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# THE TEXT IS OF THE MAIN COMPONENTS OF MULTIMEDIA TECHNOLOGIES

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**Annotation**
The article deals with one of the main components of multimedia technologies - text and its properties, creation of text effects, role and application in multimedia applications.

**Keywords**. Multimedia technologies, multimedia learning tools, electronic educational resources, media text, multimedia text, image, special effects, object design, animation, originality, imagination, visual effects, computer graphics, characters, transmedia, electronic text, graphic text, multimedia effect, signal, symbol.

## Introduction

In education, multimedia is used to create computer-based training courses (CBTS) and reference books such as encyclopedias and collections. CBT allows the user to go through a series of presentations, topical text and related illustrations in a variety of presentation formats. Edutainment is an informal term used to combine education and entertainment, especially multimedia entertainment. There are many digitized educational texts for the computer, there are also applications that offer them to students in a new way. As long as the novelty effect was maintained, all multimedia aids were good. Now the most verified, effectively using the methodology of the relevant science and adequate to its content are relevant. Learning theory has developed significantly over the past decade due to the advent of multimedia. Several areas of research have emerged, such as the theory of cognitive load, multimedia learning, and others. The opportunities for training and education are almost endless.

You need to learn how to "show" the material. I believe that the "graphical" version of its presentation is most suitable for use at school, especially in teaching the basics of the sciences of the humanities cycle. Its essence lies in greater reliance on symbolic visualization, which contributes to the formation of a “folded logic” of conveying understanding of the material. The disclosure of a concise visual construction in a detailed verbal presentation requires independent thought. The idea of media convergence is also becoming one of the most important factors in the field of education, especially in higher education. Defined as separate technologies such as voice (and telephony features), databases (and derivative applications), video technologies that now share resources and interact with each other to synergistically create new operability, media convergence is a rapidly changing learning environment. course of disciplines taught at universities around the world. In addition, it changes the presence or absence of a job that requires these “savvy” technological skills [6].

The multimedia programming tutorials explore how to use these multimedia tools to create multimedia educational and web applications. In multimedia programming courses, students learn how to create multimedia presentations in various subjects. The development of a multimedia application using

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programming is aimed at developing a more enriching technological learning environment. Considering the application of computers, tablet and smart phone and multimedia applications in teaching is very effective. In multimedia programming, the main task is to improve the learning process. For the effectiveness of training, it is necessary to equip with sufficient computer equipment and prepare a methodological and information base for the educational process.

In the literature of the educational process, when students work with information and training network resources, they require a fair amount of effort from them. The processing and consumption of information is a labor-intensive business. Students of the lower stages of education need a special formation of the ability to carry out text activities. Depending on the information carrier, reading techniques also change - linear reading when working with a computer gives way to scanning, browsing, in which paragraphs and chapters flash, but precedent texts are recognized: names, quotations, terms. It is logical to assume that the requirements for the organization of the educational text should also change [1].

In the distance form of education, which uses multimedia technologies, it is assumed that education occurs through self-learning of educational material by students using the capabilities of computer technology, including Internet technologies, in the educational process. Distance education is one of the forms of continuous education. There are also shortcomings in the distance form of education, for example, fragmentary facts, concepts, laws, examples are usually presented in textbooks for training courses; models of the phenomenon and its comparison with the real world are not built; discovery, but finished results are described, insufficiently detailed and complete description of experiments that proved the reliability of the results obtained, overloaded with unfamiliar terminology, etc. [1].

Specially conducted studies show that work with textbooks takes students approximately 75-90% of their study time. In many disciplines, it is the textbook that determines the amount of material and the sequence of studying individual sections of the program. Students, on the other hand, find textbooks boring, often describing facts known to them for a long time, which makes them spend a lot of time looking for additional material on a topic of interest to them.

**Results and Discussions**

Text is an ordered set of sentences designed to express some meaning. A text file is a common form of text representation on a computer. Each character from the used character set is encoded as one byte. Hypertext is a special type of text data. The term "hypertext" was coined by Ted Nelson in 1965 to mean "text that branches or takes action on demand." Typically, hypertext is represented as a set of texts containing transition nodes from one text to another, allowing you to select readable information or reading sequence. A well-known and, moreover, pronounced example of hypertext are web pages - documents in HTML (hypertext markup language) posted on the Internet.

The educational text in the learning process is a linear sequence of (linguistic) signs, which is a complete message or corresponds to a specific situation or is a series of (linguistic) signs without a common communicative function and without connection with a specific situation. In the first case, we can talk

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about a communicative educational text, in the second case, about a non-communicative educational text that performs specific educational, didactic functions [4].

Educational texts serve to present new educational material or for other didactic purposes. On this basis, educational texts can be divided into initial (introductory), basic and additional. The source text is not intended to present new material, it should introduce motivating information in order to interest students or structuring information in order to determine the place of the studied section of the course. Basic texts carry the main informational load, while additional texts most often serve to carry out various types of educational activities.

An educational resource (text, textbook, website, portal) is considered an important learning tool and reflects all the components of the system: goals, content and structure of educational material, pedagogical process, methods, teaching aids. The main functional properties of the educational text are comprehended in the course of interpretation, expressed in decoding. The signs perceived by the addressee of the text have a certain multi-functionality. The perception of the educational text in the aggregate of reading and reaction is a psychological process, the text is not just a set of characters, or their sequence, but a powerful complex stimulus. Creating an educational text is a rather complicated process that obliges the author to take into account a number of requirements. For example, understanding of the text, the entire text must be formalized in a literary way, take into account the patterns of perception of written texts, speech complexity must correspond to the level of development of students, accessibility to the reader and the degree of complexity.

An important role in the perception of the written text is played by text graphics, font and color design, typographic signs, numbers, iconic means (tables, diagrams, drawings, photographs), and non-standard punctuation marks. The study of the possibilities of computer text processing should be useful for developing practical recommendations for the effective use of tools and avoiding innovations that give the text a “modern” look, but do not make it easier to understand [5].

Education is understood as a system of organizing ways to transfer to an individual the socio-historical experience developed in the process of social practice: knowledge, skills, abilities, types and methods of activity in indicators that are normative for specific historical conditions; the goal of this activity is the planned and directed mental development of the individual. It takes place in the form of cooperation, joint activity of the teacher and the student. The teacher through communication and other means organizes the activity of the student, the student performs it as a joint, distributed activity.

One of the main characteristic features of multimedia technologies is the combination of a multicomponent information environment (text, sound, graphics, photos, video) in a homogeneous digital representation. Multimedia is the simultaneous use of various forms of information presentation and its processing in a single container object. For example, a single container object may contain textual, auditory, graphical, and video information, as well as, possibly, a way to interactively interact with it. The term multimedia is also often used to refer to storage media that can store large amounts of data and provide fairly quick access to them. In this case, the term multimedia means that a computer can use such media and provide information to the user through all possible types of data, such as audio,

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video, animation, graphics, and others, in addition to traditional ways of presenting information, such as text [4].

One of the main powerful weapons of multimedia technology, slides contain objects of various types, their combination is designed to most fully express the content of a given presentation frame. The objects placed on the slide include: background, text, hyperlinks (a special kind of text), headers and footers (a special kind of text), tables, graphics, inscriptions (a special kind of graphics), diagrams (a special kind of graphics), a movie (video clip) , sound, icon (label), object color scheme representing the color scheme of the slide.

The creation and use of electronic presentations in work today is very important. The use of electronic presentation in ongoing events enlivens them, and any information is perceived by the audience more emotionally. Also, one should not forget that the visual perception of information is much more effective than by ear or when reading a text.

Modern communication is focused on the special nature of building relationships with the consumer at the text level in the media environment. Multimedia text is created using telecommunication technologies, has a non-linear narration, organized with the help of speech structures of different quality, visual and auditory fragments, color and sound solutions, static and dynamic images. Capturing reality with the help of media as a result of the manifestation of personality activity is a priority way of its self-actualization in the visual practices of the 21st century, the narration of which is designed for non-linear perception. The development of critical thinking contributes to the implementation of directed and meaningful activities in the process of professional development and self-presentation of the individual in the information environment.

Media text is any structured media product or means of communication, including both print and audiovisual placement, that can be analyzed and deconstructed. A multimedia text is a syncretic unity of verbal and non-verbal elements; it combines speech structures, video sequences, static and dynamic images, sound and color effects. In continuation, we note that it is able to take on new forms, is subject to hybridization and, due to its practice orientation, forms a subject-subject relationship of a special type. The surge of media hybrid texts is associated with their special attractiveness for a wide audience, their accessibility and understanding by the “mass” person. Media channels embody a new form of articulation between mass communication and mass self-communication. A new social form of communication is mass, but produced, obtained and perceived individually. The knowledge of the "real" causes of communication, its "real" expression, the "real" community, etc., is of interest to researchers not in itself, but as a property of cultural practices in which the emphasis has been shifted from "real" (reality) to "depicted » (imagined) [3].

Technical and computer literacy is one of the necessary competencies that allows a person of the XXI century. realize yourself personally and professionally. Knowledge of software expands the boundaries of communication and opens up new opportunities in the production of meanings and values of culture - relevant, socially and historically significant. Reality acquires a digital format, and media becomes an integral means of social action, communication, which require special skills and abilities from a modern person, the so-called “soft skills”. The 20th century gave us new technologies for managing society,

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business, corporations and, unfortunately, consciousness. This combination of modern management technologies and media technologies creates a completely new reality, which is often called virtual. This is a reality where everything is possible.

The Internet acts as an information storage, where users actively implement various technologies for building communication practices that generate texts of a special format and properties. Eclectic thinking has acquired figurative boundaries and embodied in the content of a hybrid form - a multimedia text designed for convenient and comfortable visual perception from a computer screen, tablet, smartphone, short in time and giving basic information that is relevant "here and now", using wireless access technologies to the Internet. For most multimedia texts, the following characteristics are inherent: - manufacturability, - functionality, - relevance, - popularity (proximity of the audience, situationality), - dramatic nature of the narration (eventfulness and expressiveness), - relevance and momentaryness, - contextuality, - intertextuality, - stereotyping and standardization. , — the ability to involve the consumer in the multimedia space [5].

The effectiveness of communication on the Internet largely depends on the quality of the language, which should be understandable to each user of a particular resource and arouse interest for further communication, that is, be commercially beneficial for one and attractive for another. The ability to share video files, photos, text documents, music, organize projects, create wiki pages, websites, social networks, and so on allows a person to realize their own desires, interests and take initiatives. Information culture communications are characterized by the absence of an intermediary acting as a conductor, and are organized according to the “many-to-many” principle. The multimodal nature of mass self-communication allows reformatting, mixing its content by building information systems for everyone who has access to the Internet, and ensures its circulation [3].

HTML is widely used to create multimedia resources and hypertexts. The use of browsers for viewing imposes additional restrictions on the nature of the presentation of educational multimedia information. Programming systems used to create local components make it possible to include in the multimedia course and access to Internet resources, integrating network and local educational resources. When creating multimedia hypertext resources and multimedia pages for the Internet, the following languages and tools are most often used - hypertext markup language (SGML, XML, HTML5), the language used on the Internet to create, format and display web pages [2].

The expressive design of the text begins to play its role when it outlines the direction of the interpretation of the content. The graphical representation of information is distinguished not only by integrity (allows you to cover everything at a glance), but also by “transparency” (allows you to see connections and relationships). Repeating the form with our eyes, we perceive the image of the phenomenon, see the main thing and get material for understanding the content at the same time as reading its actual component. The texts of the textbooks are first voiced in one way or another, and only then their comprehension begins. Graphic text is created on a computer and is intended primarily for viewing the meaning. It is compact, as informative as possible and extremely expressive.

Making out a thought as a graphic image, we use unified designations and single symbols. The use of the latter is especially significant, it shows the degree of our participation in understanding the process

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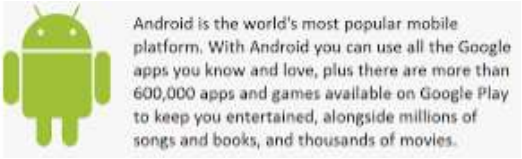
or phenomenon, and proves its creative nature. A judgment becomes an idea if it contains an individual understanding and attitude. Graphic text conveys the course of our thoughts. Thinking, we operate with designations-concepts, resort to symbols-judgments, and draw conclusions. Graphics can make the process of thinking visible. Linking disparate designations and symbols, it is necessary to make them work as a whole. The conceptual apparatus and the system of judgments are "draped" into an image for this purpose. Individual elements are combined compositionally and in meaning. Structural connections outline the direction of movement of thought. Such writing not only expressively and easily offers a certain amount of information, but also prepares the conditions for understanding the text.
Graphic texts are created using graphic editors. When creating multimedia resources, vector graphics are widely used. There are two types of text in vector graphics: inline (simple) - (Paragraph Text) and paragraph (curly) - (Artistic Text). In the first case, the text is one or more lines for which formatting options are limited. When curly is selected, the text looks like a normal vector object.


Artistic Text




Paragraph Text

In addition, animated texts are used in multimedia technologies. Adding animated text makes the video more attractive. Effects such as disappearing, moving and appearing text, changing the color and size of texts in a video make it 10 times more likely to be viewed by users. It is easy to create flying texts or moving objects using the 2D Text Animation Creator on PC [4].
Here is a list of some online animated text video monitors for text animations:

- Animaker is a text animation program that offers various text animation templates and effects. What's more, you can directly export videos to Facebook or YouTube.
- Renderforest allows users to create animations, slideshows, 3D videos and other types of online videos. You can choose from over 200 video templates. Later, you can customize the screen, upload images, and animate the text in the video.
- 3D Text Maker. You can create 3D text animations online for free. This 3D animated text generator made the whole process easy in 5 steps. So, even if you have no experience in creating 3D text animations, you can still successfully create 3D texts.
- Using Textanim you can create animated text GIF up to 10 seconds. The whole interface is quite simple. After that, you can directly paste the text animation into the target video.
- Bite. You can get many ready-made templates from Biteable. Does not require high technology. The text animation video maker can help you finish the leftover things neatly.
- Using Aiseesoft, you can animate text in your video effortlessly. It's more than just text animation software. You can create a great animated video with your precious memories. With built-in templates and easy-to-use tools, you can easily animate texts and other elements.

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You can animate the text in the video on the phone itself. Here is a list of great apps that can help you with text animation using your phone with the following software tools:

- Content can motivate people. When presented in an animated form, the content becomes more inviting and attention-grabbing. Legend helps bring text to life to life in videos.
- Tomo is a great and simple text animation app with amazing features.
- Hype Type Animated Text Videos. With the animated text video app, you can animate the text in your video.
- Text Animation Maker. You can create your own beautiful story with text animation maker.
- Steller is one of the simplest and easiest ways to create and share stories. It allows you to personalize the feel and look of your entire story with elegant and easy-to-use themes.

The review of technological approaches to the production of visual content and the comparison of animation tools as visual effects of the text allows us to conclude that both in the period of multimedia technologies and with the development of computer technologies, the desire for realism and complication of the imagery of the text as an object of the learning space stimulated the development multimedia animation technologies. At the same time, the initial visual imagery of the text is largely determined by the designer's sketches. With the development of computer graphics and 3D animation, when the convergence of cinema and animation became apparent, the role of the designer and project development of learning space objects remained no less significant. At the same time, the process of convergence is developing: 3D graphics has become a unifying link of presentations, animation already with three-dimensional computer games, when game engines began to be involved in the work to create screen adaptations or auxiliary video fragments. This led, among other things, to the emergence of new options for creating educational material based on ready-made multimedia technologies implemented in the software environment of computer applications. [6].

## Conclusions

Summing up the consideration of the problem of educational texts and distance learning resources using multimedia technologies, it can be emphasized that the perception and understanding of the educational text in the light of modern theories involves taking into account the activity of the perceiving subject, the inclusion of perception in the system of activity, the purposefulness of perception, its dependence on many factors.

The educational text presented for perception by the trainee can be considered as a form of objectification of information of various kinds, a means of translating some intangible entity. The text plays an intermediary role between the author and the reader. It contains factual, conceptual and subtextual information. The quality of perception depends on the activity of the perceiving subject, the inclusion of perception in the system of activity, the purposefulness of perception, its dependence on motivation, previous experience and its organization in long-term memory.

Understanding the educational text is a necessary condition for the success of learning, as a special type of activity, on the methods of organization of which psychological neoplasms of the personality of the trainees depend. It requires the implementation of information transformation procedures in the

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transition from ignorance to knowledge: interpretation, reinterpretation, convergence, divergence, conversion.

In distance learning of students, the optimization of the educational process with the help of a network resource helps to increase their awareness by accelerating access to clearly structured professionally significant information, but does not compensate for the lack of formation of secondary textual activity.

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