## Consequences of the Distribution of the Coronavirus COVID-19 and New Strains on the Educational System

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Keywords: Education System, Pandemic, Training, Distance Format, Communication Methods, Social Distancing.

Abstract: In today's global society, the education system remains indispensable for the formation of social norms, value systems and social consciousness, especially in a pandemic. The aim of this study was to find out how the pandemic affects the social, organizational and methodological processes in education, what are the consequences in the education system during the COVID-19 pandemic and the emergence of new strains. The research methodology included system analysis (for a comprehensive study of the situation in the educational environment associated with coronavirus) and comparative analysis (for an overview of promising strategies in various educational environment of a higher educational institution related to the coronavirus revealed a shift from the traditional education format aimed at increasing the share of distance education received, to its gradual transition to a blended learning model in receiving educational services. The results of this study can be used in the educational environment, as well as by officials to develop educational and informational socially-oriented educational policies, especially in relation to pandemic and other emergencies.

## **1** INTRODUCTION

In today's maximally globalizing information society, education is one of the main components of social communication, it remains an important element of the formation of social norms, the transmission of value systems and social consciousness (Bechet-Trute, 2022). Using the latest practical developments in the field of information and communication technologies, the system higher education successfully follows the consumer of content at all levels of education from primary to higher education, from traditional educational resources to webinars and websites, from the transfer of knowledge, skills, skills to professional competencies and professional standards, the use of social networks and information and educational platforms. management of the educational trajectory at the university, the development of an individual educational trajectory for each subject of the educational process are constantly relevant and are developed for each

individual educational institution, and in general for development as a social institution.

Education, like other social institutions such as advertising, plays an important role in shaping new values and attitudes during periods of active social transformation (Alalwan, 2018). Now, this is the time that all of humanity is experiencing in connection with the COVID-19 pandemic (Pavlovskaya, et al., 2021). Everything is changing - the traditional way of transferring knowledge in the education system, in life, and even established habits. Responding to the needs of society and at the same time being an agent, the education system is forced to radically change its messages. In the context of a pandemic outbreak, the process of globalization itself is gradually losing its attractiveness (Dale, 2000). That which is longestablished in the system and actively promoted becomes optional and unnecessary. Live communication is being replaced by social distancing. The traditional education system is losing ground. Education and many other intellectual activities are moving to distance mode (Berger,

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Consequences of the Distribution of the Coronavirus COVID-19 and New Strains on the Educational System. DOI: 10.5220/0011121500003439

In Proceedings of the 2nd International Scientific and Practical Conference "COVID-19: Implementation of the Sustainable Development Goals" (RTCOV 2021), pages 410-415 ISBN: 978-989-758-617-0

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2020). At the same time, the limited availability of technology and access to reliable sources of information due to various social and social factors, sometimes called the digital divide or digital divide, manifested itself at a critical moment in the crisis of the educational system, as well as in the health care system and other socio-economic systems (Ramsetty and Adams, 2020).

During an emergency, the management of social processes primarily rests with the state and social institutions, especially the education system. However, as practice shows, the state actively uses the potential of education to influence individual and mass consciousness, promote its fundamental ideas and form the necessary public opinion and behavior that will correspond to the goals set by the authorities (Shareef et al., 2019). All of the above determines the relevance of researching the impact of the pandemic on the higher education system.

#### 2 RESEARCH METHODOLOGY

Despite the presence of a wide range of sources and literature on various aspects of the transformation process in the education system, the study of the impact of the pandemic on the processes taking place in the higher education system is still relevant. Preliminary work in this area focused primarily on methods of influencing consumer behavior (motivation to learn and receiving educational services), the effectiveness of various information and communication channels and new educational formats aimed at increasing trust among the target audience of applicants and students. Nevertheless, the lightning speed of changes in the life of modern society requires a systematic study of the factors that caused them. These include, first of all, the system of vocational education itself, since it contributes to the formation of new social norms, values, orientations, attitudes and rules of behavior in the context of the dynamics of growing changes.

The purpose of this study is to analyze the impact of the pandemic on the education system, social processes taking place inside it during the COVID-19 pandemic.

To achieve this goal, it is necessary to solve the following tasks:

- to study the specifics of the study of the interaction of society and the education system in the scientific literature;
- analyze the trends in the education system that have arisen in connection with the COVID-19 pandemic, in particular, track the transition

from the traditional format of education in the education system, aimed at forming the younger generation, to a blended learning format;

 find out the functions and reasons for using distance learning in the higher education system associated with the pandemic.

The object of the research is the educational system based on the distance format, which appeared in connection with the outbreak of COVID-19. We are talking about the peculiarities of the impact of the pandemic on the processes taking place in the higher education system.

Empirical research into the education system requires well-designed, well-controlled and wellexecuted projects in which incentives, models and measures are methodologically correctly combined to provide genuine and meaningful contributions to theory and practice. An erroneous or inappropriate decision on any of the issues discussed can completely negate the results and thus make the study results questionable (Geuens and De Pelsmacker, 2017).

To solve research problems and achieve this goal, a set of scientific methods was used:

- theoretical methods (analysis, synthesis, induction, deduction, comparison and analogy were used to clarify the level of influence of various factors on the education system associated with the pandemic, on social processes, define the conceptual and categorical apparatus, generalize and systematize scientific provisions);
- special methods (system analysis was used to comprehensively study the situation with the introduction of a distance format into the system of higher education, which appeared in connection with the COVID-19 pandemic; comparative analysis was used to study educational practices and clarify their dominant strategies, taking into account their socio-cultural and managerial background).

Such an integrated approach contributed to a comprehensive study of the selected research material presented in examples.

#### **3** STUDY RESULTS

# 3.1 Transforming Higher Education in the COVID-19 Era

The main social area of academic research is related to the sustainability of the higher education system and its variability. This is a new area of research as the Covid-19 crisis opened it up as a great research opportunity. For example, are there any differences in educational technologies used in the educational process in some universities in Russia and around the world? What are the different methods, ways of transmitting knowledge, competencies are used in the educational process and in the educational environment around the world to isolate from infection.

Nowadays, technological educational tools are increasingly used to solve acute social problems. These include such a global problem as the COVID-19 pandemic. The higher education market has been forced to respond to new conditions by rebuilding itself on the fly and thereby changing traditional educational technologies and practices. The new reality requires radical changes in educational strategies, the analysis of which is considered a promising area of research (Habes et al., 2020).

Currently, the issue of expanding the use of distance education in the face of the threat of the spread of coronavirus infection is being actualized. Starting from March 2020, 80% of Russian universities and colleges have decided to switch to distance learning; in 2021, certain regions, educational institutions also work in the conditions of distance learning or blended learning. In this regard, all face-to-face studies at the University of the Russian State University. A.N. Kosygin (Technology. Design. Art), including lecture and practical, were transferred to the online platform. Teachers, IT workers, programmers were forced to develop such an organization of the educational process in a short time, which would not be inferior to the traditional full-time form of education, which is familiar to everyone, but at the same time was based on the available communication tools for students and teachers in the electronic information and educational environment (IEE).

However, the pause in the offline work of educational institutions for such a short period of time and the transition to distance learning at the university inevitably led to a number of problems associated with insufficient technical equipment, insufficient level of competent training of teachers and students. However, along with these problems, students and teachers also had the opportunity to experience a new format of education, which provides prospects for improving the educational system.

#### **3.2 Distance Learning Technologies**

First, it is necessary to reveal the concept of "distance

learning format". Distance learning, online classes or distance learning is the process of gaining new skills outside the classroom through interaction with the teacher. Distance implies that the organization of all educational activities using the information infrastructure will be carried out between the student and the teacher at a distance.

However, online education at the university is impossible without a developed IT infrastructure, its well-coordinated work, which cannot be formed without investing large investments, including the uninterrupted operation of the online learning platform, which ensures effective student learning, filling the platform with educational content, and tracking student attendance., regularly filling the pages of disciplines for students with tasks, and then checking the completed tasks by teachers on the platform in their personal account. Following the methodological recommendations of the Ministry of Science and Higher Education of the Russian Federation, each university has developed its own IT platform for the implementation of a distance learning format that meets the requirements of organizing the entire work process at the university. The important requirements for the online platform were its reliability, ease of creating and posting assignments and lectures, and accessibility for students and teachers. At the Russian State University named after A.N. Kosygin, the moodle virtual learning environment was used through which the educational website of the university was created.

As shown by a sociological study conducted in October 2020 at the Russian State University. A.N. Kosygin, 73% of the students were able to "good" and "excellent" adapt to the new conditions of distance learning.

However, due to the sharp and rapid transition to a distance learning format, not all teachers were competent enough to teach in the online environment at the university, and therefore students received some assignments through other social networks, or by using the distribution of assignments via e-mail. ... Analysis of the information obtained in the study showed that 32% of students received assignments through Mail.ru mail, 14% of students took information from such messengers as What's app and Viber. All this is due to the fact that teachers did not have enough professional competencies and practical skills to work in a digital environment and sufficient time to master new information and communication tools of the educational process, which, of course, is very important when introducing new information and communication teaching technologies. Teacher training could not be effective in such a tight

timeframe, so for the faculty, they were limited to short briefing internal meetings, webinars and recommendations for working with the university's online services. At the same time, motivated students coped well with the assigned tasks, but the percentage of such students turned out to be low. As the results of applied empirical research show, in connection with the transition to a distance learning format, the level of motivation among students in general decreased by 32%. This figure was strongly influenced by self-isolation, which was introduced in March 2020 in order to reduce the risk of illness, and students worked from home. This is also a reason to think about increasing the motivation of students during the period of work at a distance in a distance format.

During self-isolation, students could not communicate live with peers, strengthen friendships, which led to a lack of physical activity and live communication, and, as a result, to a decrease in the level of general motivation for learning. Perhaps the result would have differed according to many main criteria in the absence of the necessary forced selfisolation for medical reasons, because many students. In fact, they noted not only the disadvantages, but also the advantages of this training format. The students determined that distance learning allows them to adhere to an individual pace and rhythm of learning, watch videos repeatedly, and, most importantly, in such conditions, reduces the risk of contracting a viral infection.

#### 3.3 Learning Process Technology

The university decided to conduct the learning process using the platforms Zoom.ru and Google Meet. These programs allow you to organize video conferencing with multiple devices connected at the same time. They are perfect for organizing group lectures and seminars for large groups of students. The platform can be accessed both from a personal computer, which was done by 71% of students, and from their own phone, which was followed by 14% of students of the Russian State University. A.N. Kosygin. In order to get to a lecture or seminar, you just need to follow the link or conference ID that the teacher creates. This information and educational platform is convenient for the learning process in several ways:

1. Training takes place in real time, while there is no risk of infection;

2. If you have any questions, the student can immediately ask the question orally or type it in the chat;

3. Ability to review the recording again, since the recording of the lesson is being made;

4. The student gets the opportunity to develop an individual pace of education, can complete assignments on any day, the main thing is to have time to post the results before the deadline set by the teacher.

When assessing the effectiveness of a new educational technology or learning model, it is necessary to take into account not only the learning outcomes of students, their academic performance, but also the motivation of students, their involvement in the process, because the interest arising in the learning process has a direct impact on the achievement of results. The study showed that 52% of students are satisfied with the learning process. Students noted that the work of the teaching staff was interesting and understandable, while it was possible to choose an individual learning pace and re-watch the videos. However, 41% of students were not fully satisfied with the results of distance learning. They believe that the reason for this is that the material is poorly absorbed in the online format due to a strong increase in the load.

#### **4 DISCUSSION OF RESULTS**

Thus, according to the results of a sociological survey on the topic "The impact of the pandemic on the development of distance learning at the Russian State University. Named by A.N. Kosygin", preliminary conclusions can be drawn that, of course, distance learning, designed to limit the spread of a dangerous infection, has revealed both the advantages and disadvantages of this format of educational activities, both for teachers and students. The attitude to distance is very heterogeneous and diverse, which shows all the versatility and complexity of organizing such a complex systemic process as higher education. However, optimal efficiency and obtaining highquality results in the educational process is possible only with the mutual participation of both the teacher and the student, as well as all auxiliary structures, including the administrative and managerial educational system.

The results of the study allow us to conclude that the pandemic has a significant impact on the modern higher education system as one of the main components of the social system of the whole society as a whole, also has a significant impact on social processes within this system and can model the behavior of subjects of the educational process not only in within their system, but also adjacent social RTCOV 2021 - II International Scientific and Practical Conference " COVID-19: Implementation of the Sustainable Development Goals (RTCOV )

groups. At the same time, the education system remains able to determine the vectors of social development, prioritize and influence the dynamics of social changes not only within its educational space, but also to influence the processes taking place in society as a whole.

Checking the distance learning format, which appeared in connection with the introduced quarantine measures, revealed the possibilities of such a transition, its pros and cons. Educational institutions, coordinating their activities with various state bodies, the Ministry of Education and Science, the Ministry of Education and state-controlled educational organizations of various levels, directed all their efforts to change the model of social behavior within the general education system and introduce new norms, rules and standards into it. ... The new social order assumed not only the containment of the manifestation of crisis processes, but also introduced restrictions on all types of social activity with a simultaneous strengthening of control. This implied fundamental changes in communication processes, while the higher education system, responding to new government requests, put forward new development alternatives and reformatted the ways and methods of teaching. Finally, Covid-19 has increased the use of social networks in the educational process on Facebook, Instagram, WhatsApp, Twitter and platforms - Zoom, moodle virtual learning environment, etc. They generate a huge amount of data by word of mouth. Just as Natual Language Processing (NLP) was developed for analyzing text data, it is necessary to further develop the capabilities of additional methods for analyzing video content in the educational process, probably tied to machine learning and artificial intelligence. Distance and blended learning formats are developing and becoming more and more in demand for young people in comparison with the traditional format in the higher education system. All over the world, higher education programs are criticized for not meeting the needs of the market. Graduates are not ready to fulfill their professional duties, business spends resources on independent training of the necessary personnel, while the significance of the diploma decreases.

The need for change is so obvious that even a conservative higher education system recognizes the need for a global transformation. Universities are introducing new models and approaches, and radical changes are taking place not only in foreign, but also in Russian universities. The period associated with the pandemic only exacerbated this situation in the education system and actualized transformation processes.

### **5** CONCLUSIONS

The 2019-2021 coronavirus pandemic is a shock to the world. It is large enough to change the philosophy of the social role of the state and all social institutions, which is also the system of higher education. The coronavirus pandemic, also known as COVID-19 and its new strains, has far-reaching socio-educational consequences in addition to the spread of the disease itself (Kiselev, 2020).

The global education system is on the verge of dramatic changes, catalysed by the pandemic. If the previous decade was entirely dictated by the processes of globalization, today the focus is shifting towards the development of national economies and communities. And in addition to educational and scientific functions, universities are also responsible for the implementation of the third, public mission.

In order to prepare people for productive activities in this volatile world, the education system must also be very dynamic. But there is a complication: the university is the second most conservative social institution after the church, and the model by which education in most Russian universities is structured today has practically not changed since the third decade of the 20th century.

Isolation and social distancing to combat the covid-19 virus have caused serious disruptions and disruptions to the optimal functioning of the entire education system in Russia. The entire educational space turned out to be limited in time and place. It was only thanks to the flexibility of time, but the rigidity of the use of information and communication technologies, that teachers learned to improvise creatively and innovatively. However, there are also negative aspects of the impact of the pandemic on the educational system. The boundaries between work and personal life are now blurring as people work from home, study at home and relax at home. In fact, the massive transition to distance learning in the education system, from school to university or generally to work, provoked by the pandemic, only opens up more opportunities at the beginning. Most likely, such a transition, in our opinion, will exacerbate the tendency of worsening working conditions and an increase in its intensity due to the mixing of work and rest. Thus, the 21st century returns us to the origins of early capitalism: modern high-tech means of communication, ensuring the constant availability of a person, violate his personal space and, in fact, destroy the right to rest, include in working hours tasks related to organizing personal and family life, thereby highly qualified the proletariat (teachers) of the "digital economy" pays by not only working in the evenings or nights, but also on weekends and during holidays. As far as it goes. As the educational system and the teachers and students themselves, being the subjects of the educational process, are forced to adapt to distance and blended learning formats for a long period of time, they are likely to apply new technologies that facilitate work and study. The use of digital technology can change existing habits. Finally, the state educational policy will also impose new legislative norms, expand the range of digitalization of education and enhance the role of higher education in the context of the digitalization of society and the creation of artificial intelligence.

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