INFORMATION MANAGEMENT AND MEANS OF COMPUTERIZATION AS A TECHNOLOGY OF MANAGEMENT ACTIVITY

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INTRODUCTION

The main direction of restructuring management and its radical improvement, adaptation to modern conditions has become the massive use of the latest computer and telecommunications technology, the formation of highly effective information and management technologies on its basis. Means and methods of applied informatics are used in management and marketing. New technologies based on computer technology require radical changes in the organizational structures of management, its regulations, human resources, the system of documentation, recording and transfer of information. Of particular importance is the introduction of information management, which significantly expands the opportunities for companies to use information resources. The development of information management is associated with the organization of a data and knowledge processing system, their consistent development to the level of integrated automated control systems, covering all levels and links of production and sales vertically and horizontally.

In modern conditions, effective management is a valuable resource of an organization, along with financial, material, human and other resources. Consequently, improving the efficiency of management activities is becoming one of the areas of improving the activities of the enterprise as a whole. The most obvious way to increase the efficiency of the labor process is to automate it. But what is really, say, for a strictly formalized production process, is by no means so obvious for such an elegant sphere as management. Difficulties arising in solving the problem of automated support for managerial work are related to its specifics. Managerial work is notable for its complexity and diversity, the presence of a large number of forms and types, multilateral connections with various phenomena and processes. This is, first of all, creative and intellectual work. At first glance, most of it defies any formalization at all. Therefore, the automation of management activities was initially associated only with the automation of some auxiliary, routine operations. But the rapid development of information computer technologies, the improvement of the technical platform and the emergence of fundamentally new classes of software products have led today to a change in approaches to the automation of production management.

THE INITIAL PRESUPPOSITIONS

In the article, the following research methods were used to solve the set tasks: theoretical (study and analysis of scientific, psychological, reference, specialized literature, regulatory documentation on the topic of research, additional professional advanced training programs; analysis, comparison, classification of the information received and
generalization); empirical (observation, questionnaire survey, survey, conversation, testing); mathematical (statistical data process-sing).

METHODS

Information technologies include methods for transforming information on a given property in a given direction, which is implemented by appropriate means, called instrumental. They also include the necessary technical complex and the corresponding software, forming complex software and hardware computer systems with a variety of functions and capabilities to support management activities.

Organizational equipment used in the provision of management activities:

The means of mechanization and automation of managerial and engineering and technical labor are called organizational technology (office equipment). These include a fairly large list of technical means, devices and devices, ranging from pencils to complex systems and means of transmitting information.

Office equipment used at a specific workplace is called small office equipment. At present, this definition does not correspond to the actual state of affairs, since most of the office equipment has changed its dimensions, technical characteristics, etc., new devices and fixtures have appeared, placed on the desktop and used individually. According to the modern classification, these include personal computers and their peripheral devices, copying equipment for individual use, telefax, etc. Therefore, it is generally accepted that small office equipment is all "office trifle" (pencils, pens, erasers, glue, etc.), which is used by each employee for their daily work.

Modern organizational technology presupposes its certain classification in accordance with the chosen feature. The most common classification is based on functional characteristics, which unambiguously links the technological process of processing documents in the office with the technical characteristics and capabilities of office equipment. However, this does not exclude the use of other classifying features, for example, the element base of technical means.

Currently, the composition of the groups of office equipment has undergone significant changes. This is due to the emergence of various kinds of new technology for office technology, performing universal functions of document processing with minimal physical labor. The capabilities of systems for electronic transmission of documents over long distances have expanded. At the same time, new ones are being developed and traditional mechanical means of office equipment are being improved (VINOGRADOVA, 2006).

Most users experience various kinds of difficulties when choosing a model designed for processing documents in the office. To optimize the process of choosing technical equipment for the office, it is necessary to consider a number of factors:

- volume of document circulation;
- time characteristics of document flows;
- volume of documents transmitted and received via technical communication channels;
- the volume of copied documents, both primary and secondary;
- manufacturer of equipment;
- cost of equipment;
- cost of consumables, frequency of their replacement;
- technical and operational characteristics of the equipment;
- way of using technical means;
- operating cost;
ergonomic characteristics of the equipment;
the degree of impact on the user’s health, etc.

The entire set of organizational techniques can be represented in the form of the following groups: Information carriers:

- paper-based media;
- carriers for reprographic processes (thermal paper, diazo paper, photographic film, tracing paper, multilayer paper for electric spark copying, etc.);
- microcarriers;
- sound carriers;
- video media;
- magnetic media;
- optical media.

Means for the production of text and tabular documents:

- handwriting tools;
- typewriters;
- dictaphone equipment;
- computer facilities.

Reprography and operational printing tools:

- means of photographic copying;
- means of diazographic copying;
- means of electrophotographic copying;
- means of thermographic copying;
- machines for electronic spark copying;
- micrographic tools;
- means of risographic copying;
- machines for hectographic (alcohol) printing;
- machines for screen (rotator) printing;
- equipment for operational offset printing.

Document processing tools:

- folding, creasing, perforating and cutting machines;
- machines and devices for collating and sorting;
- fastening, gluing and bookbinding equipment;
- envelope opening and cutting machines;
- machines for applying protective coatings on documents;
- addressing, stamping and franking machines;
- machines for destruction of documents;
- aggregated lines for processing correspondence (TRAVIN, DYATLOV, 2007).
Means for storing, searching and transporting documents:

- primary means of storing documents (folders, boxes, etc.);
- secondary storage facilities for documents (cabinets, boxes, racks, etc.);
- filing cabinets and filing equipment;
- carts for transporting documents;
- lift equipment;
- conveyors and conveyors;
- pneumatic mail;
- equipment for storing information carriers.

Banking office equipment:

- machines for bill counting;
- currency detectors;
- machines for packing banknotes;
- ATMs.

Small office equipment.

Office furniture and equipment:

- specialized furniture for office premises;
- specialized equipment for office space.

Other funds.

Communication equipment used in the provision of management activities:

The effectiveness of management activities is largely determined by the quality of the implementation of the communicative function - the ability of information interaction of various components of the management system with each other and with the external environment. The organization of communications involves the solution of the following polls:

- determination of the internal structure of communications, that is, a set of channels for transmitting information between specific structural elements of the control system;
- development of qualification requirements for management personnel for the effective use of communication technology.

For most types of communication equipment and related communication technologies (personal communication, communication at meetings, telephone, telegraph and telex communications, postal and feldeger communications), the listed issues are sufficiently worked out.

Communication equipment includes:

- means and systems of stationary and mobile telephony;
- means and systems of telegraph communication;
- facilities and systems for facsimile transmission of information and modem communication;
means and systems of cable and radio communications, including fiber-optic and satellite communications.

Computer facilities used in providing management activities:
Modern computer technology can be classified as follows:
- personal computers;
- corporate computers;
- supercomputers.

RESULTS AND DISCUSSION
Personal computers are computing systems, all the resources of which are fully directed to support the activities of one employee, c. including a managerial worker. This is the most numerous class of computer technology, which includes personal computers IBM PC and compatible computers, as well as Macintosh personal computers from Apple. The intensive development of modern information technologies is associated precisely with the spread from the beginning of the 80s. personal computers that combine relative cheapness with fairly broad capabilities for the user.

Corporate computers (sometimes called minicomputers or main frame) are computing systems that ensure the joint activities of many employees within the framework of one organization, one project, one area of information activity using the same information and computing resources. These are multiuser computing systems with a central unit with large computing power and significant information resources, to which a large number of workplaces with minimal equipment (video terminal, keyboard, mouse positioning device and possibly a printing device) are connected. In principle, personal computers can also be used as workstations connected to the central unit of a corporate computer. The area of application of corporate computers is the implementation of information technologies for ensuring management activities in large financial and industrial organizations, the creation of information systems serving a large number of users within one function (exchange and banking systems, booking and selling tickets, etc.).

Supercomputers are computing systems with extreme computing power and information resources. They are used in military and space activities, in fundamental scientific research, and global weather forecasting.

This classification is rather arbitrary, since the intensive development of technologies for the production of electronic components, significant progress in the improvement of computers and their most important constituent elements lead to a blurring of the boundaries between the indicated classes of computer technology.

In addition, the above classification takes into account only the autonomous use of computing systems. Currently, the prevailing trend is their unification and computer networks, which allows integrating information and computing resources for the most efficient implementation of information technologies.

"Network technologies" and the advantages of their use in providing management activities.

In the field of computer technology in the last two decades, there was probably no more actively developing direction than the formation and development of computer networks, which formed the basis of the so-called network technologies. The rapid technological progress of microelectronics that has been observed all these years has manifested itself not only in the purely computer sphere, but also in the production of communication means, with the help of which computers distributed in space are combined into a single system - a computer network. The following are the main reasons for the widespread use of local area networks in the field of management.

First, the ubiquity of relatively inexpensive personal computers (PCs), the computing power of which today makes it possible to successfully solve most practical problems.
Secondly, the objectively existing needs of PC users of one organization to exchange information with each other, to share common network software, hardware and information resources, as well as to gain access to the resources of computer networks of other organizations or institutions (IASECHKO, KHARLAMOV, SKRYPCHUK, FADYEYEVA, GONTARENKO, SVIATNAIA, 2021).

Thirdly, the emergence on the market of a wide range of hardware and software communication tools that make it easy and relatively cheap to connect a PC to a LAN. It should also be borne in mind that important factors that determine the advantage of networked use of computers are:

- elimination of duplication of information and problems associated with updating data for individual users of one organization;
- More economical network sharing of relatively expensive resources such as software, printers, large storage arrays, and so on;
- System-wide performance improvement by introducing specialized components into the network, such as file servers, database servers, telecommunication servers, and other application servers;
- availability of additional network services, such as organizing e-mail, teleconferencing, etc.;
- higher reliability in the presence of redundant elements of a unified distributed data processing system in the network, as well as the potential for its expandability.

We also note that although the first computer networks of the 70s. emerged primarily as large-scale (global) computing networks in the late 80s and early 90s. the most widespread are the LANs of individual organizations or their structural subdivisions. Later, on the basis of LANs, larger corporate networks began to appear. The ubiquitous distribution of LANs, their expansion, the accumulated experience, as well as new theoretical studies, in turn, intensified the further development of large-scale networks. A very convincing example of the progress achieved today in the design and use of large-scale networks is the worldwide computer network, the Internet, which unites many global networks (IASECHKO, IASECHKO, SMYRNOVA, 2021).

System software is designed to support the operation of computer systems as such. They include:

- test and diagnostic programs;
- anti-virus programs;
- OS;
- command-file processors (shells).

Test and diagnostic programs are designed to test the operability of individual computer nodes, components of program-file systems and eliminate identified malfunctions. Antivirus programs are designed to identify and eliminate virus programs that disrupt the normal operation of the computer system. Operating systems are the main software systems that perform the following main functions:

- testing the operability of the computing system and setting it up at the initial start-up;
- ensuring synchronous and efficient interaction of all hardware and software components of the computing system in the course of its functioning;
- ensuring effective interaction between the user and the computing system.

Operating systems are classified as follows: single-user, single-tasking systems (MC-DOC, DR-DOC); single-user multitasking systems (OS, Windows);

- multiuser systems (UNIX family systems). Command file processors (shells) are designed to
for organizing user interaction with a computing system. In computers of the new generation, it is carried out by simpler methods than in earlier operating systems. Often, software shells are created not only to facilitate work, but also to provide the user with additional features that are not available in standard software. Application software for management activities is classified as follows:

- systems for preparing text documents;
- systems for processing financial and economic information;
- database management systems;
- personal information systems;
- presentation preparation systems;
- project management systems;
- expert systems and decision support systems;
- systems for intelligent design and improvement of control systems;
- other systems.

Systems for preparing text documents are designed to create management documents and various information materials of a text nature. They include:

- text editors;
- word processors;
- desktop publishing systems.

Financial and economic information processing systems are designed to process numerical data characterizing various industrial, economic and financial phenomena and objects, and to compile the corresponding management documents and information and analytical materials. They include:

- universal table processors;
- specialized accounting programs;
- specialized banking programs (for intrabank and interbank settlements);
- specialized programs of financial and economic analysis and planning.

Database management systems are designed to create, store and manipulate large amounts of data. Different systems of this class differ in the ways of organizing data storage and processing requests for information retrieval, as well as in the nature of those stored in the database.

Personal information systems are designed to provide information services to the workplace of a managerial employee and, in fact, perform the functions of a secretary. In particular, they allow:

- plan personal time at different time levels, while the system can promptly remind you of the onset of planned events;
- keep personal or other card files and automatically select the necessary information from them;
- keep a log of telephone conversations and use the functions typical for multifunctional telephones;
- keep personal information notebooks for storing various personal information.
Presentation preparation systems are designed for the qualified preparation of graphic and text materials used for demonstration purposes at presentations, business negotiations, conferences. Modern technologies for preparing presentations are characterized by the addition of traditional graphics and text with such forms of information as video and audio information, which allows us to talk about the implementation of hyper-media technologies.

Project management systems are designed to manage resources of various types (material, technical, financial, personnel, information) in the implementation of complex research, design and construction work.

The need for digitalization tools implementation in the sphere of local finance management there are important. It will maximize the synergistic effect manifested through the disclosure of the potential of the social and intellectual capital of society in proposal development for the use of local financial resources. This will facilitate the change from public control to public initiative and improve taxes and fees administration, increase the level of local community involvement in the process of local budget planning, control its expenditures, as well as organize adjustments to the current budget execution (DYACHENKO, 2020).

Expert systems and decision support systems are designed to implement technologies for information support of managerial decision-making processes based on the use of economic and mathematical modeling and the principles of artificial intelligence.

Intelligent design and management improvement systems are designed to use the so-called CASE-technologies (Computer Aid System Engineering), focused on the automated development of design solutions for the creation and improvement of organizational management systems.

CONCLUSION

Thus, information technologies include methods for transforming information on a given property in a given direction, which is implemented by appropriate means, called instrumental. They also include the necessary technical complex and the corresponding software, forming complex software and hardware computer systems with a variety of functions and capabilities to support management activities. At the moment, there is a fairly wide range of products designed to meet the most diverse needs of both small companies and giant companies. These software products fully cover all aspects of enterprise activities, from logistics, marketing, production, sales, to accounting and personnel management.

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**Information management and means of computerization as a technology of management activity**

**Gestão da informação e meios de informatização como tecnologia da atividade de gestão**

**Gestión de la información y medios de informatización como tecnología de la actividad de gestión**

**Resumen**
El artículo considera los fundamentos teóricos y metodológicos y las tendencias del uso e implementación efectivos de los sistemas y tecnologías de información modernos en el contexto de la gestión de recursos humanos. Se observa que la informatización de la gestión de recursos humanos, que estudia teorías y métodos de gestión de personal, así como el uso de la investigación psicológica, sociológica y pedagógica en el trabajo del personal, crea además un mecanismo eficaz para la gestión de personal en diversos campos de la actividad profesional y la sociedad. En su conjunto. Se determina que el sistema de gestión de personal es un conjunto de herramientas y métodos que le permiten a la empresa contar con la cantidad adecuada de personal y la calidad adecuada requerida para llevar a cabo sus actividades de manera efectiva.

**Keywords:** Personnel management. Public administration decentralization. Regional policy. Local finance digitalization.

**Palabras-clave:** Gestión de personal. Descentralización de la administración pública. Política regional. Digitalización de las finanzas locales.