

# European Experience in Implementing Innovative Educational Technologies in the Field of Culture and the Arts: Current Problems and Vectors of Development

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## Summary

The main purpose of the work is to analyze modern innovative educational practices in the field of culture and art and their effectiveness in the context of the spread of digitalization trends. The study used general scientific theoretical methods of analysis, synthesis, analogy, comparative, induction, deduction, reductionism, and a number of others, allowing you to fully understand the pattern of modern modernization processes in a long historical development and demonstrate how the rejection of the negativity of progress allows talented artists to realize their own potential. The study established the advantages and disadvantages of involving innovative technologies in the educational process on the example of European experience and outlined possible ways of implementing digitalization processes in Ukrainian institutions of higher education, formulated the main difficulties encountered by teachers and students in the use of technological innovation in the pandemic. The rapid development of digital technologies has had a great impact on the sphere of culture and art, both visual, scenic, and musical in all processes: creation, reproduction, perception, learning, etc. In the field of art education, there is a synthesis of creative practices with digital technologies. In terms of music education, these processes at the present stage are provided with digital tools of specially developed software (music programs for composition and typing of musical text, recording, and correction of sound, for quality listening to the whole work or its fragments) for training programs used in institutional education and non-institutional learning as a means of independent mastering of the theory and practice of music-making, as well as other programs and technical tools without which contemporary art cannot be

imagined. In modern stage education, the involvement of video technologies, means of remote communication, allowing real-time adjustment of the educational process, is actualized. In the sphere of fine arts, there is a transformation of communicative forms of interaction between the teacher and students, which in the conditions of the pandemic are of two-way communication with the help of information and communication technologies. At this stage, there is an intensification of transformation processes in the educational industry in the areas of culture and art.

## Keywords:

*digitalization, distance learning, art education, fine art, stage art, design, music art, creativity.*

## 1. Introduction

Education is one of the fundamental elements in the formation of a person throughout his life journey. The institutionalization of the educational process has created opportunities for unification and standardization of the level of knowledge and skills needed to master a particular profession. However, social needs are transformed in the process of development, and therefore educational institutions are facing new demands. The ability to respond quickly to change as a key adaptive ability is now an important condition for implementation. The cultural sphere in this context is no exception. Forms of creative expression through art are also changing, and therefore the task of educational institutions, above all, is to prepare future professionals for the conditions of real life. The topic of this research is more relevant than ever because

the analysis of European countries' experience in introducing innovative technologies in the educational process in the field of culture and art will allow to better understand the possible ways of further development and identify the problems for finding ways to solve them. The theoretical significance of the work lies in the attempt to substantiate the current needs of the artistic environment to predict the positive reactions of institutional structures to the ways of modernization of the educational cultural space. In practice, the possible application of the outlined models of development vectors and the beginning of the processes of digitalization of the educational process has become a requirement of time. The global pandemic and the resulting distance learning mode have radically changed the educational system. Participants of the educational process in a short time mastered the necessary digital tools for distance interaction and acquired new competencies, which shows the trend toward the creation of adapted digital software for quality distance learning [1]. For successful professional activity in today's conditions a teacher in the sphere of art, education is forced not only to continuously monitor new digital technologies, evaluate their potential to solve specific pedagogical tasks, arising in the fields of culture and the arts, but also to creatively adapt the existing tools to their activities, finding appropriate functions, modes, etc. Taking the above mentioned into account, generalization, and exchange of experience of using digital tools and their adaptation to specific conditions of pedagogical process at each stage of development of distance technologies in the sphere of art education does not cease to be relevant [2].

Outlining the main types of cultural activities in which professional training is carried out, an important place in the scientific literature designs, a promising direction of artistic development. As an element in the formation of creative consciousness, it has entered a new stage of development. Combining artistic aspirations to create something new with utilitarian practicality, the design combines commonplace objects with ideas for their improvement and generates a new product, which can rightly be considered a work of art. Researchers often take into account the fact that this very sphere requires the active involvement of technological innovations [3]. Changes in design education should take place by the development of technical means, expanding the creative potential of students, preparing them for the challenges they will face during their professional activities [4].

Traditional spheres of cultural life use advanced progressive technologies in the educational process and creative activities. This is due to the fact that along with the usual conservative vision of the world, based on previous moral values and worldview, there are adapted innovative versions of classical art. Modern architectural planning is now considered impossible without the involvement of innovative means, directly linking to the

more powerful capabilities of technical means to calculate all aspects of construction. If in previous centuries, architectural composition contributed to the formation of a general idea of artistic style, which existed at a certain stage of historical development, now the situation is much more complicated. The nuanced essence of architectural design lies in the individual vision of the future building, which may not always rely on the features of the stylistic ensemble dominant in a particular region [5]. Thus, the creation of disparate architectural objects forms a new art, which is the property of technological progress in combination with a changed human concept of the organization of living space.

With other art movements, the general picture has the same characteristics: the attraction of individualism combined with globalizing tendencies. Painting, music, and sculpture are already parts of performative art, which carry not only an aesthetic mission but also a psycho-emotional load. Modern innovative means make it possible to expand the spectrum of audiovisual perception of art, revealing much more of its potential, immersing the viewer (or listener) deeper into the atmosphere created by the author. Reflexive communication strategy comes to the fore [6]. In this context, art does not have to be transparent and clear but can prompt processes of thinking without giving a clear answer to the question posed. The formation of critical cultural consciousness through protest takes place in the process of the artist's personality formation. Often the creator's way of thinking is generated during training, where the educational institution plays a colossal role. It is the methods of teaching, the use of modern approaches to work, and the encouragement of individualization of the worldview that creates the conditions for the potential development of the artist.

The aestheticization of consciousness is influenced by museums, which are partly seen by researchers as educational institutions. Technical progress contributes to the development of culture and vice versa. This dichotomous relationship is explained by the strategically valuable functionality of both elements. Modern museums take advantage of both technological and cultural development [7]. In this combination, variations are possible in improving the conditions for the storage of archaic museum artifacts and creating conditions for the implementation of new visual practices.

The rapid technologization opens a wide range of creative possibilities and perspectives for the development of music art and music education, but it radically changes the vector of the industry evolution [8]. Among the main technologies and methods that have a significant impact on the educational transformation are personalization, distance learning, gamification (including varieties of online testing, interactive textbooks, educational games, video lessons with elements of animation and specialized

programs (developmental simulators), such as game programs for the development of musical hearing [9].

Thus, the purpose of this work is to identify the main possible vectors of involvement of innovative technologies in the educational process in the sphere of culture, based on the European experience. The countries, actively introducing modern technical means in training, demonstrate the possible scenarios of development of events, in the conditions of modernization of cultural-educational processes. At the same time, it is possible to see and analyze the mistakes in such strategies, and their identification will allow forming the ways of solving the problems.

## 2. Materials and Methods

This work has a review and analytical nature, so it uses theoretical general scientific methods of analysis and synthesis (to identify individual characteristics of educational processes in the field of culture and arts and implementation of innovative tools), induction and deduction (to form a general idea about the features of modernization of the educational process in European educational institutions and specific about the functioning in a certain direction or regional specificity), comparative (to compare models Taken together, these methods allow a full and thorough analysis of the scientific literature on the issue and determine the main conclusions in the process. An integrated approach to the presentation of the information allows combining the achievements of various scientific disciplines, the comparison of which creates conditions for a comprehensive study of the issue, based on economic, political, psychological, pedagogical, cultural, and other studies.

The study is supposed to be conducted in four main stages. The first stage is a literature search on the issue. Literature of different scientific directions allows you to consider the information comprehensively and determine the vectors of further work. The second stage includes the formulation of the research topic, setting the goal, and key objectives. The next stage includes the methodological study of scientific research, identifying the essential features of the digitalization of education in different European countries, the selection of scientific methods for working with information. The last stage is a logical and consistent presentation of the material and summing up. The results obtained using the described approach are presented in the form of a scientific article.

This methodology creates opportunities for further research into the problem because the issue remains relevant. Technical progress does not stop, and accordingly, scientific and educational institutions are gradually implementing its acquisition in the educational process. The impact of the educational environment on the

formation of further subjects of cultural and artistic activities is undeniable, and therefore the importance of the theoretical basis of this study cannot cause doubt. In addition, the methods and ways of implementing innovative tools in the educational process, accompanied by the resistance of the least labile groups and a long period of adaptability to transformations in the socio-cultural space remain debatable. Therefore, the validity of scientific research for the modernization of pedagogical approaches in teaching does not lose its relevance, which is reinforced by active changes in the technological sphere.

## 3. Results and Discussions

If The modern education system requires constant innovation, which is the key to keeping up with the demands of the times. The ability to train professionals is the main task of educational institutions. At the same time, conservative approaches to teaching, "time-tested", often prevent the introduction of innovative technologies. Learning with the help of information and communication technologies today is no longer just a sign of industrial progress, contributing to the improvement of the results of the educational process [10], but a forced necessity. Globalization processes, the rapid pace of economic, political, social, cultural development, quarantine restrictions are factors directly affecting the acceptance of the need to use innovation in education. However, the disruption of habitual learning mechanisms for many serves as a stressor and a barrier to transformation. It is the digitalization of education that forms the basis for the strategy of sustainable development of educational institutions and the key to a successful response to the social challenges of the XXI century.

One of the most promising creative directions today is design. The combination of artistic consciousness and the practical application of the experience gained form a new image of this profession. In recent decades, approaches to design have changed considerably in fundamental principles, methods, and approaches. The results of scientific research prove that design has reached a new level, which forms certain desiderata. Consequently, the expansion of opportunities and areas of application leads to new competencies, which is reflected in the educational processes. The constant interaction of theory and practice is inevitable in the creative fields. The most practical application of the acquired knowledge provides the necessary experience. Consequently, the more powerful capabilities of technical means to improve skills and adjust in the process create opportunities for the practical realization of ideas.

In half a century, design education has become diversified. This is due to the wide range of products and services to which design masters have their hand.

Accordingly, each new design direction requires a serious methodological basis, which is provided by higher education institutions aimed at training professionals [3]. But to make adjustments to the existing system, it is necessary to make significant efforts, oriented to the results in the long term. At the same time, the importance of checking educational practices and platforms cannot be excluded, as, for example, in medicine, law, and other industries, where there are opportunities of precedents, which later become part of the training strategy. Any educational process should be based on acquiring knowledge and building skills, nurturing professionals by understanding and adapting to external conditions.

Creative spheres primarily affect the physical world or the world of intangible things [4]. But along with this, there is a definite difference between design as such and art in general. The design responds to human needs and desires, sometimes focusing on individual objects: tangible, intangible, abstract (goals, experiences), etc. It focuses on the person, constructs an environment comfortable for her being, generates space. At the same time, art, in a general sense, focuses on the idea. What was the author trying to show, what was the message of his work, what mood it conveys, what feelings it evokes. Art is a dialogue between author and observer, in the process of which reality is constructed. One cannot exclude the commonality of these two directions. Undoubtedly, the creative component is at the core of both, and as the creation and reproduction of one's own vision, they form something new. But, in parallel, there are a number of questions regarding the ultimate goal of design and art, what they are ultimately focused on. In terms of the educational process, there are also tremendous disagreements.

Taking painting, for example, which, although subject to modernizing influences, is partly conservative, it should be understood that it carries a different meaning. Design, in turn, is more labile and requires constant updating according to external circumstances. Common to education in all cultural fields is the view that we should abandon the exclusive adherence to the concept of the only correct model of the curriculum. The success of the creative individual is possible under conditions of worldview formation in the interaction of compliance with academic requirements, mastery of the standards of the profession's base, and one's own practice based on an individual vision. Such a model can be evolutionary, gradual, to some extent diverse, and experimental. However, the iterative nature of the educational process with a democratic bias in creative institutions should contribute to the formation of a strong educational base. It should include processes of cultural socialization of future specialists, formation of artistic connections, which contribute to exchange of experience, and formation of own idea of art essence in contrast to the positions of others.

The creation of new educational areas is the institutional system's response to new challenges. The emergence of a certain problem requires a solution, and, accordingly, a specialist who could effectively solve the issue. All the components of the cultural process are expanding over time, and their research is deepening. The emergence of new technologies, digitalization - driving the formation of new directions, hence jobs and demand for specialists in the IT-sphere. The artistic industries are no exception, which also makes use of the advances of modern research.

Compared with other branches of knowledge, it is obvious that for music pedagogy the application of digital technologies is of great importance. The greatest use in the pedagogical process of training specialists in the field of musical art acquired video communication services, creation, and processing of video and audio material. At present, the organization of distance learning in the field of musical art is carried out in synchronous and asynchronous modes. The process of selecting a service for the organization of synchronous interaction is most often spontaneous because there are no significant advantages to the organization of musical interaction. The objective disadvantage in operation: signal propagation delay through the Internet in the synchronous format of distance learning makes it impossible to a number of learning activities, which requires simultaneous audio activity. Regardless of the service chosen, a number of required professional disciplines are problematic, namely, work in the class of musical vocal and instrumental ensembles, choral ensembles, and orchestras, as well as practical exercises in the conducting class. At the same time, according to the research of distance pedagogical activity in the ranks of one of the leading educational institutions of Ukraine - Kyiv National University of Culture and Arts - among the available video conferencing services the absolute leader is Zoom [11].

The specific needs of sound musicians for synchronous distance learning and other conveniences associated with the distribution of sheet music and other visual materials during remote interaction have not gone unnoticed by other developers of video communication services. One example is the Rock Out Loud Live Virtual Music Lesson Portal video conferencing service. In addition to the standard features of the video conferencing service, the platform offered users a number of classes (piano, guitar, bass, percussion) containing features to facilitate the teacher's work: during an online lesson, the platform allows switching between classes, using a visual demonstration of sheet music of different instruments.

In the last decade in Europe, there has been an intensive reform of all levels of education. Rethinking and updating educational technologies and training programs have led to the modification of teaching methods. The Bologna process founded a series of changes in the national education system of many European countries. This

initiative was aimed at the standardization of educational processes and cross-cultural interconnection in European countries [3]. By beginning to divide the educational process into degrees, the Bologna system created the conditions for the unification of the level of achievement, which shifted the focus on solving societal problems to the academic development of potentially acceptable vectors of development. Yes, the strategic goal of the educational processes of European countries has become the focus on realizing the potential of future specialists with the application of their abilities to socially significant tasks.

At the current level, the experience of European universities emphasizes the need for an interdisciplinary approach to teaching, and sometimes attracts transdisciplinarity as a potential advantage. This methodological development allows the subject to be studied outside the constraints of academic disciplines, which contributes to a better understanding of the subject. Removing the key features of the object under study with the hybrid approach promotes a comprehensive, integrated study of it, which creates conditions for rapid understanding of the general features of development in a certain direction [10]. Higher education in the field of culture and art is focused, first of all, on forming a critical way of thinking in students. The reflexive philosophy of art is shaped into a special type of consciousness, according to which students analyze works of art.

The involvement of innovative technologies significantly increases the efficiency and speed of research in various cultural areas. In particular, in the context of linguistic and bibliometric analysis of significant volumes of text, it is possible to obtain general development trends according to given parameters [12], which is determined by the high productivity of technical means. The educational sphere of musical art has undergone serious changes during the pandemic. The training of specialists in the music industry involves a constant combination of theory and practice. The training program for musicians in different areas involves mastering professional disciplines of a different nature. Thus, if during the transition to distance learning in a pandemic environment the theoretical disciplines have not lost their content, only the form of teaching has changed, the professional practical ones have experienced certain difficulties. The online format of the educational process has created obstacles for effective vocal classes, instrumental special classes, group ensembles, or choral classes. In this case, all aspects are signified: the impossibility of physical access of the instructor to the students, for example, to correct performance technique, the quality of communication, sound distortion, difficulties with its synchronization, etc. In this case, the effectiveness of practical lessons is reduced, especially as far as ensemble and orchestral topics are concerned.

A certain limitation of information and communication technologies in terms of instant interaction was the basis for the conclusion that this mode of learning turned to reproductive concepts, which focus more on the fulfillment of norms rather than on encouraging individual reflection or managing the affective component of the learning process [13]. The number of activities aimed at promoting cooperation between students decreased, and the emphasis on the distance learning format shifted to a focus on technical mastery of the instrument. During this period, the role of the verbal method of communication as a key tool for teaching in a pandemic environment increased. Compared to the potential advantages of modern technology (increased creativity, regimented educational process), in the music field, the methods used during distance learning using innovative technology were less effective compared to traditional teaching concepts.

Regarding education in the direction of the fine arts, a large number of researchers are inclined to believe that it plays a very important role in distinguishing the traditional aspect of social consciousness from modern innovative trends. The fine arts are effective for creating individual, social, cultural, etc. qualifications, emphasizing artistic education for sustainable cultural development. Training in this area also requires a combination of theory and practice, rapid feedback for timely adjustments to the task process, explanations, recommendations, individual approaches. This practical orientation of the artistic sphere does not correlate with the technical possibilities of innovative means of communication. To a certain extent, they can create conditions for verbal interaction, but in practice, the implementation of the educational process using distance learning tools is accompanied by a number of difficulties. The use of special educational platforms for mastering all components of the program requires certain adjustments because at this stage it cannot compete with established forms of teaching and quality control of the educational process. Correspondingly, the digitalization of art education implies a greater focus on individual mastery of certain aspects of activity, a time limit, which makes it impossible to make serious adjustments to the lesson structure, synchronous (during meetings), and asynchronous interaction between the instructor and students [14]. On the other hand, mastering easel or mural painting requires the active participation of a teacher in a constructive teaching concept focused on the student's mastery of the necessary skills, and therefore distance education has not justified itself as an alternative to the existing traditional methods of education.

In terms of theoretical training of future masters of fine arts, the transformations in the transition to teaching with the use of modern technologies are of a general nature, facing the same problems in teaching as in other areas. In the context of practical training, the difficulties are much greater. The distance format of the educational

process involves the demonstration of the results of activities in a digital format, which can significantly distort the vision of the object and, accordingly, affects the objectivity of assessment, comments, and recommendations. The traditional educational format is more effective for this direction of future specialists' training, it is more effective because under such conditions practical mastering of skills takes place in the offline format in the presence of experienced teachers, who exercise control and are able to adjust the learning process within it.

Online lecture format to demonstrate working conditions is not new. Video lectures, tutorials on techniques, and craftsmanship of fine art have long gained popularity on video platforms. Such online classes, where the process of creating an art object (painting, sculpture, etc.) is demonstrated, are mostly one-sided. The possibility of asking a question during such a class exists, but the teacher will not be able to control the work in progress, so it becomes more of a project nature, conditionally, receiving a reference from the teacher upon completion of the work or within certain stages.

In terms of the stage arts, too, there have been major shifts. Quarantine restrictions have had a significant impact on this field, and educational processes in this direction have undergone certain transformations. For example, the concepts of choreographic art teaching have been formed in concert with educational and performance practice. The most urgent problems have identified the need to develop a new teaching methodology based on a personality-oriented approach, the use of innovative interactive technologies, as well as the combination of theory and practice [15]. Adjustment of the educational process in the conditions of distance learning took place with the help of modern software for video conferencing. At the same time, the problem described in the previous examples persists, combining the inadequacy of the instant correction of execution during the lesson and increasing the role of the verbal formulation of the tasks set.

Traditionally, stage education involves practical training in specially designated actor's workshops, choreography halls, using the right sound and light equipment. In the conditions of quarantine, the training of future specialists in the direction of scenic art could not be realized in a proper way. The practical implementation of the educational process is complicated by the limited functions of information and communication technologies. Working with large groups of people is possible but complicated with the active participation of all actors in the process. Thus, important elements of acting, dynamics that are important for preserving the overall concept of action are lost through digital communication. Under such conditions, it is possible to continue mastering oratory, stage language, solo vocals, and choreography. Video recording as a tool of the educational process is a powerful

supplement to self-regulation, to see oneself from the outside. In general, the educational process under quarantine and with the involvement of distance learning technologies is more focused on the independent mastering of the necessary skills and abilities by getting feedback from the teacher.

Part of the educational process of cultural and artistic practices is exhibit activities, which have also undergone serious transformations under the influence of technocratic development. Modern museums, galleries, and exhibition halls are being equipped with advanced security, temperature control, lighting, humidity, etc., and some are becoming completely digital. The aspect of digitalization of the museum sphere demonstrates the determinative nature of the influence of innovative means for the transition to a new stage of the technogenic potential of the art industry in the cultural object. Technology plays an important role in the vision of museums of the future. The increasing level of involvement in progressive technologies contributes to the increasing role of digital museums in the cultural sphere [7]. One of the advanced trends in the field of museum solutions has become video mapping, which is acquiring active development. The creation of projection images on architectural structures or walls in rooms has become a new direction of technical developments in the combination of art and IT.

The question of the future role of museums remains open. This sphere is not devoid of the influence of progressive methods of work, but at the same time has suffered serious losses in the process of quarantine, and therefore requires special state support or private initiative. The orientation of modern museums toward the younger generation with the desire to interest visitors in a democratic culture is one of the possible vectors of development in this sphere. In Europe in particular, there has recently been a sharp increase in the funding of certain sectors, including the cultural sector. This sector has received extensive state support, which can be explained by several factors. One of them may be the status of European countries as preserving powerful cultural heritage and, accordingly, it is a matter of international prestige [16] and preservation of their own cultural tradition and valuable historical art objects. At the same time, the emergence of new technologies with the possibility of access to virtual tours (e.g., VR) creates a kind of alternative to museum attendance and enters into a competition for visual ways of appreciating works of art where individual preferences of the viewer play a key role.

Focusing on the experience of European countries in Ukraine, there is a tendency to involve digital technologies in the educational process. Digitalization of cultural and artistic education is complicated by the habit of established forms and approaches to teaching creative disciplines, the need for constant adjustment of students' work in practical classes, access to their work with the possibility of instant

feedback. This process is complicated by technical features that can affect the effectiveness of classes: the quality of video and sound, Internet connection, etc. However, the introduction of compulsory transition to distance learning in the pandemic demonstrated the need to revise teaching methods, because reorientation solely to the theoretical component is impossible for creative educational areas. In Ukraine, the system of distance education turned out to be unprepared for the quarantine realities, but it gives an idea of the problems that need to be eliminated in the future.

When it comes to the European experience, it should be understood that it is not identically homogeneous. The studies on the digital gaps between the representation of the different countries of the European group are interesting in this regard. They analyze digital invasiveness on a personal level. Thus, the individual pattern of acceptance and use of a wide range of information and communication technologies is defined by deriving a general conceptual model combining an extended unified theory of perception and the use of technical means. Such studies form an idea of the factors that influence the introduction of technology in different spheres of human life, including education. A striking contrast can be seen in the examples of Portugal and Bulgaria, due to a number of fundamental features. First of all, researchers emphasize the role of the geographical factor in digitalization. Cultural features, marked by the nature of historical development affect the mental forms of behavioral psychology in situations where we have to encounter the new or unfamiliar, and even more so to include it in the sphere of daily employment. For Bulgarians, the effects of expected performance, habitus, age, and neuroticism have a much stronger influence on the mastery of technology, whereas the Portuguese are more prone to hedonic motivation for behavioral intentions and the effect of intension to use innovation. The difference in the ability to use technical means is manifested in the speed of mastering new educational and work methods, which is influenced by psychological characteristics and mentality. Yes, Bulgarians are more inclined to rely on existing experience when assessing contemporary challenges, while the Portuguese are less inclined to regulate and control their desires and feel more at ease in unknown situations [17].

In the context of this issue, it is worth mentioning the possible barriers to the introduction of modern technologies in the educational process in the field of culture and art. The most common barrier, according to some researchers, is reputational risk. This is what is fraught in the event of failure. Psychologists have long determined that one of the most common human fears has to do with the unknown. A person is potentially afraid of everything new, and the possibility of being excluded from a social group is another phobia of a person, which can be

realized as a result of losing one's reputation. Reputational risk is expressed in the undermining of credibility due to the failure to fulfill one's responsibilities. For example, in Great Britain, it was found that an obstacle for teachers to use modern technical means is the belief that they will not succeed in involving students in the educational process [18]. They cite a lack of awareness of creative pedagogy. But it is possible to overcome these barriers by formulating principles and teaching approaches based on the latest techniques, initially mastering them, and being in an educational environment that encourages development. Institutions that encouraged risk-taking and the positive construction of failure were found to be the most common facilitator. Institutionalization then created the conditions for the regulation of educational and cultural processes. It not only creates constraints, but also sets trends, so conformity to certain standards is the main condition for incorporation into these institutions and, accordingly, the realization of cultural socialization. In an era when European educational institutions are encouraged to innovate to meet academic standards and performance indicators, creative pedagogy should be a fundamental resource for learning and development.

Harnessing the potential of digitalization in terms of productivity requires the fusion of specialized knowledge from stakeholders, as the perspective of organizing the educational process involves the transfer of knowledge between different actors, and also affects how this perspective can change the paradigm of conservative education [19].

The concept of development along an "ascending" or "descending" path seems interesting. Depending on how, where, and by whom the initiative of transition to the digitalization of the educational process is generated, depends on the possibility of forms and ways of its implementation. For example, if the directive comes "from above", from the higher structures, the digitalization is forced and is implemented not voluntarily, but under conditional pressure. Under such circumstances, its quality may be low, because it is not an internal initiative of the subjects of the educational process. If the initiative is "from below", then circumstances are created in which the desire for innovative changes can lead to the restructuring of the educational process, but in a gradual and less stressful for the participants of the educational process and pass with higher efficiency [20].

Regarding the aspect of the role of universities and other institutions of higher education in the implementation of innovative technical means, the key here is the so-called "third mission of universities" [21], which is to focus on economic and social results. Thus, universities should avoid isomorphism and stop imitating the educational models of the world's leading universities. The fact is that for each region, specialty, and other context, there are different needs for teaching and learning

characteristics. One model that demonstrates a high level of positive performance may be ineffective in a different context. The third mission of universities is to focus on identifying students' abilities to contribute to public life and establish themselves as professionals.

Touching upon the use of modern technologies in the creative industries, we should dwell in more detail on the aspects of creativity. As it was noted earlier, art can help in the formation of critical thinking, reflexive consciousness. Activation of personal creativity forms communicative competencies in constancy [6]. It means interaction between the author of the work and the audience, forming the reception of the space, based on their own experience. Young artists are often confronted with problems of sustainability through the analysis of individual creativity (vision, sources of inspiration, socially relevant messages, communicative strategies manifested in forms of creative realization). In terms of observing professional progress, regular practice is forced, which helps in retrospectively analyzing gaps and developing more effective approaches to work and learning. Contemporary cultural practices provide relevant values. For example, universalism and the pursuit of ethical action within a socio-centric worldview, expressing constructive or, conversely, utopian hope, emphasize the increasing role of individual responsibility. Another manifestation of artistic forms can be misanthropy, arising from dissatisfaction with the formal results of human activity, and, as a consequence, framed as a critique of the existing social order, which in social terms has become consumerist and hedonistic, and in its interaction with nature excessively exploits its resources. In any case, current artistic movements try to draw attention to the social problems and global challenges facing humanity, focusing on the possibilities of transformation in the future.

The idea of creativity is embedded in the position that a person, especially an artist, should change his position in the process of education from an observer to an active participant in processes or generator of actions through critically formed consciousness. Creativity is perceived as the ability to see shortcomings, potential problems, and at the same time opportunities for their solution, further development, to create new and original things that can become useful in the socio-cultural context. This thesis fully coincides with the theoretical justification of the essence of technical progress, as looking for ways and means to improve the living space. In this vein, the correlation of the values of art and technology seems extremely effective in achieving a common goal, which is humanistic in nature. In the context of creative industries, technical means act as an important tool for realizing the creative potential of future artists, as well as creating conditions for the long-term preservation of cultural objects in their original form. On the other hand, the technical form of artwork preservation poses a risk for the

loss of digital materials in emergency conditions and also makes possible physical access to the cultural heritage created in this way. Cooperation in these two directions, respectively, has its advantages and disadvantages. Technological, social, and political transformational trends account for the increasing protagonistic role of artists' participation in the reconfiguration of cultural behavior and promote the introduction of innovative processes in the field of scholarship [22]. At the same time, however, there is an over-reliance on performance measures and critical evaluations of creativity for teachers themselves, which precludes a perspective on how they form epistemic beliefs about art in its essence [23].

Innovative technical means have created the possibility of openness of the educational process. Technical development has encouraged educational institutions to develop the latest principles for implementing curricula. The practice of openness of the educational process in the field of culture and arts has created opportunities for unhindered open data exchange, publication of the results of activities for wide access, which simplifies the exchange of opinions regardless of geographical, temporal, or another reference. This cultural education process is based on two basic principles: openness and consistency (connectivity). The use of innovation in cultural directions is a driving force to create a fruitful environment for the formation of future artists [24].

Perspective development combines technical progress and artistic vision. Creativity is what generates the future. It leads to tremendous breakthroughs in science and technology and promotes rapid social change [25]. However, institutional instability can be an obstacle to the implementation of innovative educational technologies in the field of culture and art [26], so it is important to promote an effective image of modern technical tools that will help to solve a number of problems and gradually involve them in the educational process. Educational institutions should combine an interdisciplinary approach with a free creative democratic atmosphere [27], not resisting modernization processes, but creating conditions for their active involvement and interpretation of their possibilities.

## 4. Conclusions

Modern technological progress and its active implementation in all spheres of life require a person's quick ability to adapt to new requirements. Mastery of innovative technologies in cultural and artistic industries allows revealing the creative potential of creative discourse to a great extent, to expand the special competencies of teaching staff, and to make the educational process more varied. Any learning platform and digital tools when actively used during distance



learning provide the opportunity to work with educational and methodological content, management of the educational process, tracking and control of achieved results, learning analytics, organization of effective interaction between users, and the possibility of forming an individual learning and educational trajectory [28].

However, an obstacle to the active implementation of innovative educational technologies often stands the human factor as such, which at a subconscious level with fear of everything new. It is possible to eliminate the specified problem by the gradual attraction of innovative technologies to the educational and pedagogical environment, which will promote effective creative professional activity in this sphere.

The emergence of new directions, styles, and techniques allows us to speak with confidence about the expansion of the specificity of creative industries with modernization processes. An interdisciplinary approach should be used for further research in this direction, which will help to better understand the essence of the correlation between technology and art. Innovative technologies solve the problem of accessibility to art even in quarantine, which is very valuable for the educational process, allowing it to continue under extraordinary conditions. Understanding the principles of the implementation of modernization of education in the field of culture and art will contribute to the effectiveness of the educational process and its high performance in the future.

## References

- [1] Lebid, Yu.S.: *Features of using digital tools for organizing distance learning for music students*. In: Music in dialogue with modernity: lighting, mysticism, culturological studios: Materials of the Intern. sci.-pract. conf. / Ministry of Education and Science of Ukraine. Kiev National University of Culture and Science. Kiev, pp. 95-99 (2021).
- [2] Sakhno, O. V.: *Digital competence and technologies for learning: principles and tools*. The image of a modern teacher, vol. 6 (195), pp. 10-14. [https://doi.org/10.33272/2522-9729-2020-6\(195\)-10-14\(2020\)](https://doi.org/10.33272/2522-9729-2020-6(195)-10-14(2020)).
- [3] Voûte, E., Stappers, P. J., Giaccardi, E., Mooij, S., & van Boeijen, A.: *Innovating a large design education program at a university of technology*. She Ji The Journal of Design Economics and Innovation, vol. 6(1), pp. 50–66. <https://doi.org/10.1016/j.sheji.2019.12.001> (2020).
- [4] Meyer, M. W., & Norman, D.: *Changing design education for the 21st century*. She Ji The Journal of Design Economics and Innovation, vol. 6(1), pp. 13–49. <https://doi.org/10.1016/j.sheji.2019.12.002> (2020).
- [5] Campos, P.: *Resilience, education, and architecture: The proactive and “educational” dimensions of the spaces of formation*. International Journal of Disaster Risk Reduction: IJDRR, vol. 43(101391), pp. 101391. <https://doi.org/10.1016/j.ijdr.2019.101391> (2020).
- [6] Sanz-Hernández, A., &Covaleda, I. Sustainability and creativity through mail art: A case study with young artists in universities. *Journal of Cleaner Production*, vol. 318(128525), pp. 128525. <https://doi.org/10.1016/j.jclepro.2021.128525> (2021).
- [7] Kamariotou, V., Kamariotou, M., &Kitsios, F.: *Strategic planning for virtual exhibitions and visitors' experience: A multidisciplinary approach for museums in the digital age*. Digital Applications in Archaeology and Cultural Heritage, vol. 21(e00183), pp. e00183. <https://doi.org/10.1016/j.daach.2021.e00183> (2021).
- [8] Dorofeeva, V.Yu. : *The method of gamification in the study of music-theoretical disciplines: theory and practice*. In: Music in dialogue with the present: educational, art, cultural studies: materials International. scientific-practical conf. / Ministry of Education and Science of Ukraine. Kyiv National University of Culture and Arts Kyiv, pp. 82-85. (2021).
- [9] Broyako, H., Dorofeeva, V., Kovmir, H., Yurchuk, B. : *Modern Internet resources as a means of independent work of students on the development of musical hearing*. In: Scientific debates and prospective orientations of scientific development: a collection of scientific papers "LOGOE" with materials from the Scientific Conference and international practice (Vinnytsia Paris: European Scientific Platforms & La Fedeltà, vol. 5, p. /10.36074/logos-05.02.2021.v5.35 (2021).
- [10] Shen, C.-W., & Ho, J.-T.: *Technology-enhanced learning in higher education: A bibliometric analysis with latent semantic approach*. Computers in Human Behavior, vol. 104(106177), pp. 106177. [https://doi.org/10.1016/j.chb.2019.106177\(2020\)](https://doi.org/10.1016/j.chb.2019.106177(2020)).
- [11] Zoom, Blum, A., Larkin, T., &Bunevich, R.: *High-Fidelity Music Mode & professional audio on Zoom*. Zoom Blog. <https://blog.zoom.us/high-fidelity-> (2020, September 22).
- [12] Xu, Z., Ge, Z., Wang, X., &Skare, M.: *Bibliometric analysis of technology adoption literature published from 1997 to 2020*. Technological Forecasting and Social Change, vol. 170(120896), pp. 120896. <https://doi.org/10.1016/j.techfore.2021.120896> (2021).
- [13] Pozo, J. I., Pérez Echeverría, M.-P., Casas-Mas, A., López-Íñiguez, G., Cabellos, B., Méndez, E., Torrado, J. A., &Baño, L.: *Teaching and learning musical instruments through ICT: the impact of the COVID-19 pandemic lockdown*. Heliyon, vol. 8(1), pp. e08761. <https://doi.org/10.1016/j.heliyon.2022.e08761> (2022).
- [14] Nortvig, A.-M., Petersen, A. K., Helsinghof, H., &Brænder, B.: *Digital expansions of physical learning spaces in practice-based subjects - blended learning in Art and Craft & Design in teacher education*. Computers & Education, vol. 159(104020), pp. 104020. <https://doi.org/10.1016/j.compedu.2020.104020> (2020).

- [15] Bakirova, S. A., Izim, T. O., Nikolayeva, L. A., & Saitova, G. Y.: *Choreographic art features: Creative concepts and innovations in teaching*. Thinking Skills and Creativity, vol. 41(100901), pp. 100901. <https://doi.org/10.1016/j.tsc.2021.100901> (2021).
- [16] Pauget, B., Tobelem, J.-M., & Bootz, J.-P.: *The future of French museums in 2030*. Technological Forecasting and Social Change, vol. 162(120384), pp. 120384. <https://doi.org/10.1016/j.techfore.2020.120384> (2021).
- [17] Chipeva, P., Cruz-Jesus, F., Oliveira, T., & Irani, Z.: *Digital divide at individual level: Evidence for Eastern and Western European countries*. Government Information Quarterly, vol. 35(3), pp. 460–479. <https://doi.org/10.1016/j.giq.2018.06.003> (2018).
- [18] Moula, Z.: *Academic perceptions of barriers and facilitators of creative pedagogies in higher education: A cross-cultural study between the UK and China*. Thinking Skills and Creativity, vol. 41(100923), pp. 100923. <https://doi.org/10.1016/j.tsc.2021.100923> (2021).
- [19] Keller, A., Weber, S. M., & Arlinghaus, J. C.: *Propositions on the benefits of the organizational education perspective towards realizing industry 4.0-promises*. Procedia CIRP, vol. 104, pp. 1734–1740. <https://doi.org/10.1016/j.procir.2021.11.292> (2021).
- [20] Ramísio, P. J., Pinto, L. M. C., Gouveia, N., Costa, H., & Arezes, D.: *Sustainability Strategy in Higher Education Institutions: Lessons learned from a nine-year case study*. Journal of Cleaner Production, vol. 222, pp. 300–309. <https://doi.org/10.1016/j.jclepro.2019.02.257> (2019).
- [21] Compagnucci, L., & Spigarelli, F.: *The Third Mission of the university: A systematic literature review on potentials and constraints*. Technological Forecasting and Social Change, vol. 161(120284), pp. 120284. <https://doi.org/10.1016/j.techfore.2020.120284> (2020).
- [22] Bonet, L., & Négrier, E.: *The participative turn in cultural policy: Paradigms, models, contexts*. Poetics (Hague, Netherlands), vol. 66, pp. 64–73. <https://doi.org/10.1016/j.poetic.2018.02.006> (2018).
- [23] Katz-Buonincontro, J., Perignat, E., & Hass, R. W.: *Conflicted epistemic beliefs about teaching for creativity*. Thinking Skills and Creativity, vol. 36(100651), pp. 100651. <https://doi.org/10.1016/j.tsc.2020.100651> (2020).
- [24] Vicente-Saez, R., Gustafsson, R., & Van den Brande, L.: *The dawn of an open exploration era: Emergent principles and practices of open science and innovation of university research teams in a digital world*. Technological Forecasting and Social Change, vol. 156(120037), pp. 120037. <https://doi.org/10.1016/j.techfore.2020.120037> (2020).
- [25] Montuori, A., & Donnelly, G.: *Creativity and the Future*. In S. Pritzker & M. Runco (Eds.), Encyclopedia of Creativity, pp. 250–257. Elsevier. (2020).
- [26] Bonnin Roca, J., Vaishnav, P., Morgan, G. M., Fuchs, E., & Mendonça, J.: *Technology Forgiveness: Why emerging technologies differ in their resilience to institutional instability*. Technological Forecasting and Social Change, vol. 166(120599), pp. 120599. <https://doi.org/10.1016/j.techfore.2021.120599> (2021).
- [27] Tang, M.: *Interdisciplinarity Creativity*. In S. Pritzker & M. Runco (Eds.), Reference Module in Neuroscience and Biobehavioral Psychology, pp. 678–684. Elsevier. (2020).
- [28] Boychenko, M.: *Digital learning environment: innovative ecosystem of distance learning in higher education institutions*. In: Education for the 21st Century: Challenges, Challenges and Prospects. Materials II International scientific-practical conf., pp. 129–132. Summy. (2020).

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