

# APPLICATIONS OF DIGITAL RESOURCES IN THE EDUCATIONAL PROCESS

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## *Abstract.*

Innovations are introduced into various spheres of human activity, which orients people to new development, improvement of their knowledge, skills, and competencies, and mastering new types of activities in related sectors of the economy. The education system should ensure a confident transition to the digital age, focused on productivity growth, new types of work, and human needs. Information of education has created the basis for moving to a new level, digitalization is aimed at training specialists who are guaranteed to be in demand in the labor market, are easily and fluently proficient in mobile and Internet technologies, and are also focused on continuous training (advanced training) through e-learning. Digital technologies in the modern world are not only a tool, but also an environment of existence that opens up new opportunities: training at any convenient time, continuing education, the ability to design individual educational routes, from consumers of electronic resources to become creators. However, the digital environment requires teachers to have a different mentality, perception of the world picture, and completely different approaches and forms of working with students.

The teacher becomes not only a carrier of knowledge that he shares with students, but also a guide through the digital world. They must have digital literacy, the ability to create and use content through digital technologies, including computer programming, search, information exchange, and communication skills.

*Keywords:* Educational system, Digital, Self-digitalization, cognitive, digital technologies, Educational resources.

## **Introduction**

The main directions of development of our country are reflected in the Digital Kazakhstan program.

The goals of the state program "Digital Kazakhstan" (hereinafter referred to as the Program) are to accelerate the development of the economy of the Republic of Kazakhstan and improve the quality of life of the population through the use of digital technologies in the medium term, as well as create conditions for the transition of the economy of Kazakhstan to a fundamentally new trajectory of development, ensuring the creation of digital the economy of the future in the long run [1].

It is designed to create an enabling environment for the creation of a full-fledged civil society in which knowledge, goods and services will be accessible to all citizens. To implement the ambitious tasks set by the Digital Kazakhstan program, it is necessary first of all to pay close attention to the reorganization of the educational system. The main characteristic feature of a modern person is the possession of digital technology skills, their application in everyday household and work environment. Another global trend is the "self-digitization of the state", i.e. digitalization of operations of the state and state-owned companies. Self-digitalization is a task that must be implemented by any state that aims to maximize the creation of value in the

economy, increase prosperity, and take a worthy place in the ratings of business and living standards.

In order to provide the economy with employees who own digital technologies, it is necessary to introduce these technologies into the education system. Children of even preschool age are successfully mastering the digital environment and already have some experience that needs to be consolidated and developed in the process of studying at school [2].

The implementation of the main directions of modernization of education required a rethinking of their pedagogical experience, to understand what to change in their activities from the point of view of self-digitization of students' interest, what knowledge is no longer sufficient in modern conditions, what modern teaching tools are most effective for the development of this quality of personality.

### **Materials and methods**

It became obvious that using only traditional methods of teaching the subject, it is very difficult to solve these problems. Information and communication technologies are one of the most effective means of developing students' cognitive interest. In this regard, we use a digital educational resource.

A DER collection is a systematized collection of DER with descriptions and a certain completeness within its specification. The collection contains e-learning materials:

- texts describing the mandatory content of education for a given school subject and stage of study
- sources that are supposed to be used in the educational process by texts
- subject-specific tools and links to General tools that are effective in the subject
- open task banks for this subject, a system for saving the results of tasks and evaluating them.

Appendix 1 contains a presentation that systematizes the types of DER, forms of working with Them, and requirements for the design and use of DER.

Educational resources have been created for many modern textbooks. For grades 5-6, digital educational resources are partially used in the educational process for English textbooks."

Almost all of the digital educational resources intended for organizing front - end work in the classroom are files made in the Microsoft PowerPoint program, version of Microsoft PowerPoint 2003.

Data from the DER is divided into 5 types:

- material for front-end work at the stage of introducing new knowledge;
- Material for front-line work at the stage of forming skills (mainly exercises aimed at developing oral computing skills);
- Material for correction and control of knowledge (dictation for 1 or 2 options);
- Material for the organization of the final lessons (casual game or games competitions);
- Material for preliminary testing.

The most effective electronic educational resources are multimedia resources. In them, learning objects are presented in many different ways: using text, graphics, photos, videos, sound, and animation. In this way, all types of perception are used; consequently, the foundations of the child's thinking and practical activity are laid.

Computer science is a sobering discipline every year. Therefore, many children find it difficult. With the help of the cor animation, you can show students tasks for movement: towards each other, in the opposite direction, in pursuit, with a lag. You can use the ready-made material on the site Ustazdar sites-Ustazdar sites (u-s.kz)", Workshop " REPUBLICAN EDUCATIONAL PORTAL (ustazdar.kz)". The process of organizing school education using it makes it possible to make this process interesting, on the one hand, due to the novelty and unusual nature of this form of work for students, and on the other, to make it exciting and bright, diverse in form by using the multimedia capabilities of modern computers; to individualize the learning process by having multi-level tasks, by immersion and assimilation of educational material at an individual pace,

- independently, using convenient ways of perceiving information, which causes students to have positive emotions and forms positive learning motives;
- liberate students when answering questions, because the computer allows you to record the results (including without setting a grade),
- correctly responds to errors; independently analyze and correct mistakes, correct their activities due to the presence of feedback, as a result of which self-control skills are improved;
- carry out independent educational and research activities (modeling, project methodology, development of presentations, publications, etc.), thereby developing students' creative activity.

### **Results and discussion**

Digital literacy is the ability to create and apply content through digital technologies, including computer programming, search, information exchange, and communication skills. Henry Jenkins, however, reveals the content of the concept of digital

literacy as the ability to work with a computer as with hardware, understanding the features of the device and distribution of digital information, the device of the network community and the features of social media [3].

Content of digital literacy is reduced to the understanding that if there is clarity in the structure and content of digital reality, then there will be clarity in the control and interaction with digital technologies.

Digitalization management is possible with unified databases, learning effectiveness criteria, in other words, an integrated approach that would define the goals, structures, and content of the educational process. The Association "National society of technologies in education" has developed various procedures for evaluating education by consumers, experts, and professional communities [4]. For example, an online course is counted as a part of the University's curriculum.

Digitalization management in the educational environment is carried out through digital marketing, aimed at organizing interaction with teaching staff, research and teaching staff, graduates, students, and applicants using a range of digital communication channels; monitoring changes in the formation of a positive image of the University; encourage the creation of new digital communities and innovations; develop personalized marketing materials for target audiences.

We see that the process of digitalization of the economy, education and any other spheres of human life involves the formation of a digital (information) culture that allows them to correctly use the opportunities that open up and organically integrate into the environment of the information society.

You can use the presentation to systematically check that all students in your class have completed their homework correctly. When checking homework, it usually takes a lot of time to reproduce drawings on the blackboard, explaining those fragments that caused difficulties. Well-proven dictation tools that are designed to control and correct students' knowledge in the process of studying the topic, as well as to organize the repetition of rules during the passage of other topics of the course. They allow me to organize independent activities of students with subsequent verification and analysis of mistakes made, which is usually quite difficult to implement. Most dictation in one version is carried out at the initial stage of studying the topic. They allow:

- the teacher-immediately after explaining the new material to find those points that are not learned or poorly learned by students and once again analyze this material;
- for the student-analyze their mistakes, understand the reasons for their appearance.

Thus, approximate feedback is provided during the training process. Let me explain how you work with these materials.

In this type of DER, a task appears at the first stage when the left mouse button is clicked. I read it, students either write down only the answer, or the task, its solution and answer, and then the next task appears. This way, I can adjust the speed of tasks appearing, depending on the

class level. The greatest effect is achieved if students write down the solution "under a carbon copy". After all the tasks are completed, students give me one copy and keep the second one. After that, we move on to the second stage.

Everybody in the world has switched to online education. Kazakhstan should not lag behind. Online learning should be accessible to everyone. Today the most dynamically developing area of education is the Internet, which has been widely introduced into school education and has become available for use in the educational space. Among other things, the Internet makes it possible to diversify the content and methods of teaching a number of subjects, including computer science. The use of Internet resources in computer science lessons increases the information culture of students, shows the best qualities in children, helps them to grow creatively; allows you to use more extensive information; ensures the efficiency of replenishment of educational material with new information. In the classroom, the Internet can be used with a variety of functions and, therefore, purposes: as a way to diagnose the learning capabilities of students, a teaching tool, a source of information. Students often use the Internet services at home in preparation for seminars, in work on creative assignments. The digital education system includes information resources, telecommunications, management system (fig.1).

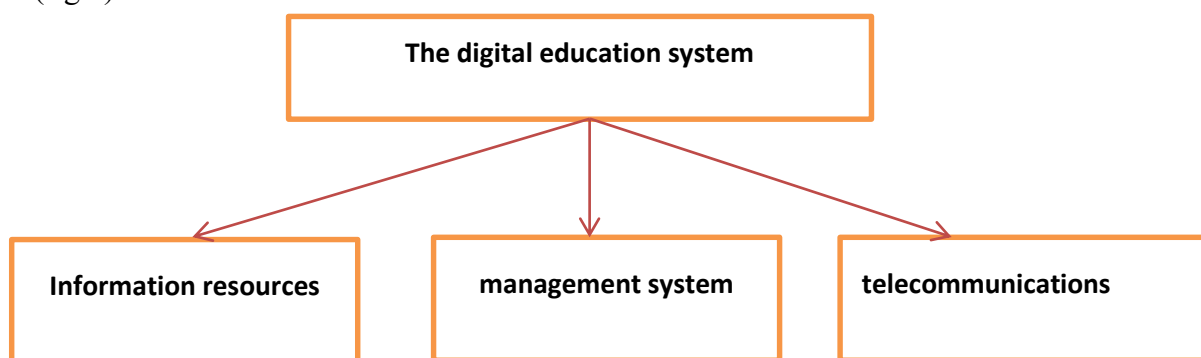


Figure 1. Digital education system

The use of Internet technologies opens up a promising direction in training. Modern children learn this way-computer-way is much more familiar and interesting. However, such training is only possible in combination with other educational technologies. Since the violation of harmony, measures of expediency can lead to reduced performance, increased fatigue of students, and reduced work efficiency. **Conclusion**

Computer presentations are also convenient to use in extracurricular activities during various competitions and games. This is a demonstration of portraits of computer scientists, a story about their discoveries, and an illustration of the practical application of theorems in life.

So, the use of information technologies increases the motivation of learning, in particular, learning computer science. Thus, pedagogical influences become less authoritarian and more democratic. The use of information technologies allows you to achieve freedom of creativity of participants in the pedagogical process: the student and the teacher. The teacher teaches, educates, but also encourages the student to develop his inclinations, develops the need for independent work.

#### References

1. State Program "Digital Kazakhstan"
2. "Strategy" Kazakhstan-2050 "
3. Digitalization [Electronic resource] // Wiktionary. - Access mode: <https://ru.wiktionary.org/wiki/digitalization>
4. Laptev V. V. Metodologiya vizualizatsii. — M. : Mir, 2011. — 304 s.