# Transformation of Intellectual Capital into Intellectual-information in the Process of Formation and Implementation Modern Information

Halyna Nahorniak<sup>a</sup>, Andriy Sverstiuk<sup>b</sup>

<sup>a</sup>Ternopil Ivan Puluj's National Technical University, Ruska st. 56, Ternopil, 46001, Ukraine

#### Abstract

The new stage of development of modern economy caused as information economy, is characterized by the increasing value of knowledge and information which are provided, in turn, by creation of the mechanism of realization and development of the economic relations of unique resources which arise in the course of their transformation in the capital benefits of society. Increase in a role of information and knowledge in modern economy induces to development of new functional forms of capital, such as intellectual capital, information capital, brand capital, etc. However, noting specifics of each of the specified forms, it is necessary to emphasize complexity their disengagement in real economy. The necessary synthesizing approach which allows to render on the basis of the qualitative analysis of the general regularities of the economic address of these forms of the capital features of transformation of the intellectual capital in information and intellectual in process formation that to implementation of modern information technologies of subjects of economic activity. However, noting specifics of each of the specified forms, it is necessary to emphasize complexity their disengagement in real economy. The necessary synthesizing approach which allows to render on the basis of the qualitative analysis of the general regularities of the economic address of these forms of the capital features of formation of the intellectual and information capital in general.

### **Keywords**

Intellectual capital, intellectual and information capital, information technologies, information systems, knowledge, digital economy.

## Introduction

In the conditions of change of a paradigm of civilization development, connected with the developing world financial and economic, energy and epidemiological crisis gains the special theoretical and practical importance of a research of the intellectual capital as key resource of the modern enterprises, definition of the directions of its influence on ensuring constant development. Ensuring constant development of the enterprise which allows to keep its competitiveness acts as strategic priorities of management of the intellectual capital, to create conditions for economic security and to form a basis for ensuring profitability of business. Formations of qualitatively new relations between employees of the enterprise and its management are a necessary condition of development of the intellectual capital. The highly qualified modern specialist takes care of increase in the intellectual and cultural level as he sells to owners of the enterprise not the ability to work, and concrete results of intellectual activity. Therefore in new conditions the importance of formation at workers not only professional kompetents, but also creativity, persistence, personal initiatives, creativity, ability to production of the fruitful business ideas which turn into a special type of the human capital increases.

Dynamic development of modern society possible only in conditions intensive, resistant, the directed development and reproduction of the personality, her intellectual and creative opportunities. In the advanced corporations of the world the attention is focused on uniqueness and exclusive value of a contribution of each worker both purposeful and maximum use of his intellectual potential that is a basis of reproduction of the general capital of the enterprise. The intellectual capital of certain workers forms intellectual potential of society that is a key factor, has influence on formation of innovative economy. In such economy people who own knowledge, professional competences, capable to intellectual activity, continuous formation and increase in the creative potential become the main strategic resource of development.

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EMAIL: Galinka2005\_08@ukr.net (Halyna Nahorniak); sverstyuk@tdmu.edu.ua (Andriy Sverstiuk); ORCID: 0000-0002-5446-2417 (Halyna Nahorniak); 0000-0001-8644-0776 (Andriy Sverstiuk)



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<sup>&</sup>lt;sup>b</sup>Ternopil Ivan Gorbachevskij's National Medical University, Maidan Voli, 1, 46001, Ukraine

As theoretical basis of a research are theoretical researches of economic science, results of scientific views of domestic and foreign scientists from problems of transformation of the intellectual capital in intellectual and information, development of modern information technologies of subjects of economic activity, normative legal acts of public authorities management act. Dynamic development of modern society possible only in conditions intensive, resistant, the directed development and reproduction of the personality, her intellectual and creative opportunities. In the advanced corporations of the world the attention is focused on uniqueness and exclusive value of a contribution of each worker both purposeful and maximum use of his intellectual potential that is a basis of reproduction of the general capital of the enterprise. The intellectual capital of certain workers forms intellectual potential of society that is a key factor, has influence on formation of innovative economy. In such economy people who own knowledge, professional competences, capable to intellectual activity, continuous formation and increase in the creative potential become the main strategic resource of development.

Active participation in a research of the intellectual capital was taken by foreign scientists: E. Bruking, S. Payk, Y. Ruus, T. Stewart, K. Taylor, J. Tis, L. Fernstrem, Y. Schumpeter, L. Evynsson.

In Ukraine a research of this problem is covered in scientific works of such Ukrainian scientists as: V. Bazilevich, V. Vrublevskiy, N. Gavkalov, V. Geyets, A. Gritsenko, B. Dergalyuk, Yu. Zaytseva, A. Kolot, L. Kurilo, L. Lazebnyk, V. Lychf, G. Lyashenko, E. Libanova, V. Mandybura, A. Oleshko, S. Onyshko, Yu. Pahomov, V. Savchuk, V. Svichkar, L. Fedulova, A. Chukhno, O. Shkurupiy, V. Yakubenko, etc.

Being the property reproduced by the party, the intellectual and information capital also, as well as traditional forms of capital, in the course of the reproduction provides economic realization of the relations of property in certain, inherent in it to a form. In this regard objective need is formations and distribution of investment income which arises in the course of use of intellectual and information capital as significant factor which provides not only expanded reproduction of knowledge and information, but also coordination of economic interests. The increasing value of information and knowledge in modern economy finds the expression both in theoretical researches, and at the political level – when developing concepts and programs of social and economic development of the different countries. It is necessary to mark out importance of development of social and economic institutes which govern economic the relations of subjects of intellectual activity on which the efficiency of reproduction of the intellectual and information capital caused not only by the level of development of productive forces of society, but also degree of the specification of the property rights depends. Thus, defining efficiency of economic development both on micro, and at the macrolevel, the intellectual and information capital is the most significant factor of competitiveness of national economy. The relevance of a subject of a research consists in need of creation of effective mechanisms formation and reproduction of intellectual and information capital in a national economic system.

The XXI century is an era of active development of digital technologies and communication technologies, the Internet, IT which is characterized, generally digitalization and automation of all processes which can be automated. The material world intertwines with the world virtual more and more closely, and in the near future the digitalization and the so-called "hybrid world" (the world formed to combinations of two realities) will become the integral characteristics of new reality. Digital transformations gradually gain steam, and more and more production and management processes automate. Many functions are delegated between people and cars, and something is already completely transferred to "hands" of devices, robots and artificial intelligence. From this trend in the future the refusal of a part of professions and spheres of professional activity in which involved (or were involved) people naturally follows. Many professions already begin to disappear, and it means that a large number of jobs will be released and will disappear that will lead to irreversible changes in the sphere of personnel management. Shortly to the person to sustain the competition to the equipment and to keep "afloat", new competences will be necessary. The inevitable reality induces the modern worker to develop new habits which will not allow it to be "thrown out by what a board" work and to avoid unemployment to which, in connection with the future global release of personnel caused by digitalization and business process automation, perhaps threatens to become a new scourge of the Ukrainian or even world reality.

Significant growth in the sector of economy which development is the cornerstone processes of transfer and information processing, improvement of information technologies and mass character their introduction to all spheres of life of society allows to say that "post-industrial society is not a projection and not extrapolation of the development trends which are already existing in the western society, but the new principle of the social and technical organization of life, the same as industrial system which replaced with itself agrarian" [1, p. 40].

Allocation in the history of a world civilization of three waves of development of society was offered

in Elvin Toffler's work "The third wave" (1980). In social development, according E. Toffler, four spheres interact: techno-, sotsio-, info – and the psychosphere, but the crucial role in the wavy direction of changes is played by the first of them. Therefore, as a source and driving force of innovations in society technological revolutions as a result of which they are formed agrarian (to the XVIII article), industrial (to the 50th of the XX article) and post-industrial (from 50th and till present) stages of social development act. Last, "third" wave of development of society E. Toffler calls information, fairly including that formations and further development of information society are result of this post-industrial wave. As intrinsic characteristics of this society it allocates reduction of concentration of production, growth of quantitative volumes and qualitative value of information exchange, development of the personal human capital on the basis of individual economic interests, at the same time a solidarization of the last in the course of social and economic relationship and formation of social groups. "In these conditions has to fall on each dollar invested in economy of the Third wave several dollars invested in the human capital – at training education, retraining working, resettlement, social rehabilitation, cultural adaptation" [5].

Thus, in researches of the authors stated above, individualization of accumulation of the human capital, on the one hand, and growth of a role of the cumulative capital of information and knowledge as most significant production factor of modern economy, from another acts as a social and economic prerequisite of formation of information society. Technical and technological prerequisites of development are defined by the level of development of modern technologies of automation of production, and, first of all, information and communication technologies in sphere of formation and scientific research, production and administrative systems.

At existence of a large number of approaches, most of domestic and foreign scientists committed to opinion which act as a basic component of the intellectual capital knowledge intellectual resources that is result of mental activity and such component as a strategic business asset be what enterprise which uses it for obtaining competitive advantages and value creation. At the same time, the carried-out analysis shows that a number of the existing definitions differ in an insufficient specification, lack of the analysis of functioning and development of the intellectual capital in the conditions of management of digital economy. In the majority of works there is a common fault connected with lack of conditions of interaction of different components of the intellectual capital, at which possible synergetic effect (accounting of added value, competitive advantage, etc.).

In general, the intellectual capital needs to be considered at the individual, corporate and state levels. The individual intellectual capital is a set of individual abilities of the worker, the saved-up stock the identity of common cultural, special and special knowledge, professional kompetences which are implemented in objects of productively used intellectual property and copyright which allow the worker to gain additional income and other benefits. Fully the individual human capital is embodied in conditions of its transformation to a part of the intellectual capital of the enterprise where it finds not only the sphere of own application, but also an opportunity for development in the form of different forms of knowledge embodied in an object.

In modern conditions of post-industrial development the intellectual capital is created and concentrates, first of all, at the level of big corporations as small and medium-sized enterprises have no financial and organizational opportunities to solve cardinal problems of scientific and technical progress: they lack investments, highly professional personnel, opportunities of its continuous training, with firmness to maintain competitiveness in the work market, to provide efficiency, dynamism of reproduction of all system.

Formation of points of growth and development which treat acts as the most important problem of functioning of subjects of economic activity: creation and development of own, hard copied by other enterprises organizational competences and resources (intellectual capital) connected with opportunities to generate new knowledge, development of uniqueness of the enterprise as offer bases to them to consumers of unique goods and services. Therefore, the modern enterprises want to transformation to the centers of attraction of different forms of creative innovative activity, including in the structure not only the industrial enterprises, but also research establishments, education, research and other centers of generation of knowledge.

In recent years the trend of activization of social orientation of corporations which becomes one of its main attributes today became widespread in the leading countries of the world and in Ukraine, creating not only the corresponding image it to owners, but also providing constant development of corporations.

The intellectual capital of the state contains multidimensional set of quality characteristics which include scientific, human and information resources, innovative technologies, the accumulated competitive and high-performance knowledge, competences, abilities, ability, habits of people, the saved-up economies, as are implemented in all spheres of activity and also quality of life which provide in total competitiveness of

economy of the state in the world markets in the conditions of civilization development.

The analysis and assessment of intrinsic characteristics of the intellectual capital assume a research of its main functions as economic category. Through the performed functions the basic purpose is implemented be what economic category, including, and the intellectual capital. We consider that taking into account the need evaluation of the intellectual capital in terms of the theory of management, it is offered to allocate the following main functions of the intellectual capital:

- generating which is connected with interaction and interpenetration of structural elements of this capital which allows to create positive effect, to increase efficiency and effectiveness of integrated management of the enterprise;
- cost that promotes gain of volume of net profit and to increase in the cost of the enterprise due to formation and realization of necessary intellectual resources which allow to create the competitive advantages generated by the system of non-material values;
- information which allows to provide accumulation, systematization and transfer of knowledge, habits, abilities, information on the phenomena and processes of the world around;
- innovative that creates prerequisites of innovative development of the enterprise, its technological and organizational advantages over competitors and also need of continuous acceleration of gain of volume of net profit due to formation and realization of knowledge, technologies and systems which provide effective master's production economic activity;
- stimulating which strengthens the potential of economic, technological and innovative activity which provides effective reproduction, receiving profit and competitiveness of the enterprise as focuses on a research in all spheres and fields of knowledge for the purpose of creation of new intellectual products;
- accumulative that allows to accumulate knowledge, habits, experience of many generations of people, to realize them in the course of training and intracorporate interactions, to develop intellectual property, to create considerable behind the size direct and mediate impact, enduring and economic and social effect, integrated on character;
- converting that turns knowledge into new results of intellectual activity (technologies, inventions, products, services, information, etc.) that changes the nature of technological updating of production and its products which become the main competitive advantage in the market;
- regulatory that promotes formation new and to maintaining the existing traditional norms and rules which regulate behavior of subjects in the course of innovative activity;
- historical that generates intellectual development, the nature and types of investments taking into account national, historical, religious, cultural peculiarities and traditions of this region and state;
- the axiological help which reveals and supports the personality in awareness of the importance of the created intellectual products, works, services, the choice on the basis of value orientations of the corresponding line of conduct;
- creative that promotes the statement of innovative type of thinking of heads and workers, their aspiration to realization of the innovative ideas and modern models of economic and social development;
- innovative and communication develops innovative character implementation of digital technologies and that expands opportunities internal external communication interaction on the basis of opportunities of artificial intelligence.

Functions of the intellectual capital can be considered through a prism of the following organizational management processes:

- existence and development of intellectual property;
- formation of new type of workers who own modern creative type of thinking, capable and ready to business activity and personnel management which forms and realizes innovative models of reproduction of each concrete economic system in its set;
- expansion of scales of development and distribution of the intellectual capital in activity of the enterprises through the systems of innovative and educational clusters, the intellectual centers which cover gradually all set of factors of production, distribution, exchange that consumption.

Functioning of the intellectual capital is limited to the following conditions for today:

- expansion of scales and frequencies of manifestation of the crisis phenomena which cover not only economic, but also other spheres of society;
- insufficient readiness of administrative shots and personnel to implementation of innovative and intellectual activity;
  - requirement of big financial investments at creation of intellectual potential;
- considerable growth of scales of information resources, including, information sources which negatively influence the person;

- lack of duration and systemacity of structural construction in corporate management;
- fast obsolescence of information in the form of effect of the law of dynamic narrowing of time;
- formalizations of processes of research and development which is shown highly uncertainty (entropy) of their results.

In tab. 1 the presented generalized characteristic of functions of the intellectual capital taking into account development of the theory of management of social and economic systems and processes.

Table 1
The generalized characteristic of functions of the intellectual capital taking into account development theories of management of social and economic systems and processes (made by authors)

№	Name of function	Characteristic of functions	
1.		Connected with interaction and interpenetration of structural elements of the intellectual capital	
2.		Promotes gain of volume of net profit and to increase in the cost of the enterprise due to formation and realization of necessary intellectual resources	
3.		Allows to provide accumulation, systematization and transfer of knowledge, habits, abilities, information on the phenomena and processes of the world around	
4.	Innovative	Provides innovative development, creation of technological and organizational advantages over competitors	
5.	Stimulate	Strengthens the potential of economic, technological and innovative activity which positively influences increase in effective management of reproduction of resource base, receiving profit and competitiveness of the enterprise	
6.	Accumulative	Accumulates in the course of historical development of knowledge, a habit, experience of many generations of people	
7.	Converting	Carries out transformation of knowledge to new results of intellectual activity (technologies, inventions, products, services, information, etc.)	
8.		Promotes formation new and to maintaining the existing traditional norms and rules which regulate behavior of subjects in the course of innovative activity	
9.		Generates intellectual development taking into account national, historical, religious, cultural peculiarities and traditions of this region and state	
10.	_	Provides the help and support of the personality in awareness of ponderability of the created intellectual products, works, services	
11.		Approves innovative type of thinking of heads and workers who want to realization of the creative ideas and modern models of economic and social development	
12.	communication	Develops the innovative nature of implementation of digital technologies and expands possibilities of internal and external communication interaction on the basis of opportunities of artificial intelligence	

Thus, the research of intrinsic characteristics of the intellectual capital shows that this economic category has many-sided and multidimensional character, acts as intellectual richness of the enterprise which provides creation of intellectual products and services, its innovative development and competitiveness in new economic conditions.

Near traditional approaches, most of modern scientists offers also other structural elements of the intellectual capital:

- the emotional capital which defines appearance of the enterprise, the level of its popularity in the opinion of external consumers and own workers;
- the infrastructure capital which unites set of intellectual resources which carry out a certain supporting role in the general structure of the intellectual capital (information technologies, network communication systems, management processes, organizational structure);
- the negative capital is considered rather separate elements of the capital in the ratio them with cost be which assets of the enterprise, or set of special or specific knowledge, habits, moral or psychological

deviations of the personality who brings it income due to illegal activity;

- the welfare capital which acts as set of social communications of workers, their interrelations and the relations, the developed verbal abilities of the personality to effective communication and interaction with people;
- mental abilities are potential opportunities of the individuals capable to make any given to implement those or other complex works and operations;
- assets of intellectual property which belong to the enterprise and are protected by the law (patents, license agreements, the ideas, a know-how, brands, a trademark, the name, distributive channels and different agreements, favorable for the enterprise and contracts);
- assets of infrastructure which represent intellectual assets which provide functioning of the enterprise (philosophy of management, the general culture, management processes and business processes);
- humanitarian assets the intellectual assets used by the enterprise, first of all, knowledge, ability which belong to employees of the enterprise;
- human resources are individual mental abilities of personnel, professional knowledge and experience (including education level and qualifications), the level of innovative activity and other results long (that happens over everything) life of process of intellectual activity of specific persons who represent a basis of personnel of the enterprise;
- information and intellectual resources set of the research and production, financial, marketing, organizational and administrative, personnel, information and technological, information and administrative, legal and other ideas, methods, tools, technologies and different forms existence of information received as a result of intellectual work of employees of the enterprise as cause emergence of its competitive advantages.

Each of the presented options of structure of the intellectual capital, its model and the theory unique as display specifics of functioning of different activities and its essential substantial components. At all existing differences, structural components in these theories are created by human intelligence. They exist in the form of knowledge not separable from people who own them, form some kind of subjective conditions of application of this knowledge for improving competitiveness of the enterprises and organizations, materialize in products and intellectual property items.

At the same time, the research of structural components of the intellectual capital shows that the matter is processed insufficiently. In a number of works there is narrowing of views about it an important economic event which leads to an exception of those or others of important links of the considered structure. Very often out of the field of a research of the Ukrainian scientists there are important aspects of the intellectual capital connected with specifics of its realization in economy of knowledge, activization of competitive confrontation, transformations of philosophy and the strategy of management, interaction with consumers of products, changes of corporate culture and business cooperation.

We consider that the lowland of the intellectual capital on structural components which contain all set of elements of this category has basic value in terms of search of sources its increase and estimates of efficiency its use. Allocation of structural elements of the intellectual capital is important not only from analytical and theoretical, but also from the practical point of view, allowing to render authentically an object and a subject of management, to construct optimum organizational and administrative communications between them.

All structural components of the intellectual capital closely interdependent and interdependent with each other. Knowledge, ability and creative abilities of workers are embodied in organizational structure and processes of the enterprise which directly depend on a complex system of relationship of the employees created in collective of moral customs, value orientations and standards of behavior. In turn, the system which is formed from corporate culture actively influences business cooperation, interaction with clients and suppliers, strengthening reputation of the enterprise, improving its innovative capital. Thus, at the enterprise there is a circulation of the intellectual capital: from human to innovative and vice versa. Therefore for successful formation of the intellectual capital of the enterprise necessary effective interaction, interpenetration of different types of the intellectual capital, creation at the same time synergetic effect. In particular, only at cross influence of some parts of the intellectual capital on others it is carried out transferrings and consolidation of knowledge from the sphere of interaction with external contractors in internal systems for the purpose of further use by workers.

Proceeding from the aforesaid, the intellectual capital represents a difficult economic phenomenon which unites in itself set of different elements which exist as a result of their interaction. It is impossible to invest in everyone from structural components separately if you want them to support each other, creating synergetic effect. In this case there is a cross influence of some types of intangible assets on others.

Rapid development of innovative economy turns the intellectual capital into a major factor of

constant development. Constant development is gained by subjects of economic activity which provide not only the accelerated implementation of new technologies directly in production, professional management of financial assets, but also consecutive use of the intellectual capital as most important source and to the guarantor of successful functioning in the conditions of the competitive market relations. Formation of the economic system based on the intellectual capital which functions in innovative economy defined need of development of new model of development of the enterprises and organizations. The need for creation of such model is caused by impossibility of the solution of common problems of the global world the separate companies as their "chaotic" development could not satisfy the strategic interests of people any more. Economic crises, deterioration in an ecological situation, global social and power problems caused main creation of the concept of constant development for overcoming negative consequences of transformations of human society.

In the works of a number of researchers occurs comparisons of theories of constant development, corporate stability and corporate social responsibility. Most of scientists indicate them interdependent character in modern corporate management and note that these theories belong to different levels of the specification and, respectively, have different instruments of application. According to such approach in the European economic science the constant development can be considered as the standard social concept to form a basis for other following; corporate stability – the concept of the organization, and corporate social responsibility – administrative approach. These concepts differ also in temporary parameters, the sequence of distribution and scales of application. So, the concept of constant development covers the activity of several generations connected with civilization development and comprises ecological processes which extend to social and economic activity. The concept of corporate stability is connected with social and economic and ecological activity of the enterprise in scales of long-term planning for realization of relevant needs of interested parties. In turn, the corporate social responsibility unites in itself activities for the solution of economic, environmental and social problems of interested parties. As a rule, this activity is carried out on regional level in short-term and medium-term prospects.

At all stages of formation, development and functioning of the intellectual capital its influence on constant development of the enterprises is carried out through the reproduced process provided with interaction of different institutes of society. Acceptance of the strategy of constant development by corporation changes intrinsic parameters and mechanisms of coordination of the public and corporate purposes and interests, puts in the forefront decisions not only innovative problems of development, but also enhances social orientation of activity of subjects of managing.

Being important structural components of world, national and regional economic systems, the enterprises define orientation of intellectual development, economic trends and level of demand on key resources. Development of innovative economy puts in the forefront improvement of the human capital as sets of intellectual resources which are used by the individual or the organization for receiving income and also improvement of functioning of organizational structures and administrative abilities of the enterprise to effective transfer, generation and exchange of knowledge, their embodiment in a ready-made product. Successful association of these elements also represents the intellectual capital of the enterprise.

The research of the intellectual capital as most important factor of ensuring innovation of production, increase in its efficiency and competitiveness allows to allocate the main directions of constant development of the enterprise:

1. Development of the human capital as key resource of the enterprise capable to provide to it additional profit due to unique competitive advantages and to create conditions for economic and social development of the region. Its estimation serves as an important indicator of the organization of production, system effectiveness of management, quality of life of specialists of the organization of citizens of the region. The human capital acts as important subject to investment, and an investment in it development is more favorable in the long-term relation, than investment into fixed capital and financial assets of the organization.

Practice shows that development of the intellectual capital directly depends not on quantitative, and qualitative parameters of list of workers, level of their professionalizing, qualification and the organization of work. At the same time the special value is provided to the following professional categories: to the workers occupied with research and research and design developments, that is preparation of new types of production; management of the organization which provides development and realization of administrative business processes; the contingent of workers who realize the main, the auxiliary and serving productions. Development of the human capital is fully implemented at synergetic effect when effectively organized not only work of each worker, but also collective activity of all employees of the enterprise.

The important place in personnel management is taken by the organization of a system of continuous training which provides not only training, but also skills development and retrainings of personnel. Creation

of such system increases the level of readiness and ability of workers to innovative activity, development of new technologies, devices and mechanisms, promotes improvement of professional competences, makes active the creative potential and team work, provides attraction to preparation of innovative solutions of a collective thought and accurate distribution of role functions of workers.

2. Management of knowledge at all stages of transformation: from their implicit accumulation to their obvious manifestation in production. The effective management of knowledge depends on organizational technology of business management and increases due to application of information and communication technologies.

Stability in competitive advantage can come to the enterprise which owns the resources of knowledge inaccessible to competitors. New knowledge is defined how the results of intellectual activity which are directly connected with estimation of the innovations created in the course of development of new types of products, technologies and methods of the organization of production and management. They are integrated into the general corporate system of knowledge for development of unique vision and creation of new, more significant knowledge and technologies.

- 3. Active use of information resources. In recent years information is constant to be considered as an independent element of business processes. Search information systems and specialized databases, creation of corporate information systems which provide management of financial and economic activity of the enterprises by means of modern administrative and information technologies become widespread. Information resources increase efficiency of all parties of corporate activity, including production, marketing, financial, administrative, personnel, ecological, partner and other types. At the same time, high extent of centralization of corporate information does it especially vulnerable and increases risk of a source of data.
- 4. Interaction with regional public authorities and economic subjects. This direction accurate is coordinated with the stakeholder theory of development of economic entities as the intellectual capital directly enters the general system of economic communications and communication interaction of the enterprise. Such interaction with regional community and clients allows to provide: realization of strategic objectives and tasks it agrees really difficult situation in the region; to form competitive advantages, quickly reducing risk of not demand of products; to coordinate mutually advantageous forms of calculations between partners; to expand possibilities of the customer base at the conclusion of agreements of purchase sale; to choose the resistant relations with suppliers and contractors.
- 5. Organization of business processes and formation of corporate organizational structure. The organization of business processes allows to improve production activity, to improve character and working conditions, to rationalize loading of workers on the basis of production automation, to provide waste-free production and environmental safety, to improve motivation and self-organization of workers. The evidence-based organization of business processes reduces duration of a production cycle, promotes relative economy of working capital, the best loading of all means of production and workers provides.

Formation of corporate organizational structure is connected with the choice of a contour of organizational structures of economic entities. Here questions of creation of the independent organizations (affiliated structures, branches, the isolated subsections) corresponding to allocation of separate stages of business processes, their service and specialization, research and research and design activity, implementation of the state orders, territorial localization, rational use of human and natural resources which allow to provide corporate competitiveness enter and to strengthen social, ecological and economic stability.

- 6. Development of the corporate culture directed to achievement of success in the solution of innovative tasks and ensuring competitive advantage in the chosen direction of professional activity. Especially relevant this direction during the periods of unstable development when the attention to the accelerated introduction of innovative developments for ensuring breaks on certain activities is updated. In these conditions scales of financing and the NDDKR organization, creation of specialized research subsections, carrying out monitoring of realization of innovative activity extend. The special importance is gained by formation of culture of innovative activity, ability to work in team and to carry out brainstorming in the course of joint discussion of innovative problems, mutual respect to a position of opponents, motivation of personnel on the successful solution of innovative tasks.
- 7. Accounting of reputation of the enterprise, its recognition, readiness of the producer to pay for reliability, quality of the made products and the rendered services, stability of concrete economic entity. Especially the value of business reputation in the conditions of unstable development of economy when the importance of reputational risks amplifies increases, speed their distribution and influence on the final results of work of the enterprise is considered. The business reputation actively helps economic entity at all stages of its activity: during the work with clients, with creditors and investors, at entry into foreign

markets, at distribution of the influence on other objects (franchasing relations), etc.

The digital economy began the development from digital revolution which represents transition from mechanical and analog electronic technology to digital electronics. It is a lot of scientists and publicists characterize this concept differently: some call it new economy, others economy - Internet economy. In one of reports of the World Bank in general it is specified that the concept "digital economy" presented in the wide contents, represents the huge system of the economic, social and cultural relations which are based on use of digital technologies. But more correct concept after all can be treated that the digital economy is economy of innovations which carries out the development by means of implementation of new technologies. In tab. 2 the given definitions of the basic concepts which are used by digital economy.

Conceptual framework of digital economy (made by authors)

Table 2

$N_{\underline{0}}$	Concept	Definition
1.	Digital revolution	Transition from mechanical and analog electronic technology to digital electronics.
2.		Economy of innovations which carries out the development by means of implementation of new technologies. The huge system of the economic, social and cultural relations based on use of digital technologies. In other words, economy which exists in the conditions of the hybrid world.
3.		Result of merge of the real and virtual worlds which differs in a possibility of implementation of all "vital" actions in the real world through virtual.
4.		One of the most significant trends thanks to which will be extremely automated the main part of document flow and be practically which work connected with information processing.
5.		Technologies of data processing in which computer resources are provided to Internet user on demand as online service; the concept which assumes ensuring universal and convenient network access on demand to the total amount of the configured computing resources. Cloud-based decisions become more and more used, they are capable to resolve not only an issue of search, development, keeping of personnel, but also to carry out personnel record and payroll calculations. At the expense of a cloud computing information can be easily available online, archived that to be stored in the safe place.
6.	Internet of things)	The concept which unites a set of technologies equipment which assumes sensors and connection to the Internet of all devices (and in general things) that allows to realize the withdrawn monitoring, control and managements of processes in real time.
7.		Set of the approaches, tools and methods intended for processing of the structured and unstructured data (including from different independent sources) for the purpose of obtaining the results perceived by the person. Browsers, social networks, trackers, etc. can belong to sources. "big tributes" can help with personnel management to conducting of the analysis of data on workers.
8.		Money which has no material embodiment which can be used as the full bank note.
9.	• •	Type of virtual currency, issue ("production", mining) which is based on specific application of cryptographic algorithms.
10.	transactions (Blockchain)	Methodology of creation of the distributed databases (without the uniform center) in what each record contains information on the history of possession which extremely complicates a possibility of its (information) falsification.
11.	Bitcoing	The first and the most widespread of the existing virtual currencies; is cryptocurrency and uses blockchain technology.

Technologies promote disappearance of low-skilled professions and at the same time create new professions which demand deeper examination.

Being the property reproduced by the party, the intellectual and information capital also, as well as traditional forms of capital, in the course of the reproduction provides economic realization of the relations of property in certain, inherent in it to a form. In this regard objective need is the analysis of the principles of formation and distribution of investment income which arises in the course of use of intellectual and information capital as significant factor which provides not only expanded reproduction of knowledge and information, but also coordination of economic interests.

In the conditions of transition of the country to an innovative way of development the paramount value gets improvement of institutional infrastructure of the market of the intellectual capital.

Institutional infrastructure of the market of the intellectual capital is understood as set of the enterprises, companies, regulators and legal acts which provide interaction between subjects of the relations which is directed to formation of external conditions of managing for successful creation and commercialization of intellectual products. Here belong:

- interdependent institutes which provide conditions of increase in knowledge and technologies which expand possibilities of use of innovative intellectual activity;
- institutions and the organizations which realize functions of generation, commercialization and implementation of knowledge which form intellectual potential of workers and their readiness for creative activity which promotes increase in efficiency of innovative activity of the enterprises, functioning of intellectual property items by means of legal institutions;
  - standard legal mechanisms of state regulation of the economic relations;
- the institutes of self-regulation and stimulation of activity of workers connected with application of informal norms, value orientations, best practices of business, industry and corporate standards, etc.

It is necessary to recognize that the institutional infrastructure existing in our country does not provide the balanced access to intellectual resources and services for participants of innovative process which limits commercialization of results of scientific and technical activity. There is high level of the shadow sector and criminalization of economy, corruption at institutes of the government, insufficiently protected intellectual property, the complicated access to information bases and investment providing, implementation of investment and innovative projects. The institutional environment of business, right applicable judicial practice, the system of training, preparation, skills development and retrainings of personnel for activity in the conditions of formation of society of knowledge demands development. Full development of the human capital and formation of the qualified human resources are interfered by a lack of incentives and conditions of its development, lack of system, evidence-based reforming of an education system, reduction of number of able-bodied population, etc. does not stop.

Harmonious institutional infrastructure which dynamically is under construction promotes activization of financing from households, public authorities, business community in physical, psychological and social human health, its natural capital, education level and professional competences. At the same time, the mobility of an institutional system, efficiency of functioning of institutes of the operating infrastructure of the market is an important condition of ensuring interaction and interference of the innovative sphere and the market of the intellectual capital, its role increases which is carried out in connection with intensive structural transformations and activization of innovative processes in the Ukrainian economy.

The institute of the state which development and adaptation represents continuous process and much in what dependent on the social and economic level of development of society acts as the most important condition of development of the market of the intellectual capital. In new operating conditions necessary change of administrative functions of the state which assume activization of a role of the regulator and the coordinator, the created system of the market address of results of intellectual activity which provides formation of a national innovative system as one of the main sources of permanent economic growth. The state has to create economic and organizational and legal conditions for expansion of scales of intellectual activity, creation of innovative products, a transfer of the latest technologies, design of business, scientific consultation, information and analytical providing all subjects of market economy, favorable for the innovative enterprises.

Modern institutional infrastructure of development of the intellectual capital in the society of knowledge is multidimensional and comprises different types: production and technological, information and digital, financial and economic, expert and consulting, social and economic, marketing, territorial infrastructure (tab. 3).

	Characteristic of types of institutional infrastructure of the intellectual capital (made by authors)				
№	Types of institutional infrastructure	Components of institutional infrastructures			
1.	production technological	the innovative organizations, production and technological clusters, the centers of the advancing development, scientific and technological parks, science and technology parks, the centers of a transfer of new technologies, incubators of business and technologies; research centers and laboratories, centers of patent protection			
2.	information digital	the analytical, information, scientific coordination, monitoring centers, information access of development which advances, providing with scientific and technical information, patent offices			
3.	financially economic	investment national and commercial banks, funds of assistance and support of business, venture innovative funds, institutes of social and economic researches, production innovations, the centers advancing technological development			
4.	expert consulting	consulting expert centers, expert and consulting organizations, centers of engineering examinations, institutes of scientific technical, economic and administrative expertize (Higher Attestation Commission, grants), providing intellectual property			
5.	socially economic	institutions and the organizations of an education system, preparation and retraining of personnel, the scientific organizations which enter at National Academy of Sciences of Ukraine, innovative and educational clusters local that regional levels, institutes of health care, culture, the centers of social rehabilitation, help that protection of citizens, employment the population, the help to family that to children, the youth exchanges of work, non-profit environmental organizations that funds, the volunteer organizations			
6.	marketing	stock exchanges of the high-tech companies, exchanges of intellectual property, exhibition centers, advertizing and marketing agencies			
7.	territirial	regional innovative and educational clusters, the centers of the advancing development, the ecological, monitoring, multipurpose centers			

Institutional conditions of development of the intellectual capital in economy of knowledge assume activization of a role of the regional corporate sector which provides channels of distribution of knowledge between the industry enterprises and the organizations. Such situation is connected with the fact that the considerable part of the intellectual resources and knowledge necessary for implementation of economic activity of agents included in corporate activity, and such knowledge is not transferred from one area to another. In these conditions, regional public authorities and corporate business community need to strengthen the general activities for activization of innovative efforts which provide training of personnel, to implementation of monitoring of the ideas, opening, inventions, paying special attention to formation of bank of creative and effective innovators.

Thus, the adequate institutional system of development of the intellectual capital which assumes not only creation of effective high-tech production, but also transferring to a vector of economic activity on "expanded reproduction" of knowledge and abilities of the person, formation of her motivation to creative work is the most important condition of new quality of economic growth and formation of economy of knowledge.

The increasing value of information and knowledge in modern economy finds the expression both in theoretical researches, and at the political level – when developing concepts and programs of social and economic development of the different countries. It should be noted importance of development of social and economic institutes which govern economic the relations of subjects of intellectual activity on which the efficiency of reproduction of the intellectual and information capital caused not only by the level of development of productive forces of society, but also degree of the specification of the property rights depends. Thus, defining efficiency of economic development both on micro, and at the macrolevel, the intellectual and information capital is the most significant factor of competitiveness of national economy. The relevance of a subject of a research consists in need of creation of effective mechanisms transformation

of the intellectual capital in intellectual and information in process formation that implementation of modern information technologies of subjects of economic activity in a national economic system.

In the modern economic theory great attention is paid to problems of formation and development of information society. So, widely known works of foreign authors, such as D. Bell, P. Druker, M. Castells, X. Kibiridzh, M. Maklyuen, U. Martin, I. Masuda, F. Mahlui, E. Toffler, Yu. Ganblyachishi, Y. Schumpeter, etc. E. Bruking, T. Buzen, G. Mins, D. Morrison, Richard R. Nelson and Sydney J. Uinter, D. Schnayder, etc. devoted to a research of essence of category "intellectual capital" the works. Scientists treat the first researchers of a problem of use of information resources: N. Winer, L. Kolmogorov, K. Shannon who concentrated the analysis on quantitative aspect of a concept on the basis of the mathematical theory of information. Further the research was continued by D. Bronner, L. Weger, K. German, U. Dayvord, M. Kelsi, J. Martin, G. Poppel, T. Stounier, K. Frimen, M. Haydegger and others. About information as the economic category was written by G. Simon, J. Stiglin, A. Hart, K. Errou, which investigated behavior of participants of the market depending on their awareness. The carried-out analysis of researches and publications makes clear that fact which in the field of researches of information economy on today insufficiently opened are theoretical aspects of formation of the intellectual and information capital, theoretical that the applied problems of realization of economic interests of subjects of this process which are not solved an issue of processes training that distributions of income in the course of the economic address of the intellectual and information capital.

The present stage of social and economic development of society is more often identified with the concept "information society". Today production processes, distribution and consumption of information reveal huge influence on all spheres of economic activity. Information turns into a specific economic resource which provides effective use of natural resources, work and the capital which opens new opportunities for production, economic and financial activity.

Emergence in economic science of term "information economy" is connected with Frits Makhlup's works who, allocating the so-called information sector of economy, united in it areas which are focused on production of knowledge and information. To the sphere of the knowledge-intensive productions it referred education and scientific activity, information services and products, including mass media, design developments and production of the electronic equipment, technology of processing, storage and information transfers. At the same time the author closely connected the concept "informatizations" with process of "intellectualization" of modern economic activity of people, emphasizing the role of knowledge (intelligence). In the work "Production and dissemination of knowledge in the USA" F. Makhlup noted, that "in terms of a lexicology, the difference between knowledge and information is put generally in a verbal form: to inform – means, to impart knowledge; the nobility – can appear result of information. Information as the act of informing is carried out with the purpose to enclose knowledge in mind of another. Information in value "what is transferred", becomes equivalent to knowledge in value "the fact that learned" [3, c. 44].

At the end of the XX century considerable interest in information technology development begins to show the state. Not only scientists, but also power bodies are interested in problems of formation and development of information society. So, in 1991-1996 in the USA and EU countries on imperious level conceptual development programs of information society are developed. The most great popularity was received by such concepts as the "National Information Infrastructure – the Plan of Action" program of Clinton-Gore (USA) and M. Bangemann's (EU countries) concept.

In the nineties in Ukraine the Concept of the Public information policy where the following tasks of transition of the country to information society were set was developed:

- modernization of information and telecommunication structure;
- development of information, telecommunication technologies;
- effective formation and uses of a national information resource and also ensuring broad access to them;
  - providing citizens with socially significant information, development of independent mass media;
  - training of the person for life and work in the future information century;
  - creation of the necessary legal framework of creation of information society.

Thus, it is possible to recognize that realities of development of modern society confirm formation of a new information technological image of the production based on producing and use of knowledge and information, development of information processes which cornerstone the creation of the equipment and technology of information support of different public tasks is. However it should be noted that in development of the concept of information society long time dominated technical approach (F. Makhlup, I. Masoud, D. Bell, X. Kibiridzh, M. Castells, etc.). It is clear, technologization of information processes caused the objective reasons – information boom became possible thanks to technical innovations in the

sphere of information exchange. Creation of the Internet Protocol, development of global distributive and information systems, emergence of new electronic mass media and telecommunications of means expanded the interest of scientists in the field, having defined the main direction of researches.

The comparative analysis of industrial and information societies is given in tab. 4.

Table 4 Comparative characteristic of industrial and information society (made by authors)

	Tradescription industrial and I	
Comparison	Industrial society	Information society
prerequisites	development of "hard ware" (strong structures) – the resource-based economy	Development of education, psychological
	systems	
Economic basis of society	The enterprises and infrastructure which provide commodity production. A reference point of supply and demand on	The production focused on innovations and development of information and communication systems  Supply and demand are formed as in the sphere of material, and spiritual needs
investment streams	(construction of the house, the machine and equipment), in development of production technologies	Mainly in development of information technical systems and technologies, in information infrastructure (soft ware is the capital)
management	constructed on the basis of the centralized hierarchy, prevail directive a mentality, management decisions are carried out by prescribing of orders	
Formation of	Restriction of access to information -	Expansion of information exchange,
	vertical information flows, information	information comes across in all fields of
	insignificant dissemination of information by participants of production prevail	
	Specialization and cooperation on the	Integration style of work (the mixed workers,
		collective creativity)
employment	structure of employment prevails demand	Domination of intellectual work, advantage of demand for theoretical and professional knowledge, shift of employment to the sphere of information and creation of new knowledge

The comparative analysis given in tab. 4 demonstrates transition of modern society from a power paradigm of economic development to information, the structure of investments and the principles of management changes, the role of the intellectual capital and information increases. At the same time it should be noted that information boom, having caused the place of information in a number of production factors, rendered the vital issue connected with development of the economic relations which define a possibility of participation of the person in information processes. In our opinion this aspect has to find the display in further economic researches. In modern economy information is not only a specific resource, but also is embodied in rather new functional forms of capital, such as intellectual capital, information capital, brand capital, etc. which are expressed in intangible assets, defining efficiency of economic development both on micro, and at the macrolevel. Development of specific forms of capital needs modern economy in, in turn, qualitative analysis of processes of its formation, distribution and use. Development of mechanisms reproduction of intellectual and information capital which provides not only accumulation of knowledge and information, but also regulation of the social and economic relations in the course of their transformation in capital resources of society is objective need for these conditions.

The modern paradigm of information society has to rely, first of all, on formation of a system of free

interaction of all interested subjects in information space. This system, in turn, has to assume social control and management according to the market scheme on the basis of the principles of realization of public concerns and the purposes, during active creation of institutes which regulate intellectual information exchange.

Concept of "information economy" that strong was enshrined within the last decades in the scientific address, assumes that in all spheres of economic activity of the person modern information technologies are used, business processes will organize by the network principle, information and knowledge form a new "specific" resource – the intellectual and information capital which in combination with high-quality labor is a source increase in productivity that to competitiveness both on micro, and at the macrolevels. Today the concept "information economy" is treated in scientific publications as economy in which a considerable part of created GDP is the share of the sphere of production, processing, storage and dissemination of information and knowledge, and more than 50% of human resources are engaged in this sphere.

Thanks to development of modern information technologies an opportunity for decrease in transaction expenses in many spheres of economic activity appears. It concerns, first of all, transaction expenses which arise in the course of the analysis of the markets of suppliers and consumers, selection and acquisition of specific and interspecific resources and also other expenses connected with realization of economic tasks which demand considerable expenses of time and means.

The research of the publications devoted development of the information sphere of modern economy allows to claim that to replace the industrial era focused on mass production with minimization of expenses and economy on scale effect the new era where become the main reference points quality, technological effectiveness and standardization of production comes. In today's time occurs formation of an era of the consumer in which center the idea of influence of the consumer on a product when there was an opportunity to unite individual needs of clients with effective production and formation of the global market. There are movements of economic activity from geographical in a cyberspace, and implementation of purchase sale passes from the area of traditional forms of the market to the area of the Internet.

Formation of information business and electronic commerce connects, first of all, with use of opportunities of the Internet. Electronic trading with use the Internet considerably reduces costs on product sales as in this case there is no need to rent floor spaces and the equipment, also costs on personnel are cut down. Possibilities of Internet Sales reduce at the same time and expenses of the buyer because time and expenses on search of necessary goods is reduced, borders for the comparative analysis of the prices of virtual shops extend. Existence of reduction of number of intermediaries as producers have a possibility of direct sale of the goods to consumers is the main feature of Internet Trade.

Thus, the Internet gives development to emergence of two important trends of modern society – globalizations and informatizations of economic activity. On the one hand, results from a complication of the modern markets of use of modern technologies of sale, at the same time, on the other hand, degree of risk and unpredictability of business operations as a result of increase in information transparency of agreements decreases. So, M. Castells on the basis of the analysis of these peculiar features of temporary society comes to the following conclusions: "In the last two decades in the world there was an economy of new type which I call information and global. Information – because the competitiveness of factors or agents in this economy depend, first of all, on their ability to generate, process and to effectively use information based on knowledge. Global – because main types of economic activity, such as production, consumption and circulation of goods and services and also their compound (the capital, work, raw materials, management, information, technologies, the markets) are organized on a global scale with use of an extensive network which connects economic agents" [2, p. 81].

Thus, generalizing lines of information society, it is possible to note the most significant characteristics which define a role not only a technological basis of modern production, but also transformation of the social and economic relations which cause structure and regularities of development of a social and economic system of society:

- knowledge embodied in information acts as a special and most significant resource of society which carries out the economic movement in the form of specific goods;
- in the conditions of increase in degree of awareness of consumers their behavior focused on acceptance flexible and adequate to the obtained information of decisions on the basis of the free a lot of alternative choice changes;
- the economic activity caused by resource restriction is replaced by the production processes connected with accumulation and expansion of knowledge and information, development of images of its transfer;
  - development of society is defined by modern technologies and the equipment, and, first of all

introduction of intellectual systems of new generation which allow not only to update the production material and technical resources existing today, but also to form material technical base of new economy;

- shift production to a vector to the prevailing development of the small and medium enterprises which are integrated within network business. Some functions of the companies are transferred on outsourcing, the virtual enterprises develop;
- technological changes which happen in society, cause transformation of so-called "gravitational model" of V. Bekerman [5, p. 31-40]. Already today experience of forecasting of number of consumers in the markets is defined not by remoteness of new consumers from places of exchange transaction, as in V. Bekerman's model, and expenses concerning decision-making (decision-making cost) as consumers as a result of fast dissemination of information and transparency of market transactions, thanks to development of Internet services have ampler opportunities of purchase of necessary goods and resources;
- significantly the social, educational and professional structure of society changes, the role of intellectual work increases, employment prevails not in the sphere material conductings any more, and in the field of creation, distribution and service of knowledge and information;
- the competitive environment and conditions of development of business as a result of expansion and openness of the intellectual and information sphere is transformed;
- as a result of development of information and knowledge, contradictions between the power and the population are reduced, the political and social conflicts smooth out;
- processes of globalization in the modern world which allows to create uniform information and technological space which unites national economies on purpose the solution of global economic, environmental and political problems go deep.

Thus, it should be noted that the new stage of development of the economic relations is defined by process of formation of information society which results from shift production to a vector to the sphere of processing, storage and dissemination of information, development of scientific knowledge, changes of resource base due to growth of a role of such factor of production as the intellectual and information capital.

Information can be considered as a certain set of blocks of the ready knowledge used for achievements of goals. When knowledge is made out conceptually, there is possible its use for the solution of specific objectives, that is there is an updating of knowledge. However it should be noted that knowledge can at the moment time be and irrelevant, but to be requested in the future, acting as a basis for the decision be which future tasks. In modern economy information needs to be considered how organized set of data which as a result of inclusion in communicative process, is apprehended, clear and recognized as a useful subject in terms of increase in his knowledge and use in the course of the economic activity.

Transfers and to dissemination of information flows the difficult arsenal of technical means serves and attached which in total call communication systems. Set of working processes, methodologies, the organizations, programs of work and the elements of the equipment necessary for introduction of certain data, their analysis according to requirements which are caused by nature of work of any given organization, define how an information system. In our opinion, an information system it is necessary to consider something wider – as a unit groups of the people, materials and the equipment united in the course of search, the analysis, processing, coding and information transfers. Designing and operation of this system demand collective work. At the same time there can be a need for use of knowledge and experience of people of different professions, and functions of management of groups of developers from the moment of the beginning of design to introduction of a system to operation can pass from one collective to another.

The information system has changed throughout the development of human society, and we can clearly distinguish two main forms of its existence. The first form is the direct transmission of interpersonal information. At this stage of the formation of the information system through the exchange of information is the solution of communicative tasks, the process of knowledge transfer from one subject to another. It should be noted that this form is quite popular today, as it provides the entire system of interaction between people. The second stage (form) is associated with the rapid development of technical electronic capabilities for recording, storing and transmitting information, which has provided a qualitative change in the entire system of accumulation and transfer of knowledge in society. All this allowed to ensure the reliability of information transfer (avoiding distortions), its timeliness and accessibility, including its preservation for future generations. The development of technical means of information has provided a constant increase in its volume and increase the speed of information exchange.

We consider that in modern society information has to own the following qualities:

- contents defines subject domain of information;
- the coverage defines, limits and describes deduction;
- time which fixes the moment of realization of information exchange;

- the source defines genesis of information;
- the quality characterizes key indicators of suitability of information for the decision put tasks;
- the uniqueness displays degree of a rarity of useful information;
- compliance to needs use of information for achievement of specific goals;
- the image of fixing defines methods and an image of saving information and also types of data carriers;
  - language a possibility of information communication;
  - cost definition of a measure of public work, embodied in information product.

Information, as well as be what other economic benefit, can have double character — to act as a certain resource (stock), and in the course of economic interaction to be considered as the specific economic benefit — made for exchange of goods. Such duality of studying information defines, in turn, features of the economic relations which arise in the course of its formation and realization in economic activity. So, information, different behind the characteristics (including, on preservation and types of use) can be as public, so the partial benefit. As the economic benefit, independently whether partial it or public, information has usefulness for the consumer, that is ability to meet certain needs of subjects of the market. Thus, information receives such economic property of the benefit as consumer cost. At the same time, creation process, accumulation and processing of information benefit is combined with certain expenses which in fact its economic estimation or cost has to define. However, expenses on it production, unlike material benefits or services, and usefulness of this benefit for the consumer, that is that positive effect which can be reached when using this benefit in the future will be the defining factor for pricing of information benefit not so much. The usefulness of knowledge embodied in used by an information user will be defined by efficiency of decisions which will allow to gain this knowledge.

A certain value for the consumer is got, for example, by information which allows to reduce the level of uncertainty and risk of economic activity. Here will act as a value reference point, on the one hand, utility level of the made decision, and from another – extent of decrease in uncertainty. A potential possibility of their commercialization, including, the embodiment in new goods, modern technologies, the principles and methods of the organization of economic activity can be quite important factor of estimation of usefulness of knowledge as well. In this case the foreseen value of information will be caused by the amount of the expected profit on commercialization. Information value in essence is defined on the basis of subjective estimation of its usefulness as opportunities and forms of use of this resource in economic activity substantially depend on individual estimation of different characteristics of the obtained information by any given economic agent. So, for example, the publication of the scientific article which displays results of a research for one can be considered as just "interesting" information for expansion of an outlook, for another – as basis for deeper scientific search, and for the third – as the enterprise idea which promises considerable profit in the future. Respectively and the foreseen efficiency of economic use of such specific resource as information, will be defined by marginal estimation of useful effect which can be received by any given economic entity at certain expenses on obtaining its information which interests.

It is shown at the different levels and at different aspects of study. In that or to another a look, each person is engaged in the analysis and interpretation of input information and also creation of information products; in own way acquires, processes information, creating a unique information product, it is equal as consumers of information products differ behind many personal, social to characteristics. Identical information which arrives in different subjects or in the different sequence can result in different results.

So, from positions of modern economic science, it is possible to carry to information resources:

- different documents which fix useful information;
- software products and technologies which provide processing and dissemination of information;
- the scientific knowledge accumulated by society and also knowledge which are difficult for expressing in a certain form (for example, intuitive or touch knowledge);
- social knowledge and habits of people which are formalized in the form of different institutes which express the interests of concrete subjects of an economic system (certain people, firms, the state).

Thus, information resources represent different forms of knowledge which in the course of the commercialization acquires not only the consumer, but also commercial value which is caused by the size of potential income of owners of these resources. However, this knowledge does not arise in itself. They are created as a result of intellectual activity of people, in the course of their social and economic interaction. This knowledge can be presented how set of the individual intellectual resources embodied in concrete knowledge of certain people and in ability to their reproduction. At the same time, in process of inclusion of intellectual resources in productive and economic processes, information as the main resource of modern economy is generated. It knowledge which is fixed also the works transmitted by means of certain material

carriers, embodied in concrete means, goods and technologies. In effect, use of these resources also defines dynamics and efficiency of modern economy today.

Intellectual information resources of economy significantly differ from the used traditional economic resources. In terms of quality characteristics of information and knowledge as specific resources, it is possible to mark out the following their features:

- information and knowledge cannot be completely spent or destroyed as there is what other resource of production, except for financial resources;
  - information and knowledge increase themselves both quantitatively, and is qualitative;
- during use of information and knowledge processes of consumption and their reproduction as resource, become isolated. Moreover, these concepts become identical.

The last feature is the most characteristic feature of information and knowledge. And process of association of production and consumption characteristic of all fields of use of resources: as information and production, information combining, and information and education because also information that knowledge is represented by resources which have intangible nature. Thus, in the course of the inclusion in the economic address the created information benefit (and, it is peculiar, related knowledge), as a result of a certain chain of transformations turns into the main production resource of modern society – the intellectual information capital.

The intellectual and information capital, from our point of view, represents set of knowledge of information resources and also creative abilities renewed in process accumulation to their creation which own consumer that the commercial value which go at the same time as the capitalized stock and a stream what bring in the course of the attraction in the economic address income to the subject of economic activity. At the same time both the certain individual or their set, and the organization, the enterprise, the state can be understood as economic entity. As the economic category the intellectual and information capital represents the economic relations which arise in process creation, assignment and effective use by different subjects of economy of set of the saved-up intellectual assets and information resources which are reproduced within an economic system. At the same time the specifics of these economic relations are defined, first of all, by the "indistinct" property rights to these resources as except for assets which are fixed by intellectual property right the intellectual and information capital is presented by knowledge and abilities, the property on what owing to them legally is not set non-material property.

**Conclusions.** It is necessary to mark out the following main lines of the modern economy based on use of information and knowledge:

- formation and development of a new social group of the cognitive workers occupied with intellectual work capable to generate knowledge necessary at present, to connect the capacity of the different enterprises, organizations and firms to their help, increasing work performance through resources of information and knowledge;
- transformation of knowledge, science, innovations to the most important factor of economic development and value basis of progress of a modern civilization;
- demand of almost focused knowledge aimed at the development of knowledge and innovative technologies necessary of business and to the state;
- expansion of scales of production of the knowledge-intensive products, increase its cost efficiency on intellectual innovatively commodity market and services;
- transformation of basic and applied scientific research, transformation" the formalized knowledge in the non-material capital" that provides increase in performance of work in all applied fields of activity;
- updating of personal potential of workers which leads to change of management, motivation of personnel, expansion of opportunities for development of a system of continuous education throughout everything life with emphasis on information and computer technologies and quality of knowledge;
- significant change of the relations of the exchange connected from digitalization of economy, rapid dissemination of information which creates synergetic effect.

Modern information society, its potential is based, first of all, on technological achievements and information resources. The development of new society based on knowledge, connected with activization of wide social, economic, political, ethical, social and psychological parameters, synthesis of achievements of information society, the digital economy based on knowledge of society which studies. It is provided not only a possibility of information transfer and its exchange, but also needs of a critical research and judgment, allowing to create new knowledge on the basis of information flows.

The institute of the state which development and adaptation represents process constant and much in what dependent on the social and economic level of development of society acts as the most important condition of development of the market of the intellectual capital. In new operating conditions the necessary

change of administrative functions of the state which assume activization of a role of the regulator and the coordinator who forms the system of the market address of results of intellectual activity and also provides formation of a national innovative system as one of the main sources of permanent economic growth. The state has to create economic and organizational and legal conditions for expansion of scales of intellectual activity, creation of innovative products, a transfer of the latest technologies, design of business, scientific consultation, information and analytical providing all subjects of market economy, favorable for the innovative enterprises.

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