Digitalization of the management of social-cultural activities in the conditions of modern challenges

Цифровізація менеджменту соціокультурної діяльності в умовах сучасних викликів

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Abstract

The research addresses the digitalization of management processes in the socio-cultural sphere, assessing the factors that influence this process and the challenges faced by leaders of socio-cultural institutions and projects. Various analytical methods were used, including the analysis of scientific literature and an online questionnaire to gather practical perspectives. The findings reveal significant trends in the digitalization of socio-cultural activity management, identified from scientific literature and questionnaire responses. The study highlights the primary features of this process and provides a comprehensive view of the challenges and opportunities of implementing digital tools in socio-cultural activities.

Keywords: digitalization of management, digital technologies, digital transformation in management, the electronic environment of cultural organizations, economy digitalization.

Анотація

Дослідження стосується цифровізації процесів управління в соціокультурній сфері, оцінюючи фактори, які впливають на цей процес, і виклики, з якими стикаються керівники соціокультурних установ та проектів. Було використано різноманітні аналітичні методи, включаючи аналіз наукової літератури та онлайн-опитування для збору практичних перспектив. Результати показують значні тенденції в цифровізації управління соціокультурною діяльністю, виявлені з наукової літератури та відповідей на опитування. Дослідження акцентує основні особливості цього процесу і надає комплексний погляд на виклики та можливості впровадження цифрових інструментів в соціокультурній діяльності.

Ключові слова: цифровізація менеджменту, діджітал-технології, цифрова трансформація в управлінні, електронне середовищі організацій культури, цифровізація економіки.

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Introduction

Digital technologies can fundamentally change the way entire industries work and lead to the elimination of traditional, primarily geographical, boundaries.

Nowadays, the use of digital developments leads to changes in relations between the subjects of relations in such fields as energy, construction, banking, transport, trade, education, health care, mass media, security, etc. The constant complication of institutions of the social sphere and relations, which are increasingly based on modern digital technologies, causing an exponential growth of data flows, brings to the fore the issue of digitalizing the management of social-cultural activities. It is worth noting that the conditions of digitalization require special regulation, which is designed to stimulate the socially beneficial use of such technologies and prevent their inappropriate application.

Digitalization of social-cultural activities becomes a necessity in the reformation of the cultural sphere nowadays, the primary task for the effective development of the information society throughout the world. Digitalization of cultural management, in turn, is impossible without taking into account global tendencies, in particular, the intensive development of such technologies as augmented and virtual reality, artificial intelligence, the Internet of Things, robotics, blockchain, media education, gamification, interdisciplinary, etc.

The theoretical part of the present research reveals the features of the digital transformation concept in managing the social-cultural sphere, and determines the components and factors of the virtualization of managerial relations in social-cultural activities.

The practical part of the research outlines the most significant tasks of the scientific and methodological transformation of management as the most important prerequisites for digitalizing the management of social-cultural processes. It also highlights digital economy's main characteristics as prerequisites for applying its properties in managing the social-cultural sphere. By the way, this part determines the most important aspects of social-cultural activity requiring scientific study and practical investigation from the perspective of digitalizing the management of the cultural sphere, and the most characteristic tendencies of digitalization of social-cultural activity in the conditions of modern challenges. At the same time, it clarifies the respondents' standpoint regarding the vectors of the future reform of managing social-cultural activities in terms of strengthening its digitalization.

Based on the research results, conclusions were made regarding the analyzed issues. The survey has revealed that the primary tasks reflecting the need for scientific and methodical transformation of activities from the perspective of managing social-cultural processes are as follows: studying and considering the features of the intellectual development of users of social and cultural services in the scientific work, their cognitive interests and abilities, formation of information and digital competence of employees, methodological features of cultural and social processes in the conditions of a virtual educational environment, media education and safety of service users. At the same time, the primary characteristics of the digital economy, which are prerequisites for applying its properties in the management of the social-cultural sphere, are the production of electronic services, their distribution using electronic means and the creation of a network of subjects of social-cultural relations through the formation and exchange of digital assets going beyond the boundaries of the real world. According to the survey results, it has been established that the most significant aspects of social-cultural activity, requiring scientific study and practical investigation from the perspective of digitalizing the management in this area, are as follows: activity as an expression and formative factor of mass culture, which embodies mass values, typical models of mass behavior, determines the goals of production of information products, its purpose, as well as the impact of information on the social environment formed by mass culture, which is a consumer of information products. The research made it possible to establish that the main trends of digitization of social-cultural activities in the conditions of modern challenges are the development of artificial intelligence and the completion of social-cultural services from various modules in the social and cultural sphere. Along with this, the vectors of the future reform of managing social-cultural activities from the perspective of strengthening its digitalization are primarily the development of social-cultural processes in terms of applying complex electronic systems capable of adapting to changes in the external environment, as well as using digital management, forasmuch as standard approaches no longer meet the challenges of digital modernity.

Literature Review

Within the framework of our research, it is crucial to define digital transformation in managing the social-cultural sphere as a process of integrating digital technologies into all aspects of company activity, which requires fundamental changes in technology, the culture of activity and principles of creating new products and services in this sphere. Companies should completely transform processes and working models in order to ensure the most effective use of new technologies and their timely implementation in all spheres of activity. All business units are rapidly replacing traditional processes at all levels of management with digital management tools using state-of-the-art technologies (Vasylenko et al., 2022), (Leso, Cortimiglia & Ghezzi, 2023), (Kraus et al., 2022).

Currently, the demand for effective digital management technologies has increased significantly in the field of social-cultural environment. As a result, companies that have not been able to adapt to the new model of the digital consumer will most likely no longer exist. Organizations and projects that are open and ready for change and can adapt to more flexible working models have a greater potential for success than ever before. This is explained by the fact that digital transformation covers all aspects of the social-cultural sphere and offers effective ways to improve them together while developing digital technologies (Yanovska et al., 2019).

The virtualization process of managing relations is directly related to the emergence and introduction of a new class of virtual values into an economic turnover. The issue of exploring the significance of the virtualization process is considered in the works of modern scientists, the significance of which for the system of the modern world social-cultural sphere has been proven. At the same time, an effective mechanism for legal and administrative regulation of transformations provoked by similar processes in the system of social relations should be introduced (Ko et al., 2021), Papageorgiou et al., 2020). The scientists conducted a comparative characterization of the banking sector of Eastern Europe (Tarasenko, Saienko, Kirizleyeva, Vozniakovska, Harashchenko, & Bodnar, 2022) and developed strategies for the development of enterprise in post-industrial society (Hurzhyi, Kravchenko, Kulinich, Saienko, Chopko & Skomorovskyi, 2022).

On the basis of all social-cultural and political processes that have become a reality nowadays, a new way of communication is emerging, reflecting the characteristic features of modern mass culture. Modern mass communication is mediated by its essence, and, therefore, it requires the use of technical tools – means of mass communication. Technically, the communicative field of such processes is extremely problematic. It is characterized by a heterogeneous audience and has different levels: from private, intimate, existential contact to global and manipulative communication (Latilla et al., 2020), (Rodríguez-García et al., 2022).

A thorough analysis of modern economic practice and the latest scientific studies on the effectiveness of using management tools shows that the science of management is lagging behind the existing management practice. New conditions for the functioning and interaction of business entities in the social-cultural sphere due to using electronic networks and a wide range of professional equipment and software allow us to talk about new forms of communication, a new type of organization of production processes and new approaches to personnel management (Bendig et al., 2023), (Zoppelletto et al., 2023).

Aims

The purpose of the research is to determine the standpoints of IT specialists developing software products for organizing business processes, and heads of social-cultural institutions and projects regarding the features of the digitalization process of managing the objects of social-cultural activity in the context of today's challenges.

Materials and Methods

In this practical study, the objective was to investigate the prevailing trends in digitalizing the management of social-cultural objects in Ukraine. To accomplish this, a survey approach was adopted, targeting two key groups: practicing IT specialists and heads of social-cultural objects. A total of 259 IT specialists actively working in the field of digital technologies participated in the survey. These professionals possess expertise and knowledge in the latest digital tools and solutions relevant to managing social-cultural activities. Their insights were crucial in understanding the technical aspects and potential applications of digitalization in the social-cultural sphere. Additionally, 241 heads of social-cultural objects, such as institutions and projects, took

part in the survey. These individuals, responsible for overseeing and managing social-cultural activities, provided valuable perspectives on the challenges and opportunities associated with implementing digital tools in their respective organizations.

The survey was conducted across multiple regions of Ukraine, including the Cherkasy, Poltava, Odesa, and Kyiv regions. This approach ensured a diverse representation of opinions and experiences regarding the digitalization of management processes in social-cultural objects throughout the country. To facilitate the data collection process, the ProProfs service was employed. This online survey platform enabled efficient administration and distribution of the survey to the targeted participants. It offered a convenient and user-friendly interface for respondents to provide their responses, ensuring a smooth and streamlined data collection process.

Results

In the conditions of informatization and digital transformation of society, the heads of institutions and organizations in the social-cultural sphere face special tasks. They reflect the requirements of scientific and methodical

transformation of their activities from the perspective of managing social-cultural processes. According to the survey participants' standpoints, the following tasks are the most significant ones (Figure 1):

– studying and taking into account in the work the features of the intellectual development of users of social-cultural services, their cognitive interests and intellectual abilities (53% of respondents of IT specialists; 51% of respondents of heads of socio-culture institutions and projects).
– formation of information and digital competence of pedagogical, scientific-pedagogical and scientific workers and methods of their attestation in accordance with the functional capabilities of the activity (48% of respondents of IT specialists; 46% of respondents of heads of socio-culture institutions and projects);
– taking into account the methodological features of cultural and social processes in the conditions of a virtual educational environment, media education and the safety of service users (47% of respondents of IT specialists; 53% of respondents of socio-culture institutions and projects).
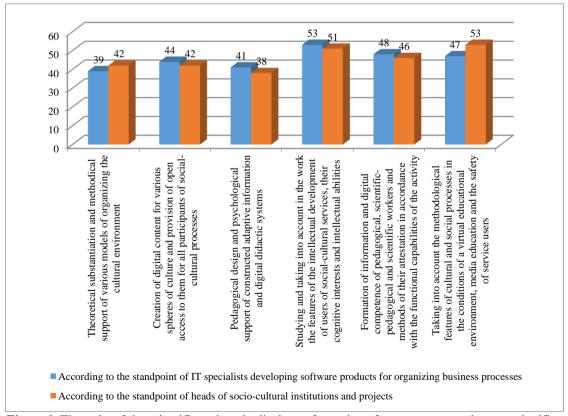

Figure 1. The tasks of the scientific and methodical transformation of management as the most significant prerequisites for digitalizing the management of social-cultural processes, %.
Source: compiled by the authors.

During the survey, the respondents identified the following primary characteristics of the digital economy as prerequisites for applying these features in the management of the social-cultural sphere (Figure 2):

– production of electronic products and services, their distribution by means of electronic tools (48% of respondents of IT specialists; 53% of respondents of heads of socio-culture institutions and projects);
– creations of a network of subjects of socio-cultural activity through the formation and exchange of digital assets going beyond the boundaries of the real world and do not have a physical medium (51% of respondents of

IT specialists; 49% of respondents of heads of socio-culture institutions and projects);
– the dominant use of digital technologies in organizing current processes (47% of respondents of IT specialists; 37% of respondents of heads of socio-culture institutions and projects).

The survey has revealed that these characteristics are primarily the production of electronic products and services, their distribution by means of electronic tools and the creation of networks of cultural activity's subjects through the formation and exchange of digital assets going beyond the boundaries of the real world.
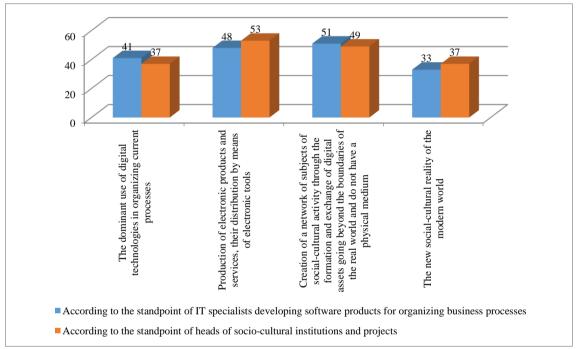

Figure 2. The primary characteristics of the digital economy as a prerequisite for applying its properties in the management of the social-cultural sphere, %.
Source: compiled by the authors.

The most significant aspects of social-cultural activities requiring scientific study and practical investigation from the perspective of digitalizing the management in this sphere, according to the respondents' standpoints, are as follows (Figure 3):
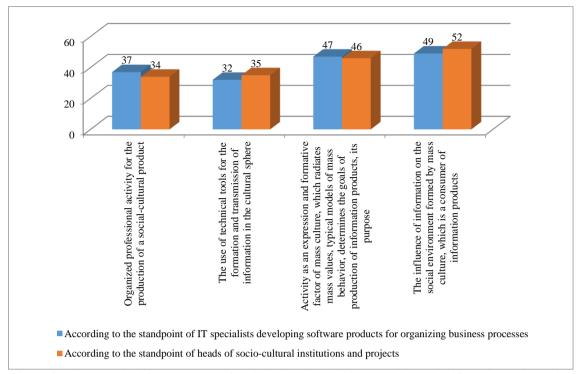
Figure 3. The most significant aspects of social-cultural activities requiring scientific study and practical investigation from the perspective of digitalizing the management in this sphere, %.
Source: compiled by the authors.

It can be observed from Figure 3 that such aspects are activity as an expression and formative factor of mass culture, which radiates mass values, typical models of mass behavior, determines the goals of the production of information products, their purpose, as well as the influence of information on the social

environment formed by mass culture, which is a consumer of information products.

The clarification of the most characteristic tendencies of digitalizing social-cultural activities in the conditions of modern challenges is also a significant result of the questionnaire survey (Figure 4).
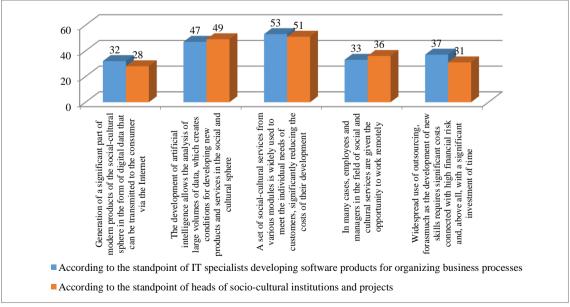

Figure 4. The most characteristic tendencies of digitalizing social-cultural activities in the conditions of modern challenges, %.
Source: compiled by the authors.

As can be seen from Figure 4, according to the survey participants' standpoints, the primary tendencies in developing the electronic social-cultural environment nowadays are the development of artificial intelligence and the completion of social-cultural services from various modules in the social and cultural sphere.

During the research, the respondents were asked to determine the vectors of reforming the management of social-cultural activities from the

perspective of strengthening the digitalization of this process (Figure 5).

As can be seen from Figure 5, according to the standpoints of both IT specialists and heads of the social-cultural sphere, such directions are primarily the development of social-cultural processes in terms of complex electronic systems capable of adapting to changes in the external environment, as well as the use of digital management, since standard approaches no longer meet the challenges of digital modernity.
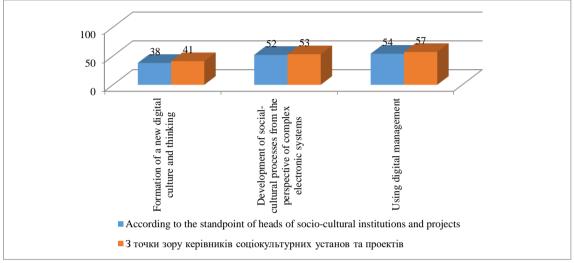

Figure 5. The vectors of reforming the management of social-cultural activities from the perspective of strengthening the digitalization of this process, %.
Source: compiled by the authors.

The survey results indicate a consensus among participants regarding the importance of digitalization in the social-cultural sphere. Both IT specialists and heads of social-cultural objects recognize the need to adapt to the digital era and leverage digital technologies for improved efficiency, innovation, and audience engagement. The identified trends in the survey highlight the significance of developing complex electronic systems that can adapt to the changing external environment. This reflects the understanding that digital technologies play a crucial role in enhancing the management and functioning of social-cultural objects. Additionally, the emphasis on digital management approaches underscores the recognition that traditional methods are no longer sufficient in addressing the challenges posed by the digital landscape. The survey also indicates a strong desire to embrace digital tools and platforms for effective communication and collaboration within the social-cultural sphere. The shift towards virtual companies, electronic objects, and electronic communication platforms demonstrates a recognition of the potential

benefits and opportunities offered by digital technologies.

Discussion

Currently, taking into account the challenges of globalization intensifying and the need to solve communication problems, computerization is a significant factor in the civilizational progress of mankind. After all, it causes the wider use of computer systems, digital technologies, telecommunications and the Internet in all spheres of social life: science, business, and, of course, in the social-cultural environment (Cheng et al., 2022), (Singh, Klarner & Hess, 2020).

Information and digital tools and technologies are developing at an accelerated pace and are future-oriented. Scientific, technical, economic and political information is gaining more and more importance in social life nowadays, including for social and cultural activities (Shaw, Kim & Hua, 2020), (Banga, 2022).

Society as a whole and each individual, in particular, requires applying acquired knowledge in practice. Under such conditions, priority is given to science as a field producing new knowledge and culture as a field humanizing knowledge and, first of all, ensuring the individual development of a person (Biswas et al., 2022).

The difficulty of implementing the digital management concept in the social-cultural environment is largely due to the fact that deterministic processes are basically quite well-automated. At the same time, when human participation is required, the process is non-deterministic and challenging to automate with modern tools. It should also be borne in mind that the complexity and variety of business processes in non-manufacturing organizations lead to a more complex process of digitalizing management activities. Leading non-manufacturing companies today are quite actively involved in digital technology initiatives. They are engaged in the processes of formation of inter-industry, inter-regional and global digital space, ensuring the creation of product value, reflecting the need to involve business partners at all stages of product development and distribution (Filho et al., 2022), (Zhang, Pan, Feng & Qin, 2022), (Qian, Liu & Pan, 2022).

Digitalization of social-cultural processes creates opportunities for managers in this field which did not exist before. In particular, there is no need to remember large volumes of data nowadays as there is an opportunity to quickly share information: e-mail, video conferencing, real-time collaboration on one's document, and other technologies are transforming communication (Timchuk & Evloeva, 2020), (Elia et all, 2021).

At the same time, it is worth emphasizing that these advantages are not capable of creating a truly working system of automated management in the social-cultural sphere due to the specificity of its processes. Electronic management tools are designed only to support decision-making, and provide collection and pre-processing of data necessary for the manager to solve specific tasks.

Conclusions

Therefore, the analysis of the scientific literature on the research topic and the questionnaire results showed that in the conditions of digitalization of the economy, communication and organizational relations in the social-cultural sphere have changed significantly nowadays. In

particular, new components of such relationships have appeared, such as virtual companies and electronic objects, forms of electronic communication, etc.

Despite the valuable insights gained from this practical study on digitalizing the management of social-cultural objects in Ukraine, there are certain limitations that should be acknowledged. Firstly, the survey sample was limited to specific regions of Ukraine, namely the Cherkasy, Poltava, Odesa, and Kyiv regions. This regional focus may limit the generalizability of the findings to other parts of the country or even internationally. It is important to consider that different regions may have distinct socio-cultural contexts and varying levels of digital infrastructure and adoption, which could influence the outcomes.

Secondly, the research relied on self-reported data obtained through a survey. Self-reporting introduces the potential for response bias, where participants may provide answers that are influenced by personal opinions, experiences, or expectations. The accuracy and reliability of the collected data are dependent on the honesty and accuracy of the respondents. Additionally, the survey targeted practicing IT specialists and heads of social-cultural objects, which may not provide a comprehensive perspective on all stakeholders involved in the digitalization process. Other relevant parties, such as cultural policymakers, funding agencies, and end-users of social-cultural services, were not directly included in the study. Their perspectives could offer valuable insights and considerations that were not captured in the survey. Furthermore, the research focused primarily on digitalization in the management processes of social-cultural objects, potentially overlooking other aspects of digital transformation, such as audience engagement, content creation, or marketing strategies. A more comprehensive examination of the broader digital ecosystem within the social-cultural sphere could provide a more holistic understanding of the topic.

Lastly, the study employed a cross-sectional design, capturing a snapshot of the current state of digitalization in social-cultural objects. Longitudinal studies tracking the evolution of digitalization efforts over time would offer deeper insights into the trends and changes in the field. Considering these limitations, future research endeavors should strive for a broader geographical scope, involve a wider range of stakeholders, incorporate mixed-method approaches, and adopt longitudinal designs to

provide a more comprehensive understanding of the digitalization of management processes in social-cultural objects.

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