АКТУАЛЬНІ ПРОБЛЕМИ СПЕЦІАЛЬНИХ ТА ГАЛУЗЕВИХ СОЦІОЛОГІЙ

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MULTIMEDIA PRESENTATION AS AN INTEGRAL COMPONENT OF DIGITAL MEDIA CULTURE

This article presents guidelines for considering a multimedia presentation as a component of digital media culture. The practical result of the article is a system of recommendations to developers regarding the creation and use of presentations in the modern environment of digital media culture. Qualitative and quantitative advantages of using multimedia presentations are determined. The article systematizes the key competitive positions, which are provided by the use of multimedia presentation in the modern environment of digital media culture. The basic requirements which should be observed for effective use of multimedia presentations in the conditions of a postindustrial society are offered. The paper recommends and considers four types of scenarios for the use of presentations in the modern culture of digital media. The study focuses on determining the levels of cognitive activity using a multimedia presentation. There are certain requirements for the clarity of illustrative material, which allow to achieve the expected effect in the form of a high level of cognitive activity of listeners as a result of using a multimedia presentation. Emphasis is placed on the fact that the content of multimedia material must meet the requirements of educational and marketing programs. Regarding the issue of creating support for a multimedia presentation in a certain language, the article states that it is resolved positively by the speaker in the process of preparation for the event. Criteria for evaluating presentations, which consist of requirements for their creation, are proposed. The main components of the user interface of the multimedia product presentation are considered in the article. A list of basic interface design concepts to use for multimedia presentations is offered. The main hierarchical levels of information in a multimedia presentation, which are necessary for effective perception of information, are considered. Emphasis is placed on the fact that each aspect is characterized by certain requirements for the process of designing a multimedia presentation.

Key words: *multimedia presentation, digital media culture, requirements, illustrative material, methodical principles.*

Formulation of the problem. The modern cultural environment of post-industrial society is impossible to imagine without multimedia technology, which includes a set of computer technologies, using several information environments: graphics, text, video, photography, animation, sound effects, high-quality sound, i.e. in all known forms.

The development of civilization has minimized the ability of man to perceive the world evenly with the help of the senses given to him by nature. Visual perception of information is especially important for modern youth – a generation with a pronounced "clip" or "mosaic" thinking. Modern youth has grown up and lives in the age of high technology, they have absorbed the "dictation of the picture" since childhood, which overwhelms the modern media. Currently, the main source of forming a new picture of the world is the Internet, where young people are consumers of visual information.

In the light of the above, it can be concluded that the consideration of multimedia presentation as a component of digital media culture is extremely important.

Analysis of recent research and publications. Scientific articles [1–5] are devoted to improving the quality and effectiveness of the introduction and use of multimedia technologies in the modern cultural environment. Specific features of the intelligent user interface of multimedia presentation as a component of digital media culture are considered in [6–8]. In researches [7–9] the main ways of improvement of multimedia presentation on the basis of introduction of the newest tools and information systems are systematized.

At the same time, today in the specialized literature there is no methodological approach to the consideration of multimedia presentation as a component of the culture of digital media.

The purpose of the article – to develop guidelines for considering a multimedia presentation as a component of digital media culture.

Presenting main material. As a result of the use of multimedia presentations in the modern cultural environment of the media, there are two main advantages – qualitative and quantitative.

Qualitatively new possibilities are obvious if we compare verbal descriptions with direct audiovisual representation.

Quantitative advantages are expressed in the fact that multimedia, among many other media tools, is higher than its information density and fully complies with the common principle of human life – "it is better to see once than hear a million times".

Multimedia presentation in today's digital media culture environment has the following key advantages:

– Emphasizes the audience's attention to important points of information, allows you to make the presentation of the material more vivid, expressive;

– Creates visual spectacular images by mixing, shuffling information,

including textual, graphical information (schemes, compositions), moving diagrams, animation, video information, etc.;

– Allows you to effectively combine over time oral material with a continuous automatic slide show during the demonstration;

– Integrates hypertext and multimedia (combining audio, video and animation effects) into a single presentation;

– Allows the speaker to use the presentation as a handout (reference material, memos, etc.);

– Represents the possibility of demonstrating dynamic processes (experiments, experiments);

– Gives the opportunity to show the structure of information;

– Allows the speaker to organize thoughts, classify material;

– Provides speed, ease of playback, versatility (Power Point is included in the Microsoft Office software package), the ability to play the presentation on any computer;

– Allows you to display images in large sizes;

– Increases the informativeness and effectiveness of the material in its presentation, given that the listeners are involved in visual and auditory channels of perception;

– Contributes to improving the methodological skills of the speaker;

– Reduces the intensity of the speaker while reading the material, as some functions are replaced by ready-made electronic presentations.

Effective use of multimedia presentations in today's digital media culture environment should include the following requirements.

The requirement of adaptability, which implies the adaptation of the learning process to the level of knowledge and skills, psychological characteristics of students. Here the gradation of levels and conditions of adaptation is of great importance: from the individual pace of learning the material to the development of individual tasks.

Requirement of interactivity, which involves interactive dialogue and feedback from the audience. This helps to monitor the activities of students.

The requirement to develop the intellectual potential of students when working with a multimedia presentation involves the formation of different styles of thinking.

The requirement to ensure the integrity and continuity of the marketing cycle means that the multimedia presentation should provide the ability to perform all parts of the marketing cycle within a single session with information technology.

In our opinion, adherence to these principles is equally important for the speaker, and for students who create multimedia presentations for use in class, in the defense of projects, exams and tests.

As a result of systematization of information on multimedia presentations, the following four types of scenarios for the use of presentations in today's digital media culture can be proposed.

Scenario 1. Use of multimedia linear resources – consistent presentation of information. For example, a sequential presentation of new material for listeners on a topic, made using multimedia tools such as sound, animation, computer simulation, video.

Scenario 2. The use of multimedia hypertext materials – inconsistent presentation of information. This is work with electronic encyclopedias or Internet resources to search for materials on the topic of the abstract.

Scenario 3. Use of multimedia learning products – research activities using multimedia. Typically, scenario 3 includes elements of both scenario 1 and scenario 2.

Scenario 4. Using special tools to create your own multimedia products. For example, students can use a standard web page editor or Power Point along with a text editor to create a linear presentation. In scenarios 1, 2, 3, listeners are seen as end users of educational multimedia, while in scenario 4 they act as developers of small multimedia products.

In this sense, the use of a multimedia presentation to determine the levels of cognitive activity, which can be performed, for example, based on the definition of appropriate criteria (table 1).

Table 1

Levels of cognitive activity of listeners as a result of using a multimedia presentation

Level of cognitive activity	Level characteristics
High (creative)	Characterized by interest and desire not only to penetrate deeply into the essence of phenomena and their relationships, but also to find a new way for this purpose. This level of activity is provided by the excitation of a high degree of inconsistency between what the listener knew before, what was already encountered in his experience and new information, a new phenomenon. Activity, as the quality of a person's activity, is an integral condition and indicator of the implementation of any principle of learning.
Intermediate level (level of interpretation)	It is characterized by the listener's desire to identify the meaning and content of educational activities, the desire to learn the connections between phenomena and processes, to master the ways of applying knowledge in changed conditions. A characteristic indicator: the great stability of volitional efforts, which is manifested in the fact that the student seeks to bring the case to an end, in difficulty does not refuse to perform the task, but seeks solutions.
Low level (level of reproduction)	It is characterized by the desire of the listener to understand, remember and reproduce knowledge, to master the method of its application according to the model. This level is characterized by instability of the listener's willpower, lack of interest in students to deepen knowledge, lack of questions such as: "Why?".

Achieve the expected effect in the form of a high level of cognitive activity of listeners as a result of the use of multimedia presentation can be subject to certain requirements regarding the clarity of illustrative material.

Requirement 1. Ergonomics and clarity of the presentation material, which must correspond to the proposed written or oral information.

Requirement 2. Dynamics of presentation. The demonstration time should be optimal, and correspond to the currently studied educational information. It is very important not to overdo the effects.

Requirement 3. Well-thought-out algorithm of video sequence of images. Multimedia tools give the speaker the opportunity to present the desired image to the nearest moment. It is enough for the teacher to think over in detail the sequence of presenting images on the screen, so that the learning effect was as great as possible.

Requirement 4. The optimal size of clarity. And this applies not only to the minimum, but also the maximum size, which can also have a negative impact on the learning process, contribute to faster fatigue of students. The teacher should remember that the optimal image size on the monitor screen does not correspond to the optimal image size of the large projector screen.

Requirement 5. The optimal number of proposed images on the screen. You should not admire the number of slides, photos, etc., which distract listeners, do not allow you to focus on the main thing.

When preparing the necessary episode, the speaker will definitely face the problem of presenting the text of presentations. It is necessary to pay attention to the following requirements to the text:

- structure;
- volume;
- format.

The text on the screen should act as a unit of communication. It has either a subordinate character, which helps the speaker to increase the semantic load, or is an independent unit of information that the teacher does not intentionally voice. Naturally, when definitions and key phrases appear on the screen. Often on the screen we see a kind of thesis plan of the lesson. In this case, the main thing is not to overdo it. It has long been known that a large amount of text is poorly perceived from the screen. The speaker should strive to replace printed text with clarity whenever possible. In fact, it is also a text, but presented in another language.

It is also important how the printed text will be presented from the screen. As well as clarity, the text should appear at a pre-planned time by the teacher. The speaker either comments on the submitted text or reinforces the oral information submitted by him. It is very important that the speaker never duplicates the text on the screen. Then the listeners will not have the illusion of an extra link of incoming information. Although there may be cases when duplication of printed text by a teacher or student is didactically justified.

Duplication of printed text is also mandatory at any age when conducting multimedia didactic games. In this way, the speaker achieves equal

conditions for all listeners: both those who perceive oral information more easily and those who absorb the information of the printed text more easily. When preparing a multimedia lesson, the developer must have at least a basic idea of color, color scheme, which can successfully affect the design of the color scenario of the educational episode. The recommendations of psychologists and designers about the influence of color on the cognitive activity of listeners, about the combination of colors, the optimal number of colors on the screen, etc. should not be ignored. It should be noted that the color perception on the monitor screen and on the big screen are significantly different, and the multimedia lesson should be prepared primarily based on the projector screen.

It is important to use sound in class. Sound can play a role:

- noise effect;
- sound illustration;
- soundtrack.

As a noise effect, sound can be used to attract students' attention, switching to another type of learning activity. Having a multimedia collection of sound effects does not necessarily mean using them. The noise effect must be didactically justified. For example, in the case of a multimedia didactic game, the intermittent noise effect can be a signal before the discussion of the question or, conversely, a signal before the end of the discussion and the need to answer. It is very important that listeners are accustomed to this, so that the sound does not cause them too much excitement.

Sound illustration plays an important role as an additional channel of information. For example, a visual image of animals or birds may be accompanied by their growling, singing, and so on. A drawing or photograph of a historical figure may be accompanied by his recorded voice.

Finally, sound can play the role of educational sound accompaniment of visual image, animation, video. In this case, the speaker should carefully consider how rationally to use the soundtrack of the presentation. It will be optimal to use sound as an educational text in the course of independent preparation for the lesson. At the lesson itself, the soundtrack should be minimized.

Modern technologies are known to successfully use fragments of video films in the multimedia presentation of the material. The use of video information and animation can significantly enhance the learning effect. It is the film, or rather a small educational fragment, most contributes to the visualization of the educational process, the presentation of animation results, simulation of various processes in real time learning. Where a stationary illustration or table does not help in learning, a multidimensional moving figure, animation, frame plan, video plot and much more can help.

However, when using video information, do not forget to keep the pace of the presentation. The video should be extremely short in time, and the speaker should take care to provide feedback to the audience. That is, video information should be accompanied by a number of developmental questions that invite listeners to dialogue, commenting on what is happening.

Under no circumstances should listeners be turned into passive viewers. It is necessary to replace the soundtrack of the video clip with the living language of the speaker and listeners.

Multimedia means of digital media culture have an indisputable advantage over other means of culture of post-industrial society, when it is necessary to show phenomena and processes of development and dynamics that are not available for direct observation. Therefore it is expedient to use them for fixing of attention of the listener on separate parts of static material. The content of multimedia material must meet the requirements of educational and marketing programs. The issue of creating support in a certain language is positively resolved by the speaker in the process of preparation for the event. Criteria for evaluating presentations consist of requirements for their creation (Table 2).

Table 2

Criteria for evaluating presentations

1	2
Criteria	Parameters to be evaluated
Theme of the presentation.	Correspondence of the theme to the program of the academic discipline, section.
Didactic and methodical purposes and tasks of the presentation.	Correspondence of the purposes of the set theme Achieving goals and objectives.
Highlighting the main ideas of the presentation Compliance with the goals and objectives.	Contents of inferences. The degree of interest in the audience. Number (recommended for memorization by the audience no more than 4–5).
Contents	Reliable information about historical references and current events. All conclusions are confirmed by reliable sources. The language of the material is clear to the audience. Relevance, accuracy and usefulness of the content.
Selection of information for project creation – presentations.	Graphic illustrations for presentation. Statistics. Charts and graphs. Expert assessments. Internet resources. Examples. Comparison. Quotes, etc.
Submission of project material – presentations.	Chronology. Priority. Thematic sequence. Structure on the principle of “problem-solution”.

Continuation of Table 2

1	2
Technical part Grammar	Adequate vocabulary. Presence of spelling mistakes and typos.
Logic and transitions during the project – presentations.	From the introduction to the main part. From one main idea (part) to another. From one slide to another. Hyperlinks.
Conclusions	A vivid statement is a transition to a conclusion. Repetition of the main goals and objectives of the speech. Conclusions. Summing up. A short statement at the end that is well remembered.
Presentation design Font	The degree of correctness of the color choice (background, font, links). Animation elements.
Technical part Grammar	Adequate vocabulary. Presence of spelling mistakes and typos.

The user interface for presenting a multimedia product combines:

a) graphical environment (screen image);

b) a set of controls;

c) technologies of user interaction with the product.

User interface design requirements are developed within different concepts. The following basic interface design concepts should be used for multimedia presentations.

1. The concept of user centered design (task centered design)

According to this concept, the correct interface is one that ensures efficient execution of user tasks. Based on this, the process of developing the interface has the following stages: defining the range of tasks of users; formation on this basis of a set of interface functions that provides the most effective solution to these problems; determination on the basis of the formed set of functions of the necessary set of control elements of the interface. Unfortunately, the described concept does not answer the question of how the interface controls should be designed and arranged.

2. The concept of user centered design

According to this concept, the right interface is optimized for the target audience. The main indicator of the quality of the interface is the attitude of users to the interface, their subjective satisfaction. Based on this, an integral part of the interface development process is the study of the characteristics of the audience (for example, the level of initial training of users, their expectations, knowledge of the subject area and physiological characteristics).

3. The concept of interface design focused on the goals (motives) of users

According to this concept, the correct interface is optimized for the motives of the target audience. The motives explain the tasks of users and therefore allow to determine the basic requirements for ways to solve these problems and the basic requirements for the design of the interface.

4. The concept of ergonomic indicators

According to the system of ergonomic indicators, the interfaces are characterized by:

- user speed;
- the number of user errors;
- subjective user satisfaction;
- the speed of teaching the user the skills of operating the interface;
- the extent to which the user retains these skills when not using the product.

The correct interface design of multimedia presentations is assessed by the degree of efficiency, complexity and satisfaction (as in the system of Schneiderman indicators), and is determined by the set goals (as in the concepts of interface design focused on goals and objectives), user characteristics (as in the concept of interface design focused on users) and content characteristics.

In a multimedia presentation for the effective perception of information should be distinguished at least three prominent hierarchical levels of information:

1) the level of key information.

This level covers only the most important concepts and conclusions, i.e. only key information. But this information should give a complete picture of the subject area;

2) the basic level.

This level covers the bulk of all material. It contains a detailed methodological statement of all issues;

3) advanced level.

This level covers in-depth consideration of specific issues for those users who want to expand their knowledge.

The following design tools can be used to organize an information hierarchy in a multimedia presentation:

1) selection of basic information by means of visual accents.

The most common methods of creating a visual accent on the object are:

- use a brighter color;
- increase the size of the object;
- change the location of the object;
- highlight the object with a flashing light.

Quantitative assessment of visual accent is its intensity. The intensity of the visual accent is determined by the ratio of the accented characteristic (for example, color or size) of the object with the corresponding characteristic of the background. Selecting an object with color is considered the most

effective, and selecting it by changing its size or brightness is considered less effective;

2) use of additional information personnel.

Additional information frame is intended to accommodate a small amount of information that is ancillary to the material of the main pages of the electronic publication. Such information can be definitions, illustrations, examples and the like. The user gets access to the information placed in the frame by a hyperlink from the main information page, and the frame is not part of the structure of the electronic edition;

3) creation of separate divisions with the basic and secondary information.

In today's digital media culture, mental maps should be used when creating multimedia presentations. There are some recommendations for creating mental maps. It should be noted that the style of the mental map is important to make bright and unusual. You can use humor, non-standard thinking.

The mental map has a radial structure. The main idea, task or object of attention – in the center, other objects related to the topic, depart in the form of branches from the center to the periphery of the mental map. In this case, the main idea may be the development of an innovative project or the idea itself.

The map should be clear not only to those who make it, the map should have an obvious order of information, importance, priority of a particular block of information, it is better to use a selection, such as a halo or the use of another color.

The mental map should attract attention, so you should use different types of pictures, font size, scale. An interesting way of presenting information on a mental map is coding: you can use common codes (prohibition signs, or important information) or come up with your own codes, and place additional symbols on the map.

The more pictures a card contains, the better it will be remembered. It is better to mark the central image of the mental map with an image, but it is impossible to exaggerate with pictures so that the map does not become completely colorful. No more than one or two keywords should be written on one branch, this allows you to expand the flow of associations, ideas and thoughts.

The procedure for developing a mental map of an innovative idea is as follows:

1) in the middle of the canvas of the mental map should indicate the industry, object or topic in which you want to generate an idea;

2) from the central theme of the theme depart the main lines that divide the theme into separate areas – it can be images and associations associated with the main theme. They indicate the key words in capital letters, and for better clarity for each main theme can be determined by its color, the thickness of the line can indicate the purpose of the word;

3) primary associations should be developed in the following branches. An arbitrary number of branches of the same color as the following keywords depart from the main branches, they form additional associations. This is how you can get a new idea in a certain field of knowledge.

For all its simplicity, a tool such as a mind map has one important property – it allows you to get to the heart of the problem and at the same time see the full range of tasks. The use of mental maps online to build the readiness of professionals to innovate is an important step in the development of e-learning systems in the workplace, through which e-learning becomes more multifaceted, interesting and effective.

Conclusions and suggestions. Thus, multimedia presentation is an important component of modern digital media culture. This multimedia product in the process of developing its design must be considered in three aspects:

1) as a carrier of various types of multimedia information;

2) as a system that interacts with the user through a user interface;

3) as a means of supporting the solution of tasks.

Each of these aspects is characterized by certain requirements for the process of designing a multimedia presentation. Thus, the requirements for multimedia design are determined by the provisions of cognitive theory. The requirements for the user interface of the product are determined by the provisions of usability and other known concepts of interface design. And all these requirements must be taken into account in their relationship in the process of designing an educational multimedia product

The practical result of the scientific research of the article was a system of recommendations to developers regarding the creation and use of presentations in the modern environment of digital media culture.

The direction of further research may be to assess the quality of the use of presentations in the modern environment of digital media culture.

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Грабовський Є. М. Мультимедійна презентація як складова компонента культури цифрових медіа

У статті подано методичні засади щодо розгляду мультимедійної презентації як складової компоненти культури цифрових медіа. Практичним результатом статті виступає система рекомендацій розробникам стосовно створення та використання презентацій у сучасному середовищі культури цифрових медіа. Визначено якісні та кількісні переваги використання мультимедійних презентацій. У статті систематизовано ключові конкурентні позиції, які забезпечуються використанням мультимедійної презентації в сучасному середовищі культури цифрових медіа. Запропоновано основні вимоги, яких треба додержуватися для ефективного використання мультимедійних презентацій в умовах постіндустріального суспільства. У роботі рекомендовано та розглянуто чотири типи сценаріїв використання презентацій у сучасній культурі цифрових медіа. У дослідженні особливу увагу акцентовано на визначенні рівнів пізнавальної активності використання мультимедійної презентації. Систематизовано окремі вимоги стосовно наочності ілюстративного матеріалу, які дозволяють досягти очікуваного ефекту у вигляді високого рівня пізнавальної активності слухачів у результаті використання мультимедійної презентації. Акцентується увага на тому, що зміст мультимедійного матеріалу має відповідати вимогам навчальних і маркетингових програм. Стосовно питання про створення супроводу мультимедійної презентації певною мовою у статті вказується, що воно позитивно вирішується спікером у процесі підготовки до проведення заходів. Запропоновано критерії оцінювання презентацій, які складаються з вимог до їх створення. У статті розглянуто основні складові компоненти користувальницького інтерфейсу презентації мультимедійного продукту. Запропоновано перелік основних концепцій дизайну інтерфейсу, які варто використовувати для мультимедійних презентацій. Розглянуто основні ієрархічні рівні інформації в мультимедійній презентації, які необхідні для ефективного сприйняття інформації. Акцентується увага на тому, що кожний з аспектів характеризується певними вимогами до процесу проєктування дизайну мультимедійної презентації.

Ключові слова: *мультимедійна презентація, культура цифрових медіа, вимоги, ілюстративний матеріал, методичні засади.*