

Digital Technologies in Teacher Training: New Experience

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Abstract. In the field of training higher educational institution teachers, an era of significant change is beginning. For long, this area has remained the most conservative and was not noticeably subject to changes in society. However, the situation has changed dramatically. First of all, this is due to the rapid development of other areas of human activity, and in particular digital technologies. It is already difficult to imagine a modern society without such technologies, and the main task of a higher education teacher is precisely to train highly qualified specialists with new competencies to solve the challenges facing humanity. Strengthening the explicit link between the needs of society and the objectives of higher education is one of the prerequisites for significant changes in the field of education. The concept of training a teacher of higher education for the future today is largely determined by the development trends of digital technologies. The absence of objective reasons to assume the cessation of the use and development of digital technologies allows us to make an assumption that virtual educational worlds will appear in the foreseeable future, which will become the same familiar environment for acquiring the necessary competencies as higher schools existing in the physical world. This largely determines the relevance of the chosen research topic and determines the need for a thorough analysis of the educational technologies used in the training of teachers. The purpose of this work is, using a combination of analysis, synthesis, idealization and analogy, to generalize at the national and international levels the existing ideas about effective approaches to teaching a higher education teacher, including continuous improvement of competence in his professional field, and modern practice of using digital technologies, and also highlight the most interesting new learning experiences. The necessity of applying the so-called "integrated approach to teaching a higher education teacher" by the authors is proved. The main advantages and disadvantages of using digital technologies are highlighted. Reasonable conclusions are made on the existence of an ideal recipe for combining accumulated educational practices in the framework of traditional education and digital technology.

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1 Introduction

Training of higher education teachers, as an element of the global education system, is constantly undergoing radical changes [11]. There is an opinion that it has an ideological commitment to traditional values and orders and social doctrines, but this is not exactly the case. Transformations in the society are very often reflected in education, and the development and widespread use of new educational approaches and modern digital technologies in this area is a confirmation of this [1, 4, 7, 8, 14, 15, 19, 20, 22, 24]. The concept of preparing a teacher of higher education for the future nowadays is largely determined by the development trends of these areas. This largely determines the relevance of the chosen research topic and determines the need for a thorough analysis of the existing approaches to teaching higher education teachers and the digital technologies used.

The purpose of this work is to systematically unify and complement the main results of many existing studies today, as well as to form a new understanding of the trends in the introduction of digital technologies in the system of training a teacher of higher education. To achieve this goal, the following main tasks were set and solved [3, 6]:

- Universal educational approaches to teaching a higher education teacher have been identified; their advantages and disadvantages are indicated; a combined approach is proposed in a way that combines the individual elements (strengths) of universal approaches;

- The basic prerequisites for the development and implementation of modern digital technologies in the training system of a teacher of higher education are analysed;

- The most important trends in the development of digital technologies and their distribution in the field of education are highlighted; the advantages of use are shown, as well as the limitations of the applicability and effectiveness of digital technologies;

- The most interesting new experience of teaching a higher education teacher was highlighted.

To solve the tasks, special attention is paid to the harmonization of the principles of traditional education and modern digital technologies, as well as the main problems in this area, which include:

- The rate of implementation of information and communication technologies in the system of training a teacher of higher education is much lower than the rate of development of digital technologies themselves;

- The emergence of a significant number of new and modern digital technologies in various startups outside the space of traditional education;

- Increasing demand for workers with new knowledge and skills that allow them to be active elements of modern society and solve the challenges facing humanity;

- Lack of a unified policy aimed at formatting a higher education teacher's understanding of how to create and capitalize such an intangible asset as education;

- Decreasing motivation of the teacher to get an education, that includes continuous development of competence in his/her professional sphere.

The degree of sophistication of the problems today is characterized by the existence of scientific papers by such well-known authors in this field as Ray J.B., Fierro-Saltos W., Zangara A., Svoboda P., Kmecová I., Arunkumar S., Sailin S.N., Mahmor N.A., Kalema B.M., Nousiainen T., Kangas M., Rikala J., Vesisenaho M. and many others [2, 5, 9, 10, 12, 13, 16, 17, 18, 21, 23].

2 Article body

Continuing education of a higher education teacher has always been and remains an important element of the education system of any state. At the same time, the quality of such education is largely determined by the availability of the necessary resources, including funding, for higher education. Adequate funding allows to attract highly qualified teaching staff and best practitioners from leading organizations, regularly update and develop new training programs, use modern material and technical equipment and much more. However, today there are widespread cases when higher schools in various countries of the world do not have the funding necessary for quality training of teachers. This is expressed in low salaries, high moral and physical depreciation of the main part of the material and technical base, outdated library fund and lack of modern information and educational technologies and much more. The solution to most of these problems is largely possible due to overcoming the funding gap of higher education.

National teacher training systems in different countries of the world have their own characteristics, but they differ in the scheme of financing higher schools. So in some countries, training is carried out only at the expense of funds allocated by the state, in others - only at the expense of teachers themselves. hybrid forms of financing are also common, that is, a combination of state support and the possibility of training on a paid basis.

Despite high social significance of continuous teacher training, the effectiveness of the learning process is significantly determined by the educational approaches used within the existing national funding system.

There is an erroneous judgment that the effective way of teaching a higher education teacher is to use one of the universally recognized educational approaches. The mistake lies upon the fact that universal approaches to teaching do not allow taking into account the characteristic features of the subject and object of the studied area of continuing education of the teacher in each case. Often this leads to the inefficiency of using a universal approach in modern socio-economic conditions.

The lack of a unified innovative approach to the training of a higher education teacher at the international level today, which, on the one hand, ensures that all the requirements of the national education system are met, and, on the other hand, allows for continuous teacher training in accordance with the requirements of the economy and society, determines the need to develop a new approach, consisting of a combination of individual elements of several fundamentally different educational approaches.

One of these approaches is the process approach, which is the basis for any modern system of training a teacher of higher education. The essence of the approach is to carefully study all the interconnected processes that occur in the training of the teacher, and their decomposition into many elementary actions (operations). The main tool of the process approach is modeling - the construction of a conditional image (model) of teacher training characteristic of a specific high school.

The search for the most characterizing parameters of the functioning and development of the teacher training system in the future is the main goal of the approach, which is achieved through the development of a model. The developed model, as a rule, displays the most significant properties of the object - for example, the relationship between various elements, structural and functional parameters.

According to the authors, the use of a process approach to teacher training is a fundamental rethinking and redesigning of most of the main and auxiliary processes of higher education in order to achieve a significant increase in the quality indicators of such activities.

Redesigning the ongoing processes allows us to achieve a radical (spasmodic) increase in the effectiveness of teacher training. The model of the future image of the training system, as a rule, is based on the principles and methods of economic and mathematical modeling using various software that allows to determine the need for redesigning each ongoing process (unit under study) or justify the absence of such a need.

The object of the approach is the processes that occur during the training of the teacher, and not the higher schools themselves. In other words, the work of employees of higher education departments (institutes, faculties, departments and other educational and auxiliary structural units) is subject to redesign.

The formation of the future image of the teacher training system should be based on the approved development strategy of higher education, its main goals and ways to achieve them. When the future image is formed in the form of a model, the next step in the process approach is to create a model of the existing processes of organization and implementation of the educational process of the teacher. In this model of formalization, the maximum possible number of works and actions of employees of the organization (processes) are subject to formalization, and an assessment of their effectiveness is carried out.

When describing ongoing processes, higher schools often encounter the problem of the lack of a standard (basic) list of such processes. As a result, in each case, some elements of the processes under study and the relationships between them, which are key in solving the problem of the effective functioning of higher education, may not be considered.

After identifying the main processes, it is important to assess how these processes are implemented by employees of various departments of higher education individually and in the relationship between them. To achieve this goal, a so-called process map can be prepared on which the involved departments of the higher school and the main ongoing processes are simultaneously displayed.

Based on the formalization of the main processes and the compilation of the process map, the higher school considers the issue of the effectiveness of these processes. The result of this step is the definition of criteria for the development of a new model.

Creating a new model is the final stage of the process approach, which is characterized by the following actions:

- redesigned not only formalized basic, but also auxiliary processes;
- modern electronic information educational environments are being created, digital technologies are widely used;
- testing of the new model is carried out, consisting in its preliminary application in a limited area.

After receiving the necessary information in the form of feedback from testing, the effectiveness of the new model is evaluated, decisions are made on the need to make any changes, and the model is introduced into the practice of higher education. The elasticity of introducing the model into practice largely depends on the quality of the work performed at the previous stages of the process approach. As a result, the higher school becomes significantly more sensitive to changes in the needs of society and all types of costs associated with the organization and implementation of teacher training are reduced.

Another universally accepted and widespread approach to managing the training of a higher education teacher is the marketing approach. Marketing in the field of training allows achieving social and economic effects at the same time: on the one hand, to satisfy the needs of the teacher in obtaining the necessary set of professional competencies, and, on the other hand, to significantly increase the economic efficiency of the educational process.

Each activity carried out within the framework of the marketing approach is aimed at satisfying the needs of the teacher, generated by society and the trends existing in it (teachers who want to gain new knowledge and acquire additional skills). At the same time, the market value of a particular training program is formed precisely by these educators,

who are also consumers of educational services. In turn, the formed value of the training program largely determines the economic and social effects.

In teacher training, as in other areas, it is customary to use the concept of marketing, since the use of this approach in the management of higher education forms an integral system of views.

Most leading higher schools at the national and transnational levels pay special attention to creating a marketing concept for their teacher training systems and this is due to:

- accelerating the pace of socio-economic development of society;
- a continuous complication of the processes of design and implementation of teacher training;
- intensification of competition between higher schools;
- a sharp expansion of the list of training programs;
- an increase in the effects of uncertain and unpredictable environmental factors (crises).

Marketing in teacher education should be considered from several perspectives. Firstly, this is a unity of actions regarding the study of teachers of higher schools, the development of training programs, the implementation of competent economic activity, the receipt of feedback from direct consumers of training programs and the management of the formation of the market value of teacher training in a given higher school. Secondly, it is a special system of higher education management aimed at positive results in the external environment (in the market of educational services), where special attention is paid to consumers of services. Thirdly, this is a conditional philosophy of higher education, which has a number of socio-ethical restrictions: the obligation to strictly act within the framework of moral principles and established traditions, respect opinions and respond to any teacher requirements

The main goal of the marketing approach is to ensure maximum satisfaction of the teacher demand. Achieving this goal is possible while mastering superiority over competitors, for which it is necessary to study demand in detail. The study of demand is not just the determination of the needs of teachers of higher education, but also the prediction of trends in their changes caused by scientific and technological progress, and the growth of consumer requirements for the quality of education.

The socio-economic meaning of the marketing approach consists in the successful implementation of activities to prepare a higher education teacher in the national and international markets for educational services, to increase the economic efficiency of the educational process in the face of a shortage of financial resources, and to meet the needs of educators. One of the ways to achieve success is to artificially create demand for individual training programs by impacting higher schools on the external environment using various technologies for promoting programs.

The marketing approach involves the creation of a plan to promote educational programs and usually includes:

- informal communications and other elements aimed at increasing the number of teachers undergoing continuous professional training;
- a financial program that includes calculations of the profitability and cost-effectiveness of teacher training.

Another way is the constant research of a higher education teacher, which has the characteristic features associated with the individual characteristics of various groups. However, today there are general approaches to conducting such studies:

- segmentation of teachers;
- assessment of the most common needs specific to this group of educators;
- determination of the reasons that encourage obtaining specific competencies;
- assessment of trends and reasons for changing needs.

A deep and regular analysis of consumers of services is necessary to concentrate the main methods and techniques for achieving success in the educational services market in the face of intense competition between higher schools.

Another existing approach to the management of teacher training is the most common, by virtue of its obligation, classical or so-called regulatory approach. Such an approach is based on the functioning of higher schools on plans previously developed by them, the basis of which are normative documents regulating educational systems at the national and international levels, including local regulations developed by higher schools independently.

The widespread use of the classical approach is due, on the one hand, to the simplicity of its application, and, on the other hand, to the habit of following in its activities exclusively the recommendations of regulatory bodies.

Many higher schools in the world still use the classical approach, as main approach to teacher training. The approach is characterized by the adoption of managerial decisions based on experience, professional intuition of senior employees of higher schools and the norms of national legislation. The obvious disadvantages of the approach include a low degree of soundness of managerial decisions and their flexibility in case of changes in society.

In addition to the process, marketing and classical approaches, there are many others, for example: integration, functional, dynamic, reproductive, quantitative, behavioral, situational, systemic and program-targeted approach. Each of these approaches has its advantages and disadvantages.

For example, we can conclude that, compared with the classical approach, the marketing approach is more difficult to use, but it is mainly used when competition and market stagnation increase or when a new educational product is introduced to the market when the struggle for higher education teachers escalates. Its complexity lies in the fact that it is necessary to analyze many market factors and respond promptly to changing conditions. It requires specific training and skills from decision makers.

The process approach includes, among other things, the use of economic and mathematical models in making managerial decisions. The disadvantage is that decision-makers need special training, even with specialized software that helps implement the process approach. To redesign the ongoing processes, a detailed understanding of all the main and auxiliary processes of teacher training, as well as the features of the functioning of the national education system, is necessary. The advantages of this approach are high validity and formalization of managerial decision making, high accuracy of forecasts for the development of the teacher training system.

It is possible to compare these or those approaches infinitely long and for each approach both pluses, and minuses will be found. In the absence of a single innovative approach to teacher education today, the authors consider it appropriate to use individual elements (strengths) of various approaches in combinations.

An example of such a combination is the combination of the process, marketing, and classical approaches described in detail above. The use of elements of the classical approach is inevitable, since many higher schools in the world are state organizations, the activities of which are largely determined and controlled by the state. The use of elements of the marketing approach is also inevitable in the conditions of the modern market of educational services, since it is impossible to achieve higher school success without studying environmental factors and consumers of educational services. In turn, the process approach allows using various models to analyze the effectiveness of the main and auxiliary processes and significantly reduce the costs associated with the implementation of teacher training.

The effectiveness of developing combined approaches to teaching a higher education teacher can be determined in various ways, but the most recognized of them is leadership in generally accepted ratings, the number of which is constantly increasing.

At the national level, leading higher schools inadvertently become the benchmark among organizations in this field, at the international level, they practice both “personal offset” and the joint result of a group of leaders that determine the country's position in the ratings.

The concepts and approaches to the organization of teacher training formed in such higher schools are, by and large, universal in terms of their applicability to other educational organizations. Adaptation occurs through the development of techniques and methods for matching adopted digital technologies and educational practices with the country's national standards and “educational traditions” of a specific higher school.

However, despite the existence of an understandable and simple scheme of interaction between higher schools on the exchange of best practices, development prospects and joint work to create a more effective teacher training system in the future, internationalization and harmonization of systems education at various levels is greatly hindered by one circumstance - the best international higher schools are also constantly subject to radical transformations due to the rapid development of digital technologies and their introduction into our daily lives in all areas of human activity.

There is a regular need to create new models of teacher training that meet all the requirements of modern society, the economy and the labor market. While some countries (higher schools) adopt the best practices, advanced participants in the international educational space raise the question of the need to redesign the teaching process of the teacher in accordance with new goals and objectives.

Therefore, almost regardless of the level of development and the effectiveness of solving the set tasks, most higher schools face many common problems every day.

One of these problems is the high pace of development of digital technologies and telecommunication systems, which have a significant impact on the methods of formation, storage, transfer of knowledge and skills. And if earlier there existed trajectories of personal growth, traditional and understandable to everyone, including the acquisition of education (as a rule, at a certain period of life), today obtaining various universal and professional competencies has become necessary for the teacher throughout his/her life, and the formation of such competencies in conditional combinations, determining the time and methods of their acquisition allows us to talk about the advantage of individual educational trajectories based on modern digital technologies over traditional.

The popularization of digital technologies, including in the teacher's training system, is caused by their transnational and transcultural properties, which removes any political, ethnic, religious and other restrictions on their use. At the same time, the speed of introducing digital technologies is much lower than the pace of development of digital technologies themselves.

The problem that most higher schools face is the cost of integrating such technologies into the learning process - as a rule, it is extremely high. This is due to the need to use the process approach (which was described in detail above) to manage the development of information and communication tools and their implementation in the educational process in particular and in the teacher training system as a whole.

Despite the fact that one of the ultimate goals of using the process approach is to sharply accelerate the reaction of higher education to changing requirements of modern society while reducing all types of costs, the actual cost of using digital technologies in the educational process per teacher is high. At the same time, the direct cost of the technologies themselves (for example, access to Internet) is small enough, which allows a significant part of the world's population to access them.

The second common problem that most higher schools face is the emergence of a significant number of new and modern digital technologies in various startups outside the traditional education space.

Inside both the national and international educational space, in addition to the established rivalry, there is additional competition for new participants who are able to set other rules and trends. As for the cost of using digital technologies per teacher, in the case of a startup it is much lower than in most higher schools, since startups are created on completely new technology platforms and do not require expensive reengineering of the educational process. As a result, more relevant programs and effective forms, ways to implement the educational process - at a lower cost.

In this setting, the large-scale and complex managerial task of preserving by higher schools their positions within the framework of accumulated educational practice and the traditional system of teacher training is greatly complicated by the emergence of a modern transnational market for educational services and the inertia of the established system of views and beliefs, as well as high resistance to cardinal changes of "classical players" .

Today, there are many prerequisites for reasonably expecting the development and strengthening of a new transnational market. This can lead to the introduction of new, more advanced standards for teacher training, similar to how social networks and messengers set new standards for socialization of society.

The third position of the list of problems under consideration is due to the progress of society, which is a prerequisite for increasing the pressure of international competition in all spheres of human life, the development of technology and the growth of economic uncertainty. The demand for teachers with new knowledge and skills that allow them to be active elements of modern society and solve the problems facing humanity is constantly increasing.

On one hand, there is an increase in demand for teachers with creative abilities for non-standard difficult to formalize tasks that can act both alone and as part of a team with different technological environments and cultures, which encourages teachers to change their basic skills and knowledge. On the other hand, the need for holistic and continuous models of education is growing every year (the implementation of the principle "education through life", which already exists hundreds of publications) to improve their knowledge and skills in accordance with the changing complexity of tasks.

Another problem of the traditional teaching of a higher education teacher arises from the lack of a unified policy aimed at formatting the idea (simple and transparent algorithm) of how to create and capitalize such an intangible asset as education.

And the last problem is the motivation of the teacher to gain a training. Despite its importance, training for many teachers, unfortunately, still remains an insignificant value that is difficult to acquire. However, the contingent of teachers does not consist mainly of weakly motivated people, but also of those who are able to assess the need for receiving it. Such educators become the main users of the most advanced educational programs based on new digital technologies. Currently, there are few innovative educational sites, and the resource they have, as a rule, does not allow the spread of "new education" on a massive scale.

Concluding the description of the problems associated with the introduction of digital technologies in the traditional educational systems of higher education teachers, we should proceed to consider the issue of finding balance between educational traditions and modern digital technologies.

Significant changes in the field of education of the last ten years began with new formats of training. One of these formats is massive open online courses. In addition to them came the technologies of virtualization and gamification of the educational process. To date, a large list of various elements of the architecture of the "new education" has

already been formed. These elements radically change the standards of teacher training, which not only reflect relevant professional requirements, but also contribute to increasing the national competitiveness of countries in the international arena, as well as achieving global goals and objectives of mankind.

The presence of certain elements of the “new education” is observed in many higher schools. For example, teachers, along with their studies, launch small commercial educational projects outside the higher schools in which they work. Thus, an alternative channel of translation and knowledge acquisition appears. Another example is the growth of pedagogical communities in social networks. Incidentally, this fact is often not accepted by traditional higher schools.

At the same time, it is important that the use of modern digital technologies in the teacher training system, in addition to the obvious advantages, the inevitability of their application, has its drawbacks. In particular, they violate “live communication” between people by their form. An increase in the share of educational video and audio materials contributes to the loss of reading practice and, as a result, literate spelling. Often there is a loss in the ability of the average teacher to form and develop complex thinking.

World trends in the development of higher education teacher training systems are increasingly focusing the attention of the academic community on the need to introduce modern digital technologies and there are several important prerequisites for this.

Firstly, the digital technologies developed and successfully implemented in the practice of higher schools have a positive impact on the quality of teacher training, as well as on the effectiveness of the organization of the educational process. There are many examples where the use of such technologies allowed higher schools to reach a qualitatively new level of development and occupy a leading position in their segment.

Secondly, in its essence, digital technologies are not affected by social, economic, political, cultural and other differences between society and man. For example, many people living in different macro-regions and countries of the world use the same electronics (computer equipment, smartphones and gadgets for various purposes) in their daily lives. The main difference is only their cost to the end user (user). Any technology becomes transcultural, interethnic, popular and generally recognized, as soon as its cost is significantly reduced. And if earlier the cost of digital technologies was, in principle, quite high, and the speed of implementation was low, then today everything has changed - it's hard to imagine the activities of any modern organization without using such technologies.

Every day, new products and solutions appear on the digital technology market, the key feature of which is to increase the efficiency of tasks being solved while reducing the cost of the technologies themselves. This leads to a constant decrease in the cost of digital technologies for the end consumer and to an increase in the rate of penetration of technologies into all spheres of society, including the teacher training system.

One of the main tasks of the mass education system of a higher education teacher both at the national and international levels is to develop and introduce new managerial and educational approaches that allow the learning system to overcome the problems that arise before it and at the same time maintain or improve the quality of education (new experience). However, practice shows that the development and implementation of new approaches is often slowly replicated in the mass education system of a teacher and is only a source of inspiration for other higher schools. This is due to the presence of many environmental factors of higher education, which have direct impact on the effectiveness of the distribution of management decisions. For example, simple and inexpensive (sometimes free) technologies that originated outside the sphere of education, unlike expensive educational platforms, make it possible to distribute educational content in a convenient way from the direct author to the end consumer, they can effectively penetrate the teacher's training system and quickly scale there. The choice between using the often complex

specialized platform and the daily used service (e-mail, instant messenger, social network) today often dwells on the latter option.

Since the creation and dissemination of modern digital technologies is a transnational process, they establish requirements for a new structure of teacher training - the structure of the education of the future. The initial movement towards this is expressed in the standardization of agreements on network interaction between higher schools, the requirements for the qualifications of teachers, as well as the standardization of training levels. In the authors' opinion, the widespread use of new digital technologies creates favorable conditions for the formation of the boundary conditions for the existence of a global professional system of teaching a higher education teacher.

The formation of future education is largely determined by the development trends of digital technologies. To date, there is no objective reason to suppose a cessation of the development of the digital environment, which has continued over the past several decades. New opportunities for transmitting high-quality educational video and audio material allow us to make the assumption that educational virtual worlds will soon become the same familiar environment for teacher training as physical higher schools.

The Internet is becoming more mobile. The development of wireless access, increasing the performance of smartphones and computers is accompanied by a simultaneous decrease in their geometric dimensions, reduction in energy consumption and creation of solutions to automate their energy supply. The functions of smartphones and computers are gradually being endowed with various portable devices integrated into our personal belongings. The user of gadgets is becoming less and less connected with the need to use certain access points to educational material and is increasingly gaining instant access to information at any time and place. For example, already today, many teachers in lectures receive additional background information on the course being studied from the mobile Internet, check the words of their colleagues spoken by them at conferences, and in parallel with participation in educational and scientific processes, share their impressions with the outside world on social networks.

Mobility and flexible work hours have already become a standard for many. In addition, mobility predetermines new requirements for Internet communications, according to which mobile applications rather than desktop browsers are increasingly used to visit various educational resources. In other words, there is a gradual transition from a single Internet to the Internet, which is a set of mobile applications. It can be assumed that in the future, mobility will allow teachers to be absent from the physical spaces of higher schools specially designated for them (classrooms), but at the same time to remain constantly within the educational process and in contact work with their colleagues.

With this formulation of the question, we can talk about the work of round-the-clock higher schools. At the same time, many leading universities in the world have already begun to respond to the increased mobility of teachers and significantly expanded their obligations to ensure it in the educational process. Mobility is very important for new educational platforms, including mass open online courses (MOOC) platforms, since a significant number of users are adults (teachers) who are comfortable learning on the go or at work.

The Internet is becoming more convenient and necessary. According to various estimates, from 65-70% of the world's population already have access to the Internet. Its active penetration today occurs in developing countries. Due to the emergence of new needs of society in obtaining cultural and educational information, there has recently been a trend of a sharp change in the content of Internet content. The reality surrounding us is actively digitized. A modern management model for any higher school is practically impossible without the use of digital control systems for all processes occurring in it (including supporting processes). Archives and libraries are actively implementing projects

to digitize accumulated scientific and technical works and textbooks. More and more accumulated data about the world around us is continuously being digitized, and the Internet is accumulating this data in various storages, including those based on cloud technologies.

It is clear that most of the libraries, archives, technical documents and museums storage will be digitized in the near future, this is a simple task. An interesting process seems to be moving to the time point at which a digital copy of the world will be created, users will have access to any knowledge from the past and present anywhere in the world. By a copy of the digital world, the authors of the work mean not only any information about the material components of the world in real time, but also various non-obvious dependencies that empirically describe the dependencies of the world around us. The onset of such a moment depends mainly on the spread of big data collection technologies and the development of artificial intelligence, which can deadline to process this data.

However, in addition to the obvious advantages of developing and introducing a teacher of modern digital technologies into a teacher's training system, there are several limitations on the way to their effective use, here are some of them:

1. Potential access to information does not mean possibility of its use. As studies of the neurophysiological mechanisms responsible for the successful search for information show, to obtain knowledge from the Internet you need to have an approximate idea of what the potential result should look like. In other words, you need to have a basic worldview with a small gap that can be filled with information found on the Internet. If the teacher does not have such a worldview, then this knowledge is practically useless, since it is not clear what it should be applied to.

2. Redundant information on the Internet and ready-made solutions force, including higher education teachers, to be dependent, to support a teaching methodology based on borrowing other people's materials. Large amounts of information are not the result of original work, but rather links to other people's materials. Moreover, often borrowed materials are not even read in full, and only a small fragment stands out from them.

3 Conclusion

In the authors' opinion, this work provides a sufficient number of arguments proving the obvious advantages and dangers of using modern digital technologies in teaching a higher education teacher, and the lack of a "perfect recipe" for combining traditional teacher training and digital technologies today. The construction of a "new education" for a higher education teacher taking into account the needs of modern society, in our opinion, should be based not only on the widespread introduction of modern digital technologies, without which it is difficult to imagine life today, but also in the preservation of previously created educational technologies and accumulated educational practice, by searching and rethinking by each higher school the educational approaches they use.

We would like to end the article by quoting the outstanding Polish philosopher Stanislaw Lem: "As for modern technologies, they certainly threaten humanity, but they should not be cursed, because without them it would be even worse".

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