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УДК 378.112: 004.9 ВЛИЯНИЕ ИНФОРМАТИЗАЦИИ ОБРАЗОВАНИЯ НА ФОРМИРОВАНИЕ ПРОФЕССИОНАЛЬНОЙ КОМПЕТЕНТНОСТИ СПЕЦИАЛИСТОВ ИТ-СФЕРЫ INFLUENCE OF EDUCATION INFORMATIZATION ON THE FORMATION OF PROFESSIONAL COMPETENCE OF IT SPECIALISTS

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Annotation. The article is devoted to the analysis of basic concepts related to solving the problem of professional competence of future specialists in information and communication technologies at universities. The main features of the information society are considered, among which there are: an increase in the role of information in public life, an increase in the number of specialists involved in information technology, an increase in informatization and the role of information technologies are the basis of the process of world information resources. Modern information technologies are the basis of the process of informatization of education, the implementation of which implies: improving the quality of education through the full use of available information; increasing the effectiveness of the educational process based on its individualization and intensification; development of promising teaching aids, methods and technologies with a focus on developing, advanced and personalized education; achieving the required level in the development of computer science and computer technology.

Key words: information technology, informatization of education, specialist, education, quality of education

Introduction. Today, one of the educational environment characteristic features is the ability of students and teachers to turn to structured teaching materials, teaching multimedia complexes of the entire university at any time and at any point in space. In addition to the availability of educational material, it is necessary to provide the learner with the opportunity to communicate with the teacher, to receive advice online or offline, as well as the possibility of obtaining individual "navigation" in mastering a particular subject. The leading place in such a system is taken by innovative methods of preparing students in the higher education system. An important place is the issue of comprehensive constant personal and professional development of all subjects of the educational process; therefore, the need to use modern, innovative teaching methods in the development of information technologies is growing. From this point of view, the informational educational environment is studied through the prism of an information system that combines the possibilities of network technologies, software and hardware, organizational, methodological and mathematical support, designed to increase the efficiency and accessibility of the educational process of training specialists.

1. Modern information technologies as the basis of the process of informatization of education

Modern information technologies are the basis of the education informatization

process, the realization of which implies: improving the quality of learning through the full use of available information; increasing the effectiveness of the learning process based on its individualization and intensification; development of perspective means, methods and technologies of education with an orientation towards developing, advanced and personalized education; achievement of the necessary level of professionalism in mastering the means of computer science and computer technology; Integration of various types of activities (educational, educational, research, methodological, scientific, organizational) within the framework of a unified methodology based on the application of information technologies[2, 4].

The essence of the learning process itself depends on the goals set, moreover, education means a purposeful process of upbringing and training in a person interests, society, state, accompanied by a statement of the educational levels achievement set by the state, whereby students receive and confirm a certain educational qualification.

In the educational process, all three functions are closely intertwined and intertwined, but there are also forms of control, when one, the leading function prevails over the others. Thus, at the seminar, the teaching function is mainly manifested: various judgments are expressed, leading questions are asked, mistakes are discussed, but at the same time, the seminar performs diagnostic and educational functions. You can get IT education in many private and public universities in various specialties: databases, multimedia, programming, web design and others. Available undergraduate, graduate and postgraduate programs. After graduation in one of the European universities in IT areas, a graduate can find a job both in Ukraine and in any other country. Getting one of the specialties of IT gives many alternatives in the possibility of forming a career [1, 2, 4].

2. Conceptual approaches to the training of future specialists in information and telecommunication technologies

Conceptual approaches to the training of future IT specialists are based on the results of studying and forecasting the structure of social and industrial activities of specialists with higher education in the field of information activities in accordance with the needs of the labor market, according to the specialist requirements, according to which the content of education in this field is determined, the training a specialist concept is based on a specialist model development, the basis of which is the system - social need - educational qualification characteristic (skills) - educational professional program (knowledge) - means of diagnosing the relationship and interdependence of all its components, combined with the definition pedagogical conditions of specialists training and corresponding practical approaches to their realization. Such a toolkit provides an opportunity to build modern educational technologies that provide for the formation of students' extraordinary thinking, creative management approach. In the end, their activity becomes not a set of standard methods, but is based on an understanding of the causal relationships of phenomena and processes, which significantly increases its motivation and effectiveness. One of the definitions of the information educational environment formulates its understanding as an information system combining through network organizational. technologies, software and hardware, methodological and mathematical software designed to increase the efficiency and accessibility of the

educational process of training specialists.

The problem of IT specialists, who are able to equip and maintain modern infrastructure, remains relevant, because, according to the working conditions, educational institutions are not able to compete with commercial structures, more sophisticated and sophisticated hardware and software systems appear in the market to support the educational process. both traditional and non-standard forms of education, although they are still not widely used. Mobile training laboratories with 3D-visualization function are actively used. The learning essence lies in the subordination of all its parts and functions to the main task: the formation of a comprehensively developed expert in the subject area. This task is being accomplished by improving the content of vocational education, optimizing the structure of training and developing the integration of various levels of education.

The main components of the learning automation system are constantly being modified and integrated with new preschool systems and mass online courses. This is necessary to ensure single entry of information, eliminate duplication of data and improve the overall efficiency of the system. The main problem with the implementation of distance education programs is not an insufficient level of Internet accessibility for students, but a low quality of Internet services in certain areas and poor technical capabilities of personal devices and the lack of practical skills for students of distance learning. You cannot solve only one or several parts of the task. It is precisely the complex nature and universal coverage that only the best modern technological platforms provide that make it possible to systematically solve the problem of informatization of education at the level of the needs of today and tomorrow. There is a need for a unified platform solution that allows for a comprehensive university automation: from management to support the educational process.

Conclusion. Education informatization involves an informational and educational environment development, an essential role in the creation of which is played by educational television. In the development field of information and telecommunications environment, the main data transmission channels, owned by both the state and non-state structures, are currently developing, ensuring high-speed exchange of information large flows between regions. One of the informatization leading directions of the education system is the development and implementation of an information system for managing secondary education.

References:

1. Yin, R. K. (1989). Case Study Research: Design and Methods. Newbury Park (CA) : Sage. P. 50.

2. Ovcharov S. (2011). Aktualnyye problemy professionalnoy podgotovki uchiteley informatiki [Actual problems of professional teachers of informatics training] Collection of scientific works PNPU. Sections: Pedagogical sciences. Poltava: PNPU.. Ed. 2. P. 73-77.

3. Symonenko N.N. (2012) Upravleniye obrazovatel'nymi uslugami s ispol'zovaniyem innovatsionnykh metodov obucheniya [Management of educational services using innovative teaching methods]. Pacific State University Bulletin. N_{2} 2.

P. 201-206.

4. Leimeister, J. M. (2012). Virtual Learning Communities: Success Factors and Challenges. International Journal of Technology Enhanced Learning (IJTEL). Number: 5/6, Vol. 4. P. 383–397.

5. Taratuhina, Y. V., Avdeeva, Z. K., Mirishli, D. F. (2014). Printsipy i podkhod podderzhivayut kartografirovaniye lichnogo issledovaniya. [The Principles and Approach Support of the Personal Study]. Pathway in Electronic Educational Environments.Procedia Computer Science. Elsevier. No. 35. P. 560-569.

6. Dabbagh, N., Bannan-Ritland, B. (2005). Online learning: Concepts, strategies, and application. Upper Saddle River, NJ: Pearson Merrill Prentice Hall. 348 p.

Аннотация. Статья посвящена анализу основных понятий, связанных с решением проблемы влияния информатизации образования на формирование профессиональной компетентности специалистов ИТ-сферы. Рассмотрены основные характеристики информационного общества, среди которых выделяют: повышение роли информации в общественной жизни, увеличение числа специалистов, занятых информационными технологиями, рост информатизации и роли информационных технологий в связях с информационного общественностью; создание глобального пространства, обеспечивающего доступ к мировым информационным ресурсам. Современные информационные технологии являются основой процесса информатизации образования, реализация которого подразумевает: повышение качества обучения за счет полного использования доступной информации; повышение эффективности учебного процесса на основе его индивидуализации и интенсификации; разработка перспективных средств, методов и технологий обучения с ориентацией на развивающее, опережающее и персонализированное образование; достижение необходимого уровня в освоении средствами информатики и компьютерных технологий.

Образование как в украинских, так и в европейских университетах в области информационных технологий значительно улучшилось за последние годы. Появилась возможность получить ИТ-образование во многих частных и государственных базы университетах no различным спецификациям: данных, мультимедиа, программирование, веб-дизайн и другие. Современные информационные технологии являются основой процесса информатизации образования, реализация которого предполагает: повышение качества обучения за счет полного использования доступной информации; повышение эффективности учебного процесса на основе его индивидуализации и интенсификации; разработка перспективных средств, методов и технологий обучения с ориентацией на развивающее, опережающее и персонализированное образование; достижение необходимого уровня профессионализма в освоении средств информатики и компьютерных технологий; интеграция различных видов деятельности (образовательной, образовательной, исследовательской, методической, научной, организационной) в рамках единой методологии, основанной на применении информационных технологий.

Key words: информационные технологии, информатизации образования, специалист, образование, качества обучения

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