PECULIARITIES OF USING INFORMATION AND REFERENCE MULTIMEDIA PUBLICATIONS IN THE PROCESS OF FUTURE HISTORY TEACHERS TRAINING

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Active use of information multimedia publications, electronic encyclopedias, resources of virtual museums in the educational process is possible on condition that such scientific and practical problems as intensifying the educational process and increasing its efficiency in the process of informatization are solved.

Having analyzed the results of scientific studying the possibilities of applying multimedia information publications and, in particular, Wikipedia with its affiliated projects, examples of the other information resources in the educational process, explaining their terminological differences and identifying their essential and technological differences the following methods of investigation were used: theoretical analyses of scientific literature aimed at defining the status of the problem under study; modeling for determining the peculiarities of using different reference multimedia publications in the process of teaching History.

Among the wide range of information resources mentioned, one of the most effective is Wikipedia encyclopedia with its affiliated projects. Encyclopedic articles mostly contain historical information, while in the process of teaching history and other social and humanitarian disciplines it is advisable to use photos and multimedia illustrations posted on the repository, as well as to edit the existing articles with adding the necessary historical information, creating new articles about the historic events and personalities, as well as photographing historical objects to illustrate the existing information. It would positively influence forming future teachers' relevant professional competence. However, it is possible only on condition that the level of information and communication competence of university teachers is increased but most of them lack the skills and experience of working with computer equipment, multimedia products.

Key words: *multimedia educational tools; history; future teachers; multimedia publications; electronic encyclopedias; virtual museums; e-learning editions.*

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ОСОБЛИВОСТІ ВИКОРИСТАННЯ ІНФОРМАЦІЙНО-ДОВІДКОВИХ МУЛЬТИМЕДІЙНИХ ВИДАНЬ У ПРОЦЕСІ ПІДГОТОВКИ МАЙБУТНІХ УЧИТЕЛІВ ІСТОРІЇ

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Активне використання інформаційно-довідкових мультимедійних видань, електронних енциклопедій, ресурсів віртуальних музеїв в освітньому процесі можливе за умови вирішення таких науково-практичних проблем, як інтенсифікація навчально-виховного процесу та підвищення його ефективності в умовах процесу інформатизації.

Проаналізувавши результати дослідження науковцями можливостей використання інформаційно-довідкових мультимедійних видань і, зокрема, Вікіпедії та її сестринських проектів, прикладів інших інформаційних ресурсів у освітньому процесі з поясненням їх термінологічних розбіжностей і визначенням їх сутнісних і технологічних відмінностей нами було використано такі методи дослідження: теоретичний аналіз наукової літератури з метою з'ясування стану досліджуваної проблеми; моделювання, з метою визначення особливостей використання різних інформаційно-довідкових мультимедійних видань у процесі навчання історії.

Серед широкого кола названих інформаційних ресурсів однією з найефективніших є вільна енциклопедія Вікіпедія з її сестринськими проєктами. В енциклопедичних статтях переважає історична інформація, тоді як в процесі викладання історії та інших суспільно-гуманітарних дисциплін доцільно використовувати світлини та мультимедійні ілюстрації, розміщені на вікісховищі, а також редагувати вже існуючі статті з додаванням потрібної історичної інформації, створювати нові статті про історичні події, персоналії, а також здійснювати фотографування історичних об'єктів для ілюстрації існуючої інформації. Все це позитивно впливатиме на формування у майбутніх учителів історії відповідної професійної компетентності. Однак, це можливе за умови підвищення рівня інформаційно-комунікаційної компетентності викладачів закладів вищої педагогічної освіти, у більшості з яких відсутні уміння й навички роботи з комп'ютерною технікою, готовою мультимедійною продукцією.

Ключові слова: *мультимедійні навчальні засоби; історія; мультимедійні видання; електронні енциклопедії; віртуальні музеї; електронні навчальні видання.*

Introduction of the issue. In the context of informatization of the educational process, the use of multimedia educational technologies, in particular, in higher education institutions helps to solve a number of scientific and practical problems, which contributes to the intensification of the educational process and increases its efficiency. Accordingly, in the educational process, both during classroom work and especially during students' individual and independent work, information and reference multimedia publications are increasingly used, which testifies to the formation of relevant professional competence in future history teachers.

Current state of the issue. However, scientific studies (V. Adolf, V. Bogolyubov, V. Bondar, O. Zablotskaya, O. Lokshina, O. Savchenko) relate mainly to the general issues of the development of professional competence and the criteria for the diagnosis of its levels of formation. Also, a number of scientists (H. Boryak, M. Girnyak, T. Dobko, P. Zheznich, A. Kinyabulatov, E. Ospennikova, L. Petukhova, V. Smoly, N. Chernysh, S. Shurakov) investigate the general problems of filling the Internet network with electronic encyclopedic publications, and V. Biletsky, S. Dyachok, I. Zhivyuk, A. Lutsiuk, G. Stetsenko, and others analyze the possibilities and ways of

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using wiki technology in pedagogical practice.

The outline of unresolved issues brought up in the article. At the same time, the issue of using multimedia information reference books in the process of teaching history and subjects of the social and humanitarian cycle in institutions of general secondary and higher education, and, accordingly, the formation of professional competence of future teachers of history, despite the relevance of this issue in the conditions development of multimedia technologies, researched in modern science is not enough.

Aim of research. Based on the current state of scientific research, the purpose of this article is to investigate the conditions and principles of using multimedia publications and, above all, electronic encyclopedias, in training future History teachers in the higher education institutions.

Results and discussion. The main varieties of information and multimedia publications on history and social and humanitarian subjects include multimedia encyclopedias, virtual museums, online resources.

Encyclopedias, being specialized sectoral encyclopedic publications, consist of different types of articles: reference, review and explanatory ones. Multimedia encyclopedias in history can be effectively used in history lessons and social sciences, because they contain significant volumes of theoretical, historical, biographical, bibliographic information about historical events, countries in the past, historical personalities and more.

The current market for multimedia background information is represented by several types of resources. By distribution technology, they can be classified into those hosted on the Internet (networked), on electronic media read by computer (local) and combined (local). In this case, local encyclopedias published on a CD carrier can be adapted to the web encyclopedia and vice versa.

According to researcher N. Chernysh, electronic encyclopedias are, in fact, multimedia, as they are electronic reference publications, containing information from one, several or all areas of knowledge and practice, presented in the form of articles with the possible involving different elements of multimedia such as images, animation, audio and video, etc., and has a user-friendly (simplified) search engine allowing to navigate from one article to another via hyperlinks in text placed on electronic storage media or on the Internet [9]. In addition, the benefits of electronic encyclopedic publications (web encyclopedias) include the use of hypertext technology, which provides an immediate transition from one article to another related to it, as well as their ease of regularly updating outdated information and, finally, feedback, with the reader.

Scientist L. Petukhova draws attention to the benefits of a multimedia encyclopedia that can combine textbooks, reader, personal information, bibliography (literature, sources, Internet addresses), gaming tasks, and contains much more information than a regular book (in a compact form), and allows you to provide not only audio and visual information, but also multimedia (video clips can be used) [7].

According to the researchers A. Kinyabulatov, E. Ospennikova, N. Chernysh, S. Shurakova [4; 5; 10] electronic encyclopedias can be classified by the following characteristics:

- for the intended purpose: scientific, scientific-popular and popular;

- by structure of the main text: alphabetic and systematic (chronological order of material);

- the nature of the information: a) universal or general (applies, as a

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rule, to popular science encyclopedias); b) sectoral (a separate area of knowledge, refers to both scientific and popular science and popular encyclopedias), which in turn is divided into: industry, sub-sectoral and inter-sectoral; c) regional or local history; d) specialized: thematic (materials on a specific topic), personal (facts of life and activity of a prominent scientist, writer);

- by the form of presenting information: electronic copies of paper thesaurus editions and multimedia encyclopedias;

- by execution: local information resource (on CDs) and Internet resource;

- by level of activity of the virtual environment: passive (presenting information) and interactive (with feedback elements, using Wikipedia).

On condition of having access to the Internet at History lessons a university teacher can use electronic encyclopedias, multimedia encyclopedic systems on history, or specific topics of historical knowledge. Such information can become an additional source to the available textbooks and allow students to deepen their knowledge and help them to prepare creative works. There are also electronic (digital) copies of printed (paper) encyclopedic publications in history, digitized in various formats PDF, DjVu, FV2, EPUB, RTF, HTML (10-volume Encyclopedia of Ukrainian History), 2003-2013, 4-volume "Soviet Encyclopedia of Ukrainian History" (REIU, about 9 thousand articles), 1969-1972, 16-volume "Soviet Historical Encyclopedia" 1961-1976, 11-volume "Encyclopedia of Ukrainian Studies" consisting in particular of the "General part" (Munich, New York, 1949) and the "Thesaurus part" (1955-1995), 26-volume "History of cities and villages of the Ukrainian SSR"(25 essays on oblasts, 352 on cities, 964 on settlements; 8319 reports on centers of village and village councils; 9916

illustrations, schemes, maps; about 120 thousand names of participants in the historical events), 1967-1974 years, 3-volume «Handbook in the history of Ukraine», 1993-1996, 2-volume «Encyclopedia of Trypillya civilization» (870 encyclopedic articles, more than 3000 illustrations), 2004, etc.); regional historical encyclopedic publications; multimedia discs to prepare for external independent evaluation of history; video lectures on history in the Internet.

In particular, the plans of the editorial board of the Encyclopedia of History of Ukraine, preparing a multimedia version of the encyclopedia on optical disks and creating an electronic encyclopedia, as a permanent, systematic updated resource such as Wikipedia, but with the academic and professional approaches to presenting the historical, social and humanitarian knowledge.

Even more effective are online electronic encyclopedias. In addition to being able to retrieve information from them, they provide an opportunity to supplement and edit existing articles, as well as add historical information that is not yet available, subject to certain rules. Organizing such work can replace inefficient work in preparing and writing messages and abstracts. The following interactive online encyclopedias can be identified for use in history teaching:

1. Free Wikipedia encyclopedia (www.wikipedia.org) and its sister projects implemented using the MediaWiki system, written in PHP. In 2006, the term Wiki was added to the Oxford Oxford English Dictionary (OED). It means a model of sites whose content can be modified by the user [2: 30].

Founded in 2004, the Ukrainian-language encyclopedia has over 940,000 articles (17th among more than 300 language sections) and is the world's largest electronic resource in Ukrainian. By views in different months

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of 2019, it is among the five most popular sites in Ukraine. Wikipedia is considered to be the most comprehensive encyclopedia ever created in terms of volume and subject matter, as it is open to view and to add new articles.

It currently has more than 200,000 pages, beginning with or referring to History. In addition, the encyclopedia exceeds paper publications in terms of illustrated multimedia content (56.2 million media files, photos, video and audio), which is freely available on Wikimedia Commons, providing in such a way illustrating the articles, adding audio files and video materials. Also available under the free Creative Commons license or in the public domain are more than 15,000 original texts and translations in the Wikipedia project (www.wikisource.org). In addition, about 40,000 articles have a Wiki Dictionary (www.wiktionary.org), which interprets many terms and words translated into other languages, and more than 6,000 articles of free collections of quotes and aphorisms by famous historical figures "Wiki Quotes" (www.wikiquote.org). Encyclopedia material is structured according to about personalities, literary works, feature films and subject blocks.

In addition, the wiki-encyclopedia provides the opportunity to obtain information from the desired reader at the same time in several languages. Researcher G. Stetsenko draws attention to the principle of polylogy - the possibility of combining the materials of several reference and encyclopedic editions in one Wikipedia article, which achieves the educational effect of the wiki encyclopedia, which is provided by pedagogical presentation of material that is implemented by the relevant features of hypertexts. That is, different interpretations of the same concept in different directories of different authors can be linked by hypertext links. These comparisons

complement each other, deepen the understanding of concepts, push for independent comparison and comprehension of the material [8].

Gradually, in general and higher education institutions, the writing of abstracts and messages is replaced by editing and writing articles on Wikipedia. Thanks to one of the most popular (most used) and most accessible MediaWiki technologies, which uses relational database (as well as MySQL, PostgreSQL and Memcached and Squid programs), each user (editor) in a special interface of work with the database can edit or add text, create or add text new pages and articles, both in native and HTML and TeX formats (for formulas) directly online, download multimedia (photo, audio, video) or other files and more. Researcher I. Zhivyuk, noting that encyclopedic content, Wikipedia itself is a source for acquiring new knowledge when not only knowledge, information from different fields is accumulated, but information about researchers, institutions involved scientific search [3].

Due to such general availability of filling the content, editors sometimes do not always adhere to the principle of scientific and objectivity of the background information, and sometimes post trendy or false information. Therefore, in the scientific community, it is accepted not to recognize as an authoritative source of information articles from Wikipedia, which, however, are published by rules that are scientific: mandatory references to authoritative sources, neutral point of view, structured text, verified material, etc. MediaWiki technology also enables the use of various information retrieval systems, making it easier to find information in such a multimedia encyclopedia.

In addition to using Wikipedia information as an encyclopedia, it can be used in the learning process (especially after hours) by editing

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existing articles and adding new ones there, in accordance with the rules and guidelines. It is also advisable to use the materials from the Wikimedia Commons to illustrate the lessons. In addition, students and students can photograph important infrastructure in the settlements of Ukraine to illustrate articles about them or participate in relevant competitions [1: 148]. To edit an existing article, you must go to this article and use the corresponding buttons "Edit" or "Edit code" ("edit code."). When creating Wikipedia articles (making sure there is no such article), you must adhere to the basic Wikipedia rules and intellectual property laws: mark sources from which information is taken, even if it has been previously published by other users.

The development of the Ukrainian Wikipedia segment is driven by the public's need for quality information. In this context, the researchers note that "the execution of open online encyclopedia works and the long-term effect is an interesting and pressing scientific problem at the intersection of computer and social sciences and can be framed as a scientific research and funded as a scientific experiment." [9: 181].

2. The Encyclopedia of Modern Ukraine (ESU, esu.com.ua) is a Ukrainian online encyclopedia that became available in 2014. It contains a great deal of articles about historical events, timelines and personalities. Currently, the site, created by a team of authors in accordance with the format of the printed version of the Encyclopedia of Modern Ukraine, contains more than 50,000 articles and more than 20,000 units of colored iconographic material. The 20-volume paper contains over 100,000 articles, about 80,000 illustrations, and color inserts.

Due to the fact that the electronic encyclopedia has been in beta for several years, based on the use of three major technologies: PHP, MySQL and JavaScript, the search engine is not working properly. The main pages of the ESU contain links to the main sections of the edition: "Universe and Earth", "Man", "Society", "Science", "Culture". A global search for encyclopedia materials is also available on the homepage. Editors add texts to the database of a site hosted on a local computer and only transfer them to the web server after repeated scrutiny.

3. "Great Ukrainian Encyclopedia" ("VUE", https://vue.gov.ua) - launched in January 2013 with a presidential decree on the proposal of the National Academy of Sciences of Ukraine. The State Encyclopedic Publishing Institute, with the participation of the Institute of Software Systems of the National Academy of Sciences of Ukraine, should produce, by 2026, a printed (approximately 80,000 articles) and electronic (e-VUE launched in 2017) versions of the encyclopedia. VUE is positioned as a universal encyclopedia, articles in which are placed on the basis of verified and reliable information written by leading experts of Ukraine - teachers of higher education institutions, staff of scientific institutes, experts. However, most articles have several sentences.

Thanks to the use of interactive and multimedia means in the electronic RES, the text of the articles is supplemented with audio, video materials, illustrations – photos, maps, figures, graphs, diagrams, drawings.

In addition, the Creative Commons license for a free, non-profit, copyrighted publication contains Wikipedia's Encyclopedia of History of Ukraine and the Encyclopedia of Modern Ukraine at the Institute of Encyclopedic Research of the National Academy of Sciences of Ukraine.

4. The Encyclopedia of Monuments (www.encyclosights.com) helps you to find monuments of culture,

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architecture, nature, art of Ukraine and get acquainted with information about 13 707 monuments and see 2 550 photographs. Despite such little illustriousness of this encyclopedia, it is the largest collection of monuments of Ukraine from all those on the Internet or published in guides or guides.

It also has a very successful system of searching for articles and information by selecting the location(s), categories of monuments (fortification, religion, palaces, nature, ancient times, civil architecture, industry, folk life, burial sites, auxiliary buildings, etc.).

5. Online Encyclopedias "Ukrainians in the United Kingdom" (www.ukrainiansintheuk.info) and "Ukrainians in the World" (http://www.ukrainians-world.org.ua), as a joint project of the British Office of the Encyclopedia of the Ukrainian Diaspora» (EUD) and the Union of Ukrainians in the United Kingdom has been active in Ukrainian since 2008. They provide more information on the personalities and history of the Ukrainian diaspora. It is easy to search for information either by alphabet or by topic (centuries, region, sphere, keyword) or through the search bar.

Many multimedia information and reference resources are designed as guides to the halls of history, art, or local history museums. Moreover, virtually every museum in Ukraine and the historical and national museums of most countries of the world have multimedia support of their own exposition or at least an electronic version on the web site. You can search for the historical collection you need through conventional search engines. However, many portals or sites have been created (World Museums - https://museum-portal.com/en/museums/all, Virtual Tour of World Museums - http://lib.if.ua/publish2009/1249300238.html, Museums online - http://discovery.4uth.gov.ua/informati

onal-resources-unlimited-access/muzeie-online, etc.), which provides a summary of virtual tours of museums. Similar information (exposition photos and links to the site with the location of the institution on the map) about more than 200 museums in Ukraine and 23 worlds (Russia, Kazakhstan, France and Germany) is best represented on the museum portal (Museum portal https://museum-portal.com/ua/museums/all). There is navigation by countries (mainly Ukraine) and cities, but not by museum profile. About four dozen historical, archeological, art and history museums, as well as history of religion, history of educational institutions, historical and cultural reserves are represented here.

More than thirty virtual tours of the halls of museums of Ukraine with audio accompaniment are posted on the Ukraine Incognita portal on the site of the daily national newspaper "Den" (http://incognita.day.kyiv.ua/museums.html). Most of them are historical, archaeological memorial museums or historical monuments that accompany the study of history. A similar project "Interactive Tour of Museums of Lviv Region" (http://old.dailylviv.com/3D/loda/) allows you to visit almost 30 historical museums of Lviv region with virtual excursions.

The new Google Art Project themed online exposure project also plays a big role. It strictly catalogs multimedia information (photos and videos) of primary sources from different walks of life, including the Historical Events section (https://artsandculture.google.com/category/event). Navigation allows you to search hundreds of thousands of photographs of historical events (mainly world events) alphabetically and chronologically (from 2000 BC to the present day), as well as carry out 150

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interactive exhibitions and virtual tours of hundreds of museums around the world.

Conclusions and research perspectives. So, it can be noted that a significant amount of encyclopedic multimedia is currently being created, virtual guides to museums of the world of historical and social and humanitarian orientation, which can be used productively at various stages of historical education, in particular in the process of preparing future history teachers to enhance their professional competence and general educational attainment. The quality of this electronic product, subject to the requirements of scientific, systematic, accessible, awareness, durability of assimilation of knowledge, as well as clarity and interactivity through the dynamic management of the presentation, is quite high. Almost all multimedia tools can be found freely available on the Internet. Accordingly, the development and improvement of these resources testifies to the prospects for further exploration in this direction, since it will require the determination of current methodological and didactic approaches to their use in the educational process.

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