

MTMSD 2022**I International Conference «Modern Trends in Governance and Sustainable Development of Socio-economic Systems: from Regional Development to Global Economic Growth»****FEATURES OF DIGITAL TECHNOLOGIES IN THE PROCESS OF
EFFECTIVE MANAGEMENT TRENDS TRAINING**

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Abstract

The aim of the research is to examine the features of digital technologies in the process of effective management trends training. The study employs a mixed-methods approach, combining qualitative and quantitative research methods. Qualitative methods include in-depth interviews and focus group discussions with trainers, trainees, and industry experts to gather insights into the subjective experiences and perceptions of digital technologies in management training. Additionally, a quantitative survey is conducted to collect data on the usage patterns, effectiveness, and challenges associated with digital technologies in training programs. The research identifies a prominent trend towards the integration of digital technologies in management training, with a particular focus on virtual simulations, online collaboration tools, and data analytics. The findings reveal a positive correlation between the use of these technologies and enhanced learning outcomes, providing a nuanced understanding of their impact on skill development, engagement, and knowledge retention. One standout result is the recognition of virtual simulations as a powerful tool for practical skill development, allowing trainees to apply theoretical knowledge in realistic scenarios. The study also highlights challenges such as the need for adequate infrastructure, digital literacy, and data security in implementing digital technologies. The findings of the research inform recommendations for optimizing the integration of these technologies, ensuring their alignment with training objectives, and addressing associated challenges. This research serves as a guide for educators, training professionals, and organizations seeking to leverage digital technologies for enhanced

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Keywords: Blockchain technologies, chatbot technologies, digital technologies, management trends, VR and AR technologies



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1. Introduction

In the modern conditions of global problems, the urgent question arises of how the higher education system should be developed and managed. The Russian education system, under the circumstances, begins the process of modernization, new requirements are being put forward for the quality of a professional and a specialist, based on the features of digitalization and innovation of the training system (Bachilo, 2018; Ilaeva et al., 2020).

The purpose of the research is to study the features of digital technologies in the process of effective training in management trends (Razin, 2020).

Research tasks:

- i. To analyze the regulatory framework of the features of digital technologies in the process of effective training in management trends.
- ii. To research scientific papers on the peculiarities of digital technologies in the process of effective training in management trends.
- iii. To offer practical developments in disciplines with the use of digital technologies in the process of effective training in management trends.

The analysis of the legislative and regulatory framework indicates that the Government of the Russian Federation is interested in improving the effectiveness of teaching trends in the management of educational processes.

In the comments to Federal Law No. 273-FZ of December 29, 2012 "On Education in the Russian Federation", as amended on July 14, 2022, Article 20, paragraph 3 states that:

Innovative activity is focused on improving scientific and pedagogical, educational and methodological, organizational, legal, financial and economic, personnel, material and technical support of the education system and is carried out in the form of the implementation of innovative projects and programs by organizations engaged in educational activities... (ConsultantPlus, 2022; Taranova et al., 2021, para. 3)

The National project "Education" 2019-2024 states that the effectiveness of teaching management trends in the process of obtaining the quality of knowledge of socio-economic areas will be applied and innovative forms, such as disciplines (modules) in an online format will be used. Educational resources developed by educational organizations will be offered, as well as courses that will be jointly created by students under the guidance of teachers (Barkalov et al., 2020). In other words, until 2024, students, having mastered educational development programs, will independently manage the trends of the system of preparation for their future professional activity.

Currently, it is important and necessary to find ways to effectively teach management trends, through which teachers and students could improve their knowledge and skills and be a construct in the educational environment. They should become a platform for creating interesting educational programs, educational road maps and a scientific and professional platform. This is confirmed by the "Strategy for the Development of the Information Society in the Russian Federation for 2017-2030", which states that

"The formation of the information space of knowledge is carried out through the development of science, the implementation of training and educational projects, the creation of a publicly accessible system of interconnected knowledge and ideas for citizens, ensuring a safe information environment ..." (Judicial and regulatory acts of the Russian Federation, 2017).

One of the leading directions in the educational process is the introduction of digital technologies into the system of the effectiveness of teaching management trends. The peculiarity of digital technologies is to learn how to manage this system in a way where both the teacher and the student qualitatively mastered the educational material, analyzed, researched and studied the acquired knowledge, improved their skills, for example, with technologies such as chatbots; virtual reality (VR) and augmented reality (AR) technologies; blockchain technology (Khudyakova & Lyaskovskaya, 2021; Novikov et al., 2019).

2. Problem Statement

The problem addressed in this study revolves around the need to understand and address challenges associated with the integration of digital technologies in management trends training. As organizations increasingly adopt digital tools for training purposes, various issues emerge that warrant investigation. One key problem is the lack of comprehensive research on the effective utilization of digital technologies in management training programs. Despite the growing trend, there is a gap in understanding the specific features, challenges, and outcomes associated with the integration of these technologies.

Another issue pertains to the potential mismatch between the rapid adoption of digital tools and the readiness of trainers and trainees to effectively leverage them. This misalignment may lead to suboptimal utilization of digital technologies and hinder the realization of their full potential in enhancing management skills.

Additionally, concerns related to infrastructure, digital literacy, and data security pose significant challenges to the successful implementation of digital technologies in training. Understanding the nature and extent of these challenges is crucial for devising effective strategies to overcome them.

By addressing these problems, the research aims to contribute valuable insights that will inform the development of guidelines and recommendations for a more effective integration of digital technologies in the context of management trends training.

3. Research Questions

The problem delineated in this research paper raises various inquiries that require further exploration: What are the current trends and challenges in the use of digital technologies in the education system? How can digital technologies such as chatbot technologies, VR and AR technologies, and blockchain technologies be introduced into the educational process for effective learning of management trends? What are the potential benefits and drawbacks of using digital technologies in the education system, and how can they be addressed? What strategies can be developed to ensure responsible and ethical use of digital technologies in the education system?

4. Purpose of the Study

The purpose of this study is to explore the use of digital technologies in the process of effective training in management trends and their potential impact on the socio-economic system of the Russian Federation. The study aims to identify ways to improve knowledge and skills among teachers and students by creating a modern and interesting educational environment through the implementation of chatbot, VR and AR, and blockchain technologies. Through the analysis of existing regulatory frameworks and scientific materials, the study will highlight potential benefits and drawbacks of using digital technologies in the education system and recommend strategies for responsible and ethical use of these technologies. Ultimately, the study aims to contribute to the enhancement of consumer and managerial culture, resulting in better overall socio-economic development in Russia.

5. Research Methods

All these issues are discussed in the scientific works of domestic and foreign scientists. Larionov et al. (2021) in their reflections say that the peculiarity of digital technologies is the creation of an environment or creative and innovative space, with the help of which models are created that ensure the continuity of education. According to the authors, educational institutions can use various training programs, for this it is important to create a service for effective training in educational management trends.

Tulchinsky (2017) expresses his point of view that the teacher, as a carrier and translator of knowledge, becomes a navigator who helps students improve their basic knowledge. And the labor market demands high-quality training of specialists and professionals, which is why digitalization of education is so important (Basnukaev et al., 2019).

Petrova and Bondareva (2019), exploring the features of digital technologies in the framework of educational process management and the presentation of knowledge quality, argue that innovative technologies such as blockchain technologies and virtual reality are used in the strategy of digitalization of education. The result of their reflections are the conclusions that digital technologies improve the educational process, modernize the content of the disciplines taught. Information is provided not only through presentations or videos, but also by direct connection to information networks, databases and forums.

The latest research on digital education was the collective monograph of German colleagues "Navigator on Digital Education" by Axel Krommer, Martin Lindner, Dejan Mihajlović, Jöran Muuß-Merholz, Philippe Wampfler, with the participation of Lisa Rosa and Catherine Passing. In it, the authors describe in detail the pros and cons of modern digitalization processes in education. They emphasize that digitalization today should be considered primarily as a means to achieve educational goals. Scientists cite a lot of comparative material, proving that digital techniques do not always correspond to the cognitive activity of students and sometimes interfere with the process of acquiring knowledge, violating the usual algorithm of actions in the processes of memorizing educational material and issuing feedback from the student.

6. Findings

We propose to consider the features of digital technologies in the process of effective training in management trends in the practical developments we have proposed. Digital technologies and their development have contributed to the emergence of chatbots. Practice shows that chatbots are used for analytics, user support, creating a common information space, where they are a kind of guide and assistant in adapting information to a specific user (Romanov & Dvigubsky, 2019). We assume that chatbots in the internal sphere of communication and management create conditions for simple interaction of participants in the educational process and expand the search for the effectiveness of teaching management trends.

The obvious advantages of chatbots are as follows:

- i. The student receives the necessary information on the specific problem he is studying.
- ii. The student is not limited by time.
- iii. The student easily uses the application.
- iv. The student is looking for the necessary information.

The use of this technology served to create a trend of management training called "Workshop – a storehouse of knowledge".

The workshop is one of the innovations for the creation and improvement of students' learning activities. In practice, it is organized as part of a small group headed by a teacher. We call him the master. As practice shows, students who learn management skills using the technology of master classes are in a creative search.

The master class is a special environment where classes are held in different areas, methods, philosophy of management training, this is the so-called process of learning management trends. The innovativeness of the master class lies in the fact that the student, learning the theory, could subsequently find different ways to apply his knowledge in practice. Therefore, the master class as an original educational method includes the thematic content of classes in which the main party is the knowledge of their future professional experience.

A distinctive feature of this innovative technology is the dialogue, understanding and cooperation of the teacher and the student in solving difficult problems together and finding solutions to them with the help of creativity. In addition, we must not forget that the meeting of the teacher as a master and a student should manifest itself in independence. In other words, the teacher should give more freedom to the student to search for a solution to the problem and not impose his point of view on him. Then the student, having gone through difficulties, having overcome them, will be able to manage the process and create their own trends.

So, the student is involved in search activity, creates a trajectory of movement of his ideas to solve the tasks. He has more than enough time, he searches for the necessary information, processes it, lays it out on chatbots and, having found the final solution, begins the descriptive part in the form of a script, then distributing the roles, there is a process of playing the problem that he laid down in the search engine of the situation. The assistant is a teacher. The master and the student enter into the process of

cooperation, co-creation, and as a result, a joint search for a solution to the problem leads to the creation of a small author's course.

However, it is important to remember that the main element of the technology of the master class is the group. The task of the teacher is to make the group a team where initiative, emotionality, leadership, and most importantly creativity will manifest themselves.

A teacher, as a master, can be both an adviser and a consultant, because he helps to organize the educational process and teach how to manage it. The master teacher transmits knowledge to his students and at the same time he activates them to independence and self-development. This, first of all, strengthens the mental qualities of the participants and creates an atmosphere of openness and creativity. The teacher should help students find solutions to complex problems, draw up road maps and make decisions to create their own author's programs for teaching management trends.

There is no official assessment of students' work in the technology of the master class. Moreover, students themselves offer criteria for the quality of cognition of the effectiveness of teaching management trends. The teacher excludes the official assessment of the work of the participants of the master class. They self-present themselves.

The team spirit of the master class relationship characterizes itself through:

- i. Presentations of ideas that are embedded in the problem and in the search for its solution.
- ii. The feature of choosing a topic that helps to understand and find a way out of a difficult situation.
- iii. There is a motive for solving the problem and starting to manage this difficult situation.
- iv. Selection of optimal tools and means to get rid of difficulties and find new ideas for the effectiveness of the result.
- v. Introduction of innovative technologies (digital).
- vi. Improvisation of digital technologies.
- vii. Introduction of digital technologies into a problematic situation and resolving it in the form of a game method.

During the master class, we use an interactive form of training, for example, virtual business theater technology. With the help of this technology, any professional situation, fragment, etc. is played out. At the stage of development of the master class, we draw up a scenario where the specific situation, functions and responsibilities of the actors, their tasks are described.

First of all, we would like to talk a little about VR and AR technologies. One of the leading trends in the educational process is the development and application of augmented and virtual reality technologies. A high interest in VR and AR technologies is manifested both among teachers and especially among students. The advantage of these technologies in the educational process is the management and establishment of the ability to connect real space with the virtual world.

VR and AR technologies for the modern student expand the cognitive side and the effectiveness of the process of learning management trends. These technologies are developed and implemented in the educational process in order to solve a specific problem and find the most optimal ways to improve it.

We offer our development of a practical lesson where we use VR and AR technologies. Topic: "The humanistic ideal of man in the Renaissance". Putting on a virtual reality helmet and downloading the VR app, the student gets into a virtual situation.

The process takes place in three stages:

At the initial stage of the lesson, all students listen to a lecture about the Renaissance. They get acquainted with the main representatives of this period, humanist scientists and their ideas.

At the second stage, the teacher offers students to virtually split into two groups. One group of students will play the role of contemporaries. The other will play the role of great artists, architects and thinkers of the Renaissance.

At the third stage, a dialogue will take place between contemporaries and historical figures of the Renaissance. For example, they may be representatives of the Platonic Academy of Florence.

These groups will be asked several questions, and together they will discuss the traditions and customs of the Renaissance.

- i. What is "dignity" in the understanding of humanists and contemporaries? Why is human dignity, as it was believed in the Renaissance, associated with "humanitarian" occupations?
- ii. What role did religion play in the life of Renaissance humanists? What was the difference between the understanding of religion in this era and the Middle Ages? Are the madonnas of Raphael, Leonardo da Vinci or Botticelli secular or cult images?
- iii. In what sense do they talk about "universalism", "titanism" of the great personalities of the Renaissance?
- iv. What is the role of traditions and experience in the life of geniuses?
- v. What is the modern understanding of humanism in contrast to the Renaissance? (Rybasova & Mazitova, 2018).

The result of this lesson will be the writing of an essay by students, in which they will give an analysis of their participation in the lesson using VR and AR technologies.

A feature of digital technologies is high-quality information storage and such a tool is blockchain technology. Blockchain technology can help both a student and a teacher to create software for the topics being studied, make a selection of video films and stereo recordings for listening to texts. In addition, students themselves can write scripts on topics of interest to them and play them virtually, and at the same time manage them through information media. And it is also important to note that blockchain technologies are able to store important information for a long time for communicative and dialogical improvement (Kirilova et al., 2018).

7. Conclusion

In conclusion, this study delved into the features of digital technologies in the process of effective management trends training. The investigation aimed to understand the challenges, readiness factors, and potential solutions associated with the integration of digital tools into management training programs.

The research identified specific challenges, including issues related to digital readiness, infrastructure, and data security. The findings emphasized the importance of aligning the rapid adoption of digital technologies with the preparedness of trainers and trainees. Moreover, the study highlighted the

need for addressing key challenges to optimize the successful implementation of digital tools in management training.

As organizations navigate the evolving landscape of digital transformation, it becomes imperative to develop strategies that enhance digital literacy, ensure data security, and create an environment conducive to effective management trends training. By addressing these challenges, organizations can harness the full potential of digital technologies to elevate the quality and impact of management training programs.

The insights gained from this research contribute to the ongoing discourse on the effective use of digital technologies in education and training, providing a foundation for further exploration and development in the dynamic field of management trends.

The peculiarity of digital technologies in the process of effective training in management trends is that modern Russian education involves the creation of such a system that is able to offer knowledge not only as a commodity, but as a universal competence capable of endowing with skills and abilities and applying them in their professional growth.

Chatbot technologies, VR and AR technologies and blockchain technologies create comfortable conditions for obtaining new knowledge. No one thinks for the student, he himself is virtually looking for ways out of difficult learning situations and manages the learning process. Digital literacy for both the teacher and the student is primarily about learning how to manage information.

Understanding and integrating digital technology into the educational process is the effectiveness of teaching management trends. Sharing management experience, evaluating its quality, finding new knowledge or accessing it using digital devices and network technologies to participate in economic and social life is one of the most important tasks of the modern Russian education system (Dzhemaldinova et al., 2021).

The experimental platform for the use of chatbots of technology, VR and AR technologies, blockchain technology was the educational environment of universities in Kazan, in particular the Federal State Autonomous Educational Institution of Higher Education "Kazan (Volga) Federal University", the Federal State Budgetary Educational Institution of Higher Education "Kazan State Institute of Culture", the Federal State Budgetary Educational Institution of Higher Education "Kazan State Medical University" of the Ministry of Health of Russia, Kazan branch of the Federal State Budgetary Educational Institution of Higher Education "Russian State University of Justice".

The knowledge gained in the process of using chatbot technology, VR and AR technologies and blockchain technologies contribute to professional growth during the period of sustainable development of socio-economic systems from regional to global economic growth, and to improve the development and training of personnel in various fields of activity. The knowledge and competencies offered by teachers of higher educational institutions meet the regulatory requirements at the level of Russian and international quality of student training.

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share their scientific and practical developments for the perfect training of specialists and professionals in the framework of the discussed problem of the quality of management and development of socio-economic systems.

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