

Formation of Educational Level of the Population of Ukraine in the Conditions of Formation of Information Society



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Abstract: *The scientific Foundation of the formation of the educational level of the population of Ukraine in the conditions of the creation of the information society was early research. The study based on one of the strategic goals of sustainable development, namely: "Overcoming poverty in all its forms. The current provisions of the implementation of sustainable development were approved in 2015 at the UN Summit on sustainable development. Improving the educational level of the population of Ukraine in the conditions of formation of the information society is the basis of the mechanism of poverty prevention and improving the quality of life.*

In the article, the authors established the essence of the concept of "information society", determined the prerequisites for the emergence of the information society in Ukraine, revealed the peculiarity of the formation of the information society in Ukraine. The authors proposed an author's vision of the process of creation of the educational level of the population, substantiated the feasibility of applying a systematic approach to diagnosing the level of education of the people. The authors examined the results of diagnosing the educational level of the population of Ukraine in the context of the formation of the information society for the period 2000-2018.

Keywords : Educational Level, Information Society, Population, Ukraine.

I. INTRODUCTION

Rapid scientific and technological progress, gained momentum in the second half of the twentieth century, is the

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result of the gradual development of science and technology and the process of accumulation and creation of new knowledge, fundamental and applied research, creates the basis for the formation of new requirements for the educational level of the population of Ukraine. There is no doubt that the adoption of sound management decisions in various spheres of life of the community based on the

principle of Informatization. Information technologies have penetrated almost all areas of society and have become common attributes of its daily life. In modern conditions of development of society, it becomes evident that society formed and exists in the knowledge economy. The acquisition of new knowledge occurs in the process of information transformation. Thus, the increase in the educational level of the population, it is advisable to consider through the processes of formation of the information society, which occur based on information technology.

Compare the level of education in Ukraine and in the EU countries (Fig. 1).

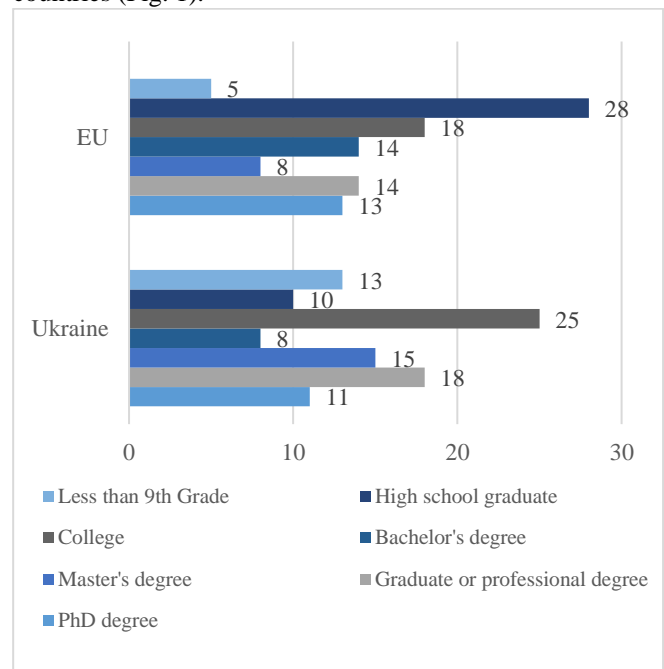


Fig. 1. The level of education in Ukraine and in the EU countries

The aim of the study is to determine empirically the current trends of the educational level of the population of Ukraine in the conditions of formation of the information society and to develop on this basis a set of measures to improve it.



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Proceeding from the purpose, the following *tasks* were set and solved in the study: to establish the essence of the concept of "information society"; to identify the prerequisites for the formation of the information society in Ukraine; to determine the features of the formation of modern society in Ukraine; to form the mechanism of growth of the educational level of the population; to diagnose the educational level of the population of Ukraine.

II. METHODOLOGY

A. The methodological basis

The methodological basis of the study is primarily a set of methods of scientific knowledge, General scientific and special research methods. The theoretical basis of the author's statements regarding the formation of the educational level is the fundamental research of domestic and foreign scientists in the field of economic theory, regional Economics, sociology, strategic management of socio-economic development of regions. The problems of improving the educational level in Ukraine reflected in the research [1-4]. However, some important issues of the formation of the educational level of the population of Ukraine in the context of the formation of the information society often ignored by scientists, which necessitated this study.

The problems of formation and development of the information society are considered in the works [5-14]. However, modern conditions of information society formation require theoretical and methodological substantiation of information influence processes on social activity, including the formation of an educational level of Ukrainians. Generalization of scientific points of view in this aspect allowed establishing that despite a significant number

of scientific achievements, some elements of this multifaceted problem remain controversial and require further study. The impact of information on the educational level of the population of Ukraine in the conditions of formation of the information society was assessed using trend analysis on the basis of official statistical data, which revealed a stable tendency to increase the educational level of the population of Ukraine during the study period, and the results are the initial data for further forecasting.

B. Research process

Information, in General, means information about the world, the processes that occur in it, events, situations, phenomena that are received and exchanged by people directly or through specific devices. Since the mid-twentieth century, information has become a General scientific concept. The most pronounced property of data is the ability to make changes. The practical value of news depends on what role it plays in decision-making, as well as on the ability to use it [6].

Information, from an economic point of view, is a universal resource that is used by all sectors of the economy and is a set of data, facts, knowledge about its components, objects, subjects, transmitted directly or indirectly from source to consumer [7].

The basis of the information form of the company's development is information activity, which, according to the Law of Ukraine "on information" (the Law of Ukraine "on information"), should be understood as the creation, collection, receipt, storage, use, distribution, protection and protection of information, that is, a set of actions aimed at meeting its information needs. The process can be automated (Fig. 2).

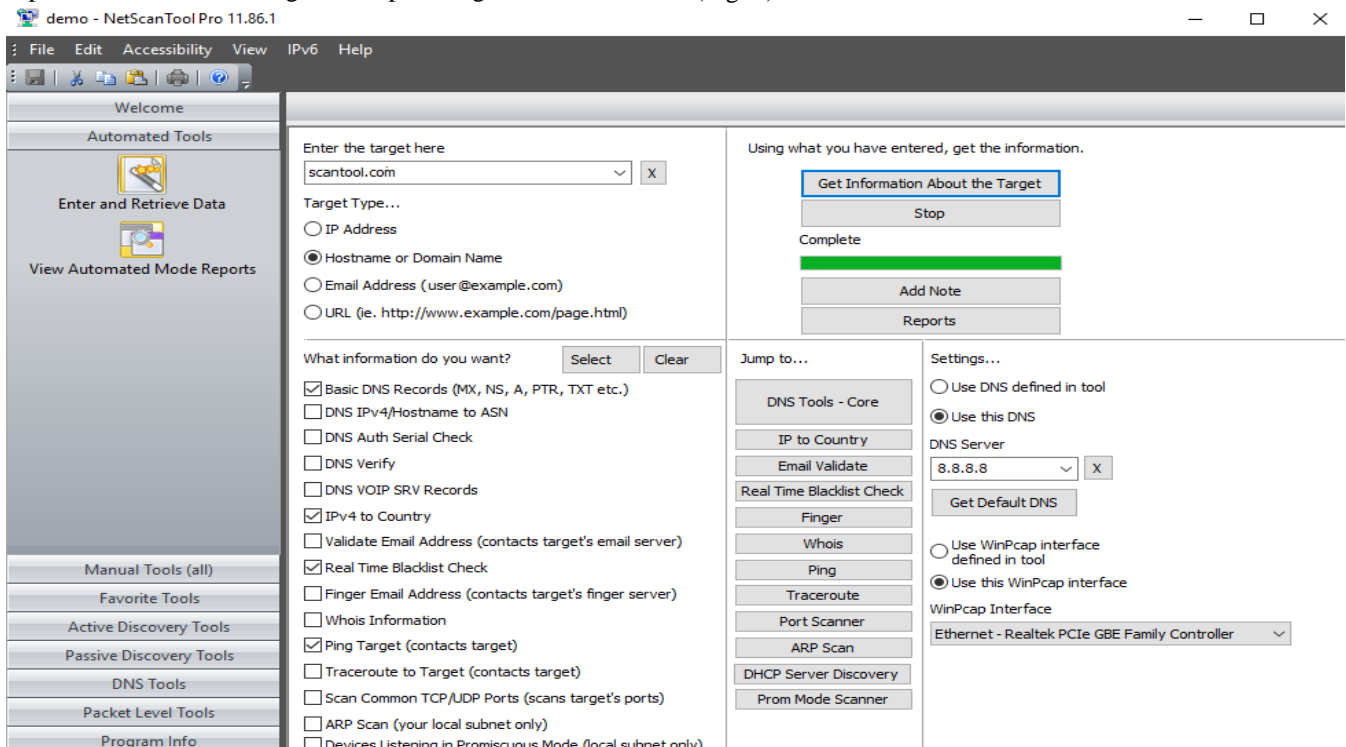


Fig. 2. Process automation

The term "information society" was introduced into scientific circulation in the early 60-ies practically simultaneously in the United States and Japan by F. Machlup and T. Umesao [9]. In the late 20th century, the term "information society" gained recognition after the publication of the book by Y. Masuda [10] and the works of American and European researchers, who began to focus on the role and importance of not so much information as knowledge.

Since 1992, the term "information society" has been used by many Western countries. According to the definition of the European Commission, according to which information is a society in which people's activities are carried out based on services provided by information and communication technologies. In the information society, the dominance of the service sector, that is, science, education, health, culture leads to the creation of conditions for the comprehensive development of man, his mental and physical abilities. The information society is an investment in human beings, since their scientific, educational and professional level, as well as their knowledge, are the source of social progress. The uniqueness of the concept of information society lies not only in the fact that it is global in nature but also in the fact that it is associated with a variety of new categories: information, Informatization, informativity, virtualization, knowledge economy, etc. [11].

Based on the above, it turns out that the prerequisites for the formation of the information society in Ukraine can be considered: first, the rapid introduction of the latest information technologies into the life of the Ukrainian population and its environment; second, the emergence of a huge number of sources of information, which complicates its perception and understanding; third, the fact that the modern information environment transcends state borders. Along with these prerequisites, information shifts have contributed to the strengthening of economic, cultural, scientific and other contacts, which led to the emergence of new flows of information, that is, the role of information resources has increased. It is this fact that the authors consider the starting feature of the formation of modern society.

Also, in modern digital society, the extensive use of the Internet has facilitated the availability of information, as evidenced by statistics (Fig. 3).

Justifying the impact of information on the development of society, it is appropriate to recall the statement of N. Rothschild: "who owns the information – owns the world." This statement emphasizes the need, importance and timeliness of information ownership. Therefore, it can be concluded that a prerequisite for the formation of the educational level of the population of Ukraine in the conditions of formation of the information society is to provide information products of all forms of society. In this case, the components of the information form of development of Ukrainian society appear [15]:

- objects of the information sphere, which include information resources, which in turn are based on ideas and knowledge accumulated as a result of scientific and technical activities of people and presented in a form suitable for

collection, implementation and reproduction;

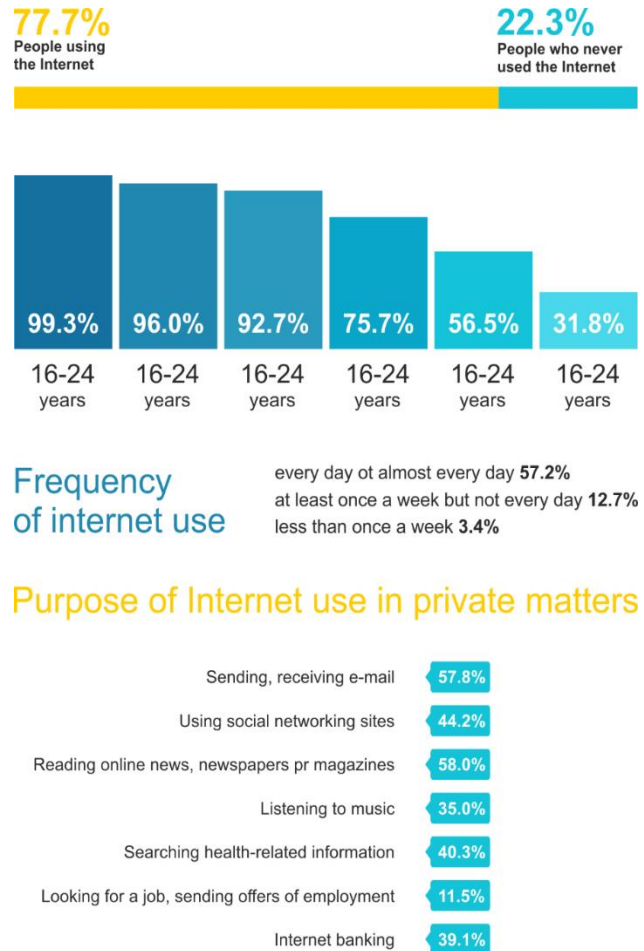


Fig. 3. Using the Internet in Information Society

- information infrastructure, which is represented by the organizational structure that ensures the functioning and development of the information sphere, information and telecommunication structure, information, computer and telecommunication technologies, the media system. All this, in turn, provides the organization of interaction of information flows, functioning and development of means of information interaction and information space of society;

- subjects of the information sphere, including individuals and legal entities, economic, social, political, cultural, social and political (state) communities.

It should be noted that in the conditions of formation of information, society knowledge and information become essential elements of activity of the population and the decisive factor of its competitiveness. Consequently, knowledge becomes the fundamental basis of modern society and all its spheres from cultural to economic and political. Under the new knowledge in this context, refers to the increase in information about the functioning of any objects and their properties, as well as the processes and phenomena of reality, previously unknown to science. The process of formation of new knowledge, according to the authors, is as follows (Fig. 4).

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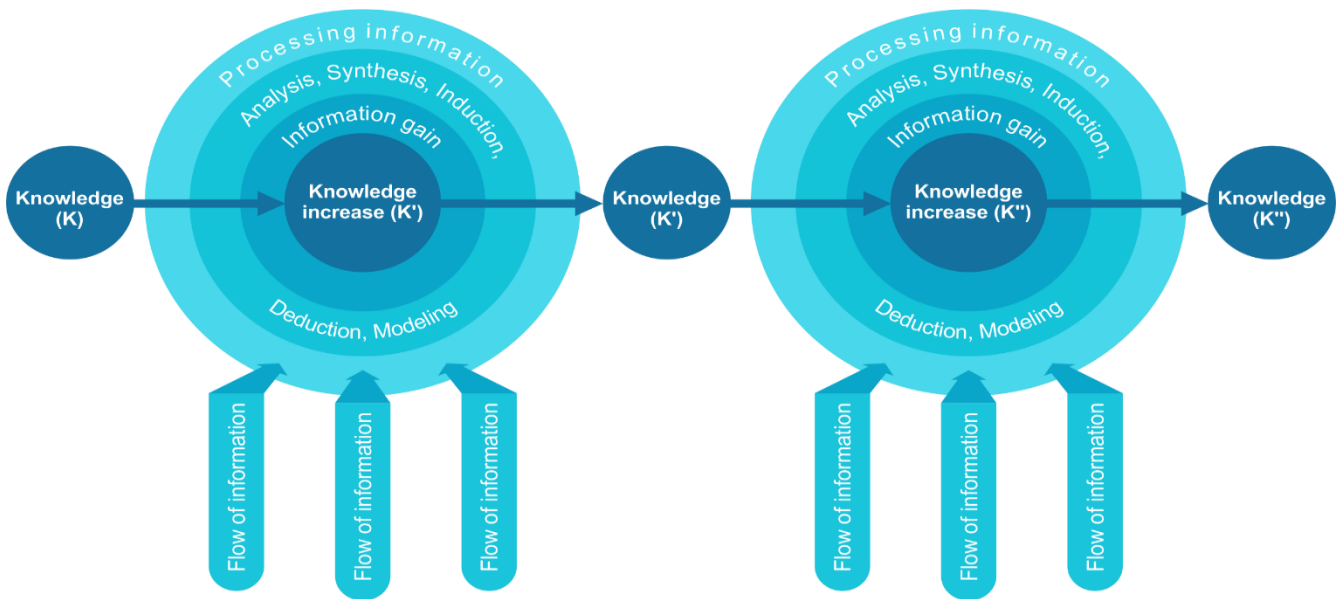


Fig. 4. The mechanism of formation of growth of the educational level of the population

As already noted, scientific and technological progress has significantly changed not only the content and nature of work but also affected all spheres of human life. First of all, it happened as a result of the introduction of new information and communication technologies, creation on their basis of progressive means of production and techniques. This, in turn, led to the intellectualization of all spheres of human activity. Modern world trends in the creation and accumulation of new knowledge in all fields of science and engineering require high educational qualification and cultural level of man, but also to radically change its position in social production and social life [16].

Thus, in current conditions of development of society, it is indisputable that society formed and exists in a knowledge economy. Human behaviour in the information society reflects the economic activity of the individual, his ability to

navigate in the information space. The degree of accessibility and comfort of using the aggregate information resources or, in other words, the opportunities that society provides to the individual seeking to take place as a professional and a person manifested in the information behaviour. It seems that in the near future the fate of each individual will depend on how quickly it is able to find, perceive and productively use new information (new knowledge) in their daily lives. More clearly, this thesis can be confirmed by diagnosing the educational level of the population of Ukraine over the past ten years.

C. Diagnosis of the educational level

The diagnostic procedure, according to the authors, should be constructed as follows (Fig. 3).

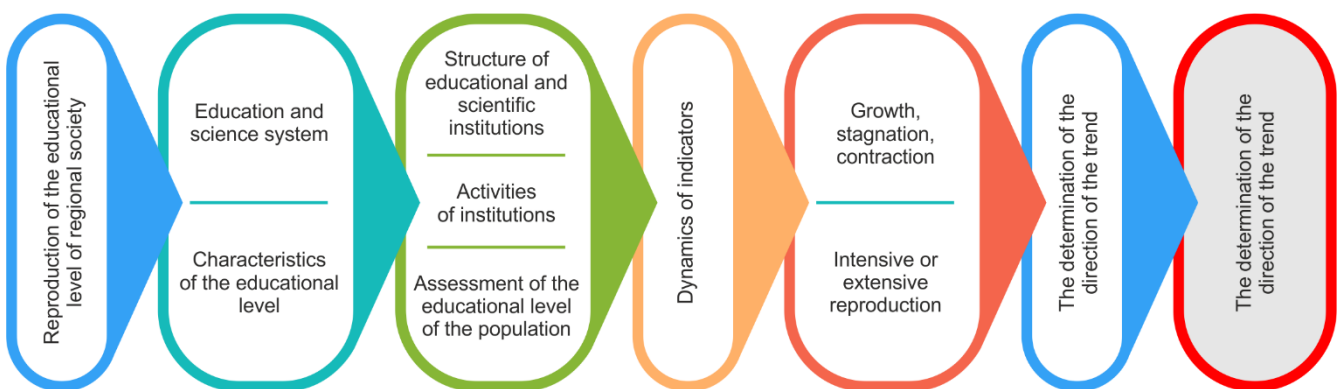


Fig. 5. A systematic approach to the diagnosis of the educational level of the population

Diagnosis educational level of the population of Ukraine in conditions of formation of the information society must be based on a systematic approach, since it allows to determine the influence of each component of this process (changes in the structure of institutions of education and science, coverage and accessibility of educational institutions, the

direction and rate of change of the relevant indicators of educational level of the population, and others) in the totality, that is, the level of education of Ukrainians [17]. The diagnostic results are presented in Table. 1.

Table- I: Results of diagnostics of the educational level of the population of Ukraine 2000-2018

Indicator	Trend model	Trend direction			Symptom	Diagnosis
		reduction	stagnation	growth		
Number of preschool institutions, thousand	$y = 16,289 - 0,153x$ $R2 = 0,315$	+			Actual danger	Diagnosis, forming an idea of increasing the educational level of the population during the study period
they have seats, thousand	$y = 1123,5 + 1,9x$ $R2 = 0,008$			+	No danger	
Number of children in preschool institutions, thousand people	$y = 1098,2 + 33,183x$ $R2 = 0,319$			+	No danger	
per 100 seats	$y = 97,889 + 2,4x$ $R2 = 0,420$			+	Actual danger	
Number of General education institutions, organisations	$y = 22610 - 755,55x$ $R2 = 0,979$	+			Actual danger	
Preparation (release) skilled workers by vocational educational institutions, thousand people	$y = 298,32 - 18,12x$ $R2 = 0,913$	+			Actual danger	
Trained specialists in universities III-IV levels of accreditation	$y = 363,58 + 2,89x$ $R2 = 0,004$			+	No danger	
Prepared candidates of Sciences, persons	$y = 6989,1 + 36,367x$ $R2 = 0,007$			+	No danger	
Prepared by doctors of Sciences, persons	$y = 373,17 + 23,5x$ $R2 = 0,695$			+	No danger	

III. RESULT AND DISCUSSION

Thus, the results of the analysis allow us to establish a diagnosis that forms an idea about the increase in the educational level of the population of Ukraine during 2000-2018. General, the results of the diagnosis showed a positive trend in the reproduction of the educational level of the population of Ukraine, which is characterized by existing opportunities for obtaining an appropriate educational level; creating conditions for lifelong learning; providing quality and affordable educational services.

IV. CONCLUSION

The scientific points of view of various authors in relation to the essence of the concept of "information society" were summarized, resulting in the conclusion that this category is global in nature and provides for investment in the formation of scientific, educational, professional level of the country's population, since in the conditions of formation of the information society, knowledge is a source of social progress. The prerequisites for the emergence of the information society in Ukraine, including the rapid introduction of the latest information technologies in human life and in his environment; the emergence of a large number of independent sources of information; the output of modern information space beyond national borders. The feature of the formation of modern society the essence of which is to increase the role of information resources, taking into account which developed the author's mechanism of formation of the educational level of the population of Ukraine. The expediency of using a systematic approach in the diagnosis of the educational level of the population of Ukraine is proved. Results of diagnostics of the educational

level of the population of Ukraine, which received by an assessment of changes in structure and activity of institutions of education, science, are presented. Because of the diagnosis, a positive trend of reproduction of the educational level of Ukrainians was obtained, which indicates the existing opportunities for obtaining the appropriate educational level; creating conditions for lifelong learning; providing quality and affordable educational services. The conducted research is the initial information base for forecasting the educational level of the population of Ukraine for future periods. This contributes to the timely development of effective strategic decisions to improve the quality of life of the population.

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