INFORMATION AND COMMUNICATION TECHNOLOGY SOFTWARE

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Abstract

Today we live in the world of information societies, in which the processes of globalization, information and communication and Internet technologies (ICTs) and intellectual development play a decisive role. In our republic, special importance is attached to these areas at the state level.

The most priority task for us in 2015 and beyond is to increase the competitiveness of our economy through the technical and technological modernization of production and the widespread introduction of ICT systems. We will continue to implement the carefully thought-out and developed strategy of the President of the Republic of Uzbekistan on the formation of a modern road, transport and engineering infrastructure connected to international communication networks, as well as the development of national information and communication systems. In today's conditions, the widespread introduction of the most advanced information and communication technologies is of paramount importance. In accordance with the National Program adopted in this area, we need to further develop telecommunication technologies, communication systems and infrastructure, form information systems complexes and an electronic government information base.

Keywords: ICTs, further, develop, information, communication, infrastructure, complex , government , software.

Introduction

After our country gained independence, the Law on Informatization was adopted for the first time in 1993, and on this basis, a wide path was opened and opportunities were created for computerization processes in all spheres, including higher education.Currently, the problems of increasing labor productivity, improving product quality, meeting and promptly responding to various market demands, and developing the production sectors of science and technology, especially electronics, computing technology, and the production of telecommunications equipment, pose.

Scientific Basis of the Topic

There are different types of programs, each of which is designed to perform a specific task. Like humans, computers also need some kind of instructions or software, because without software it is impossible to work with internal and external memories, access additional devices, communicate with users, and ensure the smooth operation of computer components. What types of programs do you think can be used to solve these problems? Is it possible to work effectively with a computer without these programs, which take up a lot of additional space in the computer's memory? How would communication with a computer change if such programs did not exist? What main groups would you divide such types of programs into?

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The set of computer software is divided into the following groups:

System programs allow you to perform various additional tasks, for example, tools for diagnosing and monitoring faulty devices during the operation of the computer, backing up data, providing information about the computer, preparing the computer for initial operation, etc.;

Application programs are programs that allow users to perform the necessary tasks

, such as text editors, spreadsheets, programs that allow drawing, programs that allow working with information arrays and knowledge bases, etc.;

-programming systems or instrumental systems

- they serve to write new application programs or useful applications for the computer.

System programs can include the operating system, drivers, shell programs and operating shells. Operating shells can create the following capabilities for running programs:

-graphical interface can create a set of tools that allow you to display information and work with it effectively, that is, special types of menus, windows, dialog boxes, etc.

-multiprogramming is the ability to run several programs at the same time;

-use of extended means of information exchange between programs.

Software expands the capabilities of computer hardware in solving scientific, technical, economic, statistical and other problems, as well as in building computing systems for processing management information.

The main functions of computer software are:

-preparation of the problem for solving on a computer using programming automation tools.

According to the field of use, programming languages are divided into universal, that is, languages that can be used in all fields, and languages designed to solve a specific field or problem. Universal languages include high-level languages such as PL/I, ADA, SI, etc., while languages used in the scientific and technical field include Fortran, Algol, and programming languages such as Cobol, RPG, LISP, and Prolog for solving economic problems.

According to the level of users, they are divided into high-level and low-level languages. High-level languages are intended for a wide range of users and are much closer and more understandable to natural language. Examples of such languages include PL/I, ADA, BASIC, Pascal, Cobol, RPG, Fortran, etc.

Low-level languages are close to machine language, and the user of this language must have a certain level of knowledge of the structure of the machine. A low-level language allows you to take full advantage of the capabilities of the machine, and is used to create complex programming tools such as operating systems, interpreters, and compilers.

Conclusion

In conclusion, Information and Communication Technology (ICT) software plays a crucial role in shaping the modern digital world. It serves as the foundation for data processing, communication, and information management across various industries. From operating systems and communication platforms to specialized business and educational software, ICT software enables organizations and individuals to work more efficiently, communicate faster, and access information effortlessly. The rapid evolution of cloud computing, mobile applications, artificial intelligence, and cybersecurity solutions demonstrates the dynamic nature of ICT software development. Despite the immense benefits, challenges such as software security, privacy

concerns, and the need for constant updates remain significant. As technology continues to advance, the importance of innovative, secure, and user-friendly ICT software will only grow, influencing not only economic growth but also the social and cultural development of societies worldwide. Therefore, ongoing research, investment, and ethical considerations are vital to ensuring that ICT software continues to serve humanity effectively in the future.

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