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GENERAL ISSUES OF FORMING THE DIGITAL COMPETENCE OF UNIVERSITY STUDENTS

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Article history:	Abstract:
Received: May 6th 2023 **Accepted:** June 6th 2023 **Published:** July 6th 2023	This article discusses the general issues of the formation of digital competence of university students in the context of the digitalization of society. The process of implementing the strategy for digital competence in the education system of the Republic of Uzbekistan is analyzed and some approaches are proposed for the formation of digital competence of university students.

Keywords: digital technologies, competence, digital competence, personal educational environment.

INTRODUCTION

In the modern world, when the rapid evolution of digital technologies leads to changes in the economy, education, business, society, and when the technologies and services of the global Internet are actually combined with everyday life, new concepts appear that are necessary for understanding. The general digitalization of most spheres of life becomes an impetus for the development of new patterns of behavior in the digital space and, in this regard, transforms the concept of "information and communication competence" to the concept of "digital competence". Digital competence is an important aspect of the social adaptation of the individual in the current conditions of the digitalization of society.

Until recently, the concept of "information and communication competence" was widely used. Researchers involved in information and communication competence give different interpretations of this concept. For example, in [1, 2] the authors believe that the meaning of this term is based on the technical component and is the ability to apply technical means to search, store and process information in any activity of the subject. Another approach to the definition of information and communication competence is focused on the terms "information" and "communication", and the essence of the concept is the perception of information by the subject through communication, aimed at actions with information in professional and practical activities [3-6].

1. WHAT IS DIGITAL COMPETENCE?

The basis of the digital economy are the services of the global Internet. In this regard, one of the competencies that needs to be formed in a new generation of professionals is "digital competence". The question arises of the difference between the concepts of "information and communication competence" and "digital competence" [7].

An analysis of recent studies and publications in the field of digital competence shows that this concept is relevant, but little studied, and the most significant and one of the few fundamental studies on the issue of digital competence is a study conducted by the Internet Development Foundation and the Faculty of Psychology of Moscow State University named after M. V. Lomonosov in 2013.

Its authors G.U. Soldatova, T.A. Nestik, E.I. Rasskazova, E.Yu. Zotova, digital competence is understood as "based on the continuous mastery of competencies (a system of relevant knowledge, skills, motivation and responsibility), the ability of an individual to confidently, efficiently, critically and safely choose and apply information and communication technologies in various areas of life (work with content, communications, consumption, technosphere), as well as its readiness for such activities" [10]. Knowledge, skills, motivation and responsibility as components of digital competence in these areas divide digital competence into four subspecies [11]:

1) information and media competence - knowledge, skills, motivation and responsibility associated with the search, understanding, organization of digital information using digital resources and its critical reflection;

2) communicative competence - knowledge, skills, motivation and responsibility necessary for various forms of communication (e-mail, chats, blogs, forums, social networks, etc.);

3) technical competence - knowledge, skills, motivation and responsibility that allow the efficient and safe use of hardware and software to solve various problems, including the use of computer networks, cloud services, etc.;

4) consumer competence - knowledge, skills, motivation and responsibility that allow solving various everyday tasks related to specific life situations involving the satisfaction of various needs with the help of digital devices and the Internet [11].

N.P. Yachina and G.G. Fernandez believe that the concept of "digital competence" includes "confident and critical use by students of a computer, and a mobile phone, a tablet computer, an interactive whiteboard. This

competence is based on logical thinking, a high level of information management and a highly developed mastery of digital technology" [12]. They propose to include in digital competence: understanding of the general structure and interaction of computer devices; understanding the potential of digital technologies for innovation; basic understanding of the reliability and reliability of the information received, the ability to use programs for designing a training session [12].

2. STRATEGIES FOR DIGITAL COMPETENCE IN THE REPUBLIC OF UZBEKISTAN

At the moment, the formation of a digital society and digital economy in Uzbekistan requires a corresponding transformation of the education system, aimed at training a professional who uses the latest digital technologies in his work [7-9].

The issues of digital competence and digital literacy are dealt with by the Department for the Development of Digital Learning (DDLT) under the Ministry of Digital Technologies of the Republic of Uzbekistan. The site of this department conducts an annual measurement of the levels of digital literacy and digital competence of citizens through testing. DDLT believes that digital competencies are the skills to effectively use technologies, including:

- search for information;
- use of digital devices;
- use of social networking functionality;
- financial transactions;
- online shopping;
- critical perception of information;
- production of multimedia content;
- synchronization of devices.

The European Commission, in its definition of digital competence prepared under the Digital Education Action Plan (DEAP), emphasizes the importance of the conscious and responsible use of digital technologies in education, at work and in public life. Digital competence should include the ability for digital collaboration, security and problem solving [13].

Among the necessary skills for success, regardless of the specifics of the activity, "soft skills" are singled out, i.e. social, and "hard skills" - i.e. professional. But, in connection with total computerization and digitalization in recent years, a new group of skills has been identified that is applicable to any specialists in the digital economy - digital skills. Moreover, the skills of using digital technology should be based on a clear understanding of its meaning, awareness of the purpose of its use, and, most importantly, a critical assessment of the result, an understanding of what problems this can lead to. For example, the critical selection of information for posting on social networks, the careful performance of financial transactions online, the understanding that the Internet and gadgets are not safe and that the amount of digital information that a person generates with their help daily, as a result, makes up his "digital footprint" in the digital space. and it cannot be removed.

3. APPROACHES TO THE FORMATION OF DIGITAL COMPETENCE OF UNIVERSITY STUDENTS

Based on the foregoing, we can conclude that the fundamental difference between digital competence and information and communication competence lies in the integration of responsibility and motivation, which means the need to develop critical thinking in the subject.

The purpose of this article is to identify the conditions for the development of digital competence of university students.

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

- *clarify the term "digital competence";*
- *describe the levels of formation of digital competence;*
- *indicate the didactic forms of assessing the formation of each level of digital competence;*
- *to propose the conditions for the formation of digital competence of university students.*

RESEARCH RESULTS. In our understanding, digital competence is the possession of methods for searching, structuring, systematizing and critically evaluating information using digital technologies and the global Internet to solve practical, educational and professional problems.

Based on the proposed interpretation of digital competence, we distinguish the following levels of formation in its structure.

Levels of formation of digital competence:

1) Gnoseological level - a necessary set of knowledge for processing information for the right purposes, communication, knowledge of terminology.

2) Motivational-value - the attitude to the use of digital technologies is being formed, the readiness to acquire new knowledge, the attitude to the information field of the Internet as a tool, including educational, develops critical thinking.

3) Activity-technological - the acquisition of skills in working with the global Internet for the desired purpose, the use of information processing algorithms, mastery of communication methods to solve practical, educational and professional problems.

4) Productive-reflexive - assessment of one's own level of knowledge of digital technologies, understanding

oneself as part of the digital environment.

At the epistemological level, theoretical knowledge is acquired about the methods of information processing, about structuring, coding and measuring information, about the ways of mastering software, knowledge of interdisciplinary connections and opportunities for professional self-improvement using digital technologies. This level of development of digital competence is characterized by the completeness and consistency of knowledge, which can be verified through input diagnostics, testing, informational dictations, interviews, and colloquia.

The motivational-value level includes a set of motives, the emotional-volitional and value attitude of the subject to activities in the digital environment, to his abilities, their development and determines the critical assessment when working with information and communication, understanding the results of his activities and responsibility for them. At this level, a conscious need of the future professional for training and development is formed, which entails the need to independently set goals in information activities and achieve them. The student's motivational focus on mastering digital competence is a condition for the effectiveness of its development. Formation of this level can be diagnosed by questioning, conversations with students, testing.

At the activity-technological level, the student acquires the skills and abilities for the purposeful application of relevant digital technologies to solve practical, educational and professional problems. This level imposes requirements on skills and abilities, which ultimately gives the student practical training for professional activities in the context of the digitalization of society. Level formation is checked by laboratory work (typical and creative tasks), projects, cases, work with LMS, work with global Internet services.

The effective-reflexive level is expressed in the ability to consciously control the intermediate and final results of one's activity, in assessing the degree and quality of one's own results; in the development of creativity, a tendency to introspection, self-control, self-knowledge and awareness of one's subjectivity in the process of activity in the digital environment. This level of digital competence is checked by surveys, colloquia, laboratory work, defense of projects, work with cases.

Thus, the listed levels, being components of one integrative quality of the personality, at the same time are found to be connected and interdependent. At the same time, the development of each level is the formation of its content as part of an integral system.

The formation of the digital competence of a university student is a task that requires scientific and pedagogical research and a certain organizational and methodological transformation of the educational process. Digital competence is simultaneously a result that is acquired by the subject in the educational process and, at the same time, a consequence of the teacher's self-development, the synthesis of his activity and personal experience. Thus, digital competence is a personal-subject acquisition, since, as A.V. Kiryakova and T.A. Olkhovaya believe, "subjectivity is a holistic axiological characteristic of a person, revealed in the productivity of activity, in the value-semantic self-organization of behavior" [14] .

In this regard, one of the conditions for the development of digital competence of a student in a university, we consider the design of a personal educational environment (PEE) of a student. Under the personal educational sphere of a person, V.A. Starodubtsev understands "a part of the global information educational space used and created by the subject of activity in it on the basis of available means of communication according to individual needs and opportunities to ensure the dual nature of life activity - the realization of one's personality in the chosen profession and continuous self-education throughout life" [15].

We believe that a student's PEE is a set (construct) of resources of the global Internet, which each student fills independently from the proposed or randomly selected resources of the network, based on their preferences, thereby forming an individual design of educational tools. The filter of elements of the student's PEE is produced on the basis of his own values; based on a certain level of subjectivity of the student. The creation of a PEE provides the opportunity to construct one's own knowledge necessary for adapting to the current labor market, using open online educational platforms and other resources of the global Internet.

4. CONCLUSIONS

As a result of this study, we can conclude that the construction of a PEE dictates the need for the development of digital competence, since the PEE is initially formed spontaneously, but after a while, when the subject has a sufficiently large number of services and tools of the personal environment, the question of selection, ordering and systematization in their application is raised. which requires digital skills and critical thinking, which means that building a PEE allows you to acquire knowledge, skills and abilities at all levels of digital competence. The development of digital competence and the design of PEE are interdependent processes: without a certain level of digital competence, it is impossible to rationally build a PEE, but only with the help of PEE it is possible to develop a higher level of digital competence, since this process is associated with the acquisition of activity and personal experience.

The design of PEE also corresponds to the current trend that reflects the change in the educational landscape - the construction of a personal learning trajectory in the digital space.

Thus, the construction of a PEE is an important condition for the formation of a specialist's digital competence as one of the necessary ones in the context of the digitalization of society, the economy and education.

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