2. Chen H. Business Intelligence and Analytics: From Big Data to Big Impact / H. Chen, R. H. Chiang, V. C. Storey // MIS Quarterly, 36(4)). – 2012. – pp. 1165–1188.

3. Delen D., Demirkan, H. Data, Information and Analytics as Services / D. Delen, H. Demirkan // Decision Support Systems, 55(1) . – 2013. – pp. 359–363.

4. Shmueli G. Predictive Analytics in Information Systems Research / G. Shmueli, O. R. Koppius // MIS Quarterly, 35(3) . – 2011. – pp. 553–572.

5. Davenport T. H. Data Scientist: The Sexiest Job of the 21st Century / T. H. Davenport, D. J. Patil // Harvard Business Review, 90(10) . – 2012. – pp. 70–76.

6. Watson H. J. Tutorial: Big Data Analytics: Concepts, Technologies, and Applications / H. J. Watson // Communications of the Association for Information Systems, 34). – 2014. – pp. 1247–1268.

7. Mortenson M. J. Operational Research from Taylorism to Terabytes: A Research Agenda for the Analytics Age / M. J. Mortenson, N. F. Doherty, S. Robinson // European Journal of Operational Research, 241(3). – 2015. – pp. 583–595.

8. Gartner, W. B., Data-Driven Business Models for the Digital Economy / W. B. Gartner, K. Heine // Journal of Business Models, 3(2). – 2015. – pp. 1-13.

9. Wikipedia, the free encyclopedia. Management information system. URL : https://en.wikipedia.org/wiki/Management_information_system

10. What is Management Information Systems? URL : https://www.mtu.edu/business/what-is-mis/

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DISTANCE LEARNING INFORMATION SYSTEMS FOR COMPUTER SUBJECTS

An analysis of modern methods and approaches to the problem of improving the quality of the educational process by creating distance learning information systems was conducted.

The most important tasks of increasing the level of computerization of the educational process were considered, the most appropriate areas of using information technology in the educational process were identified.

The most important role of information support for classes was noted, especially when using correspondence courses, as well as when students independently prepare for tests and examinations.

The purpose of the work is to justify the choice of software and methods for creating distance learning information systems, and practical suggestions for their use in the educational process were provided.

In modern conditions of intensive development of information technology, distance learning systems have found wide application in the process of training specialists.

Therefore, the development of distance learning courses is of considerable interest and the role of distance learning is difficult to overestimate.

Currently, a fairly large number of different manuals and teaching materials have been developed.

The analysis of existing systems and needs of distance learning allowed to form a nomenclature of requirements for the developed distance learning system, including all disciplines studied by students, on the basis of which the main functionality of the distance learning system was developed.

As a result of the analysis of the known software, the feasibility of using the Help&Manual software product as a software environment for creating distance learning information systems was substantiated, a version of the distance learning system was practically implemented and proposals for using the developed distance learning system in the educational process were developed.

The use of such distance learning systems in the educational process will effectively strengthen both traditional approaches to teaching academic disciplines and expand and even supplement the existing capabilities of both teachers and students.

It has been noted that at present, modern information systems and technologies are increasingly influencing the development of society.

In the system of higher education institutions, in their educational process, important and quite fundamental changes are taking place.

Thus, the introduction of a credit-modular system into the educational process has determined one of the most important tasks of building modern higher education, namely, the search for promising, rational ways to improve the level of training of specialists.

The introduction of modern computer systems and technologies into the educational process of higher education institutions, the development of modern computerized teaching aids, will significantly increase the efficiency of the educational process and provide significant information support for most of the classes conducted [1].

Thus, the effective computerization of the educational process will allow solving the following important tasks [1]:

- improving the professional knowledge and skills of students;
- increasing the level of mastering academic disciplines in the specialty;
- activating independent cognitive activity of students;
- improving the quality of assimilation of related disciplines by students;
- increasing the creative attitude of students to learning, etc.

The introduction of modern information technologies into the educational process will allow [1]:

- more effectively and efficiently use the latest achievements in the field of information technology in the educational process;
- conduct student training, including additional training, at a convenient time and in a convenient place;
- provide a real opportunity for simultaneous access of a significant number of students to databases;
- ensure more efficient use of both technical means and classroom space by teachers, etc.

It should be noted that computerization of the educational process will provide [1]:

- information support for classes using distance learning systems;
- conducting such types of classes as independent studies, preparation for exams and tests;
- information support for lectures on disciplines that require fairly large volumes of complex information in the form of graphic or text information.

Several users can participate in the creation of a project at the same time, i.e. the software has the ability to independently block the material that each specific user is currently editing.

The program provides a "read-only" mode for other users until the first user has completed their work.

The software allows you to store projects in a version control system, which provides additional security and the ability to work with different versions [5].

Based on the above, it can be argued that the Help&Mànuàl program is currently one of the best help file generators, on the basis of which it is possible to create quite powerful distance learning systems.

This is due to its versatility, convenient programming environment, wide range of tools, simple and understandable structure, and so on.

The developed system includes capabilities for both presenting educational material to students and for students to communicate with the teacher during the learning process and conducting quality control of knowledge [1].

In conclusion, I would like to note that the use of such distance learning systems in the educational process does not claim to replace the well-known traditional methods of teaching academic disciplines, but, on the contrary, only complements and expands the capabilities of both the teacher and the student [1].

References

1. Yu. I. Skorin. Improving the quality of the educational process through the development and testing of software for an information and simulation system based on virtual computer networks / Yu. I. Skopin, O. V. Shchebakov, I. O. Ushakova // Bulletin of the Kharkiv National Automobile and Road University. Collection of scientific papers. X.: I WILL. – 2022. – Issue 96. – pp. 141–145.

2. Korobko A.I. Virtual simulator of the accredited testing laboratory / A.I. Korobko, V.E. Shatikhina // Promising technologies and devices, No. 17 (December 24, 2020): pp. 72–78. URL : http://dx.doi.org/10.36910/6775-2313-5352-2020-17-11 http://htmleditors.ru/Ràsnoe/help/list2/help_&_mànuàl.html

3. Didenko O.K. Application of the method of controlled development behaviour for automation of web application testing // O. K. Didenko, D. Y. Holubnychyi // Proceedings of the International Scientific and Practical Conference of Young Scientists, Postgraduates and Students 'Information Technologies in the Modern World: Research of Young Scientists' 22 - 23 February 2024 - Kharkiv, 2024.

4. Help & Mànuàl overview - progràms for creàting help system files. URL : https://www.ixbt.com/soft/help-ànd-mànuàl.shtml

5. Virtual control and measuring devices and systems. URL : https://magnolia.lviv.ua/product/virtualni-kontrolno-vimiriuvalni-priladi-i-sistemi

6. Principles of development and use of virtual measuring tools URL : http://vtz.asv.gov.ua/article/view/174585

7. Theoretical foundations of modern Ukrainian pedagogy. URL : https://pedagogy.lnu.edu.ua/departments/pedagogika/library/vyshnevsky.pdf

8. Scientific novelty and theoretical significance of research results. URL : https://moodle.znu.edu.ua/mod/page/view.php?id=489528

9. Computer methods and means of solving engineering problems. URL : https://www.dstu.dp.ua/Portal/Data/3/21/3-21-mzs26.pdf

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ENHANCING EDUCATIONAL EFFICIENCY THROUGH VIRTUAL SIMULATORS

An analysis of the current state of measuring technology and trends in its further development reveals that, alongside the advancement and enhancement of traditional measuring instruments, a relatively novel direction is emerging, namely the development of so-called virtual measuring instruments.

This is facilitated by three factors [1–4]:

- firstly, significant progress in the development of electronic computing equipment, as a result of which personal computers have become a common and even necessary tool for engineers, scientists, and teachers;
- secondly, the fleet of measuring equipment is often replenished and renewed not as fast as required by modern realities;
- and thirdly, the disruption of various integration links significantly complicates