DIGITAL LITERACY AND TECHNOLOGIES FOR EDUCATION: PRINCIPLES AND TOOLS

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Summary. The article considers the relevance of digital literacy and the use of modern learning technologies in educational institutions. Concepts such as digital literacy, digital consumption and digital competence, which allow to determine the role and status of modern universities in the formation of new concepts of higher education, are analyzed; the prerequisites of the decisive factors of the complex implementation of digital literacy in the process of formation of university education are analyzed. The labor market is analyzed in the context of the requirements of the digital economy. Examples of active use of digital technologies in the educational process are given. The teacher's digital literacy is analyzed as a system of basic knowledge, skills and attitudes in the field of everyday use of digital technologies. The proven value of digital technologies in distance learning organizations of educational institutions in quarantine conditions.

Keywords: Internet, digital literacy, digital competence, information technologies, information environment.

Since about 2005, with the advent of web 2.0, a new format of social interactions between people has appeared and has essentially become a new form of social consciousness: blogs, wiki projects, social networks, other projects and media services that are actively developed and improved by users [1]. There is a lot of information, everyone can see and create it, but there are no guarantees of its authenticity. Therefore, the question of forming the skills to navigate digital media and use them has become urgent.

We are moving into a world where computers will be so intelligent that they can do the routine part of the work, and people will need to do and cultivate what they can do, such as emotional intelligence. Computers are already capable of performing creative, research, and intellectual work. For example, in the context of digitalization, the approach to programming as a component of digital literacy is rapidly changing. People's thinking is also developing and changing. After all, for orientation in a large amount of information, creativity is needed to search "broader"
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for what may be relevant, and critical thinking is needed to assess the adequacy and reliability of information.

Digital literacy is the ability to use the opportunities offered by modern society with all its technologies, the ability to communicate with people in a new social format and to be ethical and attentive to each other [2]. Digital literacy encompasses a wide range of skills, from evaluating the credibility of websites to creating and sharing media content.

The new digital reality is transforming the education system – the role of the teacher and parents in the educational process is changing, there is a need to study new subjects mainly related to IT technologies. These trends have many advantages, but they are not without their difficulties. Every day a person increases the amount of information absorbed, and it becomes more and more difficult for him to learn, navigate the information flow and plan his time. The global digital economy is being formed under the influence of waves of innovation: social networks, e-commerce, the Internet of Things, virtual reality, robotics. All this changes the daily life of a person and puts forward new requirements for all areas of a person’s life and activity, which are unthinkable without information and communication technologies.

In the field of work based on the requirements of the digital economy, there is an increasing need for specialists who can constantly improve their knowledge, improve their skills and abilities, adapt to the latest production technologies, and possess the skills of independent work using modern information technology tools. In such conditions, the education system should be improved by using modern approaches and ways of forming the competence of students and providing the digital economy with competent and competitive specialists.

The simplest example of the active use of information technologies, common among both students and their teachers, is access to data necessary for the educational process. Access is implemented using the resources of thematic portals on the Internet, and with the help of local resources of universities [3]. The range of resources is constantly replenished and expanded - from statistical and encyclopedic services to sites with content generated by users themselves.

Not all disciplines can be clearly explained using the oratory of a lecturer or a blackboard with chalk. An important role in the development of digital literacy is played by the systematic use of digital technologies in the educational process. The presence of functional demonstration tools, such as a projector with diagrams, slides, videos, allows you to convey the necessary information to students faster and more efficiently.

A vivid example of the use of technology in the educational process is information resources for working with students studying history, cartography, geology, geography. Modern technologies make it possible to display information in a scalable format and to make corrections, adjustments, and additions in real time [4].

Information technologies, including, allow to improve the educational process "at a distance", providing deans and teaching staff with the necessary basis for checking knowledge and collecting the necessary statistics. The ability to handle large volumes of data (across the entire university, for several years, and so on) provides an opportunity for adequate analysis.

Another technology that during the pandemic has firmly entered the lives of schoolchildren, students, and teachers is distance learning. Despite the fact that in
this direction, the practical technologies of teaching, monitoring the performance of
tasks, the features of communication within large groups have not yet been worked
out to the ideal, distance learning may become more popular in the future [5].
Including among students and teachers who cannot be physically in one or another
city or university.

Currently, the creation of the digital economy of Ukraine requires the
appropriate orientation of the education system, human training, and the use of
modern digital technologies in its activities. One of the competences that must be
formed in the teacher of the new generation is "digital competence".

Digital literacy is an expanding capacity for creative action. The Internet is full
of such possibilities. There are many sites on which you can create information in
various forms - textual, graphic, photographic, audio, audiovisual. There are a large
number of free programs, databases and other resources on the Internet, which a
competent user should be able to find and use. The Internet user is constantly in a
hypertext environment with the ability to quickly navigate from one resource to
another. This leads to the formation of new patterns of behavior, methods of
searching for information and features of communication, which contributes to the
development of network thinking and increasing the level of information and
communication activity.

Achieving digital literacy is focused on socio-communicative aspects of human
activity. The criteria for achieving digital literacy include the skills of media literacy,
the ability to find the necessary information and the ability to work with it
(information literacy), communicative competence, as well as creative competence
in the production of various forms and formats of content. It is worth noting that the
use of digital technologies or Internet resources in the process of teaching various
educational disciplines is considered one of the urgent issues of education today.
The main effective solution to this problem is the use of electronic versions of
educational complexes and educational and methodological materials.

Understanding the basics of information processing with the help of new
information technologies is considered the main aspect of digital literacy in modern
realities.

By digital competence, we mean the ability of an individual to confidently,
effectively, critically and safely choose and apply information and communication
technologies in various spheres of life (information environment, communications,
consumption, technosphere) based on continuous mastering of competencies
(knowledge, skills, motivation, responsibility), his readiness to such activity. In other
words, digital competence is not only the sum of general and professional knowledge
and skills, which are presented in various models of ICT - competence, information
competence, but also an attitude towards effective activity and a personal attitude
towards it, based on a sense of responsibility.

It is necessary to design the educational space of the higher education
institution and the educational audience should meet the modern requirements and
demands of the digital society. In order to prepare a competitive teacher, it is
necessary to continue the formation of digital competences in higher education
institutions [6]. And the university teacher should contribute to the development of
students' digital competences. But it often happens that the digital competences of
the professor lag behind the competences of the students. To solve this problem, it
is advisable to talk about the design of the educational space of the higher education institution, the creation of a special professional-oriented environment for the formation of digital competence of both teachers and students. This environment should be created according to the following principles: defining the student as an active subject of learning; his focus on self-education, self-development; reliance on the subjective experience of the student, accounting for his individual characteristics, training in future professional activity.

**Conclusions.** Digital literacy includes the skills to use digital devices because they are tools of culture, in any case they are interesting for students and naturally recorded. They should be provided to serve in problematic situations as tools. But it is much more about the ability to find creative solutions, organize yourself, be a team player, critically evaluate what is given, know yourself and maintain dynamic stability. To become competent in the digital age, schools must expect volatility from their students. It is not about the division of subject areas, it is about creating conditions for students' joint creativity. They cannot be controlled by others. Teachers must relinquish control and create a learning environment that serves the best interests of all children. The report card is a thing of the past and gives way to an individual educational portfolio, for example, in the form of a blog. Children learn about their individual capabilities and value them mutually. Solutions are developed together, which no curriculum can predict.

Thus, at the moment, the teacher needs to plan, organize and direct the learning process accordingly to keep up with the times.

**References:**


