teach students to select software that would match the specific requirements of the problems to be resolved, realize the selected economic and mathematical methods, and, as a result of processing raw information, give, along with primary factors, a number of secondary ones that will facilitate the interpretation of the results.

Upon graduation, economic professionals must be able to implement the following main principles of providing effective information support to the economic analysis [9, p. 22]:

- identification of the information needs of the user;
- determination of the most effective ways to meet those needs;
- objectivity in representing business processes;
- concordance of information (unified documentation and bookkeeping, uniformity of planning data, avoidance of duplication);
- use of new technologies of a data bank formation on PC;

- development of different variants to solve problems on personal computer along with the determination of the necessary performance expectations and measures;
- comprehensive use of raw information.

Prospective economists obtain economic information and tools of its processing when studying the course "Information Systems in Economy", which forms the knowledge and skills in the design, organization, and application of information technology in the Ukrainian economy.

However, modern education includes not only the study of the educational materials, but also the opportunities to create and integrate electronic teaching media and tests into the educational process. It is necessary to develop integrated software, that is the information environment of distance learning that must include [8, p. 182; 10, p 13]:

- tools of navigation within this environment;
- e-learning materials: lectures, textbooks, dictionaries, references to literature and electronic resources (databases, www-servers, software, etc.);
- academic performance evaluation tools: open questions, forms for completion, on-line tests, and synchronic tests;
- means of communication: electronic mail, mail lists, Chat, WWW-board, audio- and videoconferences.

Comprehensive implementation of modern information technology in everyday life stimulated the development of innovative processes in the education. One such process is the introduction of distance learning. The Internet as a source of information became a reality long time ago, whereas telecommunication, which makes this mode of delivery possible, enjoys rapid development. Thus, one of the conditions of ensuring quality training in economics is the implementation and wide use of modern forms of distance learning in the educational process.

Formation of the necessary information and technical resource base for distance learning is the priority in the organization of the system of distance education. Distance learning is a qualitatively new, progressive type of learning,

which emerged in the late 20th Century due to new technological opportunities brought about as a result of the information revolution.

Distance learning requires quality e-textbooks, which should be available for all disciplines of the curriculum. E-textbooks are instrumental in individualizing the educational process. Each student chooses the sequence of learning material based on his/her interests and abilities. Using hyperlinks, students can access the desired section or topic at any time, whereas available in each e-textbook self-control tools capacitate immediate academic performance rating, which helps to identify gaps in knowledge and prompts the revision of the necessary material. Multimedia component, which is also available in e-textbooks, provides the resources for demonstrating the dynamic models of the phenomena under examination; it also gives the opportunity to conduct laboratory work. Without any additional funds, Virtual Labs help conduct research, reveal interrelations, receive results and analyze them, as well as make conclusions; all these are possible in the distance. Distance learning increases the share of students' independent work, which changes the content, forms, and methods of education. The instructor's main task now is not reading lectures, but rather creating educational and methodological materials for the discipline in the electronic form, constant improvement and adjustment of these materials, provision of color illustrations, graphs, creation of Flash-animations, self-control assignments. If educational and methodological materials are available electronically, it's possible, using appropriate software, to quickly make an e-book. But for this e-book to become a real e-textbook, specialized electronic publishing houses need to work on it. For the purposes of educational process management, academic performance rating, educational content delivery to students, as well didactic materials supply, specialized software is used. It contains a system of automated document management, electronic databases, glossaries and interactive multimedia textbooks, as well as other electronic materials for all courses. Software is installed on the server of the educational institution. But the essence of distance learning is not only in providing teaching and learning materials. It is important to make necessary arrangements for admissions and administrative processes.

Despite the fact that the technical potential of modern information technology helps to realize one of the main advantages of distance systems – learning in the distance learning environment, technical resources alone are unable to ensure the best results. Of equal importance here is the availability and development of teaching and methodological courseware to support the independent work of degree-seeking and certificate students. It is envisioned to use so called electronic lectures, the main advantage of which is the use of electronic media, which gives the opportunity to provide more information in the compressed form. Lecture material can be given as a text supplemented with a sound track and video; this refers to video lectures, slide lectures, which can be accessed at a convenient time and in a manner comfortable for the student. Good computer training materials, various testing and educational software, supplementary illustrations, as well as convenient access to reference data, glossaries are also available.

E-textbooks allow embracing all the students not only during in-class sessions, but also during out-of-class or independent study. E-textbooks save not only instructor's time in preparation for classes, but also increase students' efficiency in studying theoretical material, doing practical assignments, working with supplementary materials, analyzing the acquired knowledge, and will help achieve the expected learning outcomes.

Undoubtedly, electronic manuals and textbooks improve the level and quality of acquired knowledge, encourage students to improve their own skills and facilities, and save time during in-class sessions.

Different authors may provide divergent definitions of distance learning, but they all agree that it contains the following three components: open learning, computer-aided training, computer system of communications (Internet).

Distance learning is a technology based on the principles of open learning, it widely uses teaching/learning software for different purposes, and creates, with the help of modern telecommunications, the informational learning environment for the delivery of educational material and communication [6, p. 182].

In the educational system, distance learning realizes the humanistic principle, according to which no one shall be deprived of the opportunity to study because of the geographic isolation, social disadvantage, and inability to attend educational institutions due to physical defects, employment, or for personal reasons. Being the consequence of the widespread informatization of the society and education and absorbing the best features of other modes, distance learning entered the 21st Century as the most promising, synthetic, humanistic, integrated technology of delivering education.

For distance learning to take its rightful place in the educational system of Ukraine, a global computer network of education and science should be created in the first place, because it is the computer that can contain educational material and concurrently serve as a library, a reference center, and a communication center, which makes it one of the participants of the program of lifelong education. Modern technology and software allow educational institutions to ensure [5, p. 9]:

- interaction of the faculty and students regardless of the time and space, synchronically and non-synchronically, worldwide (teleconferences, audio-and video-conferences, e-mail, CHAT);
- access for the faculty and students to world information resources (foreign and electronic libraries, periodicals, databases, expert system);
- recruitment of highly qualified professionals from around the world both to conduct lectures, seminars, conferences, symposium, as well as to provide consultations, which expands the faculty and students' professional contacts; and
- elaboration and implementation of joint projects with domestic and foreign institutions, which facilitates the process of the integration into the international educational system.

Thus, to facilitate the country's informatization, it is important to provide students with the latest information, ensure necessary professional competence skills and facilities acquisition. Unfortunately, Ukraine lacks approved governmental standards for the structure and content of distance learning courseware; the conditions

of its use in the educational process are yet to be determined. Therefore, changes occurring in the society modify the content of life and consciousness, as well as the general system of modern economic education.

Modern education requires new approaches to the introduction of innovative technologies that are carried out by means of computer software. Of immediate relevance today is distance education. This mode of delivery is based on the independent interactive work of students with specially designed educational materials. All components and instructional techniques are focused on making learning most convenient and efficient. Thus, a modern electronic textbook helps students in professional training by means of multimedia, improves their language competences, develops creative abilities, promotes constant renovation of forms and methods of its use in educational process by means of visualization and results processing. Computer networks are the new stage in the development of external media of intellectual activity, cognition, and communication. Computer networks significantly change student's activity, both structurally and functionally. Modern information technology used in distance learning make it the most promising educational technology of the 21st Century. Thus, the use of information technology in training prospective economists enhances the quality of teaching economic disciplines, intensifies the process of obtaining new knowledge, improves learning outcomes, and contributes to the formation of their professional competence.

It still remains necessary to expand the functions of independent study, including problem modeling and solving. The transformation of the economy in the context of globalization challenge and unraveling inflation defined the main task of the Ukrainian higher education as training competitive professionals. To achieve this ambition, it is necessary to review the content and forms of the educational process, introduce innovative technologies and methods of intensive training, redirect learning from the accumulation of knowledge (subject learning) to enhancing the professional competence as the basis for developing individual readiness for effective actions in real-life situations (problem-based learning). Thus, application of information technology in the professional training of the prospective Ukrainian economists

requires further improvement and adaptation to the realities of economic and labor market in Ukraine.

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Кінаш І. А. Використання інформаційних технологій при викладанні економічних дисциплін

У статті розглянуто проблему професійної підготовки фахівців економічних спеціальностей засобами інформаційних технологій. Підкреслено необхідність фахівців економічних спеціальностей для сучасної економіки та роль інформаційних технологій у їх професійній діяльності. Розглянуто поняття «інформаційні технології», «інформаційні ресурси» та «дистанційна технологія навчання», що має високий ступінь мобільності й можливості охоплення широкого кола студентів та є однією з найбільш ефективних і перспективних систем підготовки фахівців економічних спеціальностей.

Ключові слова: інформаційні технології, інформаційні ресурси, інформаційно-комунікаційні технології, професійна підготовка, дистанційне навчання.

Кинаш И. А. Использование информационных технологий при преподавании экономических дисциплин

В статье рассмотрена проблема профессиональной подготовки специалистов экономических специальностей средствами информационных технологий. Подчеркивается необходимость специалистов экономических специальностей для современной экономики и роль информационных технологий в их профессиональной деятельности. Изучено понятия «информационные технологии», «информационные ресурсы» и «дистанционная технология обучения», что имеет высокую степень мобильности и возможности охватывания широкого круга студентов и является одной из наиболее эффективных и перспективных систем подготовки специалистов экономических специальностей.

Ключевые слова: информационные технологии, информационные ресурсы, информационно-коммуникационные технологии, профессиональная подготовка, дистанционное обучение.

Kinash I. A. Application of Information Technology in Teaching Economic Disciplines

The article reviews professional training of prospective economists by means of information technology. Special attention is given to the discussion of the need of the modern economy for economic professionals, as well as the role of information technology in their professional careers. The notion of information technology, information resources, and distance learning technology are analyzed. The latter is deemed to have a high degree of mobility and a potential for engaging a wide range of students; it is regarded as one of the most effective and promising training systems in this field of knowledge.

Key words: information technology, information resources, information and communication technology, professional training, distance learning.

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