



## RESEARCH ARTICLE

## The Opportunities of Using Social Media as a Means of Visual Interaction in the Digital Educational Environment

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ARTICLE INFO	ABSTRACT
Received: Jun 23, 2025	The purpose of this article is to explore the theoretical components and determine the features of using social networks as a means of visual interaction in the digital educational environment of higher education institutions. The study discusses the main possibilities of social networks for visual interaction, as well as highlights the specifics of effective strategies of using them as a medium of interaction in a digital educational environment. In a digital educational environment, social media plays an important role due to their broad audience reach, fast feedback, rapid spreading, direct communication establishment, and the formation of a positive image. Recommendations for using social media as a tool for visual interaction in the digital educational environment are proposed. In order to properly apply social media, certain parameters should be followed, including engaging content, usefulness, the use of popular social networks, active communication, and results monitoring. The conclusion demonstrates the importance and necessity of educational process informatization with the use of social networks. Effective strategies should be developed for a successful integration of social networks into the educational process and communication management. Their implementation should be monitored, and prospective directions for improving the process of visual interaction should be formulated.
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## INTRODUCTION

The digital educational environment is based on new information and communication tools, as well as the priority of social practices related to the active information and knowledge exchange (Shilova, 2020). In these conditions, all types of content transition from analog, physical, and static forms to digital, becoming mobile and personal, which makes the search for optimal interaction tools necessary to keep up with the accelerated pace of information exchange.

Effective interaction between teachers and students is a key element of successful learning, and the digital educational environment opens up new opportunities for improving the quality and effectiveness of dialogue. (Korotaeva, 2013)

The integration of digital technologies into the communication process allows teachers and students to communicate continuously, regardless of time or location. This helps create a flexible, interactive, and personalized learning environment, where students can receive timely support, feedback, and individual guidance from their mentors. Digital visual interaction channels, such as messengers and video conferences, provide instant exchange of visual information, video files, and multimedia content, making the learning process more illustrative, interactive, and engaging. Moreover, digital technologies allow teachers to monitor student performance, promptly identify problematic areas, and adapt educational material according to the individual needs of students. It is important to note that effective digital communication requires not only technical skills but also an understanding of ethical standards, online communication rules, and confidentiality compliance. Balancing the use of digital tools with traditional communication methods is key to creating a harmonious educational environment where students feel comfortable and can develop their skills in effective

communication. Therefore, the use of digital technologies for visual interaction between teachers and students is an important step in modernizing higher education and improving its quality.

One of the forms of online visual interaction is social media, which are becoming an increasingly effective and important communication channel. They open up new opportunities for learning and active interaction with students in the educational process, fostering collaboration, self-organization, and self-education, while providing access to many educational resources that complement traditional teaching methods. It should be noted that social networks contribute to interaction between students and teachers outside the classroom, form a positive image of the educational process, and facilitate effective feedback.

The popularity of social media is growing, including among young people, who are the recipients of educational services provided by educational institutions. Thus, the functional integration of social media with the university's digital educational environment can lead to participants in the educational process being able to efficiently operate educational content remotely and with minimal effort and time.

## **LITERATURE REVIEW**

The use of digital tools for visual communication between teachers and students in the organization of the educational process has been a subject of study for a long time. The choice of appropriate digital tools by teachers depends on the goals of communication.

Many researchers have highlighted the importance of visual online communication. For instance, V.V. Kondrashina argues that visual communication between a student and a teacher is particularly effective when it is purposeful, fosters trust, supports the skills development of students, and also highlights tools that facilitate two-way communication and information exchange (Kondrashina, 2021). In a study by Lifshits (2020), based on the analysis of the impact of the transition to remote learning during quarantine, the advantages of online communication via video connection between teachers and students were identified. Those include improved understanding of the possibilities of the digital educational environment, accessibility and convenience of interaction, and the variety of communication forms. N.G. Chevtaeva, A.S. Nikitina, and A.V. Vishnevskaya emphasize the importance of developing communication skills as a means to achieve success, and they argue that effective communication plays a crucial role in e-learning (Chevtaeva et al., 2020). Researchers Alawamleh et al. (2020) assert that the use of messengers such as Zoom and WhatsApp is effective for professional/academic communication between teachers and students. The work of Skripalyeva and Poletaykin (2021) systematizes the scientific views of scholars and teacher-practitioners on the existing communication problems in e-learning; it analyzes the issues of interaction between teachers and students during distance learning based on personal teaching experience.

According to researchers, the main forms of visual interaction in the digital educational environment include:

- video conferences (online in real-time, where the teacher conducts classes using various types of activities such as discussions, projects, competitions, etc.) (Krutka and Carano, 2016);
- chats (rapid exchange of information, which can be audio-, video-, or text-based) (Johar et al., 2021);
- blogs (an author's page where teachers and students communicate in the online diary format), whose content includes additional visual elements or multimedia, such as photos or videos, or both (Kuznetsov, 2018);
- instant video messaging services, allowing to create groups for task completion, discussion, and communication (Muromtseva, 2023);
- social media (Nini, 2015).

Many researchers study the impact and significance of using social networks as a means of communication and interaction. Particularly they study modern trends and strategies for managing the learning process via social media. For example, A.S. Bykov argues that it is especially relevant to use social networks in the educational process to popularize specializations and knowledge,

particularly for learning and resolving critical situations if necessary (Bykov, 2017). In her research, N.A. Gutorova presents how certain social media platforms can be used for communication between teachers and students in the educational process (Gutorova, 2019). Researchers demonstrate the positive impact of social networks on the educational process, which, when used correctly, is beneficial in most cases (Abramova and Solovieva, 2016). Yu.T. Butenko, N.O. Trufanova, and A.D. Fedorin analyzed the statistics on the use of social networks in the educational space (Butenko et al., 2020). A.G. Manyayev and A.I. Shipitsin analyze the organization of the communication process in teaching with the use of social networks (Manyayev and Shipitsin, 2018).

Thus, the aim of this article is to explore the theoretical components and determine the peculiarities of using social networks as a means of visual interaction in the digital educational environment of higher education institutions.

## RESEARCH METHODS

In this study, an attempt was made to analyze the main opportunities for visual interaction in the digital educational environment and to determine strategies for visual interaction in social networks in the educational process. Therefore, the following research questions were formulated:

1. What are the main opportunities of social networks for visual interaction in the digital educational environment?
2. What strategies of visual interaction in social networks will increase the effectiveness of the educational process?

The research is based on the literature analysis method. The search for literary sources was conducted in both Russian and international databases. The collected material was subjected to qualitative analysis in order to answer the research questions.

## RESULTS

The scientific literature analysis showed that social networks open unlimited opportunities for visual interaction in the digital educational environment (Table 1).

**Table 1. Main opportunities of social networks for visual interaction in the digital educational environment**

Usage opportunities	Characteristics	Source
Access to open, public, and free electronic resources	Due to the spread of social services on the internet, a large number of educational visualized learning materials have appeared that can be used for educational purposes. Knowledge-sharing online communities can share collections of digital educational objects.	(Nini, 2015; Bykov, 2017; Abramova and Solovieva, 2016)
Independent creation of educational content on the internet	Social media has simplified the process of creating and publishing educational materials online. Anyone can not only access digital collections but also participate in creating their own visualized online content.	(Gutorova, 2019; Butenko et al., 2020; Manyayev and Shipitsin, 2018)
Acquiring new knowledge and skills	The digital environment offers new opportunities for activities that can be carried out by people without special knowledge in computer science: searching for information on the internet, creating, and editing one's own visualized digital objects.	(Nini, 2015; Gutorova, 2019; Abramova and Solovieva, 2016)
Participation in scientific communities	Visual communication on the web stimulates creativity and improves not only intellectual capabilities but also opportunities for joint activities and collaboration.	(Gutorova, 2019; Butenko et al., 2020)

The literature analysis on the research topic also showed that positive results are achieved through various strategies for visual interaction in social networks (Table 2).

**Table 2. Strategies for visual interaction in social networks in the educational process**

Strategy Name	Strategy Characteristics	Examples of Use	Source
Content creation	Developing engaging and informative content that encourages students to learn.	Teachers can create video materials that can be watched on platforms. They share links to videos through social networks, and students can watch them at a convenient time.	(Nini, 2015; Bykov, 2017; Manayev and Shipitsin, 2018)
Collaboration and interaction	Creating opportunities for visual interaction and collaboration between students.	Teachers create a group on social media, e.g. on the VKontakte platform using VK Calls. In this group, students can ask questions, discuss topics, and communicate with each other. Teachers also encourage collaboration by creating tasks that can be completed together in this group.	(Gutorova, 2019; Abramova and Solovieva, 2016; Butenko et al., 2020)
Engagement in activities	Conducting surveys, encouraging activity, self-expression, and critical thinking.	Creating groups in social networks where interesting and meaningful questions related to current issues or events are asked, for students to participate in discussions.	(Bykov, 2017; Gutorova, 2019; Abramova and Solovieva, 2016)
Feedback and support	Ensuring positive communication with students through social media, providing constructive feedback.	Creating groups or web pages in which students participate. These serve to provide support and feedback between teachers and students, helping to achieve learning goals.	(Abramova and Solovieva, 2016; Manayev and Shipitsin, 2018)

## DISCUSSION

One of the ways to visualize the educational environment is through the development and use of visual communication tools and interactions in social networks. These networks combine the advantages of electronic educational software tools while also carrying out communication functions between teachers and students.

According to Gutorova (2019), the advantages of social networks for working with young people lie in the fact that most students are familiar with these technologies, which means that teachers do not need to teach them how to use them (as is the case with distance learning systems). The popularity of these services indicates an interest in their use, which can also be leveraged for educational purposes. Moreover, students can promote their academic or scientific achievements through social networks. Overall, working in a familiar environment—often used for entertainment and socializing with friends—will be psychologically comfortable for distance learning as well. Additionally, it is comfortable for students to be at home.

Abramova and Solovieva (2016) note that when communicating with teachers on social media, students can ask any questions without the peer pressure that often exists in traditional settings. They have the opportunity to address specific issues related to the course content directly. Both teachers and students can create their own educational content, transform it, rethink it, and engage in discussions.

According to Butenko et al. (2020), social networks are also appealing because they can be accessed from any device. They have a simple user interface that young people are accustomed to, and they integrate numerous additional services that can be used to create personalized educational content.

Despite the many advantages of integrating social networks into the educational process, Manayev and Shipitsin (2018) highlight some issues related to their use. These include the need to adhere to

communication etiquette among participants, the lack of constant control over the use of social networks specifically for educational purposes, and more. Additionally, teachers may not always be able to monitor the accuracy of educational materials uploaded by students.

A.S. Bykov (2017) emphasizes that the student's reaction to the content-functional components of the educational environment and the information resources they are given access to is very important. Working with certain information resources can either provoke a rejection reaction in a student or lead to the reevaluation of their existing values. Some resources may inspire a student's intellectual growth, while others may cause them to lose interest in learning entirely.

Based on the research results, the following recommendations for using social media as a means of visual interaction in the digital educational environment are to be formulated:

1. Use the most widespread and accessible social networks: Social networks have become a necessity driven by the development of modern information-communication systems.
2. The essence of an effective social media strategy in education lies not only in the benefits from using social networks but also in the value these communication channels bring to the student audience.
3. Engaging content. A mere social media presence is not enough. The educational content must be informative, relevant, interesting, and unique.
4. Active communication. The essence of communication is dialogue. For example, teachers should inquire about the relevance and demand for the educational content they offer.
5. Strategy. A plan of action and the prospects for developing communication channels should be established for a certain period. Clear objectives should be set, having identified who is to achieve them and with what purpose.
6. Testing. It is essential to constantly test new approaches to visual communication content and experimenting with different content types and strategies.
7. Monitoring results is a priority to quickly respond to the student behavior.

Social networks, by fulfilling educational functions for universities and teachers, provide students with continuous access to educational information, including visualized content. The use of social networks in education offers the following advantages: saving time, as the ideology and interface of social networks are familiar to most internet users. This allows students to skip the adaptation phase to new communication platforms, making visual communication between teachers and students informal and helping to organize personalized learning. The high level of visual interaction between teacher and student guarantees the continuity of the educational process. The multimedia nature of the interaction space allows easy uploading and viewing of video materials and interactive applications in virtual learning groups.

The ability to combine individual and group work enhances the comprehension and retention of material, contributing to the creation of individual learning paths. A common feature for all participants in the educational process is that the communication space allows for collective assessment of the learning process and results, tracking the progress of each participant, and evaluating their contribution to collective creativity.

The main idea is that the use of visual interaction on social media will enable students to receive answers to their questions at any time. Experts can be both teachers and high-achieving students, participants of university research activities, or alumni already working in their field. One of the advantages of visual interaction on social media is that students overcome the psychological barrier of fear toward teachers. Introducing a system where students receive some form of reward for participating in networked visual interaction as experts will allow them to study the material more deeply, reinforce existing knowledge, and share it with their peers.

## **CONCLUSION**

The research confirmed the importance of effective communication between teachers and students in the modern digital educational environment. The use of visual interaction in the information-

educational environment aims to enhance the quality of education, making it more productive, engaging, and enjoyable.

The use of social networks as a means of visual interaction offers new opportunities to improve the quality of interaction, ensuring flexibility, interactivity, and personalization of the educational process. For the effective integration of visual interaction into the educational process via social networks, it is necessary to enhance the digital competence of educators in this area through training sessions, seminars, and professional development courses. It is also essential to maintain a balance between the use of digital and traditional communication methods, fostering both technological and social interaction skills in students.

Future research could focus on further examining the effectiveness of various visual interaction strategies in social networks between teachers and students, depending on the students' age, field of study, and university peculiarities.

## REFERENCES

- Abramova O.M., Solovieva O.A. Use of Social Networks in the Educational Process. *Young Scientist*, 2016,9:1055–1057.
- Alawamleh M., Al-Twait L.M., Al-Saht G.R. The Effect of Online Learning on Communication Between Instructors and Students During the Covid-19 Pandemic. *Asian Education and Development Studies*, 2020,11(2):380-400.
- Butenko Yu.T., Trufanova N.O., Fedorin A.D. Statistical Study of the Use of Social Networks in the Educational Space. *Alma mater*, 2020,4:84–88.
- Bykov A.S. Pedagogical Potential of Social Networks. *Pedagogical IMAGE*, 2017,3(36):36-44.
- Chevtayeva N.G., Nikitina A.S., Vishnevskaya A.V. Culture of Communication Between Teachers and Students as a Matrix for the Formation of Graduate "Soft Skills". *Higher Education in Russia*, 2020,12:33-44.
- Gutorova N.A. Peculiarities of Communication Between Teachers and Students in Social Networks: Ethical Aspect. *Sign: The Problematic Field of Media Education*, 2019,2(32):7-16.
- Johar R., Elizar E., Annisa D., Mailizar M. The Challenges Experienced by Teachers in Online Workshops During the COVID-19 Pandemic. *Journal of Physics: Conference Series* 2021,1882(1). <https://doi.org/10.1088/1742-6596/1882/1Z012047>
- Kondrashina V.V. Communication in the Digital Educational Environment: Current Issues of Feedback. *Human Capital*, 2021,2(146):90-98.
- Korotaeva E.V. Fundamentals of Pedagogy of Interactions: Theory and Practice: Monograph. Yekaterinburg: UrGPU Publishing, 2013.
- Krutka D.G., Carano K.T. Videoconferencing for Global Citizenship Education: Wise Practices for Social Studies Educators. *Journal of Social Studies Education Research*, 2016,7(2):109-136.
- Kuznetsov A.S. Educational Communications as a Tool for Implementing the Competency Model of University Graduates. *Bulatov Readings*, 2018, 7:99-101.
- Lifshits M.V. Peculiarities of Interpersonal Communication Between Students and Teachers in Distance Learning Situations. *Distance Learning Technologies in Professional Psychological Education, Psychology, and Psychoanalysis*, 2020: 22-27.
- Manayev A.G., Shipitsin A.I. Prospects for Using Social Network Technology in University Education. *Innovations in Education*, 2018,5:148–157.
- Muromtseva M.Yu. Visual Communications in the Modern Information Society. *Culture and Education*, 2023,3(50):46-52.
- Nini E. Private Open-Source Social Networking Media for Education. *Proceedings of the Fifth International Conference on e-Learning*, 2015: 220-224.
- Shilova O.N. Digital Educational Environment: A Pedagogical View. *Man and Education*, 2020, 2(63):36-41.
- Skripalyeva N.N., Poletaykin A.N. Methods and Means of Effective Student-Teacher Communication. Opportunities and Prospects of the Digital Economy in Science and Education, 2021: 167-173.