



## INTRODUCTION OF ELECTRONIC INFORMATION EDUCATIONAL RESOURCES INTO THE EDUCATIONAL PROCESS

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### ABOUT ARTICLE

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**Abstract:** This article considers the issues of widespread introduction of advanced pedagogical and information and communication technologies, provides examples of innovative activity in modern education, the development of knowledge, skills and abilities of students.

### INTRODUCTION

The introduction of e-learning materials into the educational process is associated with a number of terms that have appeared in the system of higher education in recent years. These Terms, first of all, define the phenomena that arise as a result of the active introduction of information and communication technologies into the educational process and the derivatives that arise from them. Among the above-mentioned phenomena, we want to highlight the following. Distance learning technology (MTT) – distant learning technology – educational technologies that are carried out using ICT to a large extent in the indirect (i.e. distance) or partial indirect interaction between a student (the person being taught) and a teacher. Open education (OT) – open education is a system of organizational, pedagogical and Information Technology in which architectural and structural solutions are provided through the use of current open (non – patent) standards for interfaces, formats and information exchange protocols. E-learning (ET) is education using e – learning-ICT. Mobile learning (MT) – mobile learning, m - learning – e-learning using mobile devices.

Networked education (TTa) is education using on – line learning-information and communication network. Autonomous education (ATa) – off-line learning – education using a computer without connecting to an information and communication network. Mixed education (ATa) is a combination of blended learning – networked and autonomous education. Educational content (TK) – learning content is structural content used in the educational process and represents the basis of the e – learning resource. An electronic textbook is a software-methodological complex that allows you to master the course of study or its department independently or at the level of knowledge with the help of a teacher.

Open educational resources (OTR) are materials that are placed in open permission, intended for use in the educational process. In particular, an important factor of OTR is that the authors of the e-learning materials in question agree to their free use and processing [111]. That is, for the first time in this context, the issue of copyright within the framework of the EATR is raised. Thus, we believe that the concept of open educational resources is closest in meaning to e-learning materials. The main difference between these two concepts is that OTR requires constant access through different types of e-communication networks, while EATR implies its placement online and offline, and can also be written on different e-carriers. From the analysis of the content of the above concepts, it can be seen that the introduction of electronic educational materials into the educational process of higher education institutions caused the number of hours allocated for independent training and independent education of students to be almost equal to the number of hours allocated for audience training in modern OTM pedagogical practice.

This has also led to an increase in the importance and prevalence of such a type of education as distance education. In many cases, with the advent of information retrieval tools such as the Internet in modern educational settings, the student's attempts to independently prepare for classes in a particular subject coincide with attempts to search for the necessary information in global information networks.

A number of researchers note a trend in education that manifests itself in the increasing role of information and social technologies that have provided a universal computerization process for both students and teachers. However, until a certain time, it was very complicated to obtain information through ICT and information networks. The solution to this problem was the development and introduction of e-learning materials (e-textbooks, applications, multimedia manuals, etc. EATR as developers can be considered both private and public educational organizations, as well as individuals (including the teachers themselves). This made it possible not only to ensure the correct quality of the information provided, but also to draw it up in accordance with the curricula and subjects.

1. E-information education resources have both advantages and disadvantages over print media. One aspect of the inclusion of e-learning material in the curriculum of OTM science is the development of EATR (specifically, e-textbook). In this regard, two main ways of organizing this process are distinguished.

2. The teacher formalizes his lectures in electronic form, in which he provides electronic text with navigation and hyperlinks, illustrations (including multimedia), records the received material to electronic carriers or sends it to students by email.

3. The e-learning material is already available and the developed computer is created using special software within the forms

4. The second way is more complex, since it requires special skills and qualifications to work with such programs. But the resulting EATR will be of even more quality. The first method is more labor-intensive, and the resulting electronic manual is considered larger and more inconvenient, and more difficult to accept compared to the manual created according to the second option. The advantages of EATR development instrumental tools include: - does not require special programming skills; - low development time; - low labor consumption; - low requirements for the technical parameters of computer and computer programs. Due to the large number and variety of computer curricula (one of the types of EATR) used in various disciplines in higher education institutions, there is currently no clear and generally recognized classification of them. From the point of view of the type of application of this type of application in training, the researchers in question have identified their following Division. The same researchers argue that the introduction of electronic applications into the educational process in OTMs results in their characteristics that are preferable to traditional paper teaching materials. Among the marked advantages are: - possibility of modeling and imitating the processes and phenomena under study; - display visual educational information (visual color images, animation); - go

with sound; - the possibility of rapid transition between blocks of material under study. The use of these descriptive properties of e-learning materials, especially their visual and sound components, in training makes it significantly easier to understand the topic being studied, increases the speed of communicating information to the student and the level of its understanding. In conclusion, when we say that today ordinary electronic textbooks still fulfill the same idea, but have a much larger volume than ordinary text files. They are user-friendly

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