

UDC 372.8:53

NEW METHODS OF TEACHING EXACT SCIENCES IN HIGHER SCHOOL IN THE CONDITIONS OF DIGITAL SOCIETY DEVELOPMENT

Tarana Firgat Yusibova, Doctor of Philosophy in Physics,
Associate Professor

Mingachevir State University, Azerbaijan

Keywords: digitalization, physics, ideal model of a physics teacher, the role of the physics teacher.

From the first times of the emergence of human society, it was constantly in need of relevant useful information, which was necessary for its survival, establishment and development. And today information is not only a way of survival, strength and progress, but also a way of life. In the 21st century, the modern information society has entered an era of great reformations, and in connection with this, all the progressive trends occurring around us at every step surprise us with their scale, depth of content and extreme complexity and versatility of structural components. The famous British sociologist Frank Webster (1950), who critically described the theory of the information society, believed that information has changed our lives to such an extent that our every behavior is, in one way or another, dictated by theoretical knowledge and information [3]. And the Italian philosopher and politician Antonio Negri (1933), characterizing the essence and significance of the information society, put forward the idea that in such a society a person is forced to perform not material, but some kind of intellectual work, supported by numbers, symbols and conventional meanings [1]. Sometimes the human mind and consciousness cannot adequately respond to a colossal number of new phenomena, especially when they occur in the field of exact sciences, where clearly established patterns are a certain postulate. However, logical thoughts and reasoning, rigorous analysis of hypotheses and authoritative cognitive methods require scientific strength and guarantee. This state of affairs requires from modern man strength, will and intelligence for a complete and consistent knowledge of things and phenomena. In this regard, higher education schools are intended to carry out a historical task to form a new person - a person who deeply knows the secrets of digitalization and the associated process of introducing digital technologies into various spheres of human activity/ Today, the process of digital transformation has been completely completed in Azerbaijan, and the most modern digital technologies have been introduced into the public administration system of the Republic of Azerbaijan [2]. All this is accompanied by consistent optimization of the entire social management system, which once again proves the relevance of the effective study of the exact sciences, which fundamentally form a digitalized information society.

It turns out that the task of the modern educational system includes not only the education of an organized, responsible, erudite, creative, creative, tolerant, humane and patriotic personality, but also a person who is fluent in all elements of the digitalized information space, a worthy and normative member of modern technogenic civilization. To successfully complete this task, first of all, in higher education, a deep and comprehensive study of the exact sciences, such as physics, mathematics, computer science, etc. is required. The fact is that the digitalized information space is entirely composed of countless elements that form a specific language of information and communication. Unfortunately, the idea of deep and consistent study of the exact sciences, which are of exceptional importance for implementation in the global information space and virtual reality, where knowledge plays the role of a “golden key,” is not shared and supported by everyone. Although, it is precisely with the help of systematic knowledge obtained from the exact sciences, such as physics, mathematics, computer science, etc. etc. you can confidently conquer a world where scientific information and the Internet of things regulate and facilitate our lives, making it interesting, convenient and comfortable.

It turns out to be a kind of paradox when many elements of the modern information society become a habit and an integral part of the essence and ontology of the individual, while he does not particularly strive to penetrate the deep layers of technological reality. Of course, such a situation is fraught with a significant lag behind the pace of modern life, which is dictated by the complex but important digitalized information space. There are two reasons hidden in this negative trend: 1) a person's intelligence quotient, his will, attention and perseverance do not allow him to understand the essence of the digital space and adapt to its complex network combinations; 2) a person lacks tactical skill, motivation and interest in being an integral and full-fledged part of the information space.

In connection with the above negative factors, it is necessary to reconsider the methodology of teaching exact sciences in higher educational institutions. To do this, it is necessary to organize and present every theoretical and practical scientific material, so that without any effort it turns out to be the internal need of the student. It is also required that he immediately realize the personal and social benefit that the scientific material under study brings.

References

1. Magic Lantern Empire: Reflections on Colonialism and Society, Magic Lantern Empire, Cornell University Press, 2017. - Pp. 148-160.
2. Mirzagaeva, Sh, Aslanov, G. (2022-12-15). “The process of digitalization of society: what does it lead to and what to expect in the future?” *Metafizika (magazine)*. 5 (4): 10-21.
3. Webster, Franc. (2006). Chapter 2: What is an information society? In *Theories of the Information Society*, 3rd ed.? New York: Routledge. - Pp. 15.