

## Information and Digital Culture of a Music Teacher: Terminological Analysis

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**Annotation.** In the context of the modernization of modern education, a new view of the music teacher's activity is gradually being formed: it is multifunctional, has its own specific features due to the purpose of education, the specifics of the educational process at school, the age characteristics of the audience and the fact that the music teacher simultaneously acts in several roles: as a teacher, as an educator, as a musician. A special type of culture is being formed in it: information and digital culture, which today is little studied and needs terminological analysis. Based on the terminological analysis, we clarified the concept of "information and digital culture of a music teacher" as a holistic quality of his personality, which is based on a critical look at information processes and the possibilities of using digital technologies in music and music teaching, and combines knowledge and skills to work with information and digital technologies within the framework of professional activity and for their own self-development. The concept of "information and digital culture of a music teacher" is considered by us in the unity of three components: the knowledge component is characterized by a set of knowledge that is provided in the process of professional training and which is associated with information and digital technologies of various types and different directions; activity component - the ability to use digital technologies to solve creative problems and the ability to organize a digital creative educational environment; The personal component is a set of personal qualities, values, motivations and professional attitudes that form the individual identity of the teacher and affect his professional activity regarding the use of information technology and digital tools in teaching music. The selected components are formed and developed unevenly and depend on the organization and content of professional training, which can be based on digital technologies and include appropriate educational components for mastering information technologies and tools of various directions.

**Keywords:** information and digital culture, music teacher, IT, structure, terminological analysis, professional education.

### Інформаційно-цифрова культура вчителя музики: термінологічний аналіз

**Анотація.** В контексті модернізації сучасної освіти поступово формується новий погляд на діяльність учителя музики: вона є багатофункціональною, має свої специфічні особливості, зумовлені метою освіти, специфікою освітнього процесу у школі, віковими особливостями аудиторії та тим, що вчитель музики одночасно виступає у кількох ролях: як педагог, як вихователь, як музикант. У нього формується особливий тип

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культури: інформаційно-цифрова культура, який на сьогодні є мало дослідженим і потребує термінологічного аналізу. На основі термінологічного аналізу ми уточнили поняття «інформаційно-цифрова культура вчителя музики» як цілісна якість його особистості, що базується на критичному погляді на інформаційні процеси і можливості використання цифрових технологій у музиці й навчанні музики, та поєднує у собі знання й уміння для роботи з інформацією і цифровими технологіями в межах професійної діяльності та для власного саморозвитку. Поняття «інформаційно-цифрова культура вчителя музики» розглядається нами у єдності трьох складників: знанневий компонент характеризується сукупністю знань, які надаються у процесі професійної підготовки і які пов'язані з інформаційними і цифровими технологіями різних видів і різного спрямування; діяльнісний компонент - вміннями залучати цифрові технології до вирішення творчих завдань та вміннями організовувати цифрове творче освітнє середовище; особистісний компонент – сукупність особистісних якостей, цінностей, мотивацій та професійних ставлень, які формують індивідуальну ідентичність вчителя та впливають на його професійну діяльність щодо використання інформаційних технологій і цифрових засобів у навчанні музики. Виокремлені складники формуються і розвиваються нерівномірно і залежать від організації і змісту професійної підготовки, яка може базуватися на цифрових технологіях і включати відповідні освітні компоненти щодо опанування інформаційних технологій і засобів різного спрямування.

**Ключові слова:** інформаційно-цифрова культура, вчитель музики, ІТ, структура, термінологічний аналіз, професійна освіта.

### Introduction

*Statement of the problem.* The concept of "culture" is one of the most important in the entire complex of human sciences (philosophy, cultural studies, sociology, history, ethnography, anthropology, archaeology, aesthetics, and art history), and as such, it does not have a clear definition. In the broadest sense, culture is understood as an artificial sphere of existence and self-realization, created by people, and as a source of regulation of social interaction and behavior [1].

In recent years, studies have directly considered the problem of forming the concept of culture in various pedagogical contexts. Researchers think of the phenomenon of culture as a characteristic that combines the transfer of accumulated social experience from one generation to another with the results of this activity, expressed in knowledge, skills, and abilities [2].

At the same time, different cultures are considered, and we find various music teacher cultures: performing, interpretive, stage, and others. In the context of modernization of modern education, a new view of the activities of a music teacher is gradually being formed: it is multifunctional, has specific features due to the purpose of education, the specifics of the educational process at school, the age characteristics of the audience and the fact that the music teacher simultaneously acts in several roles: as a teacher – teaches children the basics of musical art; how the educator contributes to the education and formation of the spiritual values of the individual; as a musician, he promotes the art of music and develops under the influence of IT. A particular type of culture is formed in him: information and digital culture, which today is little studied and requires terminological analysis.

*Analysis of current research.* In scientific research, culture also acts as a characteristic of the teacher's personality as a whole, an indicator of his human educational position, which is combined with a creative attitude to work, which is manifested both in professional activity and in pedagogical communication (personal approach), a condition for readiness for professional activity, which is defined as an indicator of its effectiveness, a high level of self-realization of the individual (activity approach) and the system of values of pedagogical activity (axiological approach), as well as an indicator of its effectiveness, a high level of self-realization

of the individual (activity approach), and the system of values of pedagogical activity (axiological approach).

The main factor that determined the emergence of the phenomenon of information culture was the transition of information into the most essential and universal category of social development [3]. This determines the special significance of information culture and the need for a comprehensive study of this phenomenon.

The information culture of a future music teacher is considered from the standpoint of modern artistic culture, which includes a set of different types of arts, art practices, and projects close to artistic ones. In other words, it is a specific social activity that has nothing to do with the direct creation of art objects, but the ultimate goal of which is the possibility of establishing art objects in the socio-cultural space [4]. This approach consciously motivates future music teachers to constantly expand their professional and general cultural horizons, to be aware of the openness of the totality of professional knowledge acquired in the universities, to understand that the basis of the strength and reliability of knowledge is the constant search, consumption, and analysis of the necessary information, etc.

The concept of "digital culture" is considered along with information culture. Unlike information culture, which focuses on searching, processing, and using information, digital culture is associated with digital technologies, cyberspace, and electronic communication regardless of how it is presented.

R. Gurevich, N. Lazarenko and L. Zhovnych understand the teacher's digital culture as the adoption of the values of a humanistic society and the acquisition of skills of optimal orientation and productive communication in modern digital reality to optimize and harmonize their professional activities [5]. The development of teachers' digital culture is based on cultural adaptation to the conditions of work in the virtual digital environment, the introduction and use of digital learning tools that require innovative approaches and openness in the organization of the educational process, psychological training of teachers who work with the younger generation in the world of digital technologies.

At the same time, we do not find the concept of "information and digital culture" in the scientific literature, so *the purpose of the study* is to describe the essence and structure of the "information and digital culture of a music teacher" concept.

## Results

Let's analyze the concept of "information and digital culture" (IDC). Combining information and digital technologies has become necessary, given the simultaneous need to work with information using digital means. Therefore, we have a mutual penetration of technologies and, accordingly, the characteristics of "information" and "digital."

As noted in [6], IDC are fundamental and are a priority element of the teacher's professional personality. It is the basis for maintaining an educational institution's modern, high-tech, high-quality information and educational environment. For the future teacher, the information and digital culture formed in him opens up opportunities for the analysis and management of the educational process through the comprehensive and diverse use of computer tools and digital technologies. G. Bodom imitates this thesis, as he believes that the IDC of a future teacher is a confident and, at the same time, critical use of ICT for the creation, search, processing, and exchange of information in the educational space and professional communication. It includes information literacy, media literacy, algorithmic thinking, database skills, Internet security skills, and awareness of ethical aspects of working with information [7].

Considering the information and digital culture of the future music teacher, we will follow the above ideas of the definition of scientists, but we will take into account the peculiarities of the work of a music teacher. We consider it correct to interpret this concept as follows: the information and Digital Culture of a music teacher is a holistic quality of his/her personality, which is based on a critical look at information processes and the possibilities of using digital

technologies in music and music teaching, and combines knowledge and skills to work with information and digital technologies within the framework of professional activity and for their own self-development.

In other words, the CCI of a music teacher is characterized by a set of beliefs, knowledge, and skills that allow the effective use of information and digital technologies for teaching music. The CCI includes an understanding and ability to use digital tools and Internet resources, and also consider digital trends in the modern music educational environment.

According to the results of the conceptual analysis, we see the following important components of the CCI of future music teachers: knowledge, activity, personal/

A set of knowledge characterizes the knowledge component of the future music teachers' IDC. It's forming in professional training and related to information and digital technologies of various types and directions. According to H. Padalka, it is important to provide the future teacher with material for conscious study, to form and develop professional subject knowledge systematically, and not separately, to identify them for learning and determining further directions of professional action [8]. From this point of view, the objects of knowledge of future music teachers are professional and pedagogical activities in the digital space, specific knowledge in the field of music and their location in the virtual space, in the field of information and digital technologies of musical direction. Also, future music teachers should be aware of the specifics of modern problems, social phenomena, psychological and pedagogical knowledge, possess the principles of didactics and teaching methods, know about the age and individual characteristics of students in the assimilation of program material and optimal conditions for its implementation in the process of teaching schoolchildren.

Future teachers need to understand how digital technologies contribute to communication, creativity, and innovation, and be aware of their opportunities, limitations, implications, and risks in their professional activities. They must also understand the general principles, mechanisms, and logic behind digital technologies, which are constantly evolving, as well as the basic functions and uses of various digital devices, software, and computer networks. Educators should be able to critically assess the reliability and impact of information and data obtained through digital means, and use digital technologies by legal and ethical principles [9].

Yang Jun's research, related to the formation of the information culture of future music teachers, notes that it is essential to form the components of information culture and highlights the cognitive-communicative element, which is aimed at the acquisition by the future music teacher of knowledge in the chosen specialty and knowledge of methods and approaches to solving educational and independent information tasks as a means of positive influence on students. The scientist claims that this component covers students' focus on acquiring knowledge and the ability to quickly solve educational and professional problems to get out of difficult pedagogical situations. That is, the cognitive component includes the acquisition of general psychological and musical-professional knowledge, and knowledge of the interpretation of musical works as a manifestation of a music teacher's artistic and communicative qualities in musical-pedagogical and musical-performing activities [10].

In addition to traditional musical knowledge, modern music teachers must also know digital technologies. Understanding digital technologies gives modern music teachers several advantages: it

- Allows them to use new teaching methods and techniques,
- It makes music lessons more interesting and exciting for students,
- Promotes the development of students' creativity and creativity,
- Increases the efficiency of the educational process,
- It makes music education more accessible.

That is due to several factors, among which we note the integration of digital technologies into music education – modern education is becoming increasingly digital, and future music

teachers should be ready to use these technologies in their practice. That may include the use of music arrangement software, digital notation, and the use of virtual musical instruments and sounds. Knowledge of digital technologies allows teachers to interact more effectively with the digital space, the emergence of artificial intelligence, etc., an essential aspect of modern education. To summarize the above opinion, the leading characteristics of the information and digital culture of the future music teacher are:

- Understanding the significance of digital skills in music education, including general knowledge of information and information processes and the ability to process data of various formats using digital technologies, is crucial for future music teachers.
- knowledge of the types of software in the field of music and the ability to use it, the use of virtual instruments and applications – future music teachers should be aware of the various music programs and digital services that allow you to create, edit, and play music, as well as have the skills to work with them;
- knowledge of the possibilities of using digital platforms to organize the educational process, information resources (general and specialized) for the creation of didactic materials, and the appropriate skills to use them – knowledge and skills in creating and using virtual lessons, as well as the use of online resources for teaching music in a remote format;
- Future music teachers should have a solid understanding of digital tools to accompany and administer the educational process. This includes using interactive whiteboards, e-journals, visual support programs, and other pedagogical software to organize the academic space in a high-quality way.
- knowledge of e-etiquette and the ability to communicate in the virtual space for the exchange of experience and teamwork;
- the desire to use information content and digital technologies in professional activities and for self-development and the ability to reflect on digital technologies in a music teacher's creative musical activities and professional activities.

Thus, the knowledge component of the ICC of future music teachers is a system of knowledge necessary for effective teaching of music, taking into account the development of the information society and digital technologies in it. This component includes knowledge of information content in the field of music (understanding of music theory, history of music, musical styles, and genres) and digital technologies for the implementation of professional and creative activities (knowledge of digital means of organizing and administering the educational environment; knowledge of the use of digital educational resources in teaching and studying music; specialized software in the field of music; knowledge of the features and principles of digital music tools and related software, including digital technologies for music production, sound recording and editing). Teachers who possess this knowledge will be more competitive in the job market and will be able to teach music to today's children more effectively.

The activity component of future music teachers' information and digital culture is characterized by the crucial role of digital technologies in solving creative problems and organizing a digital creative educational environment. In the context of innovative musical and productive activities, using information and digital/technical means is paramount for future music teachers to carry out their professional activities.

Teachers need to be able to use digital technology to collaborate with colleagues and children, achieve professional, personal, social, or commercial goals, and support active citizenship and social inclusion. Digital skills should include using, filtering, evaluating, creating, programming, and publishing digital content. Teachers need to be able to manage and protect information, content, and digital personal data and effectively interact with software, devices, artificial intelligence, robots (software bots), etc. [11].

The inclusion of digital technologies in the training of future music teachers not only contributes to the expansion of their skills and capabilities but also creates the basis for more

innovative and effective music teaching. This is confirmed by a scientific study [12]. The creative and activity component of information culture, considered in this study, is characterized by the need for advanced information and artistic development of future teachers, and their ability to create. Therefore, this component takes into account the peculiarities of the attitude toward oneself as a future teacher and the ability to adequately assess oneself and the educational situation from a professional point of view as an integral part of life in the context of the interaction of all subjects of the educational process

Summarizing the views of scientists on the culture of a music teacher through the prism of his activities in the context of the information society and the development of digital technologies, we believe that the activity component of the information and digital culture of future music teachers is revealed through the ability to:

- organize/conduct lessons using information and digital technologies, which involves developing pedagogical strategies to introduce active teaching methods into the educational process. Musical interactive tasks and interaction with students through digital means make learning more exciting and accessible;
- use information and digital technologies in creative and professional activities, which involves the ability to use electronic platforms, programs for creating music, virtual instruments, audio and video materials, etc.;
- productively interact with electronic resources, which includes the teacher's ability to effectively use electronic content for didactic purposes, to use and disseminate specialized electronic resources for teaching music, and the appropriate development of students. That also includes the ability to create electronic materials that help in the assimilation of musical knowledge;
- organize a creative digital environment to accompany professional activities and for their development, which involves the ability to create their musical compositions, arrange music content, and use other digital tools for self-development;
- Carry out electronic communication and pedagogical interaction using digital technologies, which involves the possession of digital skills by a music teacher that allows them to effectively interact with students, colleagues, and parents through electronic communication.

Thus, the activity component of a music teacher's information and digital culture is revealed as the ability to harness the potential of digital tools for the practical and creative organization of the educational process in general and music training in particular.

The personal component of the ICC of future music teachers is a set of personal qualities, values, motivations, and professional attitudes that form the teacher's identity and affect his professional activity regarding the use of information technology and digital tools in teaching music.

Several scholars, in particular [13] characterize the personal component of culture as such that includes personal qualities, values and motives, attitudes and abilities. Thus, Yang Jun in his research related to the formation of the information culture of future music teachers notes that the orientational and motivational component of culture characterizes the formation of socially significant values in future music teachers that set general guidelines for professional activity. These include a positive attitude to professional activity and interest in it, recognition of aesthetic values and the unity of the intellectual, aesthetic, and spiritual spheres of the individual, and the formation of an information culture related to speech, communication, and stage culture [10].

A critical aspect of the personal component of the training of future music teachers is the development of reflection, which is a person's ability to self-awareness, introspection, and comprehension of their experience. Modern information technologies and digital tools can contribute to the development of reflection in the future of music teachers. Thanks to digital technologies, teachers can better understand themselves as professionals, analyze the results

of their activities, see/identify their strengths and weaknesses, and find ways to improve their teaching methods.

Generalization of scientists' opinions, the personal component of the information, and digital culture of the future music teacher include:

- striving for self-improvement – music teachers who are ready for continuous learning, including the development of digital technologies and the means and methods of their use in the educational process are more successful;
- reflection and introspection of their own pedagogical practice using information technology and digital tools. Music teachers, having this quality, can determine the effectiveness of their work, identify strengths and weaknesses, and adapt their approaches to teaching music consider modern technologies. Reflection and introspection are also characterized by the ability to analyze and correctly evaluate one's own professional activity and adopt the creative experience of colleagues through thorough theoretical and practical training, the ability to work creatively with students, to foresee and determine the conditions and means necessary for one's own creative development and to be open to the search for something new.
- soft personal skills (flexibility and adaptability, creativity and innovation, social responsibility). With the rapid development of digital technologies, music teachers must be able to quickly adapt to new tools and technologies to improve learning outcomes, develop students' creativity, and enrich their musical experience, while at the same time being aware of the ethical and safety aspects of using digital technologies and incorporating them into their activities.

We believe that the personal component is more characterized by the ability of future music teachers to reflect on the involvement of digital technologies in the musical and pedagogical activities of the teacher. At the same time, the development of reflection is not a one-time action, but an ongoing process. Music teachers must constantly learn, reflect on their experiences, and improve their skills to succeed professionally. The developed personal component of a music teacher's IDC contributes to improving their professional practice in the information society, creating conditions for creative, flexible, and innovative learning.

### **Conclusions**

Based on the terminological analysis, we clarified the concept of "information and digital culture of a music teacher" as a holistic quality of his personality, which is based on a critical look at information processes and the possibilities of using digital technologies in music and music teaching, and combines knowledge and skills to work with information and digital technologies within the framework of professional activity and for their own self-development. The concept of "information and digital culture of a music teacher" is considered by us in the unity of three components: the knowledge component is characterized by a set of knowledge that is provided in the process of professional training and which is associated with information and digital technologies of various types and different directions; activity component - the ability to use digital technologies to solve creative problems and the ability to organize a digital creative educational environment; The personal component is a set of personal qualities, values, motivations and professional attitudes that form the individual identity of the teacher and affect his professional activity regarding the use of information technology and digital tools in teaching music. The selected components are formed and developed unevenly and depend on the organization and content of professional training, which can be based on digital technologies and include appropriate educational components for mastering information technologies and tools of various directions.

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