

Multimedia technologies in humanitarian training of a teacher musician

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Abstract. An active transition to distance learning requires a teacher of a modern higher school to develop new methods in organizing and supporting the educational process. The proposed research examines the basic principles of a musician-teacher's training on the example of generalizing one's own experience of introducing multimedia technologies in teaching musical and historical disciplines and creating an electronic textbook on "History of music (foreign and domestic)" for a bachelor's degree in specialty 44.03.01 (Pedagogy. Music).

1 Introduction

The rapid development of information technology at the turn of the second half of the twentieth and the first decades of the twenty-first century had a significant impact on the entire life of modern society, higher education was no exception. Currently, in modern higher education, Internet technologies are becoming a universal means of training students of various levels and specializations. Created with the aim of a qualitative transformation of education "... they stimulate curiosity, freedom and alternative learning of students, contribute to the advancement of many ideas, their quick, flexible and original solution" [1]. As a result, interdisciplinary areas of professional activity arise, requiring knowledge and skills both in the field of information technology and musical professional activity. The result of this process was the active development of the innovative direction of musical pedagogy associated with the active transition to online learning and multimedia technologies.

2 Materials and methods

Over the past years, the electronic support of the educational process in higher education has become the subject of close study of domestic researchers (V.I.Bespalko, I.G. Zakharov, O.V. Zimin, A.I. Kirillov, I.V. Krasilnikova), etc. In this area, certain areas have developed, most of which are related to computer science and technical specialties.

To a lesser extent, electronic support technologies are in demand in liberal arts education. The only exceptions are linguistics and philology (E.V. Vdovin, O.A. Voevodin,

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V.G. Redko, S.I. Karpa, E.V. Kokhan), whose researchers are actively involved in this problem.

In the field of theory and practice of domestic music education, it is necessary to highlight the works of a number of authors engaged in the study of activity, personality-oriented and integrated approaches (E.B. Abdullin, I.B. Gorbunova, P.L. Zhivaykin, P.L. Zabolotnaya, L.G. Savenkova, B.P. Yusov, I.M. Krasilnikov, A.P. Markov, A.V. Meshcherkin).

3 Discussion

Discussion of the problem of introducing multimedia technologies into the domestic pedagogy of music education is associated with the transition of higher education (including music and pedagogical education) to on-line training, which requires the university teacher to actively use new forms and technologies of information and multimedia education, among which the most important is the development and implementation of an electronic textbook on a set of disciplines.

The author of the study owns several publications on the development of this problem, based on personal experience in teaching the disciplines of the history of music (the Department of Music Pedagogy and Performing Arts of the Humanitarian Pedagogical Academy (branch) of the V.I. Vernadsky Crimean Federal University) [2, 3, 4].

4 Results

The formation of computer networks has opened up a completely new way of communication to the world community. The latest technologies in the field of multimedia with their unlimited possibilities for processing and transmitting digital data have formed a system of new intercontinental communication between peoples, states and continents.

The development of the Internet and the active spread of telecommunication means determined the transition of society from a linear way of thinking to hyperception (global perception), which led to a fundamental replacement of communication, from the printed word to the electronic one. According to M. McLuhan (one of the largest theorists of computer networks), it is this moment that is considered the beginning of the fourth communication revolution, which ended the Gutenberg era and, accordingly, initiated the transformation of the planet into a single «Global Community» [5].

Thus, the influence of computer software on the culture of modern society is incomparably more complex and deeper in comparison with the technical revolution of the previous era. As a result, each person on a personal computer, using multimedia tools, can use a CD-ROM with recorded and saved texts, watch audio and video clips, place text, graphic and audio and video files with various information. Today it is widely used and evidences the introduction of new multimedia forms that have replaced traditional telecommunication channels.

Thus, multimedia is used as a mixed medium into which all forms of modern communication are integrated. As a result, as E.M. Parfenova – «...a new system of perception, mastering and memorization of information has been formed, coming through different channels: 20% through visual channels of perception; 20 – 30% for audio channels of perception; 50% audio, seen perceptual channels; 89% outside of temporary perception (audio, video and kinesthetics) [6].

Internet technologies have significantly influenced the modern education system and pedagogy. The ongoing change of educational paradigms marked the transition to personality-oriented pedagogy, focused on creating harmonious conditions for self-

realization and self-development in the present and future of young people at all levels of education.

In our country, the informatization of society in general and, specifically, the education sector is given close attention. Thus, at the state level, various programs are being created at the federal, republican, interdepartmental and sectoral levels, aimed at the most important tasks of modern higher education. One of the priority places in these programs is occupied by the problem of improving the quality of information and multimedia technologies and, as a result of these processes, the creation of the infrastructure of the «Unified Educational Information Space» [7].

Let us directly turn to the consideration of the features of the application of multimedia technologies in the music education of modern higher education.

Since the 80 – 90-s of the XX century, this problem has become relevant for the system of music education in the leading countries of the world, where the leaders are Great Britain, the USA, France, and Japan. Thus, the authors of the well-known and recognized study «New Handbook of Research on Music Teaching and Learning» write: «The emergence of new technical means, such as an audio player, home video systems means that the variety of musical styles available to most people in developed countries is increasing, as the variety of situations in which music sounds grows as well» [8]. As a result of this discussion, one of the main priorities for the development of art upbringing and education was the need to develop and enable computer programs. And these requirements are recorded in the report of the Senate of the UK federal government.

Currently, this problem has found its response and is actively developing at different levels. According to the candidate of pedagogical sciences I. V. Zabolotskaya «... the theoretical and practical results accumulated to date indicate that multimedia technologies of the teaching process create active conditions for the education of musicians» [9]. In his research “New information technologies in music education, the author emphasizes the most important levels of this problem [9]:

- expansion of specialized educational Internet portals in the system of music education;
- active introduction of multimedia and Internet technologies in the teaching methods of disciplines at various levels.

Let us turn to the analysis of Internet portals related to the music education system, since they represent one of the important stages of student learning.

Currently, educational portals have been created in many areas of knowledge – information and training environment convenient for students and teachers, which enables the user to satisfy individual information and educational needs, obtain the necessary knowledge for scientific and practical activities, and also provides tools for information retrieval and professional communication [10, 11].

The structure of an educational portal, as a rule, includes: news feeds and mailings; advanced multilevel navigation and search tools; electronic textbooks and libraries; catalogs of educational resources; materials devoted to individual educational and organizational and methodological issues; interactive learning tools that ensure active participation of users in the learning process; virtual environments for educational and practical activities; computer demonstrations; universal learning environments; databases and archives; reference department to search for information, personalities, organizations in the relevant subject areas; online magazines; educational games; distance and open learning tools; means of conducting surveys and voting, rating resources; a section for providing virtual communications such as a message board, forum, living room, video and audio conferencing; data about developers, statistics of visits, advertisements and other data [12, 13, 14].

At present, in the field of musical art, one can name educational portals, which contain materials for preparing students for lectures, practical classes, and independent work in

musical-historical disciplines. First of all, let us name the most capacious portals in terms of versatile information, which are widely recommended by students to prepare for the musical history disciplines:

- World Art. – URL: <http://www.world-art.ru>;
- Culture of Russia. – URL: <http://www.russianculture.ru>;
- Museums of Russia. – URL: <http://www.rnuseum.ru>;
- General History of Arts. – URL: <http://www.artyx.ru>;
- Classical Music. – URL: <http://www.classic-music.ru>;
- In the world of opera. – URL: <http://www.belcanto.ru>; [Classic-Music.ru](http://www.classic-music.ru).

The information posted on the portals has a number of advantages over traditional printed materials. It enables students to work in a hypertext environment, that is, in conditions where he can independently, taking into account individual abilities, thinking and level of knowledge, form the search area for material, receive, process and transmit text audio, media to prepare for lectures and seminars [15].

In addition to the above-mentioned portals, an important advantage of online access is that the electronic edition, as a rule, can be read much earlier than the printed one, since there is excluded the time for printing and sending the edition. In this case, it is also very important to target students to websites and portals.

1. Internet resources of scientific electronic libraries:

- Russian Cultural Foundation. – URL: <http://www.culture.ru>;
- International project, implemented with the support of UNESCO. – URL: <http://wdl.org/ru/>
- eLIBRARY.RU [Electronic resource];
- Scientific electronic library. – URL: <http://www.elibrary.ru>; [ibooks.ru](http://www.ibooks.ru) [Electronic resource];
- Electronic Library System. – URL: <http://www.ibooks.ru>; publishing house «Lan» [Electronic resource];
- Electronic Library System. – URL: <http://e.lanbook.com/>; publishing house «Yurayt» [Electronic resource]; Electronic library System. – URL: <http://biblio-online.ru>;
- Publishing House MCNMO [Electronic resource]. – URL: www.mccme.ru/free-books/ Freely distributed books;
- Publishing House «Rukont» [Electronic resource]. – URL: <https://rucont.ru/>;
- Electronic Scientific Encyclopedia «Media education and media culture». – URL: <http://mediaeducation.ucoz.ru/load/1>;
- A site that presents biographies and creative portraits of composers and performers of classical music. – URL: <http://www.classic-music.ru>;
- Classical Russian Academic Music, news, sheet music, books on the topic «Academic music». – URL: <http://ac-music.ru>;
- Catalog of Internet Resources for Musicians. – URL: <http://www.classicalmusiclinks.ru>.

2. Sites and portals reflecting textbooks, textbooks on music:

- The site, which presents Theoretical Material on the History of Foreign Music of the 17-th – first half of the 20-th centuries, presented in the form of lectures on «Musical Literature». – URL: <http://www.musike.ru>;
- The site that presents a Textbook on the History of Russian Musical Literature of the twentieth century. – URL: <http://annvic.mypage.ru/uchebniki-po-muzikalnoj-literature>;
- Website of the Scientific and Creative Centre «Musical Cultures of the World» of the Moscow State Conservatory named after P.I. Tchaikovsky. – URL: <http://www.worldmusiccenter.ru/about>;
- Collections of the St. Petersburg Conservatory. ON. Rimsky-Korsakov. – URL: <http://conservatory.ru>;

- Website of the Gnesins Russian Academy of Music. – URL: <http://www.gnesin-academy.ru>.

3. Sites with scores and audio recordings:

- Music archive of Boris Tarakanov. – URL: <http://notes.tarakanov.net>;
- An English-language site that presents a vast collection of music from all eras and genres – from the Renaissance to the present, for solo instruments and for orchestral performance, textbook and rarely performed compositions, as well as about 20 generally recognized instrumental cycles. – URL: <http://www.schott-music.ru>;
- An English-language site that presents an extensive collection of music from all eras and genres – from the Renaissance to the present, for solo instruments and for orchestral performance, textbook and rarely performed compositions, as well as about 20 generally recognized instrumental cycles. – URL: www.classicalarchives.com;
- International Project of the Library of Musical Scores, Petrucci's Free Public Music Library. Free Public Domain Library Sheet Music. – URL: <http://imslp.org>.

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Currently, on the basis of network technologies, a completely new type of educational materials has emerged: an electronic or media textbook for the online system. Equipped with a unified interface, such a textbook can become not just a manual for one training course, but a constantly evolving learning and reference environment. Here are some existing examples:

- «All-Russian Electronic «Library LibMusic». – URL: <http://window.edu.ru/resource/894/55894>;
- Educational Project «Orpheus»: Music education and culture on the Internet. – URL: <https://fond-orfey.ru/>.

These portals allow you to better know the musical culture of Russia in the field of classical music, the biographies of composers, the history of the development of Russian music, starting from the IX century. In addition, they include a Dictionary of Music Terms and didactic material (tests with quiz questions to check the current knowledge of students).

Currently, the author of the study is actively working on a comprehensive multimedia textbook on the discipline «History of Music» (foreign and domestic). As noted above, electronic textbook technologies allow students, in addition to text, to provide students with the ability to open audio files, videos, copies of various documents, cross-references to materials from other textbooks, dictionaries and encyclopedias.

The material collected in the textbook gives students the opportunity to concentrate their attention on finding the best way to solve the assigned tasks. In addition, the textbook contains a module in which students can test their knowledge using test items and, having found certain gaps in knowledge, re-return to certain sections of the textbook. This is how the basic didactic principles of electronic textbooks, developed in the theory and practice of modern domestic education «... scientific nature, the connection between theory and practice, visibility, accessibility, systematicity and consistency, consciousness, activity and strength in acquiring knowledge» [4].

The discipline «History of Music» (foreign and Russian) is studied in the 3-5th semesters, contains 196 hours, of which more than 100 hours are students' independent work. It covers a huge historical period from ancient times to the beginning of the 20th century (from the «Musical Art of Ancient Russian to the Present»). The breadth and complexity of the discipline's material required, in addition to lectures and practical exercises, the inclusion of bibliographic, reference material, tests to test knowledge, musical fragments of quizzes [16].

Unlike the classical textbook, the structural blocks of the electronic textbook have an original internal navigation:

- lecture (text with hyperlinks);
- slide show (using audio and multimedia tools);
- music for independent listening;
- music quiz to test your knowledge of music (in three versions).
- bibliographic and reference material;
- tests to check knowledge.

Thus, an integrated approach makes it possible to rethink the content and goals of the discipline in a new way:

- to provide future music teachers with knowledge in the field of "History of Music";
- determine the role and place of the discipline in the history of world art culture;
- to reveal the aesthetic and artistic laws of musical culture in the context of the general cultural and historical process of the development of civilization;
- to determine the artistic principles of the main stages in the development of foreign and domestic musical culture;
- to consider the specifics of genre and style development of music of various periods, to form the skills of artistic analysis of music in its various genre and style directions.

An important part of the textbook is a multimedia complex of tools based on sites of classical music (mus-info.ru, classic-music.ru, belcanto.ru, etc.). Materials of the glossary, indexes, biographies of composers and opera librettos are also created on the basis of encyclopedias and Internet sites (dic.academic.ru, krugosvet.ru, slovari.yandex.ru, etc.).

Currently, we are talking about the further improvement of the methodology for conducting electronic test tasks for monitoring and self-monitoring of students' knowledge, as well as adding project tasks to the textbook, which corresponds to the prospects for the development of new information technologies in modern higher education, constantly requiring flexible and mobile updates.

5 Conclusion

The introduction of media and multimedia systems into the educational process of reading musical-historical disciplines, of course, contributes to the expansion of the methods and forms of work of both the teacher himself, and the enhancement of the media culture of students.

The complexity of the decision to implement media and Internet technologies is largely due to the specifics of the music itself. A certain symbiosis of musical culture, media education and multimedia technologies has developed in music pedagogy, which is recognized by many modern teachers. In this regard, computer technologies in the system of music education, including teaching music-theoretical disciplines, should be considered as a vivid visual tool. By means of them you can view interactive presentations, multimedia projects and encyclopedias, which are the most important means of increasing professional culture of teaching and the formation of musical thinking, the development of musical knowledge, skills and abilities of students, including media culture, which is currently a mandatory element in the diagnosis of the results of musical and educational culture.

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