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INTRODUCTION OF ELECTRONIC EDUCATIONAL TECHNOLOGIES IN THE EDUCATIONAL PROCESS OF RUSSIAN UNIVERSITIES

Nelly Savelyeva (a)*, Natalie Nevraeva (b), Elena Bystrai (c), Elena Baronenko (d),
Yulia Raisvich (e), Alexander Kabanov (f)
*Corresponding author

(a) Ural Federal University named after the First President of Russia B.N. Yeltsin, 19, Mira Str., Ekaterinburg, Russia, nellik1983@mail.ru
(b) Ural Federal University named after the First President of Russia B.N. Yeltsin, 19, Mira Str., Ekaterinburg, Russia, nny@mail.ru
(c) South-Ural State Humanitarian-Pedagogical University, 69, Lenin Av., Chelyabinsk, Russia, bistraieb@cspu.ru
(d) South-Ural State Humanitarian-Pedagogical University, 69, Lenin Av., Chelyabinsk, Russia, baronele@yandex.ru
(e) South-Ural State Humanitarian-Pedagogical University, 69, Lenin Av., Chelyabinsk, Russia, tolljulia@mail.ru
(f) Ural Federal University Named after the First President of Russia B.N. Yeltsin, 19, Mira Str., Ekaterinburg, Russia, a.m.kabanov@urfu.ru

Abstract

The usual educational routine of modern students, who are representatives of the information generation, is closely connected with electronic educational programs and courses, textbooks, tasks, projects. The process of professional training at the University shows a tendency to disappear the line between traditional education and distance education, which is explained by the wide popularity of the internet among students in the process of studying certain disciplines. The rapid development of online technologies has served as a catalyst for the emergence and spread of information educational technologies. The use of modern educational information and communication technologies gives the teacher a wide opportunity to convey educational material simultaneously to different categories of students – with different levels of initial training, with different perception speeds and sometimes with different attitudes to education at the University. This dramatically reduces the number of underperforming students, motivates them to study, makes learning more effective, raises it to the proper level, and, accordingly, increases the rating of the University. The authors emphasize the possibility of attracting foreign students to Russian universities through digitalization of the learning process, which will lead to an increase in the level of efficiency and effectiveness of the training process. In addition, the authors consider an important advantage of digital learning to be the ability to attract highly qualified foreign and nonresident specialists from different fields of knowledge who broadcast their content to students via a media platform.

Keywords: Online learning, e-distance learning, educational platforms, feedback, independent group assessment

1. Introduction

Technology exchange is becoming a priority for the world's economically developed countries. Exports of goods are no longer so profitable, as people become more literate, the share of workers decreases, the demand for them increases, and, consequently, the cost of their services. It is becoming less profitable to start production of any kind on your territory. The country's research potential is the most cost-effective component of the gross national product today. But, even the so-called "superpowers" can not produce all the technical developments equally well, equally successfully conduct research in many areas of the national economy (Pyannikov, 2011).

It should be noted that higher education institutions are also involved in competition and significantly affect the economy of the country and the world. The status of the diploma and the position of the University in the world ranking plays a crucial role in choosing a speciality. The better is the training of a specialist, the more popular is this speciality in the labor market, since the company receives a greater economic return from a well-trained specialist. Accordingly, grows the University rating (Writers, 2012).

2. Problem Statement

In this situation, new, non-standard approaches to teaching are needed. The use of modern educational information and communication technologies gives the lecturer a wide opportunity to convey educational material simultaneously to different categories of students – with different levels of initial training, with different perception speeds and sometimes with different attitudes to education at the University. The first overview of the basic concepts of e-learning was done by Axel Wolpert, a Senior Sales Consultant of time4you GmbH. He emphasized that a certain content is available in e-learning as well. The classic type of the digital learning process content is based on the educational software implemented via the Internet. Nowadays most of the educational software pieces are available for download in e-learning libraries and are related to a certain learning platform.

The LMS platform is a structural basis of training and educational processes inside the e-learning system. The learning platforms help many companies and enterprises to provide training and retraining of their employees, clients, and partners. Besides, the learning platforms may be used for managing the learning process effectively and for tracking the learners' progress by means of analysis and interpretation the data obtained.

Blackboard, an American company, is considered as a pioneer and a leader in the market of educational services, and particularly in the field of LMS. Such companies as SABA and Docent were popular beyond the sphere of education. It should be noted that Blackboard e-learning system was a perfect solution for organizing and managing of various educational courses. This system allowed teachers and learners to share learning materials; to do on-line tests; to communicate with each other in various ways; to record and to track their progress, and much more (Savelyeva et al., 2020).

3.   Research Questions

We believe that the main goal of any e-learning platform is to provide people around the world with free and unlimited access to educational opportunities and services of the universities. Nowadays e-learning is a perfect way of democratization of academic education, of transferring the higher education system into a new format involving the combination of popular social networks (e.g. YouTube, Facebook, Instagram, and VKontakte) and platforms (e.g. Webinar, Zoom, Google Meet, eTutorium) and conventional full-time and extramural forms of education. The digital teaching methods enable the division of learning material into clear-cut modules and provide for the availability of this material to everyone at any time, without fixed curriculums, financial investments, or inaccessibility.

4.   Purpose of the Study

The overreaching goal of the modern higher education system is to create and to develop a single educational platform that would comply with all the learners' requirements and would not contradict the accepted academic standards. The necessary platform will be primarily useful for such potential users as people, who do not have an opportunity (be it financial or geographical) to obtain the higher education, people with disabilities, physically challenged people, and people caring for unwell family members.

5.   Research Methods

E-learning platforms represent a significant potential for higher educational institutions, especially for small ones. The digitalization of the learning process provides the universities with the opportunity to attract foreign students, granting them the access to the available educational opportunities without them leaving their countries. This, in turn, will help increase the motivation and improve the level of efficiency and effectiveness of the vocational training process. In addition, the simultaneous involvement of highly skilled foreign and out-of-town experts from different areas of knowledge may also prove an important advantage of digital learning. Such experts will communicate their content to students through media platforms, and both students and researchers will benefit from it (Khuziakhmetov & Nasibullov, 2012; Savelyeva et al., 2020).

The issue of the quality of digital educational products is very acute and is subject to careful consideration and discussion. If Russian universities decide to introduce a mixed type of training in the educational process, it is necessary to take into account the inevitability of changes in the terms of training at all stages and levels of higher education. In addition, most modern Russian universities turn to online platform resources without checking the structure and quality of the proposed content, which also requires revision.

The realities of modern society sooner or later put every lecturer in the situation of the need to use information and communication technologies in the educational process, which in turn raises the question of the criteria for choosing online tools and resources. To do this, first of all, it is necessary to define and formulate a training goal, according to which suitable digital resources are selected. A crucial role is also played by the choice of a didactic concept based on competently-oriented educational tasks. Regarding

the content of electronic educational platforms, it is necessary to use it as the basis of an authentic virtual educational component that duplicates the context of the upcoming professional activity. We assume that this component would have a stimulating effect, increasing the effectiveness of the educational process.

6. Findings

Unfortunately, in modern universities, not every lecturer has the necessary didactic and methodological competencies, which significantly hinders the disclosure of the potential of e-distance education. However, many lecturers show a significant level of interest and motivation to obtain new didactic and methodological knowledge, which is possible thanks to modules of electronic platforms containing online materials posted by the teacher on certain topics and disciplines.

Any e-learning platform provides round-the-clock technical support in practical issues of content design, which, in the end, will lead to improving the quality of the educational process, increasing the reputation of the educational institution. One of the most important explanations for this is, in our opinion, that online learning, in contrast to the classic type of learning in the classroom, can involve a larger number of participants and the entire process will be transparent and obvious. In addition, opportunities for online learning are changing the fundamentals of classroom instruction in relation to the assessment criteria. The educational process at the university is changing under the influence of online technologies organizationally. In the near future it may manifest itself in changes in the rules for hiring faculty. Today there is a need for two types of University lecturers:

1.Lecturers who can create solid scientific content;

2.Lecturers who possess special didactic and methodological competencies and interact directly with students.

In general, online learning will lead to positive changes in the educational process of the university, if the main advantage of e – learning-openness in the broad sense of the word-is implemented, and access (Open Access) to training materials in the network is provided. Undoubtedly, the introduction of elements of online learning at the initial stages will require significant energy consumption on the part of the teaching staff. This will also cause significant emotional experiences and discomfort, since online training provides open access to all interested in the materials developed and posted on the network. However, this point can also be considered as a bonus, since the materials of colleagues available in the network can be used as a reference point. Open access to the developed methodological materials will also lead to an improvement in the quality of the educational process, as lecturers will give their best to meet the standards.

At the same time, we have to admit that the process of introducing electronic educational technologies into the educational process of Russian universities is extremely slow. This fact can be explained by the high energy costs associated with the development of any online course. Young aspiring lecturers strive for active publishing activities to advance on the university career ladder. While the development of Massive Open Online Courses requires additional time, which ultimately affects the quality and volume of scientific activities.

The digital distance learning format encourages the emergence of new forms of learning and interaction between lecturers and students, the so-called comprehensive feedback. The culture of

evaluation and feedback is changing for the better thanks to the independent (Peer Review) provided by most online courses. Independent group assessment can improve the quality of training through a comprehensive critical assessment of the work performed (Andreev, 2010). Over time, you will be able to provide personalized and more targeted feedback. In open online platforms, lecturers can access student metadata that contains information about how many students viewed a task on the platform, up to what point, and which tasks were completed. Metadata also provides lecturers with information about the behavior of students when performing online tasks, which can be used to adjust the methodology and choose new ways and techniques of teaching, as well as the intensity of personal feedback. The main condition for this process should be a highly qualified lecturer who can adequately interpret the obtained metadata. E-learning can become a condition for effective feedback if it is organized in the format of "flipped classroom" (Aspillera, 2010), giving lecturers enough time to provide all students with direct feedback on the spot – on the principle of "here and now". In the traditional (contact) type of training with a large number of participants, the lecturer often does not have enough time for minimal feedback. However, it should be noted that e-learning does not automatically promote a feedback culture. Directly, lecturers should pay special attention to the organization of feedback pauses when planning training events. Regarding the organization of feedback, we should focus on the group independent evaluation procedure, which not only changes the feedback culture, but also contributes to improving learning outcomes. In our opinion, the group assessment process should be carried out in micro-groups of 10 people at most, when each homework is checked and evaluated by classmates, while the lecturer reviews and evaluates students ' work only selectively. As a rule, the average rating given by students is close to the lecturer's rating. Two-way verification and evaluation can also be effective for coursework. In this case, students study methods and techniques of conducting scientific research, analyze existing norms and standards (completeness of arguments, use of various research methods, etc.). At the same time, the learning process is being democratized and its transparency is ensured, because in the online space, when all participants in the process have the opportunity to view all the works and the grades received, there is almost no possibility of fraud and fraud. Therefore, in this case, we can talk about increasing objectivity and fairness.

However, despite the positive aspects that the independent group assessment shows at first glance, there are some problems. On the one hand, the Peer Review evaluation process should be conducted anonymously in order to avoid biased or condescending evaluation of "favourite" or "unloved" students. On the other hand, any educational process requires feedback on the assessment results, when the student gets the opportunity to express their dissatisfaction with the assessment and ask the lecturer to check the work. If we take into account both of these factors, then any online platform will no longer be easily interpreted, since all complaints and discontents will need to be considered on an individual basis. Given a large number of participants in online platforms, the above-mentioned nature of the flow of events may make it extremely difficult for teachers to use digital educational products. Therefore, the principle of group independent evaluation should be applied in groups with a limited number of participants.

7. Conclusion

Of course, the process of e-learning is a complex and multi-sided phenomenon. The use of digital learning tools undoubtedly opens up a range of opportunities for lectures. However, along with the technical capabilities and dubious effect, a number of problems are also exposed. The main problem is the restriction of the freedom of "pedagogical thought" of the lecturer, when lecturers are often put in conditions of "equalization" and lack of diversity and, as a result, pedagogical discoveries and finds, given the extremely diverse and unlimited possibilities of the electronic educational environment of the university. It is also impossible to ignore the question of how many average associate professors of the university read the author's installation (introductory) lectures and whether these lectures are translated into other foreign languages. In both cases, there is a risk of loss of quality, even if the online lecture is brilliantly prepared.

The digital revolution in education is sure to be! The only question is whether we, as practicing lecturers, will take an active part in this process. The limitless possibilities of electronic learning tools will inevitably lead us to this. Speaking about the possibilities of the electronic information educational environment of the University, we would like to note the geographical independence, temporary flexibility and the presence of an individual educational trajectory.

Information and communication technologies will eventually revolutionize all spheres of society, without bypassing the education system. It would be naive to believe that the changes taking place in the modern world will not affect the education system. The only question is whether representatives of the progressive teaching community will participate in this process. Of course, the participation of everyone is necessary. The only way to positively influence the process of change is through active participation and assistance. The reforms will proceed at a rapid pace and only those who are active and take concrete steps in this direction will be able to influence it. In other words, it is impossible to influence what is happening in the education system while being in a state of waiting and third-party observation. We must accept the challenge and move in a new and relevant direction.

It is obvious that the process of transition of the education system to the "digital" will not be successful if each teacher alone seeks to eliminate the technical gap in their knowledge and direct their efforts to create and content an electronic educational resource. Of course, it is necessary to properly distribute responsibilities. The ideal option would be when some teachers are engaged in the technical side of the issue without carrying out research activities. However, in this case, universities need to provide their teaching staffs, who have expressed a desire to develop educational online content, with appropriate competencies through a variety of appropriate training courses. The main goal of the entire education system should be a lecturer who has a great desire to teach and do it at a high pedagogical and technical level.

The effect of e-learning tools on the education and science system will be significant if they are presented and organized at a high technical level. An important condition is interpersonal communication and feedback between lecturers and students, which, in the end, will have a positive impact on the quality of the educational process. In any case, the use of electronic learning tools will be an advantage of any educational process.

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