

STATE COMMITTEE OF COMMUNICATIONS, INFORMATIZATION AND
TELECOMMUNICATION TECHNOLOGIES OF THE REPUBLIC OF
UZBEKISTAN

TASHKENT UNIVERSITY OF INFORMATION TECHNOLOGIES

To admit to protection
The head of the Department

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Final Qualifying work

On the theme:

**“DEVELOPMENT OF INFORMATION ECONOMY IN
UZBEKISTAN”**

Graduate _____ Pak S.I.
signature

Supervisor _____ Achilova S.P.
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**STATE COMMITTEE OF COMMUNICATIONS, INFORMATIZATION
AND TELECOMMUNICATION TECHNOLOGIES OF THE REPUBLIC
OF UZBEKISTAN
TASHKENT UNIVERSITY OF INFORMATION TECHNOLOGIES**

Faculty of “Economics and Management”, “Economics” (communication and
informatization) department
Direction: 5340100 – Economics (communication and informatization)

I CONFIRM

The head of the Department_____

« ____ »_____ 2014 year

TASK

**for final qualifying work of student: Pak Sergey Igorevich
on the theme : “Development of Information Economy in Uzbekistan”**

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4. Accountant is a content of written explanation: Theoretical bases of development
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5. The table of graph materials: Tables: Share the information and communication
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Figures: Contact information economy with neighboring regions and branches of scientific
knowledge, the digitalization exchanges in Uzbekistan, number of operators, service providers.
Speed of access to international information networks (Internet), number of economic entities
operating in the field of software products, number of keys and key certificates EDS, number of
state information resources, number of public information systems, number of types of government
online services, the number of sites registered in WWW.UZ, dynamics region's contribution to
global market information and communication technologies, the number of educational information
resources in the library portal Ziyonet.

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Supervisor: _____
signature

Task was accepted: _____
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7. The advisers of some parts of final work

The name of the sections	Consultant	Signature, data	
		The task was given	The task was received
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Graduate: _____
signature

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signature

2014 year ____ June

In the final qualifying work the questions of formation of information economy in Uzbekistan, the development of information society were concerned. The analysis of the main indicators of the information economy, trends in the development of the information economy abroad and socio-economic aspects of the Information Society were considered.

В выпускной квалификационной работе рассмотрены вопросы становления информационной экономики в Узбекистане, развития информационного общества. Проведен анализ основных показателей информационной экономики, тенденций развития информационной экономики за рубежом, а также рассмотрены социально-экономические аспекты развития информационного общества.

Ушбу битирув малакавий ишда ахборотлашган иқтисодиётнинг Ўзбекистонда юзага келиши, ахборотлашган жамиятнинг ривожланиши кўриб чиқилди. Ахборотлашган иқтисодиётнинг асосий кўрсаткичлари, хорижда ахборотлашган иқтисодиётнинг ривожланиш тенденциялари таҳлили ўтказилган, шунингдек ахборотлашган жамиятнинг ижтимоий-иқтисодий жihatлари кўриб чиқилган.

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INTRODUCTION

Throughout human history, there are several steps that human society has consistently held in its development. These steps differ mainly to ensure its existence and society views the resources used by man and play a major role in the implementation of this method. These steps include the steps of gathering and hunting, agricultural and industrial. Currently, the most developed countries of the world are in the final stage of industrial development stage company. They carried out the transition to the next stage, which, like the corresponding society, called "information." In this society, the determining role belongs to information. Information is becoming a strategic resource. Infrastructure of society forms the ways and means of collecting, processing, storage and distribution of information.

Thus, in the second half of the twentieth century in the civilized world the main determining factor of socio-economic development of society becomes a transition from "economy of things" to a "knowledge economy", there is a significant increase in the value and role of information in addressing almost all of the world community. This is persuasive evidence that the scientific and technological revolution is gradually turning into intellectual information, information is not only the subject of communication but also a lucrative commodity, unconditional and effective modern means of organization and management of social production, science, culture, education and socio-economic the development of society as a whole.

Recent advances of computer science, computer engineering, offset printing and telecommunications created a new kind of high technology, namely information technology.

The results of scientific and applied research in computer science, computing, and communications have created a solid basis for the emergence of a new branch of knowledge and production - the information industry. In the world of successfully developing industry information services, computer aided manufacturing technology and computerization as automated data processing;

unprecedented scale and achieved a qualitative leap in the technology industry and telecommunications – from a simple link to the space. Covering millions of consumers and representing a wide range of possibilities to transport information and the relationship of its consumers.

From a technological point of view, the rapid and widespread dissemination of modern information and communication technologies (ICT) could be regarded as the next stage of scientific and technical progress. However feature extending scientific and technological revolution is that it invades the sphere of information, covering such fundamental to all human activity processes such as production, processing and transmission of information. This leads to fundamental social transformations in the economy, politics, culture, changes in people's minds to a new post-industrial society.

These changes concern and our country. Thus, the Presidential Decree of 30 May 2002 № PD-3080 "On additional measures to further develop information and communication technologies" have been taken to further improve the implementation of information technology in the execution of the laws "On informatization" and "On electronic digital signature".

Background research that a key trend in the development of modern civilization becomes a progressive increase in the role of information and knowledge in society. Namely those based on this feature of modern society, many researchers and call it "post-industrial" information or a society based on "information economy".

The aim of the final qualifying work is to study the development of the information economy in Uzbekistan. This object is achieved by the following objectives:

- Study of the theoretical foundations of economic growth.
- Study of the theoretical foundations of the information economy.
- Study of the development of the information economy in Uzbekistan.

CHAPTER I. THEORETICAL BASES OF THE DEVELOPMENT OF INFORMATION ECONOMY

1.1. Evolution of economic systems and the concept of the information economy

The economic system is a set of interrelated and definitely ordered elements of the economy.

The most complete picture of the economic system give authors "Economics" Campbell R. McConnell and Stanley L. Brue: economic system is a specific set of institutional structures and coordinating mechanisms¹.

Since the economic system is not only functional, but also develops, it is the product of historical development; there is always elements of the past, present and future. The economic system has its beginning and its end, going through periods of occurrence and formation, decline and death. Consequently, the most important feature of economic systems is their historicity.

Economic system from its inception to the present day have been significant evolutionary path of development. Therefore, to date, there are many different kinds and types of their differing ways of the social division of labor and its organization, forms of ownership, types of coordination elements of the system, and other features. In economic theory, economic systems of classification is based on criteria - defining characteristics that allow the system to differentiate.

In the world of economic theory most widely views on the distinction between the economic systems in accordance with the level of development of productive forces. Founder of the theory of stages of economic growth in American economist Walt Rostow identifies five types of economic systems²:

1) traditional society: there until the XVII century. Based lay hand technique dominated agricultural production, productivity was low;

¹ Макконнелл К.Р., Брю С.Л. Экономикс: принципы, проблема и политика. - М.: Инфра-М, 2003. - 972 с.

² Плотницкий М.И., Лобкович Э.И., Муталимов М.Г. Курс экономической теории. - Мн.: "Интерпрессервис"; "Мисанта", 2003. - 496 с.

2) transitional society (XVII - XVIII centuries): developing science, crafts, market, increasing the efficiency of production; represents the transition from the traditional economic system to a higher type of economy of industrial society;

3) the economic system "shift": different significant growth capital investment, rapid growth of labor productivity in agriculture, infrastructure development (roads, transport, etc.);

4) Society of economic maturity: growing rapidly and its production efficiency, develops the whole economy;

5) high mass consumption society: the production begins its work primarily on the consumer, the leading position occupied by industries producing durable goods.

The division of economic systems based on the level of engineering and technology performed well-known economists such as James Galbraith, Aron, Simon Kuznets and others.

Other scholars have identified a pre-industrial, industrial and post-industrial society (Daniel Bell, Rostow).

Let us consider these types of economic systems.

Preindustrial society. This step is also called traditional or agrarian. It is dominated by the extractive economic activities – agriculture, fishing, mining and quarrying. The vast majority of the population (approximately 90 %) are employed in agriculture. The main task of an agrarian society was food production, just to feed the population. This is the most lasting of the three stages, and its history goes back thousands of years. In our time at this stage of development is still in most countries in Africa, Latin America and Southeast Asia. In pre-industrial society is the main producer is not a man, and nature.

The term "industrial society" was first heard in the works of Saint-Simon at the turn of XVIII-XIX centuries, and at about the same time in the works of Adam Smith discussed the economic and social aspects of development of a society based on mechanical (industrial) production of commodities. Widespread concept of industrial society has received in 50 - 60s. XX century in the United States (Aron,

Rostow, Bell and others) when using it even dare applied problems - business enterprises and solution of labor disputes.

In industrial society, all efforts are directed at industrial production, to make the necessary public goods. The industrial revolution brought to fruition - now the main task of the agricultural and industrial society, which consists in simply to feed the population and to ensure its basic livelihood gone by the wayside. Only 5-10% of the population engaged in agriculture, producing enough food to feed the whole of society.

Formation of industrial society associated with the spread of large-scale machine production, urbanization (migration from villages to cities), the approval of the market economy and the emergence of social groups of entrepreneurs (the bourgeoisie) and workers (the proletariat).

The transition to an industrial society on the solid base of industrialization - the development of large-scale machine production. Industrialization can be dated to the middle of the XVIII century, when the industrial revolution took place in the UK - the transition from manufacture to machine production. The timing and pace of industrialization vary across countries (e.g. UK has become an industrial country by the middle of the XIX century, and France - in the early 20-ies. XX centuries). At the end of XX century industrial society moves to a post.

Founder of the concept of post-industrial society was a prominent American sociologist Daniel Bell. As published in the 1973 book "The coming post-industrial society", he elaborated on his concept, carefully analyzing the key trends in public relations sectors of production, becoming a service economy, the formation of scientific knowledge as a distinct element of the productive forces.

However, the term "post-industrial society" appeared in the U.S. in the 1950s, when it became clear that the American mid-century capitalism is very different from industrial capitalism that existed before the Great Depression of 1929-1933.

Capitalism of the 1950s was no longer similar to the classic American and European capitalism beginning of the century, Marx wrote about - urban society

could no longer be strictly divided into bourgeoisie and proletariat, because the welfare of the working man grew, and, moreover, began to emerge average class consisting of people occupying quite a prestigious position in society, which, however, could not be attributed to the dominant or to the oppressed class. However, the increase in production resulted in the expansion of corporations. If the beginning of the century only large corporations engaged in the production (railways, mining and processing of oil), in the second half of the century they seized even those sectors of the economy, which have traditionally occupied private owners or small firms. Began to appear as major transnational corporations. At the same time, the technique used in the production of ever more complicated, which caused the need for skilled workers and increased the value of scientific knowledge.

Since the late 1960s, the term "post-industrial society" filled with new content - increases the prestige of education, there is a layer of skilled professionals, managers, people of brainwork. Services, science, education gradually begins to dominate over industry and agriculture, which also widely used scientific knowledge. In the years 1950-1970 it became apparent that humanity is entering a new era.

Transition to a new type of society is a postindustrial occurs in the last third of the XX century. Society has provided food and goods, and to the fore a variety of services, mainly due to the accumulation and dissemination of knowledge. As a result of the technological revolution occurred transformation of science into a direct productive force, which became the main factor and the development of society, and its self-preservation.

Postindustrial society is a society in which the economy as a result of scientific and technological revolution and significant income growth has moved from the pre-emptive priority commodity production to services. Become a productive resource information and knowledge. Scientific developments become the main driving force of the economy. The most valuable features are the level of education, professionalism, creativity, learning and employee.

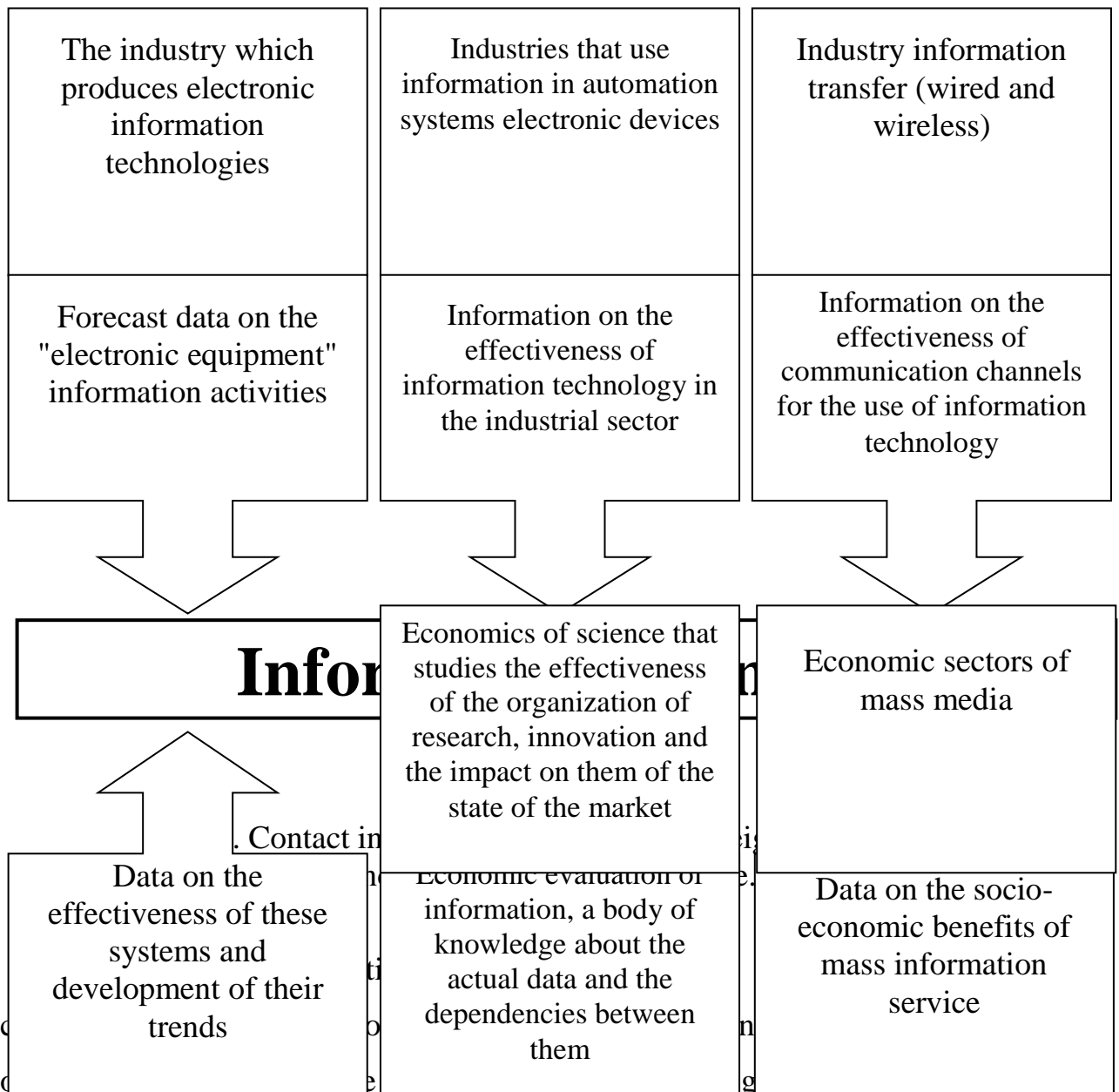
Close to the post-theory is the concept of the information society, post-economic society, postmodernism, the "third wave", "society fourth formation", "scientific-information stage production principle".

On the socio- economic point of view, the main thesis, which characterize the development of the information society - is the emergence of the knowledge economy (in 1980 it was called information economy). Given the lack of other resources, and because of the opportunities offered by the information and communication technologies (ICT), increasing economic role of knowledge, which makes them a major resource development. Number of employed in the production, processing and dissemination of information exceeds the number employed in material production. In developed countries, it is still in the late 1980s, over 50 % of total employment, on what and stabilized.

The essence of the information society - is expanding the boundaries of communication in all spheres of human activity, increasing diversity and choice, expanding the boundaries of cooperation, mutual assistance and mutual information in business, science, culture and education, the emergence of new means of cognition and communication, to increase the availability of information resources.

Knowledge and information have become strategic resources. This leads primarily to significant changes in the territorial distribution of productive forces. In pre-industrial cities have emerged on the crossroads of trade in industrial - near the sources of raw materials and energy; technopolises postindustrial age grow around research centers and major research laboratories (Silicon Valley in the U.S.).

In developed countries, there is a narrowing of actual material production while the rapid growth of "knowledge industry." Thus, the prerequisites for the future of society are not only and not so much in the material, how much, in Marx's words, "on the other side of material production." Information economics, scientific information from many sources, uses it to influence the neighboring region and industry economic knowledge. Communication data are shown in Fig.1.



scientific knowledge and their means of transmission). This study specifically in the study of information as a generalized information relations, combining some entity operating in a market system and government us is in the study: a regular trend of information and electronic sphere, its functions in the formation and development of information technology in Uzbekistan lifestyle; conditions and factors effective in this role.

³ <http://knowhow.virtech.ru/qa/68.2>

As a product of information economy may be theoretical, methodological and practical conclusions and suggestions for improving the functioning of the electronic information sector.

In classical economics understood capital in real form: as a collection of things (land, buildings, machinery, raw materials), capable, through the application of labor, increasing wealth (generate revenue). This definition of capital is right for the economy in which the level of production, measured potential output, is relatively minor and major events which occur in the manufacturing sector. Then, when the money began to play a greater role in the economy, the capital began to realize in cash: as a collection of money for what you can buy tools and hire the services of labor.

Gradually, as the increased use of new knowledge, reduced the share of ownership of the physical objects and increases the proportion of intellectual property. There is a problem of intellectual property rights. Sometimes believe that intellectual property protection is hopeless in a world dominated by ICT. Today, such as the illegal copying of software is easy, and tomorrow it will be even easier.

Indeed, the absolute protection is impossible. However, it is not necessary. Optimum must be found that, on the one hand, provides for temporary excess profits, guaranteeing individual (author) profitability useful innovation, but on the other hand, provides the widest possible dissemination to increase the aggregate of technological, economic, social, political or cultural potential.

Finally, when the monetary economy becomes innovation, capital begins to function in the monetary and informational form that temporarily takes real form and then re-apply to monetary information. Used in these cases, the information and knowledge is understood in three ways: as an entrepreneur and professional knowledge worker as technology specialist knowledge and assumptions as all stakeholders on the future state of affairs.

Labor services in an economy based not just on skills, but individualized knowledge and ability. Labor market no longer offers impersonal "production

services", and the person having the required professional range in relatively rare and sometimes unique qualities.

Qualification, professionalism, knowledge and creativity are the main characteristic of personalized services labor ceases to be a faceless "labor." Wage labor, implemented in "necessary" (non-free) business hours, gradually replaced free labor carried out in free working time. It's part of free time employee, which they did not used for recreation and leisure, and for (self-) education and training, to improve their position in the labor market and increase revenue potential. As a result of these transformations of capital and labor services can talk about a "human capital" with a high degree of professional intellectual property. To the extent that the "human capital" depends on the achieved level of education and science, the latter become " specific factors of production." Current level of education and science of describing a given society, becoming a factor long-term competitiveness of its economy. Information economy, solving the main task - to make recommendations for the effective application of the principles of information technology in specific areas of social life, is inextricably linked to the practice of strategic planning the restructuring of production.

1.2. Information as an economic resource

Information Economy (Knowledge economy) is an economy which based on knowledge, in which a large part of the gross domestic product is provided by activities of production, processing, storage and dissemination of information and knowledge, and participate in the work, more than half of the employed.

In recent decades, becoming more pronounced tendency to spread fundamentally new phenomena and processes in the economy and other factors are identified as economic development at the macro level and at the firm level. The main reason for these changes is the beginning and development of the "information revolution", leading to the formation of a new economic system. There is a replacement machine technology as the primary productive resource of the industrial age of information, knowledge, intelligence. The growing automation of material production allows to concentrate efforts on the labor sphere of intellectual production, the creation of information products and services.

The concept of information is very capacious, it refers to a group of general scientific categories and occupies an important place in various sciences, such as physics, biology, psychology, economics, sociology and others. From the standpoint of research participation information in economic activity and its influence on economic processes and phenomena, the most relevant information, the following definition:: information is a means of reducing uncertainty and risk, contributing to the implementation of specific objectives of the subject. This determination takes into account the possibility of information to bring certain benefits by reducing the uncertainty of the current situation and changes in the future. It should be noted that the information can reduce uncertainty, but not of value to the agent because of the lack of economic needs, which could satisfy the information. Therefore it is necessary that the definition of information as a means of reducing the uncertainty of its ability to ensure that the goals and implementation needs of the subject.

Forms existence information in various economy are it materializes in various subjects, including means labor exists in the form of soft, including information in the form of products and services, knowledge of people. The concept of knowledge and information should be separated from each other. Knowledge is processed information, they represent the relationship between the phenomena identified patterns and answer the questions "How", "Why?" etc., while the information answers the questions "What", "Who?" "When?" "Where?"⁴.

Information and knowledge as undoubtedly are a variety of economic benefits, they meet the needs of individuals, and are also used as economic resources, as with all abundance of information, there are factors that limit the possibilities as it is received, and the creation of new knowledge and its prospects. More complicated is the question of attribution of information to the category of public or private goods. Depending on the forms of existence, content information can act in this and in other capacities. The boundaries of the demarcation of specific information and knowledge on public and private good rather vague, which makes it difficult to regulate relations in the specification and protection of ownership.

In this aspect, consider one of the most adequate criteria is the ability to commercialize information, cost-effective use⁵. Thus, information and knowledge, materialized in the means of labor, other objects act as an object property, while, for example, the knowledge accumulated by previous generations, are public benefits, the availability of which is the key to further scientific and technical development.

Information as an economic good turns in the economy as a commodity (information products and services), as well as a resource used in the course of economic activity. Information products and services are exchanged in the information market and have a large number of features, both stages of development, production, and at the stage treatment. For information goods and

⁴ Климов С. М. Интеллектуальные ресурсы общества. – СПб.: ИВЭСЭП, Знание, 2002. с. 56

⁵ Климов С. М. Интеллектуальные ресурсы общества. – СПб.: ИВЭСЭП, Знание, 2002. с. 70

services include software, databases, educational services, counseling, and other Research and Development results.

In the process of creating information products the main means of production appears intelligence, which is a person's ability to create new knowledge. Hence the singular subjectivity of the process of information production, which is a typical manifestation of the absence of a more or less rigid relationship between production costs and the result of new information and knowledge. In general, as a result of intellectual activity creates a unique product which generates income to its creator in the replication process (propagation material carriers with established information) or reification in goods, capital goods, technology.

For the implementation of information production requires the feedstock - information and knowledge previously created. As an economic resource information has a number of features that distinguish it from the traditional factors of production – land (natural resources), labor, capital. The most important properties are self-expansion in the consumption process, a special uncertainty of its usefulness, no relationship between the initial volume and the volume of new knowledge created knowledge, high mobility, both in space and in terms of spill-over from one to the other without Sciences loss of relevance.

It is important to note that information as an economic resource inherent dichotomy prevalence and rarity⁶. On the one hand, information is easily replicable, not destroyed, but rather in the process of self-rising consumption. At the same time, it is a scarce resource due to the uniqueness of the process of its production and use, the main subject is sticking people. So, now one of the most pressing problems is a strong media pressure on people, increasing the acceleration of the process of accumulation of information and the dissemination of information impact of destructive methods, leading to negative consequences. The accumulated amounts of information and knowledge fail to analyze, create large arrays unnecessary (at least currently), and duplicate information. But along with this

⁶ Иноземцев В. Л. За десять лет. К концепции постэкономического общества. М.: Academia, 1998. – с. 419.

there is a need for knowledge that will help to overcome many unsolved problems in the moment, for example, in the field of ecology, medicine and other fields.

In the functioning of information as an economic resource of particular importance are the technical and technological aspects of its use and handling of the economy. It is the development of information and communication technologies (ICT) and computer technology have opened new opportunities for the strategic use of information and knowledge economy, identified reserves of progressive development. "Like any other resource, the information is only useful if we can deliver it to where it is needed." Development of technologies for collecting, processing, storage and dissemination of information, organization of the process of communication stimulated the emergence and widespread diffusion of new forms of business organization as a whole and the individual business processes. Virtual companies, network organizations, multinationals and TNB in its activities based on the effective organization of information exchange, creation and accumulation of knowledge, databases, exchange of knowledge, allowing them to achieve the benefits of innovation that provides a high level of competitiveness.

Information is used as an economic resource in different directions, resulting in a variety of forms of embodiment and ways to create value. Among the main areas should be allocated as follows:

- commercialization of information products, services, technologies (creation of high-tech products, intellectual goods, information services, development of new technologies of production and management, etc.);
- impact on the subjective perceptions and expectations of economic agents. As examples of the image creation of an information product, company (reputation), the formation needs or impact on them.

Information and knowledge contain reserves increase productivity, optimize the use of other resources. They are becoming increasingly important resource in the modern economy, they represent an important object of the application of intellectual effort. ICT, computer equipment are specific machines of a new stage of economic development – Information predetermining the scope

and efficiency of use. At the same time, "the speed with which technology is evolving in a society is determined by the relative level of its ability to absorb and process information"⁷.

Increasing importance and widespread economic resources as information and knowledge not only lead to a variety of positive effects, particularly to conserve resources, reduce the burden on the environment, empowering people. There is also a variety of problems inherent in an economy in which information and knowledge are important resources. Thus, the acceleration of technological advances lead to increased pressure on the society, as social as well as economic institutions do not have time to adapt to changes. Information load of people can have a destructive impact on them, the more that happens all the more rigid and purposeful use of methods of information feedback.

The study of information as an economic resource, identifying its role and capacity use in the economy are among the most pressing and complex issues facing economic theory. The ongoing process of informatization, the accumulation of experience in the production of information products, expanding the boundaries of the application information in the economy cause the constant updating of the theoretical and practical bases of operation information.

Thus, we can conclude that the phenomenon of the information economy leads to the transformation of the information resource in the main source of added value, appearance on this basis, opportunities for intensive nature of economic development based on low-cost technologies, including information technology management.

⁷ Пильцнер П. Безграничное богатство // Новая постиндустриальная волна на Западе. М.: Academia, 1999. с. 415.

CHAPTER II. DEVELOPMENT OF INFORMATION ECONOMY IN UZBEKISTAN

2.1. Regulatory aspects of the development of information economy in Uzbekistan

Today we increasingly turn to the term "information society", but not enough attention is paid to its theoretical justification and identify future prospects. In the context of globalization be out information boom is simply impossible. Therefore, it seems necessary to ensure that all aspects of society as a basis for informatization. Information society – a society of the XXI century, in which the problem will not remain in the shadow of progress, and will be dealt with universal joint efforts.

Referring to the term. Information society - sociological and futurological concept posits a major factor of social development production and use of scientific, technical and other information. The concept of the information society is a kind of theory of post-industrial society, which is based on D.Bell, Zbigniew Brzezinski, O.Toffler. Considering social development as "shift stages", supporters of the theory of the information society associated with the dominance of his becoming the "fourth", the information sector of the economy following the agriculture, industry and service economy. It argues that capital and labor as the basis of industrial society are giving way to information and knowledge in the information society. Revolutionizing effect of information technology leads to the fact that in the information society and social classes are replaced by undifferentiated "information societies" (E.Masuda). Traditional bulky corporations Toffler contrasts "small" economic forms - individual activities at home, "electronic cottage." They are included in the overall structure of the information society with its "info", "techno" and other areas of human existence. Nominated project "global electronic civilization" based on the synthesis of television, computer services and energy (J. Pelton).

First in a sufficiently clear idea of the information society was formulated in the late of 1960's - early 1970's of XX century. The invention of the term "information society" is attributed to Yu Hayashi, a professor at Tokyo Institute of Technology. Contours of the information society were outlined in the reports submitted to the Japanese government a number of organizations: Economic Planning Agency (EPA) - "Japanese information society: themes and approaches" ("Japan's Information Society: Themes and Visions", 1969), the Institute of Development the use of computers (JACUDI: Japan Computer Usage Development Institute) - "information Society Plan" ("The Plan for an Information Society", 1971), the Board of industrial Structure (ISC: Industrial Structure Council) - "Outlines policy of promoting informatization of Japanese society" ("Policy Outlines for Promoting the Informatization of Japanese Society", 1969).

The processes of globalization of social relations leads to considerable complication of the entire system of economic, political and social activities of various kinds of subjects and establishing the necessary mechanisms of management and information systems. While conducting system analysis and research of a number of operations today is impossible without well-functioning information processes. Development of new information and communication technologies, their widespread implementation in all spheres of human life led to their major restructuring and the emergence of new forms of social activity. In doing so, information technology and the mechanisms of their functioning, and indeed the global system of new digital relationships are largely based on the achievements of intellectual labor. It is thanks to the variety of modern means of communication and provided a process of "digitalization" of society. We must admit that today questions about the role of information in daily life are some of the most important and widely discussed among a wide range of academics and legislators in several countries.

It is curious to consider is the fact that all of the institutions of modern society develop for the same objective laws that develops a global computer

network Internet. It is today the World Wide Web becomes important in the formation of business, culture and society itself.

Renowned sociologist Frank Webster said: "Modern culture is clearly more informative than any previous. We exist in full of media devices environment, which means that life is essentially symbolized, it takes place in the process of exchange and getting - or trying to exchange and opt out of receiving - messages from ourselves and others"⁸. Recognition of the explosive growth of information technology makes many authors say that we entered into the information society.

In turn, John Nesbit wrote: "Computer technology has become for the information age the same, what was the mechanization of the Industrial Revolution". Accordingly, we can say that the second half of the XX century was the period of the birth of the concept of formation of the new information society. Thus these persons have taken different approaches to the definition of the phenomenon under investigation, using the technological, economic, spatial, cultural and related to the scope of employment criteria.

However, until now, despite the widespread term "information society", scientists and experts have not come to a common understanding of its core.

However, in general, researchers believe that "information and communication technology means formation of a new era." This new "techno-economic paradigm" and represents "information age", the development of which coincides with the beginning of the XXI century.

In Uzbekistan, the formation of the information society is still in its initial stage. Nevertheless, in recent years also been some growth of network relationships. Expanded range of Internet users and providers, as well as the number of domestic web resources.

In addition, I would like to point out that substantially increased the number of organizations with their own sites. Of the number of existing enterprises, according to expert estimates, only about 10% use a control system based on the use of information technology.

⁸ Уэбстер Ф. Теории информационного общества. –М: Аспект Пресс, 2004.-28 с. 271стр всего

Most are computerized banking system, tax and customs services, the Interior Ministry, the Foreign Ministry and other government bodies. With regard to the formation and use of national information resources in the republic on average own information resources on the Internet have 92.0% of state power and administration, as well as 81% of state-owned banks and 100%.

However, some authors recognize all of these indicators are quite small compared to the rate of growth in other developed countries.

Given the relevance of information technology in the modern world, as well as their use for the integration of the state into the international community, must address issues of effective regulation with their legal positions that provide certain guarantees sustainable development and protect the interests of participants.

Our President Islam Karimov in his writings and speeches repeatedly points to the need for development of computerization and introduction of information and communication technologies in all spheres of activity. In the preface of his book "The global financial and economic crisis, ways and measures to overcome it in the conditions of Uzbekistan" he writes: "... support the banking system, modernization, technical renewal and diversification of production, widespread adoption of innovative technologies - a reliable way to overcome the crisis and Uzbekistan new frontiers in the world market"⁹.

Turning to the situation of legal regulation of information society in Uzbekistan, an important factor in the development of electronic relations in our country are the development and adoption of several legal acts related to the development of telecommunications. Regulatory framework of the ICT sector represent 11 specific (sectoral) legislation and related laws 6, 3 of the Decree of President of Uzbekistan, more than 40 Decrees of the President of the Republic of Uzbekistan and the Cabinet of Ministers and over 600 regulations. In particular:

The law "On Communications", adopted on January 13, 1992, defines "general legal and economic basis for the organization of the communication system, establishes the rights and obligations of enterprises, institutions and

⁹ Karimov I.A. "The global financial and economic crisis, ways and measures to overcome it in the conditions of Uzbekistan." - T., "Uzbekistan", 2009.

organizations irrespective of forms of property and persons in possession, use, disposal and management of communication the establishment and operation of communication networks, providing communication services, as well as penalties for violations of rights, and neglect of duty."

The Law "On the radio spectrum", adopted on December 25, 1998, regulates the legal relations in the field of distribution and use of radio spectrum.

The Law "On informatization" as amended on December 11, 2003 regulates relations in the field of information, use of information resources and information systems. The law includes 23 articles.

The Act is the State policy in the field of information, which aims to create a national information system, implementation of the constitutional rights of every member of society access to information resources, the creation of a common information space of the Republic of Uzbekistan, the formation of state information resources, etc. The law defines what is included in the national information system and by what she created. Certain articles of the Law on organization devoted to the protection of information resources and information systems.

The Law "On Telecommunications", adopted August 20, 1999, regulates relations in the creation, operation and development of telecommunications.

The Law "On electronic digital signature", adopted December 11, 2003 determines the conditions for the recognition of equivalence of EDS in the electronic document and handwritten signature on a paper document, regulates the legal relations in the field of electronic document management and protect the rights and legitimate interests of the participants in the electronic document. State policy in the field of electronic document is aimed at providing a wide application of electronic document management, protection of rights and legitimate interests of the electronic document, the development of standards, rules and regulations on the use of an electronic document.

The Law "On electronic commerce", adopted April 29, 2004, regulates relations in the field of electronic commerce. The purpose of the law - the creation of the legal conditions for the development of e-commerce in the country.

The Law "On electronic payments", adopted December 16, 2005, regulates relations in the commission of electronic payments. The purpose of the law - the creation of legal conditions making payments electronically.

Also serves as an important aspect and the fact that the authorities began their work, supervising the development of information and communication technologies (ICT) in the country.

Thus, in accordance with the Presidential Decree "On measures to reform and improve sector management information systems" from 23.07.1997 № PD - 1823, in order to further improve the management of postal services, telecommunications and information systems, the development of market relations, the deepening process of denationalization and to attract foreign investment this area was formed Uzbek Agency for Post and Telecommunications. Presidential Decree "On further development of computerization and introduction of information and communication technologies" from 30.05.2002 № PD-3080 a Coordination Council for development of computerization and information and communication technology, which is the highest coordinating body in the field of computerization and information and communication technologies and the Uzbek Agency for Post and Telecommunications transformed into Uzbek Agency for Communication and Information, which was later renamed as the State Committee for Communications and Information and telecommunication technologies. Coordinating Council, chaired by the Deputy Prime Minister of the Republic of Uzbekistan, is the supreme body to coordinate the development of computerization and information and communication technologies. The main functions of this body is to develop ICT strategies; execution control programs for ICT development; definition of policies to create a favorable climate for the development of ICT; coordination of training and retraining of qualified personnel in the field of ICT; Fostering a competitive environment and support innovative businesses in the ICT

sector; promote international cooperation and to expand access to educational institutions information networks.

In addition, special authorized body of state regulation in the field of telecommunications and ICT is the State Committee for Communications and Information and Telecommunication Technologies of the Republic of Uzbekistan. The main tasks of this body are the organization of program development and ICT; deepening of economic reforms in the sphere of communication and information; regulation of the development of telecommunications infrastructure, the creation of a competitive environment, licensing and certification in the field of software and ICT; development and implementation of modern standards and requirements for telecommunications and information technology; coordination of practical activities of the ministries and departments on the creation and use of databases, networks, e-government; expertise created electronic information networks; implementation of measures to protect consumers' rights and information security in communication and ICT; drafting legislation and standards in the ICT field.

The websites of these bodies are systematically placed news of the country in the field of ICT, information about events, reference materials and regulations, as well as draft laws and programs on ICT development in Uzbekistan. Visitors to the site have the opportunity to participate in the discussion of draft legislation and other issues of ICT development. In addition, important to note that Uzbekistan has developed a program for the development of e-commerce, whose purpose is the development of the information infrastructure of the market, establish and improve a favorable environment for the comprehensive development of e-commerce on the basis of improving the effectiveness of its state support, integration and coordination efforts in this area of government, public and private (commercial) institutions, as well as a program of computerization and information and communication technologies for 2002-2010.

Nevertheless, the existing regulations are still far from perfect and only covers general aspects of digital technologies in the current market conditions. Traced as a lack of non-profit and non-governmental bodies in the field of ICT.

In general, it must be recognized that further legal support reforms begun in the field of information society in the Republic of Uzbekistan, on the basis of the existing legal framework, to be developed in the following areas: the definition of state policy of the Republic of Uzbekistan with regard to development of the national segment of the Internet, as well as permission jurisdictional issues. Increased international cooperation in this field; legal guarantees of free access to users of network information resources, as well as the smooth implementation of information exchange, including international; identification of priority areas digitalization of government bodies to increase their transparency by allowing their acts on the Internet, as well as detailed information on the operation of the data elements of the state system of the Republic of Uzbekistan. Also relevant questions of electoral mechanisms through a network; development of preventive measures against socially dangerous acts committed by means of information systems, in particular the phenomenon of cyber - terrorism. Formation of a common policy in the field of information security, including in matters of data encryption; effective protection of copyright and other exclusive rights to intellectual property placed on the Internet, as well as the distribution and control of the address space of the domestic network segment; the legal status of the information posted on the Internet, as well as providing legal measures of protection of personal data in the network; further improvement of the regulatory framework for e-commerce, in particular, its institutions such as the implementation of electronic payments, the development of the stock market and consumer protection in the network.

Implementation of these aspects of the formation of the domestic legal framework will form the basis of a comprehensive legal information society in Uzbekistan, as well as to implement its integration into the world community through the implementation of a wide cultural, social and commercial exchange of information at the international level.

Thus, we must admit that the current level of legal and theoretical security of the relationships does not allow to take into account the specifics of rapidly developing, modernizing and transforming property relations in a market system,

globalization and integration of current flows of capital, digitization and management practices in general mobilization and transnationalization business environment. Moreover, the lack of an adequate legal framework in this area may serve as a negative factor in increasing the "digital divide" Uzbekistan countries with developed information systems. For this reason, we believe it necessary to develop a legislative provision of the formation of the information society on the marked us directions that would contribute to the integration into the world community.

2.2. The development of E-government in Uzbekistan

E-government is a government, in which the entire set as "internal" and "external" relations and processes supported and provided with appropriate information and communication technologies. Therefore, the creation of "electronic government" means not only the creation of electronic document, internal information networks and databases in the organs and institutions of governance that can improve the interaction between the various public authorities, but also the provision of public access to quality public services and the public sector through information networks.

The Governmental portal of the Republic of Uzbekistan is the official state information resource of the Government of the Republic of Uzbekistan on the Internet.

Creation and support of the Government portal implemented according to the Decision of the Cabinet of Ministers of 17 December 2007 № 259 "On measures for further development of Government Portal of the Republic of Uzbekistan on the Internet." The Governmental portal of the Republic of Uzbekistan is a backbone infrastructure element electron interaction information organizations, as well as between corporations and individuals.

The main objectives of the government portal:

- The creation of a specialized information system for the formation and development of state information resources, interactive rendering of public services provided to businesses and individuals organizations;
- Ensuring public awareness of the international community and on the activities of the Government of the Republic of Uzbekistan, of the reforms in the socio-political and socio-economic life of the country through the creation and placement of relevant information resources;
- Assist in improving the efficiency of interaction with organizations individuals and legal entities;
- Informing the public about the possibilities and procedures of their interaction with relevant organizations;
- To assist in improving the quality and effectiveness of organizations by increasing the level of efficiency of the exchange and dissemination of information, awareness organizations;
- Unification of interagency electronic information exchange.

Based on the above objective, it is intended to solve the following problems:

- Establishment of a corporate state network - Intranet, based on the introduction of a unified system of government electronic document covering all levels of government (G2G);
- Extension of the scope and range of state services provided via the Internet (G2C, G2B) and ensuring equal access to state agencies;
- Development and implementation of an electronic system for public authorities dialogue with citizens and other stakeholders of society (e-democracy);
- Providing technical and information security.

On the Governmental portal you will find the next information:

- Socio-political and socio-economic life of Uzbekistan, on the structure of government of the republic;
- On public, political and economic institutions of governance;

- On activities, as well as the structure, functions, tasks, powers and contacts organizations;
- On the conditions, forms, forms, processes and procedures for registration or to obtain permits for businesses and individuals;
- An interactive government services rendered using information and communication technologies;
- The introduction of information and communication technology in organizations;
- About important events in the country, photos, event announcements from various parts of organizations and public authorities;
- On other publicly available information.

Information support and structural administration Governmental portal of information provided by the Group Welfare and Development Governmental portal of Uzbekistan at the Centre for Development and introduction of computer and information technology UZINFOCOM.

An important function of e-government - is to assist in improving the quality and effectiveness of organizations by increasing the level of efficiency of the exchange and dissemination of information, awareness organizations.

The portal is structured in modules, user-friendly. Basic set of public services, implemented through the portal e-Government, and may be roughly divided into the following categories:

- The "government to citizen" (G2C) reflects the interaction of the Government and public authorities with citizens. Its main objective - improving the quality of public online services in the interests of citizens. This module includes such important areas as:
 1. Implementation of-pocket payments: income tax, transportation and others.
 2. Welfare Services.
 3. Registration certificates (birth and marriage): request and delivery.
 4. Making personal documents (passport and driver's license).

5. Registering property (movable and immovable property) and operations on it.

6. Registration of citizens in the community and / or temporary residence, notice of change of address.

7. Services job search labor exchanges.

8. Making permission.

9. Services related to health (interactive advice on the availability of services, make an appointment).

10. Admission to universities and more.

• The "government to business» (G2B) reflects the interaction between government and business entities. Here are the basic regulations governing entrepreneurship and business, provides information about importing and exporting countries, the major sectors of the economy, monetary policy and preferences provided for businessmen and entrepreneurs:

1. State registration and re-registration of companies.

2. Obtaining permits and approvals of project documentation from the authorized organizations (ecology, construction, use of natural resources).

3. Obtaining and renewing licenses.

4. Organization of public procurement.

5. Implementation of mandatory payments to the budget of corporate (corporate income tax, VAT, transport, land, etc.) and extra-budgetary funds.

6. Making inventory documentation for export and import operations.

7. Making statistical reporting and others.

The module "Government to foreigner" (G2F) allows mainly foreign nationals, to get acquainted with ancient history and rich culture of Uzbekistan, get information about travel agencies and hotels, visas, residence order in the country, etc.

Given the development of mobile communications created and launched mobile version of Governmental portal (m.gov.uz), which collected the most important and useful information for citizens about the activities of ministries and

departments, public bodies contacts, register of fines for traffic violations, as well as register helplines government agencies.

Any citizen may use Personal Cabinet my.gov.uz – electronic resource containing any personal information about the user created to interact with government agencies in the preparation of online government services through a single portal.

Through Personal Cabinet of a citizen individuals and legal entities can simultaneously send their appeal to the Cabinet of Ministers and other government agencies. After the referral, the user will receive notification of acceptance in electronic form, and it will be considered in the procedure and deadlines for written requests.

Under the "Electronic Government" is a portal utilities and housing e-kommunal.uz, which aims to provide a transparent mechanism for monitoring financial performance and utility OWNING higher state bodies, as well as the provision of online services and the creation of conditions for close cooperation of government agencies with the public.

Electronic technologies cover all aspects of modern life, and more insistently intrude into the sphere of relations between the authorities and the population. Although Uzbekistan is on the 91 place in the ranking of the United Nations, the measures taken to allow experts to enter 2020 in the top 30 best countries in terms of e-government.

As a consequence, reforms carried out in this area, will further develop the information society of Uzbekistan and its integration into the global information space.

Thus, the President of Uzbekistan Islam Karimov signed a decree approved the Integrated National Program for the Development of Information and Communication of the Republic of Uzbekistan for the period 2013-2020 years.

The Law on "e-government" provides for the adoption of legal, organizational and technical measures for further development of "e-government".

The Comprehensive program of development of national information and communication system of the Republic of Uzbekistan for the period 2013-2020 years can be divided into two thematic blocks. The first of these includes the program of development of telecommunication technologies, networks and communications infrastructure in Uzbekistan. Separate unit planned projects and activities for the creation of complex information systems and databases of the "E-government". Their implementation will ensure the creation of modern high-tech infrastructure of information and communication and telecommunication technologies to provide the required level of quality of services and the creation of favorable conditions for the development of interactive services to all segments of consumers.

In particular, work on the development of telecommunications, networking and communications infrastructure of our country will be focused on extending the network of fixed and mobile broadband, switching centers and transmission of voice traffic, modernization and expansion of the main telecommunications networks, the creation of the necessary infrastructure for the development of multimedia services, national information resources and databases, computer networks, and government entities.

For example, until 2020, planned efforts to expand broadband optical networks and the construction of fiber-optic communication lines, further setting nationwide base stations EDVO, 3G and 4G LTE, which will provide data rates up to 100 Mbit/s. Through the expansion of the International Center of packet switching with the installation of the necessary equipment can be achieved speed connection to international information networks up to 300 Gbit/s. The creation studios to provide multimedia services to the corporate sector, centers of information services, data storage and processing, and storing frequently used data (caching centers).

Also among the priority tasks of the national experts of communications, information and telecommunication technologies, - implementation of necessary measures for the development of "e-government". At its core, it is a way of

providing information and have formed a set of government services to citizens, business entities, other branches of government and public officials, in which personal interaction between the state and the applicant is minimized as much as possible and use an interactive contact form via the Internet.

Uzbekistan has long been purposefully introduced information and communication technology to provide interactive public services and legal entities through the websites of government agencies and Governmental portal of the Republic of Uzbekistan. According to the information service of the State Committee for Communication, Information and Telecommunication Technologies of the Republic of Uzbekistan, in 2007 was approved by the Register of basic online public services in an amount of 49 units. In 2009 it was expanded to 94 units, and as of July 1 this year, it includes 197 types of services.

Currently, public authorities through their websites is just 617 online government services. 1 July this year in test mode was launched Unified interactive portal of public services at my.gov.uz. At the moment here in the test mode population is about 60 services such as reception, registration and examination requirements for service connection fixed telephony and the Internet, to receive help of state tax service of the absence of taxes, as well as in obtaining permits various fields and many other amenities. Main attention is paid to citizens' appeals to the bodies of state and economic management, public authorities in the field.

It is advisable to highlight the strengths and weaknesses of the Government portal.

The strengths:

- There is a political will. It prioritized the development of ICT in socio-economic development of the country.
- the State program of development of ICT with reflection of long-term targets was approved.
- Effective Coordination Council, which will consider expeditiously the further development of ICT

- Devices Government bodies have rather high with computers and local computer networks. The main part of the employees of these devices are able to use modern means of ICT.

- Many of the central government agencies have their web - sites.

Weaknesses:

- There are not sufficiency level of preparedness of the majority of leading cadres to work on means of ICT, especially in the regions.

- Lack of access of many public institutions (as well as employees) to the Internet.

- Do not sufficiently developed databases and departments khokimiyats, veried technology and software used in the departmental and regional office management and document systems and their incompatibility with each other.

- Lack of clear regulation of many government agencies to work with letters and appeals received by electronic means (e-mail, etc.), to consideration by state authorities of these appeals.

- The virtual absence of information support of the population through the electronic media.

In 2013, September 16 was accepted by the Cabinet of Ministers "On measures on organization of the Center for Development of the" E-government "and the Center for information security under the State Committee communication, information and communication technologies of the Republic of Uzbekistan", which was adopted pursuant to resolutions of the President Republic of Uzbekistan on June 27, 2013 № RP-1989 "On measures for further development of the National Information and Communication System of the Republic of Uzbekistan" and agreed that:

1. Create the State Committee communication, information and communication technologies of the Republic of Uzbekistan Center for Development of the "E-government" and the Center for information security in the form of public institutions.

2. Identify the main objectives of the Center for the Development of the "E-government" under the State Committee communication, information and communication technologies of the Republic of Uzbekistan:

- Working out strategic directions for further development and improvement of "Electronic Government", including on the basis of analysis and research of global trends and the experience of foreign countries;

- Providing a single technological approach in the formation of the "E-Government", providing a consistent mechanism for the design, development and integration of information systems, information resources and databases that are used in government, the organization of regulatory and methodological support projects of the "E-government";

- Organization of the system functional and operational reorganization processes of public authorities, preparation of proposals for optimization, improvement and implementation of innovative mechanisms for managing business processes associated with the provision of public services;

- Carrying out specific analysis and preparation of proposals to improve the current regulatory framework for the effective implementation of the "E-government";

- Carrying out systematic monitoring, evaluation and implementation of information and communication technologies, including the study of the effectiveness of the implementation of information systems and resources, conducting rating system efficiency of information and communication technologies in public bodies within the "Electronic Government";

- Development of methods for determining key performance indicators provide and use online public services, target indicators and indicators of projects within the "Electronic Government".

3. The main objectives of the Centre of information security under the State Committee communication, information and communication technologies of the Republic of Uzbekistan:

- Information security systems information systems, resources, and databases of the "E-government";
- Certification of objects of information within the implementation of the "E-government" in accordance with applicable law;
- Assist in the development and implementation of an information security policy information systems and resources of public bodies;
- The collection, analysis and storage of data on contemporary threats to information security, development of recommendations and suggestions for effective decision-organizational and software and hardware solutions, ensuring prevention of acts of unlawful intrusion into information systems, resources, and database system "E-government";
- Provision in the prescribed manner to the State Committee for Communications, Information and Telecommunication Technologies of the Republic of Uzbekistan statistics on the results of monitoring the information security of government information systems and resources;
- Development of proposals to improve the regulatory framework in the field of information security information systems, resources, and databases of the "E-government", as well as the national segment of the Internet;
- Interaction with operators and providers of telecommunications networks, to collaborate and coordinate activities of state bodies on the prevention of crime in the area of computer and information technologies;
- Timely notification of national Internet users about emerging security threats in the national segment of the Internet, as well as consulting services for the protection of information;
- Interaction with law enforcement authorities in the analysis, identification of offenders, methods and tools used in carrying out unauthorized or disruptive activities in the information space;
- The development of international cooperation in the field of information security for the organization of practical interaction of the suppression of information security incidents in the national segment of the Internet.

4. Responsible coordinator involved the use of public and economic governance, public authorities in the field of technical assistance grant funds (grants), concessional loans from international financial institutions for financing of projects and activities for the implementation and development of the "E-government" is defined Center development of "e-government" under the State Committee communication, information and communication technologies of the Republic of Uzbekistan.

According to the State Committee for Communication, Information and Telecommunication Technologies of the Republic of Uzbekistan, as of July 1, 2013 the number of companies providing data transmission services, including connection to the Internet is 924, and the total number of collective use – 1035 units. The overall speed of use international networks increased by 11 percent compared with the beginning of 2013 and amounted to 8.7 Gbit/s. Number of ports installed to provide fixed broadband access to the Internet, has reached 459.7 thousand, thus expanding the scope of the provision of broadband multi-service.

2.3. Analysis of main indicators of the development of information economy in Uzbekistan

With increased globalization, more demanding international and regional integration and economic relations and increasing the competitiveness of the national economy, especially in developing countries, development of the telecommunications industry as a separate sector of the economy, as well as their effective use in other sectors of the economy are becoming increasingly important to state regulation. Expanding the use of the technical possibilities and the potential of this industry plays an important role in enhancing the competitiveness of the national economy, including the strategic stability of public and private actors.

The latest trends in the market indicate that innovation in the field of information and communication technologies and use them effectively become the locomotive of improving the management and processes in enterprises, creating

new and expanded markets for goods and services in various sectors of the economy that ultimately leads to improved quality of life. Telecommunication services become increasingly intertwined with the concept of the Internet - the World Wide Web or a network of information resources and data. Availability Internet facilitates more intensive exchange of information and knowledge among the people, which leads to a society based on knowledge.

Consequently, the development of telecommunications services, in particular the Internet, will contribute to a more successful integration of Uzbekistan into the global socio-economic community and raise living standards.

Established in Uzbekistan legislation in the field of information created opportunities for the widespread introduction of computer and information technologies in all spheres of society, including the banking system. Introduction of modern information technology in the banking system helps to provide customers new types of banking services, improve their efficiency and customer confidence in the bank.

Today, when information technology is an integral part of a successful business, there is a growing dependence on the economic indicators of successful use and integration of IT solutions to the business processes of banks and industrial enterprises. World trends in the banking sector show a growing demand for high-tech remote services: Internet Banking, SMS Banking, JAVA-banking and others. The introduction of such products becomes not just a competitive advantage, but a necessity for the success of both the domestic and foreign markets.

Today, between the banks of Uzbekistan introduced a system of on-line-banking (Internet and SMS banking) for individuals, which enables customers to manage their bank checking accounts and make payments via the Internet or mobile communications. Internet banking system is a system of remote banking customers in real time, allowing him to have access to a range of banking services without visiting bank branches at any time of day. SMS - banking is designed to obtain information about their accounts and the bank's clients on transactions using

a cell phone. These services have already been successfully implemented in a number of domestic banks.

In our country, implemented and effectively used EFT for short-term transfers. Established provision of interactive services to customers via the Internet and mobile communications. However, the systems are used EDP statistics, electronic document and digital signature technology.

In Uzbekistan, the rapid pace of information technology is an introduction to the socio-economic life of the country. So, in order to accelerate the development and widespread implementation in the sectors of the real economy of information and communication technologies and software products and on this basis, improve management efficiency, reduce production costs, ensuring the reliability and transparency of financial and economic activity of associations and large enterprises improve their competitiveness in domestic and foreign markets by the President of the Republic of Uzbekistan 3 April 2014 adopted a resolution number DP-2158 "On measures to further the implementation of information and communication technologies in the real economy."¹⁰

By the resolution of the most important tasks and directions of development of information and communication technologies in the real economy was approved the following:

- Widespread adoption of information and computer technologies and software products, mainly domestic production, document management system, accounting and reporting, financial and economic activity of associations and enterprises, personnel management, organization of production and technological processes;

- Improving the quality of products and services, reducing their costs and production costs through the introduction of modern information systems and software for accounting and rational use of material resources, management of relations with consumers of their products;

¹⁰ Decree of the President of the Republic of Uzbekistan № DP-2158 "On measures for further implementation of information and communication technologies in the real economy" from 03.04.2014.

– The introduction of new schemes for implementation of manufactured products businesses through the Internet to open new markets and increase the export potential of the country;

– The introduction of the enterprises in the production processes and innovative mechanisms and technology by expanding close cooperation with research and design organizations, institutions of higher education;

– To organize an effective system of retraining and advanced training in the field of information and communication technologies in joint stock companies, associations and large enterprises.

Implementation of these objectives will also contribute to the development of the ICT market and the domestic software industry due to orders for specific IT projects for the real economy.

Dynamics of the industry. One of the leading industries, affecting the economy of Uzbekistan is the sphere of communication, information and telecommunications. It is advisable to analyze the development of the industry for the period 2006 to April 2014.

The transition to digital ATS became necessary as the development of market relations in the country has increased the volume of information transfer. In 2006, digitalization ATS in Uzbekistan was 48.2%, but by April 2014 digitalization ATS was 100% (fig. 2).

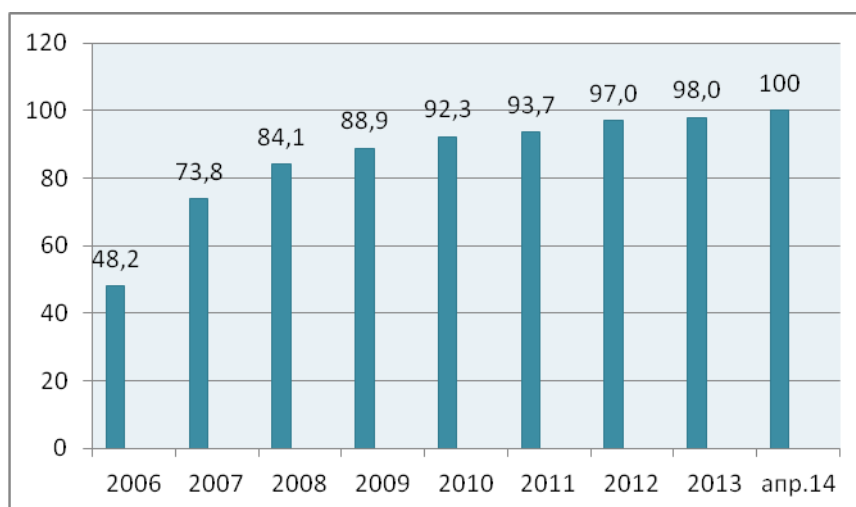


Fig. 2. The digitalization exchanges in Uzbekistan (%)¹¹

¹¹ www.ccitt.uz

Analyzing the data for the chart, you can see the steady growth of digitalization ATS. Since 2006, over 8 years there was a gradual digitalization and by April 2014 completely switched to digital communication.

The development and spread of Internet technologies are inextricably linked with the number of providers and operators of Internet services and data networks. The rapid growth in the number of providers due to government support, promoting capacity bandwidth access to international data networks. Fig. 2 shows the growth in the number of providers for the period from 2006 to April 2014 and the rate of growth in relation to 2006(fig.3).

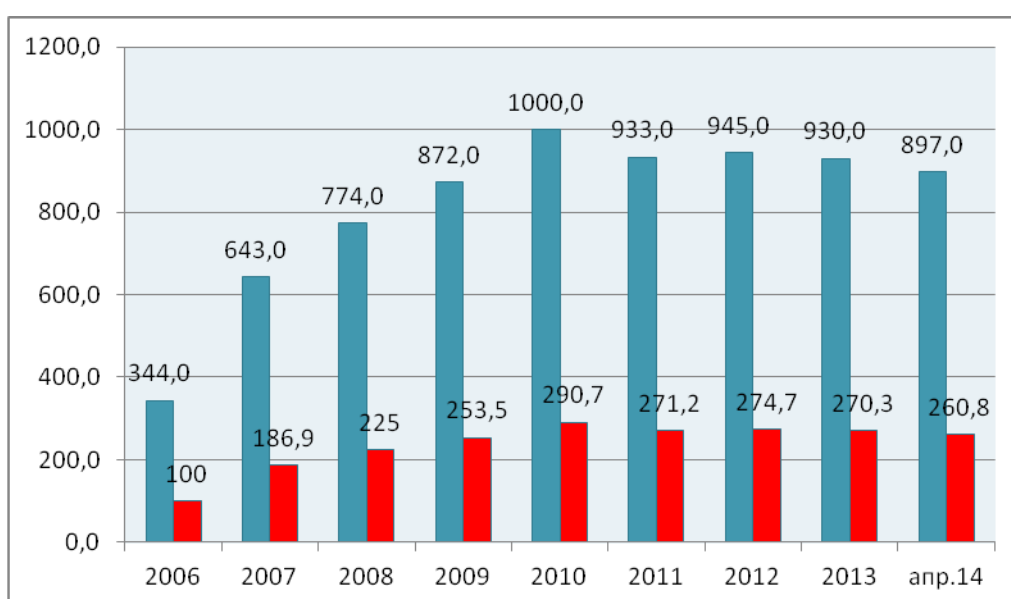


Fig. 3. Number of operators, service providers (units)¹²

In turn, the increase in the number of providers ensured the growth speed of access to international information networks (Fig. 4).

Also increases the number of economic entities operating in the production of software products (fig. 4). This growth rate is largely due to the fact that the country is encouraged activity in the field of IT technologies. In particular, according to the Decree of the President of the Republic of Uzbekistan on March 21, 2012 № DP-1730 "On measures for further implementation and development of modern information and communication technologies", provides for the establishment and implementation of the 2012-2014 32-complexes information

¹² www.ccitt.uz

systems of public and economic management, integrated into national information systems.

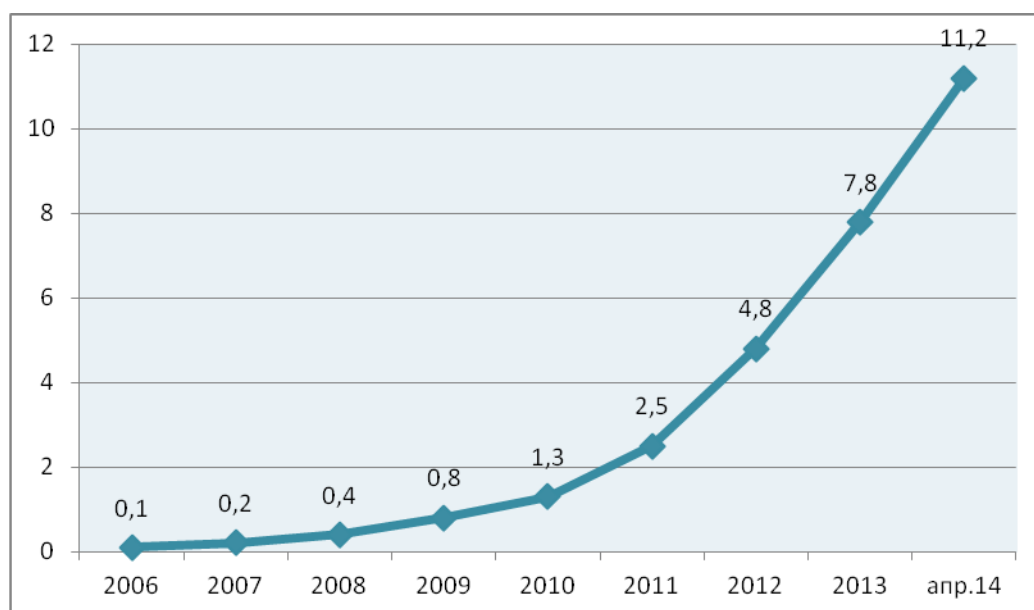


Fig. 4. Speed of access to international information networks (Internet) (Gb/s)¹³

According to the decree at SUE «UNICON.UZ» Examining Division created software, whose main task is to conduct the examination of specialized software products introduced in the National Information System. To organize activities of this department, conducted testing (HP Unified Functional Testing), studied the functionality of free software to automate testing Selenium, n Unit; work on the adoption of international standards as a state in the field of software evaluation (ISO / IEC 14598-5, ISO / IEC 25040, ISO / IEC 25001). In addition, there are other entities operating in the field of software products and their growth is shown in fig. 5.

¹³ www.ccitt.uz

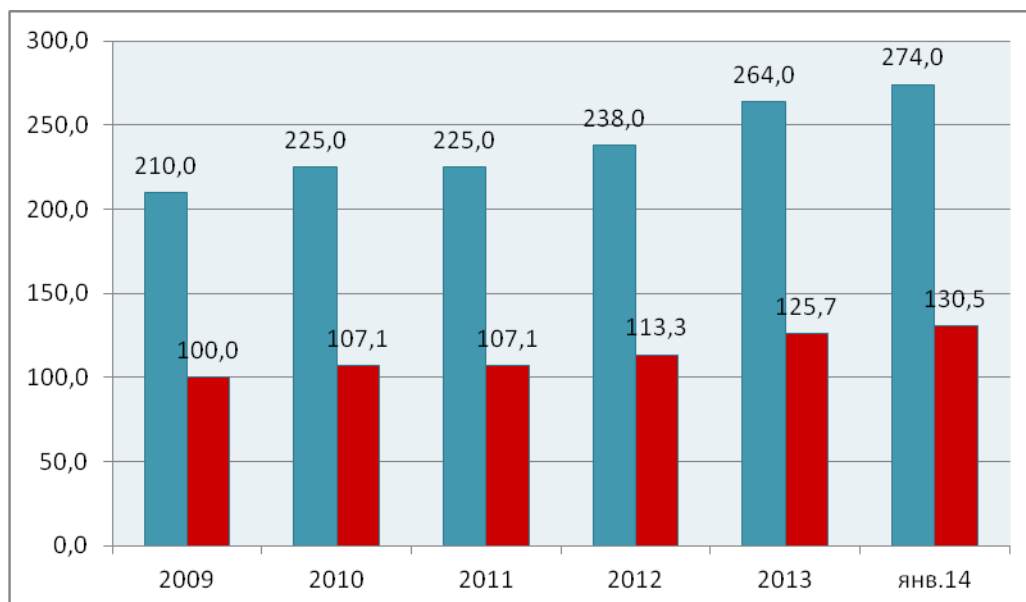


Fig. 5. Number of economic entities operating in the field of software products (units)¹⁴

Today in the Republic of Uzbekistan has 10 Centers EDS registration. Number of issued keys and certificates EDS keys issued to existing centers at the end of April 2014 more than 580 thousand (fig. 6).

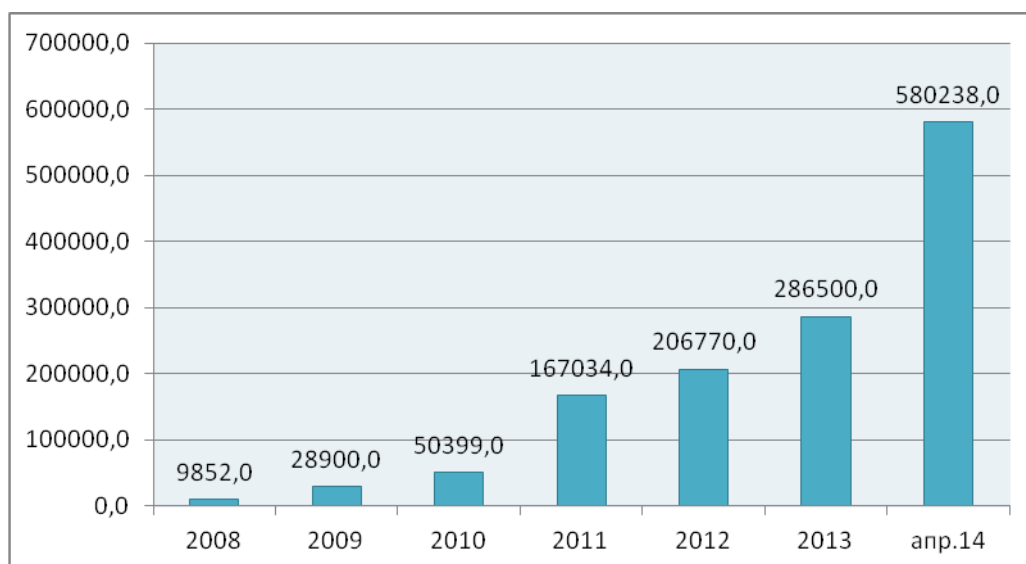


Fig. 6. Number of keys and key certificates EDS (units)¹⁵

To date, the total amount of state information resources reached 175 units. It should be noted that the number of state information resources for 6 years has

¹⁴ www.ccitt.uz

¹⁵ www.ccitt.uz

increased almost 3 times that shows a marked increase in the formation of state information resources (fig. 7). And the rate of growth in April 2014 from 2006 is 397.7%, the rate of increase is 297.7%.

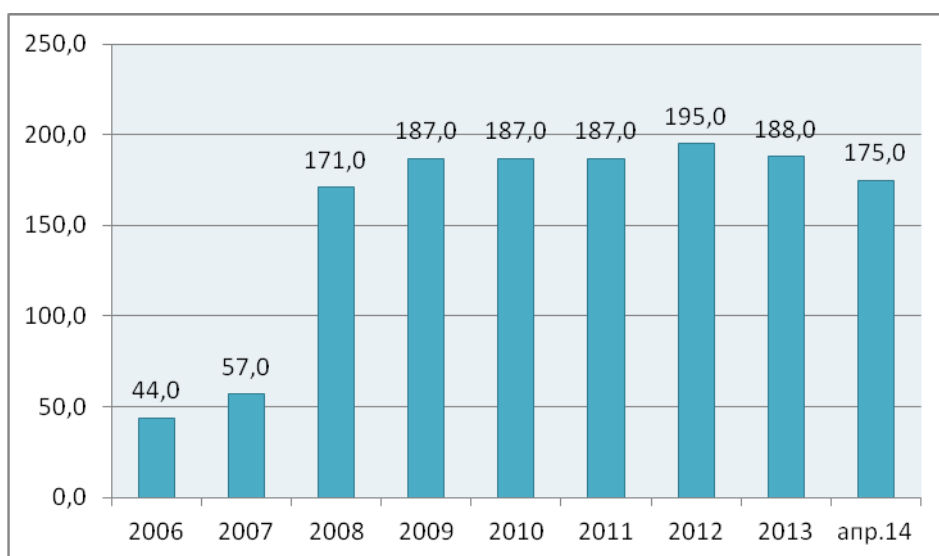


Fig. 7. Number of state information resources (edin.)¹⁶

It should be noted that in 2008 the number of registered information systems (IS) in the registry was 7 units., And by the end of the first quarter of 2014, their number increased to 164 units. This shows that the number of registered IP in the period 2008 to 2014 has increased almost 23-fold, as compared with the previous year by 1.5 times (fig. 8).

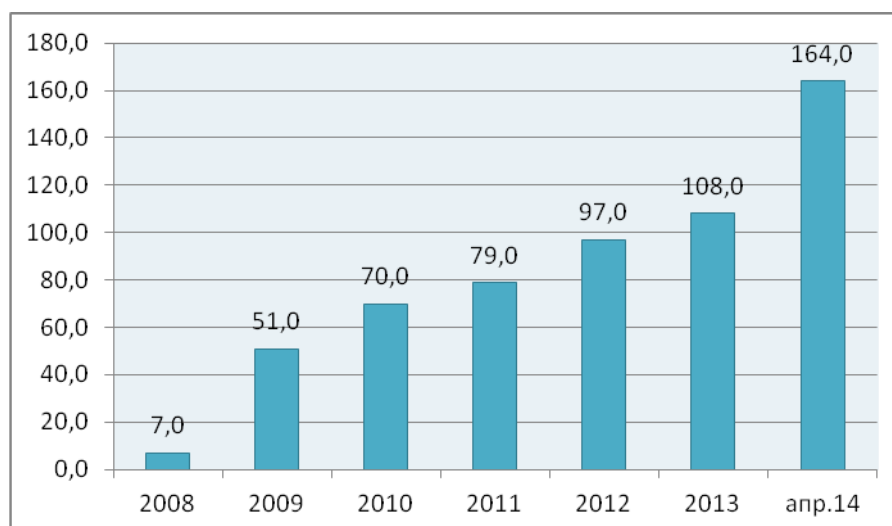


Fig. 8. Number of public information systems (units)¹⁷

¹⁶ www.ccitt.uz

¹⁷ www.ccitt.uz

The country today given the population of more than 600 government services through interactive websites of government agencies and government portal. During the first quarter of 2014 through the "Single Portal online public services" introduced 20 new types of interactive public services, and their number reached 194 (fig. 9).

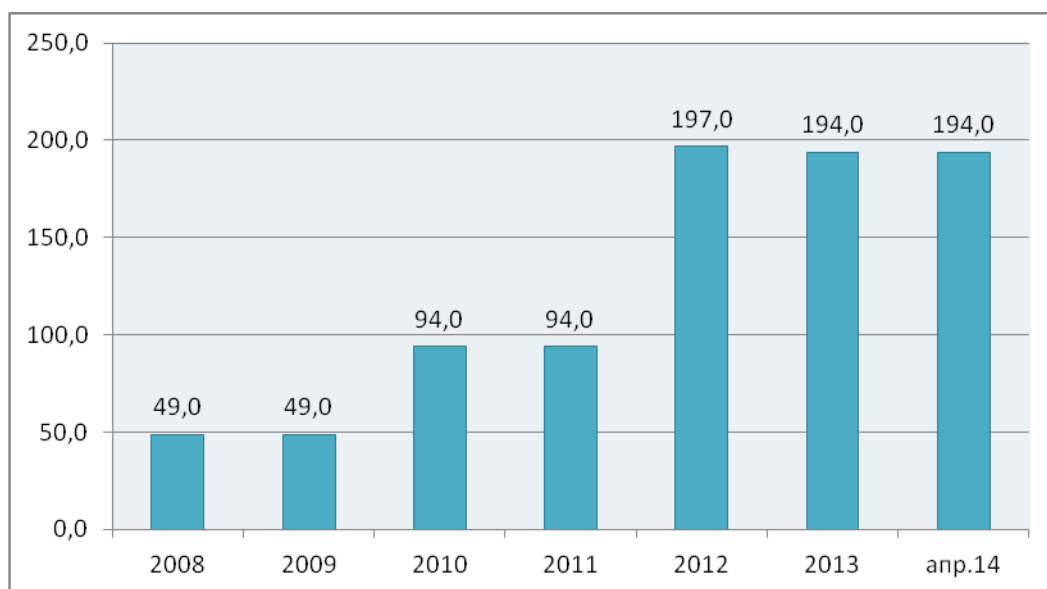


Fig. 9. Number of types of government online services (units)¹⁸

National Information Retrieval System WWW.UZ - a mechanism of rapid access to information of the national segment of the Internet. The main features of the system are WWW.UZ multilingual information retrieval (Uzbek, Russian), and tight integration with other national information systems and databases.

WWW.UZ is open and accessible for viewing the top-ranked sites and summary statistics. The system has an open WWW.UZ sites Statistics of Uzbekistan. This determined and assessed the popularity of the resource. At all sites participating in the rating system counters WWW.UZ.

Every year the number of websites registered in WWW.UZ increases. Today there are 9000 websites registered in WWW.UZ, exceeding last year's figure of 1.2 times (fig. 10).

¹⁸ www.ccitt.uz

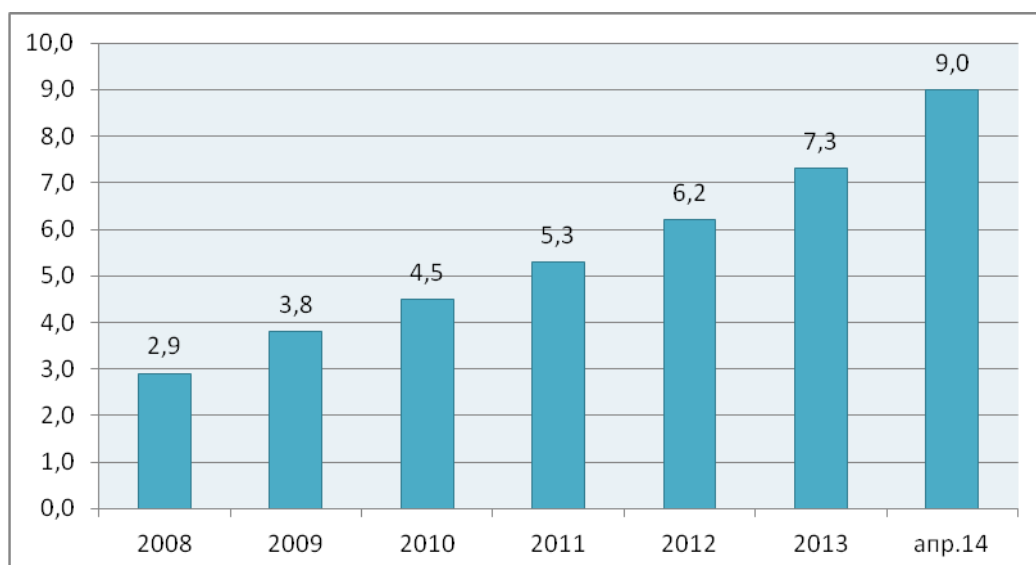


Fig. 10. The number of sites registered in WWW.UZ (thousand)¹⁹

ICT today is an essential infrastructure of the global economy of the world, not only provides the most efficient functioning of global markets, but also performs the role of locomotive for the world economy. Not by chance the governments of developed countries have highlighted this trend as a strategic vector of economic development, the main source of economic growth acceleration at the present stage.

The degree of implementation and use of ICT in various areas of social life becomes a decisive factor of sustained economic and social development of States.

¹⁹ www.ccitt.uz

CHAPTER III. THE INFORMATION ECONOMY ABROAD

3.1. Trend of the development of information economy abroad

Today in all major countries, using information technologies in the national interest, are developed and state programs for entry into the global information society. These programs include the answers to three basic questions²⁰:

- purpose of the information society in the country;
- Identification of means and ways to achieve this goal, designed to expand the use of information technology, to facilitate access to information, the establishment of political, economic, cultural and legal environment conducive to increasing the uniformity of the national information space;
- distribution of economic, financial and organizational roles and responsibilities between the parties - the state, society and business.

In the context of globalization of information and communication technologies have become one of the main factors of economic growth. ICT contribution to the formation of the main macroeconomic indicators tends to increase (Table 1).

Table 1

Share the information and communication technologies in the gross domestic product of developed countries (%)²¹

Country	2003			2007			2011		
	IT	Telecom	ICT (total)	IT	Telecom	ICT (total)	IT	Telecom	ICT (total)
The United Kingdom	3,7	3,3	7,0	3,6	3,1	6,7	3,8	3,4	7,2
Germany	2,9	3,0	5,9	3,0	2,9	5,9	2,9	3,1	6,0
Italy	1,8	3,1	4,9	1,7	3,1	4,8	1,3	2,8	4,1
France	3,1	2,4	5,5	3,1	2,4	5,5	2,5	3,2	5,7
EU-27	2,7	3,1	5,8	2,8	3,1	5,9	2,6	3,6	6,2
USA	3,2	2,9	6,1	3,7	3,1	6,8	3,4	4,0	7,4
Japan	3,5	3,4	6,8	3,6	3,7	7,3	2,9	3,9	6,8

²⁰ А. Глинчикова. Россия и информационное общество. — М.: АСТ, 2002. с. 32.

²¹ IDATE, EITO, EU, 2008-2012

According to a World Bank study, the share of the sector of information and communication technologies in the gross domestic product is one of the qualitative characteristics of the economy. Countries where this figure is in the range of 5-10% were classified as "efficient economy", if it is below - the category of "factor of the economy."²²

Regional development trends of the information and communication technologies are permanent price reductions on all kinds of products and services (strong competitive pressure in international markets) and the rapid growth of modern technology (such as the development of broadband access technologies). Dynamics of changes in the share of different regions of the world ICT market shows an increase in positions of other countries (up from 8.7% in 2003 to 14.5% in 2012) compared to Europe, North America and Asia-Pacific region (Fig. 11.).

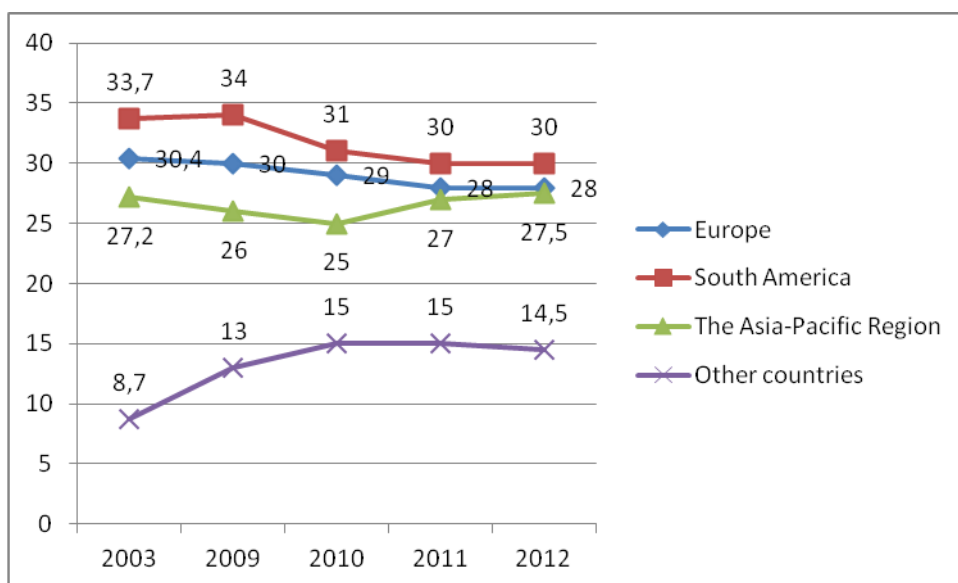


Fig. 11. Dynamics region's contribution to global market information and communication technologies (in%, 2012 - Evaluation)²³

In modern conditions of the world's largest actors in the field of exports of goods and services based on ICT are China and India. Rapid growth of the ICT sector played a crucial role in the growth of both economies. In 2004, China replaced the United States to place the largest producer and exporter of ICT goods.

²² В. Шульцева. Мировой цифровой ринг: тенденции, метаморфозы, цифры, прогнозы. IT-News №1, IT-Weekly №4, 2013.

²³ Based on IT-News № 1 and IT-Weekly № 4, 2013.

In turn, India is the world's largest exporter of ICT services (including software), as well as a major provider of business process outsourcing. The total volume of the global IT outsourcing market is more than \$ 60 billion, of which exports of software (SW) - not less than 50%. In the list of leading exporters in India with revenues of \$ 10 billion per year, followed by Ireland with revenues of \$ 4 billion a year - the third China with revenues of \$ 3 billion per year.

Nowadays China and India are in the process of transformation of the structure of the national economy with labor-intensive industries and intellectual goods and services. Therefore, they will accumulate a significant amount of knowledge as well as develop new technologies, thereby further promote global shifts in production, trade and employment in the ICT sector.

The prerequisites of the information society are the following changes in the global economy:

- rapid technological change;
- productivity growth based on the use of ICT;
- structural changes in the regional division of labor;
- Increase the role of theoretical knowledge and education;
- Improving communication and transport infrastructures;
- the emergence of new forms of business organization related to the Internet (the creation of virtual companies, e-commerce, online banking, etc.);
- widespread outsourcing.

International economic relations at the present stage included close interaction of the electron, the virtual and the real sectors of the economy. Information systems (IS) with network structure give the opportunity to create a virtual corporation to effectively organize global operations through the use of e-mail, the Internet and video conferencing. They combine the companies and their branches located in different geographical locations worldwide to ensure timely delivery of components, products and services, as well as interaction among all levels of international business.

The need for such interaction was attributed to the increased competitive pressures, increasing the level of risk, complexity of processes and supply chains in international business that required an increase in the speed of information, communication and business contacts manifestations competitive flexibility, creating the conditions for transparency of transactions, increasing productivity and changing organizational structures and business forms. Thus, ICT and IP in general contribute to the implementation and coordination of commercial operations, which allows efficient use of the competitive advantages offered by the new information and communications environment. Network technology has become an important factor of modernization of the traditional economy, including management practices in corporations and non-profit organizations.

The development of ICT and knowledge-based economy, new companies and new businesses, new business concepts and new organizational strategies, there were shifts in the pattern of international trade (online shops, online auctions, online sites) and competition. Was expanded functions of banks in connection with the development of e-commerce and electronic money. There are new financial system on the Internet: Internet Banking (banking services via the Internet), Internet trading (services for manipulating the currency and equity markets through the Internet), online insurance (provision of insurance services through the Internet).

In today's economy leaders are companies doing business in the field of IT-technologies, the computerization of production and means of communication. These include the world-renowned global company IBM (computers), Microsoft (software), Intel (microprocessors), AT & T (telecommunications), NT & T - Nippon Telegraph & Telephone (telecommunications), Apple, Samsung (hardware), Facebook (social networking) Google (online resources), etc.

Electronic commerce (e-commerce) is usually defined as the buying and selling of products or production services using an electronic medium. Using trading sites of saving up to 70% of the cost of processing the data and approximately 10% of the manufacturing costs. Approximately three quarters of

sales are made online-only through the mediation of the five websites: Amazon, e-Bay, AOL, Yahoo!, Bay. com.²⁴

In fact, e-commerce is a tool for the implementation of the process of globalization, as it is a means of doing business globally. Using the Internet, even small and medium-sized suppliers can engage in global business, and customers have a real opportunity to choose their suppliers. E-commerce is expanding business space and changing the organizational principles of the functioning of not only trade, but also production and finance.

Informatization factor becomes the driving force of development and deepening of the globalization process. Scale informatization process is constantly growing, as productivity and competitiveness of the companies are in direct proportion to their ability to generate, process and use the information effectively, based on knowledge. The main objectives of the development of GMOs are:

- creation of a system of evaluation of ICT indicators at different levels: global, regional, national and local (domestic);
- reducing the digital divide between countries, within countries and territories;
- guarantee the free flow of information and knowledge and providing free access to the world's information and intellectual resources;
- standardization of norms, principles and standards in the field of information and knowledge;
- Improving information and document-serve all categories of users;
- improvement of educational technology.

Thus, at the present time information and communication technologies are becoming an integral part of the infrastructure of the world economy, providing not only the most efficient functioning of international markets, but also acting as a locomotive for the world economy. Not accidentally developed countries have highlighted this as a priority direction of the vector of economic development,

²⁴ С. А. Дятлов, В. П. Марьяненко, Т. А. Селищева. Информационно-сетевая экономика: структура, динамика, регулирование. — СПб.: Астерион, 2008. — с. 414.

resulting in the formation of a global information society, which is based on the production and consumption of various information resources.

3.2. Socio-economic aspect of information economy

The modern period of development of a society characterized by a strong influence on his computer technologies that penetrate all spheres of human activity, provide flow of information in society, forming a global information space. Currently in Uzbekistan a new system of education, focused on entry into the world of information and educational space.

Among the principles of sustainable development, the UN-proclaimed, occupies a special place the principle of continuous education of citizens throughout their lives. This principle was implemented in 1997 in the Law "On Education" and the National Professional Training Programme. This suggests that Uzbekistan is keeping pace with the world community.

In the age of information technology, many spheres of human activity operate using the latest achievements in the field of information and communication technologies. After all, modern computers, vocational education, telecommunication networks, communication systems, software can accelerate and improve quality, for example, the processes occurring in the economy, improve health care, education, etc. Accordingly, the overall progress of the state largely depends on its technological development. Therefore, in our country a lot of attention is paid to training of future specialists, that they possessed the necessary knowledge and skills to work with the most modern electronic equipment, software.

In this regard, in Uzbekistan have adopted laws "On the principles and guarantees of freedom of information", "On guarantees and freedom of access to information." An important role is played by Decree of the President Islam Karimov "On measures to further improve the system of training in the field of information and communication technologies" from March 26, 2013 and "On

measures to further strengthen the incentives of domestic software developers" from September 20, 2013 and etc.

One of the main criteria of ICT impact on socio-economic development is education.

Under the leadership of President Islam Karimov in our country pays great attention to the wider introduction and development of ICT, including in the educational process. This is one of the fundamental objectives of the Law "On Information". After all, effective use of modern information technology plays an important role in improving the quality and improving student learning content, the organization of education at the level of modern requirements, refining and updating information on general and vocational subjects.

In accordance with the program on informatization process continues equipping schools with computer equipment, Internet connections and resources educational network «ZiyoNet».

Only last year, equipped with modern computer labs and multimedia technology in 2154 secondary schools, 376 colleges and high schools, as well as 280 resource centers. Project to create a national network of e-learning, combining educational institutions into a single high-speed corporate network based on fiber-optic communication lines. In parallel, we are working to improve the level of computer literacy of teachers, including organized system of remote training teachers.

Actively created new and updated existing electronic educational resources. So, created web portal eduportal.uz, providing the opportunity to use modern teaching materials for educational subjects in Uzbek and Russian languages. In educational network «ZiyoNET» 15260 videos taken dedicated educational and educational issues 1373 material relating to the study of foreign languages. Number of sites in the directory «ZiyoNET» was 1179. During the first quarter only portal taken over 75,000 resources (Fig. 11).

Also the Center for Implementation of e-learning in educational institutions of the Ministry of Higher and Secondary Special Education in the form of a public institution was established.

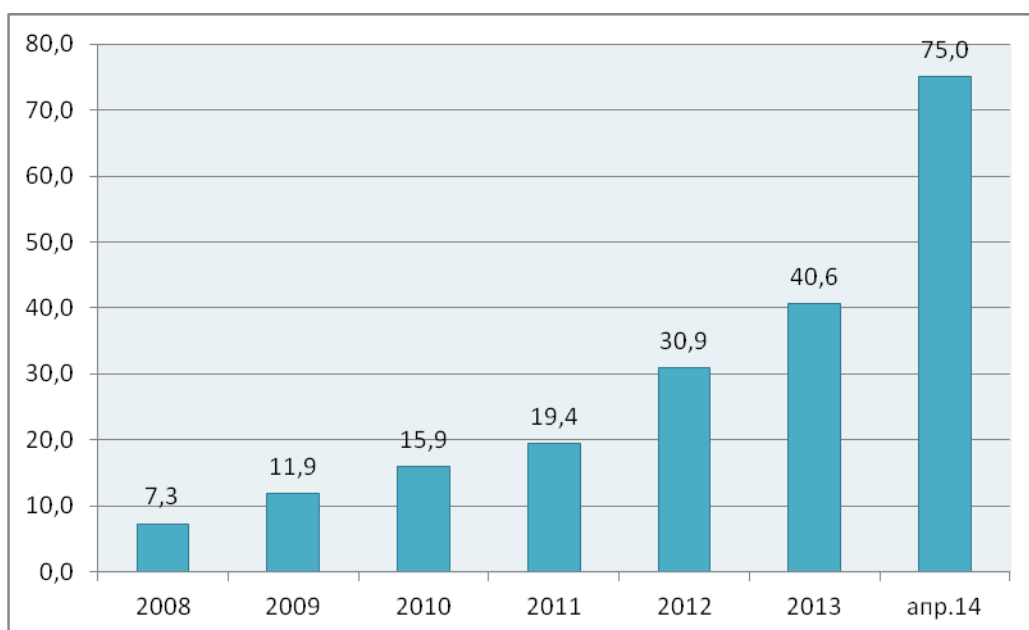


Fig. 12. The number of educational information resources in the library portal Ziyonet (thousand)²⁵

The main objectives of the Centre are the administration and implementation of the management functions of the National Network "Electronic Education", the realization of higher and secondary specialized educational institutions of projects on the educational process and research work, using information and communication technologies, including video conferencing and remote methods education.

The Center also organizes access higher and secondary special and vocational educational institutions to information and educational resources of the National Network "Electronic Education".

Center develops common requirements for electronic methodical complexes and other educational resources, created in higher and secondary specialized educational institutions and included in the national network of "E-education."

²⁵ www.ccitt.uz

The objectives of the center include analyzing and monitoring the effectiveness of the use of computer equipment in the educational process, to develop recommendations for updating computer and communication means higher and secondary specialized educational institutions.

Financing activities of the Centre shall be financed from the Development Fund of the higher educational institutions of the Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan, charitable donations, grants from international organizations; funds derived from economic activities, as well as other sources not prohibited by law.

Large-scale transformation in the field of information held under the leadership of President Islam Karimov, contribute to the further development and widespread adoption of ICT in all spheres of life of our country.

The most promising projects of information and communication system of our country applies Single Portal interactive public services my.gov.uz. It operates with the July 1, 2013 and serves as a convenient and effective tool for interaction with public authorities and public business entities.

Single portal for online public services (Single Portal) is a single point of access to online public services provided by state agencies, including a fee.

The main objectives of the Common portal are:

- Enabling users to directly supply appeals to government agencies;
- The integration of users with other projects in the field of information and communication technologies;
- Improving the efficiency of user interaction with public authorities;
- Reduction and elimination of bureaucratic obstacles and barriers for users when accessing to government agencies;
- Assist in the further development of "e-government" and the introduction of modern information technologies in public administration.

On a single portal of public services online services are available in real time, such as "Reception, registration and examination requirements for service connection fixed telephony and the Internet for businesses and individuals,"

"Reception, registration and review of applications for certificates of state tax service about the absence of taxes, "" Acceptance of applications for licenses in the telecommunications sector ", and others. In addition, entrepreneurs realized services in sending statements to obtain the appropriate licenses in various fields.

Focuses on a single portal is also given to the consideration of citizens' appeals. Through a single portal citizens and business entities may file an appeal to the authorities of the state and economic management of the government on the ground. Users can monitor the status of his appeal.

Among the currently available on a single portal of public services online, you can also find information and reference services nature provides users with a semi-automatic mode.

Also one of the main components of a single module of the portal is the "Statistics", which provides the latest information on the status of public authorities applications and appeals members. This module is aimed at ensuring transparency and openness of public authorities that will further enhance the effectiveness of cooperation between public authorities and the population of the republic.

Uzbekistan has great potential for the development of high-tech sphere. Domestic IT-industry is developing successfully created joint ventures, developed and implemented new software projects, internet gaining more space. Carried out consistent work in this field are the further development of information society in Uzbekistan and its integration into the global information space.

CHAPTER IV. SAFETY OF VITAL ACTIVITY

4.1. Main activities on electrical, labor protection, fire prevention

Technical means and methods, technical and organizational measures to ensure the use of electrical electrical computer class.

Electrical - a system of organizational and technical measures and means to protect people from harmful and dangerous effects of electric current, electric arc, electromagnetic fields, static and atmospheric electricity. And in accordance with "Regulations for Electrical" it provides the simultaneous implementation of three principles both in electrical systems:

- electrical structure;
- technical means and safety;
- organizational and technical measures.

The first two principles are mainly used in the design, manufacture (including testing and commissioning) and placing electrical systems and the third principle - only in their operation.

Range of technical methods and safety for electrical safety depends on the type of hazard:

- the dangerous and harmful effects of electric and electric arc;
- from the electromagnetic field;
- static electricity;
- the impact of discharges and atmospheric electricity.

Electrical installations, which include all PC hardware, represent a potential danger to humans. Impact of current may cause electrical injury, damage to the body that is electric shock or arc.

Paramount importance to prevent electrical accidents proper organization of maintenance of existing power plants, installed "Rules of technical operation of electrical installations" and "Regulations for Electrical". Places where there are jobs operators belong to the category of premises without increased risk of

equipment belong to the class of 1000 V. The operator works with equipment at 220 V. The most common are cases touch your hand or other parts of the body shells of computers and displays. To prevent injury from electricity should use the most cheap and effective way to protect you is earth and neutral. The human operator must be trained in the rules of operation of electrical equipment and first aid by electrocution.

For prevention and protection against static electricity must be used converters and humidifiers, and floors should be anti-static coating. Protection should be in accordance with sanitary norms of permissible electrostatic field - its level should not exceed 20 kV per hour. Dimly lit rooms with PC also harm the operator. It is known that one of the most important conditions for BC man is rational and sufficient lighting for the place and space in general. Computer class can be poorly lit, so that the operator has to strain the visual organs. Poor lighting can lead to vision loss, a decrease in efficiency, fatigue and rapid growth in the number of errors in the work performed. The operator is exposed to low light from the very beginning. Its impact continues until the work on the PC or office equipment. Consequences of poor lighting are the sand in the eyes, the shadows before his eyes, voltage visual organs. Consequences pass some time after finishing work for the PC. Duration "recovery period" depends on the time spent at the computer in low light. To prevent exposure to this hazard must take care in advance of the normal lighting system corresponding SG standards, as well as use local lighting in the workplace, if it is necessary to work with important documents. When illumination operator jobs are not recommended for long-term stay and PC reduce time for them to a minimum, try to find a place in the computer lab in a brightly lit room, and if this is not possible, then do more work interruptions.

4.2. Effects of electromagnetic radiation from the monitor

Electromagnetic radiation monitor is a very important, exciting and difficult question. An increasing number of professionals recognize that they do not have sufficient amount of knowledge to speak with confidence about the safety of radiation display. Computer radiation spectrum includes X-ray, ultraviolet and infrared regions of the spectrum, as well as a wide range of electromagnetic waves at other frequencies. Danger of X-rays is now considered by experts negligible, because this type of ray is completely absorbed substance screen. The attention of researchers now attract the biological effects of low-frequency electromagnetic fields, which until recently were considered harmless.

To reduce the potentially harmful radiation of video terminals it is advisable to take special precautions against low-frequency fields. Since the high-voltage source display - line transformer - is placed in the rear or side of the terminal, the radiation level at the rear of the display above the walls of the shell does not shield radiation. Therefore, users should be no closer than 1.2 meters from the rear or side surfaces of adjacent terminals.

Observations and studies in recent years have revealed the feasibility of setting in close proximity to display pots with cacti, whose presence reduces the intensity and the harmful effects of electromagnetic radiation monitor.

The room must be provided protective covers to the live parts, ensuring full (partial) protection of human touch. Live parts must have a secure location, which is achieved by placing them at such a height that a man or a mobile machine is not able to touch them in the process.

Outdoor electrical temporary power must be made by insulated wire and placed on poles at a height of not less than 2.5 m above the ground, floor or deck above the working place, not less than 3.5 m above the aisles and not less than 6 m above passages. Lamps for general lighting voltage 127 V and 220 V are installed at a height of not less than 2.5 m above the ground, floor or deck.

To minimize the possibility of electricity from injury it is necessary to carry out periodic monitoring of insulation resistance measurement of insulation. Control is carried out during the installation, repair, emergency stop or longer stay inactive of electric systems, during operation.

The perfect complement to the overall protection against emergencies and accidents are automatic shutdown in case of danger. This fast protection, which automatically cuts off power plant in the event of it a shock hazard. This danger arises when insulation resistance decrease phases below the maximum permissible level, when new housing in electric system dangerous combination of current and time of its occurrence, a single-phase earth fault, as well as in the case of a person touching directly to a conductive part that is under voltage.

General measures to protect the environment at work PC. Standards require that equipment during operation does not pollute the environment or physical or chemical or biological factors and higher standards of safety and environmental protection. As mentioned above, modern computing equipment is designed and manufactured in compliance with the strictest hygiene requirements. PC Components themselves are not the source of any toxic or hazardous substances. However, during operation of computer technology and in planning for the protection of the environment should consider the following circumstances:

- your computer is a source of excess sensible heat;
- construction of a standard PC contributes to the accumulation of dust particles in it, that in certain situations it may be a source of dusty;
- alcohol and other substances used for cleaning parts and components parts PC may be a source of harmful or noxious fumes.

As we can see, the main effect of computer technology has on the air environment of the room. In rooms with PC recommended conditioners, and they are the primary means of protection of the environment from the above factors. Included in the air conditioners cooling means compensate for the allocation of excess heat and cleaning agents and air filters clean the air from dust and fumes. To prevent dust premises regularly recommended procedure of removing dust from

the system unit with a vacuum cleaner and a rag soaked in technical, medical or food alcohol. The room in which you install the duplicator or computer should be well ventilated (preferably with air).

4.3. Measures to prevent accidents and fires and mitigation

The safety from fires and explosions is a state of the object economy and its processes, in which the probability of a fixed rule out the possibility of fire and explosion effects on people and their hazards, as well as the protection of property is carried out. It provides a complex of organizational, fire, engineering and special events and tools such as the operation of facilities, and in cases of reconstruction, repair or emergency (emergency) situation. Consequently, it is implemented consistently at the facility, functioning in normal (normal) mode or in an emergency. In this case the normal mode at the facility Firefighting economy prevents fire and explosion, and as a result - the emergence and development of disaster.

The required level of fire safety of the facility shall not be less than 0.999999 prevent exposure to hazards in the year, based on each person, and the allowable level of fire danger - not more than 10^{-6} exposure hazards of fire per year per person.

In organizational - technical activities include the organization of fire protection, certification of combustible substances, materials, processes and buildings for fire safety, development and implementation of rules and regulations on fire safety, compliance with fire safety conditions.

In the premises of a computer class can form explosive dust-air mixtures only when accidents or malfunctions. Regulations for Electrical considering explosive properties and quantities are in production areas and outdoor settings provide classification fire zones.

Fire safety systems provided object fire prevention and fire protection, as well as organizational - technical measures during its operation. To extinguish fires

using physical and chemical methods. On physical method uses cooling, dilution and isolation, while the chemical method - desensitization. Essence of the latter is to bind the active sites of the combustion chain reaction. For desensitization performed volumetric dilution combustible environment phlegmatizing agents and formulations, and for solid and liquid combustibles - irrigation of the surface by the same substances and preparations. Combustible components in rooms with computer technology may be related to construction materials for acoustic and aesthetic decoration, walls, windows, doors, flooring, furniture, cable insulation, structural elements made of plastics, liquids to clean the PC components and assemblies from pollution. Ignition source - electrical sparks, arcs and overheated land elements and structures PC devices, air conditioning and electricity.

The modern fires occur due to reasons of non-electrical and electrical nature. The reasons for non-electrical include:

- careless and negligent handling of fire;
- incorrect or defective heating apparatus;
- Faulty equipment and violation of the production process;
- Wrong device and failure of ventilation systems and air conditioning;
- spontaneous combustion, spontaneous combustion of certain substances.

In order to eliminate these causes include actions of organizational, operational, technical and modal character.

The organizational measures include: training working fire regulations, briefings, etc. To work independently on the PC and on modern duplicating machines that are in the computer lab, allowed a person past the preliminary medical examination.

Once every six months, a second staff briefing. Persons who have received all kinds of instruction, independent work is not allowed. If you violate the requirements of the instructions and safety rules held unscheduled briefing.

By operating activities - correct operation of machinery and equipment, proper maintenance of buildings and grounds; to technological activities - compliance with fire safety regulations in the heating, ventilation and air

conditioning; to regime activities - not banning smoking in designated locations, production welding in combustible areas.

The reasons include the nature of the electrical short circuit, overload, high contact resistance, arcing and electric arc, static electricity. For these reasons, preventive measures include the use of fuses, the correct installation of networks, machines and devices, the correct choice of electrical wires, preventive inspections, repairs, testing them, etc.

In general, fire safety should be ensured object systems fire prevention and fire protection, as well as organizational - technical measures during its operation.

Conclusions. In carrying out this work were obtained and applied theoretical knowledge and practical skills to ensure life safety of workers in areas with a PC. So in the course of work, we examined the methods and means of PC users from dangerous and harmful factors, identified the main requirements to be placed with a PC, take into account the human factor, modern sanitary requirements in the design of the working environment. In addition, the settlement presented a constructive solution to issues such as: the design of artificial lighting, local air-conditioning system with independent air conditioning for the room with the PC. In the final part of the paper we have considered the basic measures to ensure electrical safety and fire safety in areas with computer technology, as well as measures to protect the environment when working with a PC.

CONCLUSION

Information Economy (Knowledge economy) is an economy based on knowledge, in which a large part of the gross domestic product is provided by activities of production, processing, storage and dissemination of information and knowledge, and participate in the work, more than half of the employed.

Background research is that the main trend of economic development is the growing role of information and knowledge in contemporary society, and the development of information society in Uzbekistan and its integration into the global information space.

The first chapter was the theoretical basis of development of the information economy, the evolution of economic systems, the concept of information in the information economy and as an economic resource. It should be noted that the theory of industrial development provides for the allocation of three stages: pre-industrial economy, industrial and post-industrial. Postindustrial society is a society in which the economy as a result of scientific and technological revolution and significant income growth has moved from the pre-emptive priority commodity production to services. Become a productive resource information and knowledge. Scientific developments become the main driving force of the economy. The most valuable features are the level of education, professionalism, creativity, learning and employee.

In the second chapter we have investigated legal aspects of the development of the information economy in Uzbekistan, creation and development of government portal, as well as analysis of the main indicators of the information economy. After analyzing, we can conclude that the development of the information economy in Uzbekistan is rapid and has great prospects for the future. Also there are a number of problems of development of the information economy. These challenges include: the lack of qualified personnel, low innovation activity, leakage of human capital abroad, lack of full computerization of the population, limited access to global information networks, lack of strategy and so on. To solve

these problems today directed the government, which has an active policy in the field of investment in high-tech industries.

In the third chapter examined trends in the development of information economics abroad, as well as socio-economic aspects of the information economy. Today in all major developed countries and operate state programs for entry into the global information society. In the context of globalization of information and communication technologies have become one of the main factors of economic growth. Speaking about the socio-economic aspects should highlight the role of information technology in education. Uzbekistan has created new and updated existing electronic educational resources, created an educational portal, continues equipping schools with computer equipment, Internet connections and resources educational network «ZiyoNet».

Thus, the prospects for development of the information economy in Uzbekistan largely depend on sound and balanced public policy in this area. In addition, the state should ensure the production of those information products that remain outside the scope of the market.

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