

Iegor Dumych

bachelor, student

Ukrainian Engineering and Pedagogical Academy, Kharkiv. Ukraine

inlegion@mail.ru, sianotalone@gmail.com

ORCID: 0000-0002-4971-8844

Helen Makogon

doctor of Philosophy, lecturer

National Technical University "Kharkiv Politechnic Institute", Kharkiv. Ukraine

helmkg@ukr.net

ORCID: 0000-0003-1112-8707

Kateryna Remizantseva

PhD in education science, assistant professor of foreign languages department

Ukrainian Engineering and Pedagogical Academy, Kharkiv. Ukraine

k.remizantseva1981@gmail.com

SYSTEM APPROACH TO DEFINITION THE MANAGEMENT STRUCTURE OF INFORMATION SYSTEMS IN CREATING THE CERTAIN LEVEL EDUCATIONAL RESOURCE THROUGH THE EDUCATIONAL WEB-SPACE

Abstract. The main idea of this article is to introduce the system approach to definition the structure of management information systems in creating the certain educational level resource through the educational Web-space. The scheme of arranging Web-technologies, services and other network facilities, which are arranged in the certain structure and are used in functional fields, is suggested. The system approach to the creating the educational Web-space will give people an opportunity to create teaching methods and to develop students` general educational skills in a new way and at a completely new level. It is common knowledge that using the Internet-oriented teaching methods helps to make Web-resources more accessible and, as a result, effective educational methods have been increased. From this point of view, one can see the importance of systematizing and analyzing current open educational resources. The main idea of this article is to introduce the system approach to definition the structure of management information systems in creating the certain level educational resource through the educational Web-space. The scheme of arranging Web-technologies, services and other network facilities, which are arranged in the certain structure and are used in functional fields, is suggested. The system approach to the creating the educational Web-space will give people an opportunity to create teaching methods and to develop students` general educational skills in a new way and at a completely new level. Building an educational Web-space may make a significant contribution to the development the whole system of distance and independent learning. It makes good conditions, uninterrupted education.

Keywords: educational Web-space; system approach; network resources of learning foreign languages; general educational skills

Actuality. Nowadays the convergence of information processes with the latest technological achievements is one of the most important phenomena. In practice, it was shown, that using the Internet-oriented teaching methods helps to make Web-resources more accessible and, as a result, effective educational methods have been increased. From this point of view, one can see the importance of systematizing and analyzing current open educational resources. It is also necessary to work out the strategy for their development.

Unfortunately, there is no many-sided technological tool or Web-service with a help of which it will be possible to solve educational problems in a complex manner.

Analysis of recent researches and publications. Using the Internet to gain knowledge or in educational purposes one should put into practice all possible Web-technologies, services and resources for learning foreign languages. Distance learning is widely adopted in educational institutions of all types and levels of education to some extent nowadays.

There are a lot of examples of putting into practice Web-technologies in higher education in those specialized universities where the most part of training appliances are popularized through the Internet. A lot of universities and institutes use the World Wide Web to organize the work of distance courses. First of all, they emphasis on practical work in the field of e-learning (e-learning) including distance learning (DL) (“Site of the Cadet Corps”, 2017).

Web-space can become a global educational forum in prospect, a wide variety of educational programs will be implemented in it. At the same time, all the training appliances of Web-courses can be corrected and one can add new details to them. Texts, dialogues, examples and exercises can be broadcast in an interactive way, including necessary illustrations.

Web-space will allow students to operate with such information field that none of traditional system can ensure. It is not a secret, not every teacher will be ready to answer the students` question, for example, what the whole point of the method of learning English on the basis of the theory of multiple intelligences is (The theory of multiple intelligences), and if the Web is available everyone can get any information promptly (Kristen, 1998, p.1-2). The possibilities to find and to get information in the Internet from anywhere throughout the world in any convenient format make it the most effective source of teaching and learning. In most cases, today Internet resources are used only as `electronic copies` of the traditional programs similar to them. Full-value courses are created for Internet – training can and should contain new types and kinds of teaching materials. They help to show advantages of Web-, multimedia and other information technologies in achieving the goals of the educational process.

It is common knowledge that one of the main advantages of the Internet is to ensure interconnection between unlimited number of global information resources. It creates the conditions for taking a fundamentally new level of education. Web-oriented curriculum is a dynamic, constantly developing and improving educational course. Both teachers and students have their benefits in participating in this program (Open and distance learning, trends, policy and strategy considerations. division of higher education, 2002,1995, p.65-67).

Internet-resources should help a teacher in ensuring students` productive skills and habits. He or she paves the way for being interested in the process of learning. It means teachers should introduce learner centered approach of learning.

The role of a teacher as a leader of this process, her directing and coordinating role in the educational process is not defined up-to-now. It does depend on a teacher how she or he teaches and develops students` skills and, of course, the result of learning also depends on a teacher. A teacher should become an organizer of the process of searching and processing information, he/she should be a coordinator of a research work and he should be a creator of creative students` practical work.

Note that it is more important to teach a student to gain knowledge himself. The amount of knowledge is not important for a student if he/she will not be able to use them in practice.

The aim of this article is to work out a system approach to definition the structure of management information systems in creating the certain level educational resource through the educational Web-space

To improve the work of educational system with the help of new technologies, one should change the attitude to these technologies completely. During the last decade there were a lot of attempts to use new technologies in higher education. They were random, separate uncoordinated and not bound up with others. Information systems were introduced mainly to automatize current process, computers were considered to be as printing and calculating devices only, and modern electronic workstations served for replacing the outdated huge

ECM of previous generation. The formation of a learning Web-space is a many-sided process. We can compare this process with the process of making films. They are both complicated.

So, such courses are created, as a rule, by groups of professionals. There are different specialists among them. In contrast to traditional training courses where programs are prepared by several teachers-methodologists of the same profile, Web-oriented programs are prepared by various specialists. In this regard, there is a need again to answer the question: `What is the purpose of higher education?` `What is its main mission?` Education should be considered as an uninterrupted process. The purpose of it is to give students opportunities to take part in learning process and to teach them to make decisions and to use their knowledge in real life situations. Modern Information technologies offer such an opportunity and with their help the educational experience of any student can be expanded immeasurably.

Thus, it is possible to draw some conclusions: it needs to organize and to use current Web-technologies, services and other networking tools to learn foreign languages. One should put in order this process, set it up in a certain structure and to make it functional. Besides, general educational skills are on the first place in this complicated process. One should remember it should be intercommunication between the components of the whole system.

System approach is used to create services for building educational resources to fulfil educational Web-space. These resources should be answered the purpose, be functional and contain enough information for users.

The summary of the main material.

1. Creating of an educational Web-space at the lower level.

The educational Web-space consists of such elements as educational Web-resources, data bus, control bus, learning groups (Makogon, 2014, p. 222-226), (Tanenbaum, 2017, p.56-69), (Derisheva, 2006). Creating such an educational Web-space one should take into account these elements to create both methods of language teaching, a curriculum and a course. A teacher (or a group of teachers) will be able to use all current Information resources and to do it in a complex manner.

A teacher will be able to choose some sub-space within current sphere of educational Web-resources. Methodical methods of language learning will be implement by the teacher in the form of operating commands which will be sent through data bus.

2. The main elements of the educational Web-space.

2.1 **The field of Web-resources** is the depth of the Net. It is accessed through the data bus.

According to the purpose of the training information in this field, one can divide this information into reference-descriptive (Wikipedia, reference bank), visual-graphic (drawings, diagrams, photographs), didactic (step-by-step instructions, user manuals), sub-space, software (applied software enclosures).

2.2 Both **learning group and individual students** can be represent as training objects. They can get knowledge both under competent direction of a teacher and independently.

The number of people is only limited by the capacity of the current software. It means it can be varied in case of need. The organization of data exchange through a multi-channel bus enables each person to participate in the process of language learning taking into account separate learning hours. It will help to create an atmosphere of creative interaction between each other and to obtain valuable knowledge.

2.3 **Data bus** is a field of Web-space that provides interaction between students and teachers during the learning process. One can use educational resources at higher level as well. For example, both administration and teachers will have an opportunity to interact.

2.4 **Control bus ensures** the interaction between a teacher and groups of learning. In a such way a control bus is arranged bidirectional. It allows to observe feedback among a teacher and a student. It helps to realize successful steps to learn new material, coordinate students` achievements, build up their general educational skills (Galskova, 2000), (Makogon, Mokh, 2014). Educational space is submitted in figure 1.

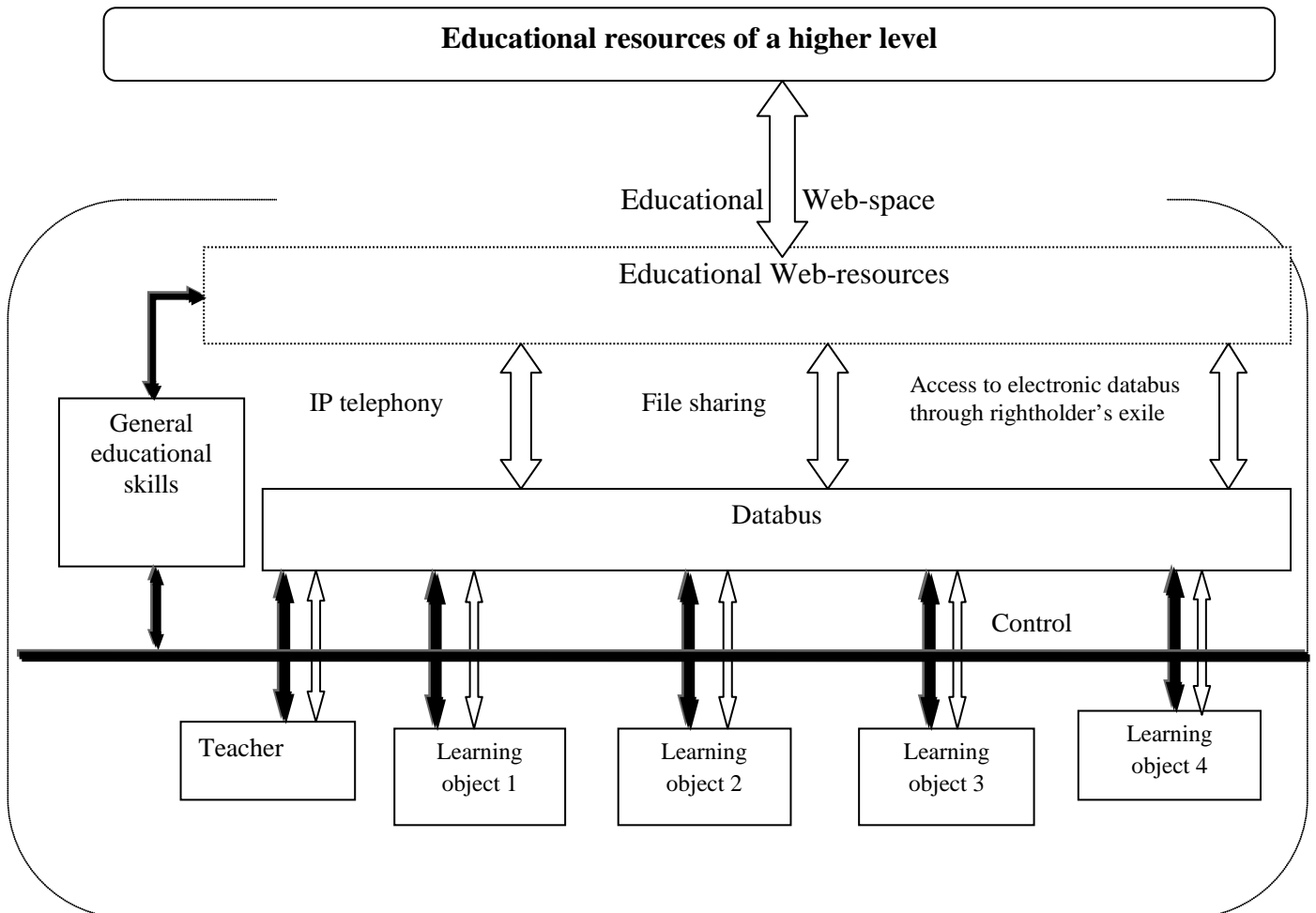


Fig 1. Educational resources at a lower level.

Prospects for the development of the management information system.

The given approach to the creating of the Internet method in learning foreign languages can be both useful to a private literate teacher which can use the Internet and to a teaching staff in general. I must admit this approach is more effective for a group of teachers. Later the authors are planning to work out functional links and structural interaction between educational resources at different levels of the hierarchy.

Conclusions

1. The systematic approach of building an educational resource at a certain level gives an opportunity to work with Web-technologies, services and various network tools .
2. The advantages of modern technologies will be used in full measure. It will save your time to use the Internet resources. Teachers will coordinate and will manage the learning process more effective.
3. Building an educational Web-space may make a significant contribution to the development the whole system of distance and independent learning. It makes good conditions, uninterrupted education.

4. The importance of developing general educational skills will be significant. It will lead to the formation of a harmonious personality, to the improvement of students` knowledge. The best cultural, historical and technological achievements of mankind are the basis of influences on the formation of a personality.

REFERENCES

- Site of the Cadet Corps (2017)
<http://khkadet.org.ua> (in Ukrainian).
- Kristen, N. (1998) Developing students' multiple intelligences. Scholastic professional books.
www. teachingenglish.org. (in Russian).
- Open and distance learning, trends, policy and strategy considerations. division of higher education (2002,1995).
- Makogon E. & Mokh, Yu. (2014) Actuality of general educational skills in the process of language learning.
- Galskova, N. (2000). Language portfolio as a tool for assessing students in the field of foreign languages.
- Makogon, E. (2014). System approach to the formation of a learning web-space in the language learning,
- Tanenbaum, E. (2017). Computer architecture, Peter, 816 (in Russian).
- Derisheva, I. (2006). Formation and development of general educational skills at it
essons, study festival «September 1»publ.<http://festival.1september.ru/articles/416695%20/> HYPERLINK
"http://festival.1september.ru/articles/416695%20/" HYPERLINK
"http://festival.1september.ru/articles/416695%20/" (in Russian)