

# **PROBLEMS AND PROSPECTS OF THE INTRODUCTION OF INFORMATION TECHNOLOGY IN THE TEACHING OF ASTRONOMY IN PEDAGOGICAL HIGHER EDUCATION INSTITUTIONS IN THE INFORMATION AGE, IN THE HISTORY OF MANKIND, GREAT ACHIEVEMENTS HAVE BEEN MADE IN THE WORLD OF INDUSTRY AND SCIENCE**

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## **INTRODUCTION, LITERATURE REVIEW AND DISCUSSION**

Information has become the most valuable thing in the world. The invention of the computer made it easier for people to do what they did. Modern means of teaching and learning have been introduced in the fields of science and education. Now the importance of electronic manuals in this area is growing. Initially, electronic methodological manuals were in the form of plain text, but now they combine various visual forms.

We know that when a person sees information, he remembers it more than simply hearing or reading it. Taking into account these aspects, the development of an electronic manual can lead to a longer life. The development of various animation software has led to the development of high-quality electronic manuals in the field of electronic manual preparation.

Now it is possible to use Flash, 3D Max and other types of animations, various video and audio files in the electronic methodical manual with the help of programs that create electronic methodical manual. How easy it is to use these opportunities depends on the skill and psychological approach of the developer of the electronic manual.

Currently, Internet technologies are also developing rapidly. There are special tutors and sites that teach online. Distance learning technologies are being introduced. This makes it much more convenient for learners. In this case, students can study in universities in another country while staying in their home country and have a diploma from that university.

Improving the effectiveness of lessons using modern technologies in education systems is a pressing issue in the teaching of science. Interest in the application of pedagogical, information and innovative technologies in the educational process is growing day by day. The future of any society is determined by the level of development of the education system, which is an integral part of it and a vital necessity. Today, the reform and improvement of the system of continuing education in our country, which is on the path of independent development, has reached a new level of quality, the introduction of advanced pedagogical and information technologies, as well as increasing the effectiveness of education.

Until now, traditional education has taught students to acquire only ready-made knowledge, while modern technology teaches students to independently search, analyze, and draw conclusions about the knowledge they need to acquire.

The basis of innovative educational technologies depends on the technologies chosen by educators and learners to achieve the set result together. The teaching focuses on the study of

the basic factors, concepts, laws, theories and methods of astronomy, the independent application of knowledge by students in explaining astronomical events, experimental results, the operation of equipment.

Students' knowledge and skills in the subject of "astronomy course" are assessed through oral questions and answers, laboratory work, explanation of astronomical events, experiences, concepts and laws.

When teaching with modern technology, the student thinks independently, especially when learning through computer technology, the student quickly acquires a variety of knowledge and skills. Classes with new technologies teach students to think independently, develop speech, communicate with each other, and even draw their own conclusions.

Since the introduction of innovations in education has a dialectical character, the introduction of innovative technologies that will successfully solve the tasks of creating, introducing, mastering and implementing innovations will be effective in all respects.

The innovation of astronomy is conditioned by:

Achieving developmental and learning objectives, their focus on the formation of general and professional competencies in the student in the field of design, construction and development of teaching aids in the field of network training.

The problem is the choice of developmental teaching methods, as well as the principles and methods of pedagogical techniques and their implementation.

Analysis of the level of mastery of methodological skills and the implementation of its methodological reflection

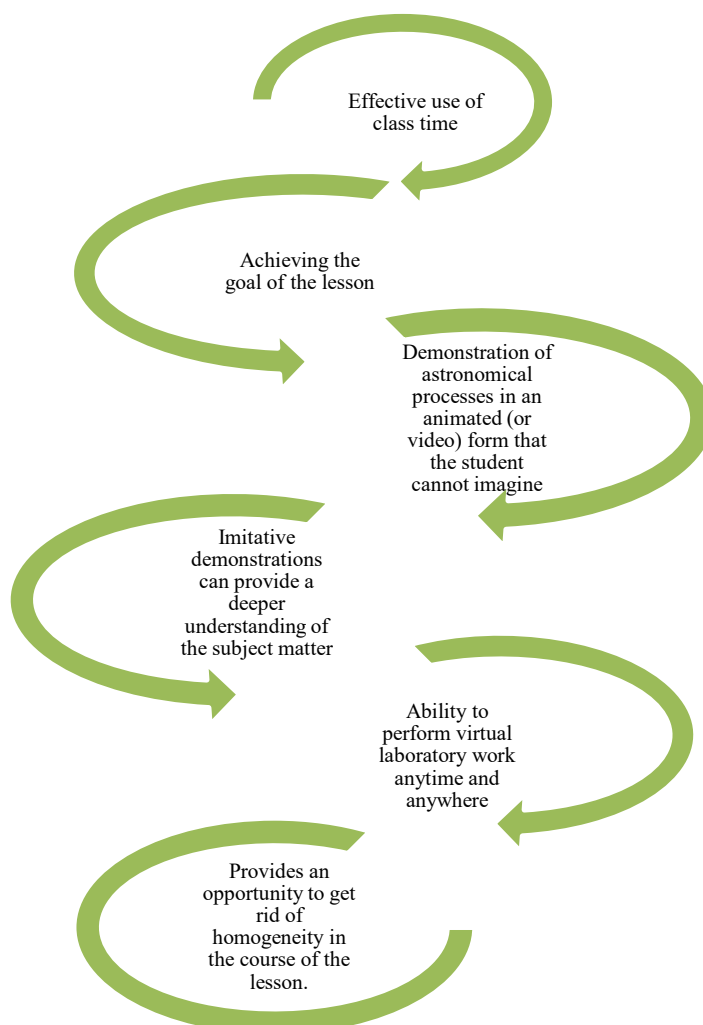
The application of information and communication technologies in the modeling of astronomical processes is carried out mainly in two different ways.

The first condition is that it is hardware, and the second condition is that it is provided with special software. Equipment: computers, network devices, high-speed Internet networks, equipment, etc. Software: includes a set of software designed for the industry, ranging from software that uses existing devices.

In recent years, the type of education in electronic form through the Internet or Intranet network, which is used in the world's leading universities, has come under the term Elear (e-learning).

Passing astronomy lectures on the basis of AutoPlay, AdobeFlash, CourseLab programs with the help of a projector is an easy way to effectively use the course process and fully achieve the objectives of the course.

In addition, there are a number of advantages to organizing lessons in this way:



Of course, the role of software that creates electronic manuals in this process is important. Over time, the capabilities of such programs have expanded and are being put into practice. Inexpensive, easy-to-use, and high-quality electronic methodical manuals are gaining prominence in the market for such software. There are programs on the Internet that create free electronic tutorials. However, not all of them are useful in creating a quality electronic methodical manual. Some essential features do not work in the free version. In such cases, it is better to buy Osh software or look for another program.

During this research, I realized that sharing information electronically is cost-effective and easy to learn, especially as electronic textbooks can be the most convenient set of information for students to read.

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