

Computerization of the Learning Process is the Main Problem of Our Modern Society

Makhmudova Nargiza Rakhmatullaevna

Senior lecturer of the Department of Physics, Mathematics and Information Technologies, Institute of Pharmaceutical Education and Research, Tashkent

Annotation: The level of possession of knowledge, or, more generally, information, begins to determine the political and economic status of states. And for successful work in such conditions, states need people - highly qualified specialists who meet the highest requirements of our time. Therefore, at the turn of the millennium, education turns into one of the most valuable strategic resources - human capital and knowledge, which ultimately determines the general level of development of society.

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By the end of the 20th century, the role of knowledge around the world has grown incredibly. The level of possession of knowledge, or, more generally, information, begins to determine the political and economic status of states. And for successful work in such conditions, states need people - highly qualified specialists who meet the highest requirements of our time. Therefore, at the turn of the millennium, education turns into one of the most valuable strategic resources - human capital and knowledge, which ultimately determines the general level of development of society. And informatization becomes the main accelerator of its development. The informatization of society, in turn, is practically impossible without the computerization of the education system, which is why this problem, in terms of its significance, now comes to the fore in pedagogical science. The priority of this problem is enhanced by the fact that it is fundamentally new. Having arisen along with the advent of the computer, i.e. in the last two decades, it cannot use the experience of past centuries and millennia, as is done in classical pedagogy, and is forced to develop only "from the inside", forming its scientific base simultaneously in all necessary areas - philosophy, psychology, pedagogy and methodology. This circumstance, combined with an extreme practical necessity, makes the problem of computerization of education of increased relevance, brings it to the first place in the group of priorities of modern pedagogy.

The integrated informatization of schools and universities is now focused on the formation and development of the intellectual potential of science, the improvement of the forms and content of the educational process, the introduction of computer teaching methods, the use of modern information technologies in pedagogical work.

It is always quite difficult to determine the state of affairs in a particular field of activity. However, in such an issue as computerization, there is one easily taken into account factor that can quite clearly characterize the picture as a whole. This is an indicator of technical security, in other words, the availability of the necessary fleet of computer equipment and the level of its technical quality. The fact is that the computerization of work processes directly depends on the availability and quality level of computers in the workplace; without this, the presence of even the most advanced scientific thought will remain a fact of science, but not a factor in industrial and social life.

With the development of technology for learning using technical means, it became sufficient to have only a computer. The functions that used to be performed: TV, VCR, tape recorder, film projector, slide projector, etc., were successfully taken over by the computer. Moreover, the quality of transmission, storage, display of information has increased significantly. In this vein, it is necessary to consider the task of transferring all information to digital standards as a priority.

Already now computer literacy is an important indicator of culture, and in the future it will be necessary for every person, no matter where he works. Consequently, computer science, teaching how to use a computer should become universal in the near future.

Recent technological advances have often found application in the educational process, and the computer is no exception in this sense. Already the first experiments with the use of a computer in the educational process have shown that the use of computer technology can significantly increase the efficiency of the learning process, improve the accounting and assessment of knowledge, provide the opportunity for individual teacher assistance to each student in solving individual problems, and facilitate the creation and setting of new courses.

A computer is a powerful tool for processing information presented in the form of words, numbers, images, sounds, etc. The main feature of a computer as a tool is the ability to configure (program) it to perform various kinds of work related to obtaining and processing information.

The use of computing technology in the educational process opens up new ways in the development of thinking skills and the ability to solve complex problems, provides fundamentally new opportunities for enhancing learning. The computer allows you to make classroom and self-study more interesting, dynamic and convincing, and a huge flow of information being studied is easily accessible.

The main advantages of a computer over other technical teaching aids are flexibility, the ability to adjust to different methods and learning algorithms, as well as an individual response to the actions of each individual teacher. The use of a computer makes it possible to make the learning process more active, to give it the character of research and search. Unlike textbooks, television and films, a computer provides the ability to immediately respond to the actions of the student, repeat, explain the material for the weaker, move to more complex and super-complex material for the most prepared. At the same time, learning at an individual pace is easily and naturally realized.

There is no doubt that in many cases the advantages of the computer are undeniable. It will not only save students from routine work, but also allow them to deal with time-consuming practical tasks using linear programming methods and complex analytical studies. The use of text editors saves students from tedious typing and enables teachers to require students to repeatedly rework a given topic until it becomes satisfactory. Such polishing of style would be impossible without a computer. Time that was previously spent on routine, repetitive operations can now be devoted to more important issues that require intense thought and creativity.

The problems of computerization of education can be considered from the side of objective and subjective factors.

Objective factors.

This group of problems includes:

- lack of necessary comfort when working with computers (rigid attachment to the place, working posture and screen size). At present, this shortcoming is compensated by the use of portable computers and the use of desktop flat-panel LCD monitors, but so far these technologies have been hindered by their high price;

- attachment to a fixed screen size causes aesthetic dissatisfaction;

- the perception of text from the screen does not make it possible to cover the entire page completely, and sometimes even a line, and forces you to constantly move the screen up and down and left and right while reading;

- not all users are satisfied with the typical text field background (bright white or deep blue).

- A negative impact on the "relationship" of a person with a computer can be exerted by the subconsciously perceived factor of technicalism, that is, the understanding that a person is dealing with a machine, and not with the product of another living person;

- a somewhat frivolous attitude towards computer products can lead to an understanding of the amazing ease of copying and replicating computer products;

- In contrast to the listed shortcomings, the following aspects of working with computers can be noted, which are usually regarded as positive:

- understanding of documentation, accuracy of fixation of depicted phenomena; the apparent "reach" of primary sources, causing the viewer to have a peculiar effect of personal involvement in the depicted;

- practical accessibility of cultural and artistic information of any region and understanding of one's own, personal involvement in the global universal artistic heritage;

• the convenience of manipulating images, the possibility of their rearrangement, arbitrary arrangement and technical editing.

Undoubtedly, the listed problems have a different impact on different people, depending on their individual physiological and personal qualities. Accounting for these qualities is complicated by the fact that many aspects of human work with computers have not received sufficient scientific consideration.

One of the most important psychological problems for working with a computer is the problem of ages. The fact is that most often people of the older generation are more cautious about the process of computerization than young people. This can be explained by the fact that by a certain age adults develop habitual methods and forms of work that they do not want, and often cannot radically change.

Thus, the computerization of education causes its own, sometimes quite complex psychological and methodological problems. In order for the positive effect expected from it to be achieved, it is necessary to consistently create qualitatively different teaching methods, taking into account the peculiarities of the perception and development of new types of information by a person. The effect of the emergence of so-called "computer children", i.e. isolated from life and incapable of full-fledged communication of young people, has already been identified. It is necessary to constantly keep in mind that the "mega machine" can not only help in learning, but also deform the personality.

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