

## On Peculiarities of the Virtual Economy of Modern Russia: Category, Virtual Relationships, Educational Constructs

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### Abstract

*The article examines the determinants of the functioning of the virtual economy, examines the role and principles of virtual enterprises, the authors attempt to describe graphical specification of the transition of the actual economy into the virtual one, and review the agents of the virtual economy. Attention is focused on the post-industrial society, specifics of the informatization of the public life, partial (or full) virtualization of economic activity of the enterprises of regions of the Russian Federation. Some economists criticize the idea, while other researchers talk about the positive effect of the virtual economy. Neither of these, the third ones state that the virtual economy represents the most advanced stage of development of capitalism. The article examines the conditions of formatting and developing of the virtual economy: information, knowledge, and the ways of its transmission. The present treatise highlights the role of virtual organization. The conclusion is that these days the category of "virtual economy" is being intensified in almost all spheres of society and giving rise to new phenomena of the development of the person's virtual activity, social and economic changes, spatially localized and virtual economic systems.*

**Keywords:** post-industrial society, the virtual economy, virtual agents of the economy, Internet network, competitive advantage.

### 1. Introduction

No doubt about the fact that the milestone of the XX century (1985-2000 gg.) - the beginning of XXI century. (2001-2014 gg.) brought a new turn to the people's social and economic activities. With the uprise of information technology, virtual interactions infrastructure, and virtual service systems the major changes in the functioning of all market types came. In this regard, there have been changes in the relations of property rights, legitimacy aspects of the enterprises' work, in the formation and development of partnerships and doing business in the "producer - consumer" chain. The milestone of the two centuries revealed new scales and horizons of work in the co-existence of the territorial boundaries of continents, countries, regions, districts and municipalities.

It is crucial to understand and to actualize in the future the new regional "laws" and regulations found under the influence of the virtual economy (informational, networked). The issue of interaction of regional socio-economic systems is critical (from author's perspective of socio-economic system – is a integrated set of interrelated and interacting social and economic institutions (specimens) and relationships over the distribution and consumption of tangible and intangible resources, production and distribution, exchange and consumption of goods and services) in a trans-regional space Blyakhman, L.C. (1993).

Within the designated borders opens a new horizon of understanding of the ongoing changes during the interaction of regional socio-economic systems; it opens the contours of the post-industrial society. The first to put the term "postindustrial society" into the use was the American scientist Daniel Bell in 1959, while stating the newest stage of a market economy. D. Bell identifies such categories as "market economy" and "economic system", speaking of the economic system as of a system of the future, the fundamental characteristic of which is the transformation and restructuring of knowledge into the basic economic resource for the development of all human kind on all continents

Castronova Edward (1999). In Russia there is a considerable potential for innovation, which has no appropriate implementation, so in Russia the intensive development of knowledge and considerable scientific potential do not stimulate the innovative development of the national economy, in contrast to the developed countries. Indeed, from an institutional point of view the complex control mechanisms are built into the national innovation systems in developed countries with new knowledge in the global division of labor (public-private partnerships, venture capital firms, knowledge transfer, etc.) that allow them to not only successfully transmit and store, but also to realize the innovative potential of their economies. Under these conditions, the Russian education actualized function of the implementing of innovative solutions related to the mechanisms of distribution and marketing of scientific knowledge for the development of massive innovation development, growth of the codified knowledge flows, adapted to the commercialization of knowledge and its implementation in practice, which in turn requires a reconsideration of the state and private management mechanisms in the cycle of "education - research - the massive development of innovations."

## 2. Literature Review

The study is to address the macroeconomic impact of the virtual economy. Note that a virtual economic area develops and pre-ceases to us further as a social phenomenon. Thesis survey indicated specifications shows that the very fact of the recession of the real economy under the influence of the flight of people in cyberspace should not wait for the deterioration of the life of humanity as a whole. The fact that the working time moved from car manufacturing to the production of Internet-sites, banner advertising and avatars, means nothing to the standard of living of society. Noting that the changed scope and needs are often artificially induced (scientists, economists argue that in the XXI century. 80% of the needs invented). The correct calculation will show, in fact, per capita income will grow multiple times.

Identify the main "obstacle" virtual economy, which is that the current account national income and production does not consider online products and services. And as practice shows, computer science, it seems that this will happen soon. Such basic economic concepts as GDP is referred to a particular state, but some of them on Earth belong to the goods and services in virtual worlds, today during the answer is obvious, "no." As a result of the migration of production from the real economy and the virtual economy will cause rejection of the standard measurements of economic activity, such as GDP. Scientists, economists argue that the real economy is expected to decline and the crisis in practice, it can be stated the events of 2009-2011., Appeared the category "financial terrorism".

If the economic activity of the real economy to migrate to a virtual economy, where there is no earthly jurisdiction, the coming large-scale loss of taxpayers and state revenue. At the same time, it reduces the demand for the services of the public sector of production (eg, roads). Ignoring such an impact on fiscal policy and a possible crisis for the GDP and the labor market, it is possible to conclude that a serious stress for the political systems of the real economy in the event of a mass migration of enterprises in the virtual economy (Golichenko, O.G.). Whether there will or will not be these destructive results depends on the speed of formation and development of the communications industry, interface and content production, mass producing spanning realms.

Of course, to predict in detail all the details of the future is impossible. But it is understood that certain mass exodus of people in the virtual economy will seriously change the macro economy. There will be new areas of statistical science and economic management methods. And it is unclear how the government should respond to what is happening in the virtual economy Gorbunov I.G. (2006). At the moment, the virtual economy is not at the disposal of states' own political system, and this is a new legal problems. Note that at the moment there are negative examples of "communion" of the virtual economy to the revolutions in various countries (Egypt, Tunisia, etc.).

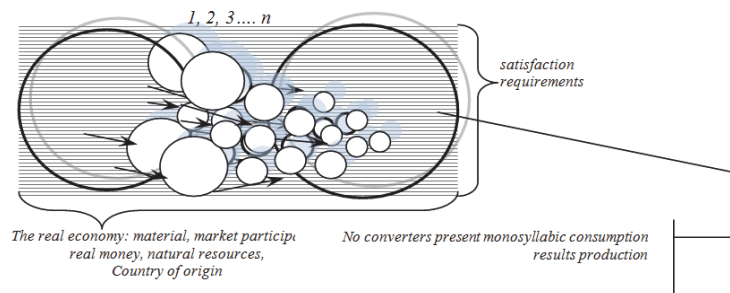
In fact, we can say that the virtual economy - it is the turn of those solutions issues to use technology to solve the economic problems it is. We explain, in modern conditions - the transition to the industrial application of the modernized and information infrastructure in the formation and development of intellectually and emotionally related main areas: science, health, education, culture, sport - which are fundamental sectors in the virtual economy. It will play an important role in the formation of the management principles of "economy of the mysterious Russian soul." It should, finally, poor awareness of "connectivity" technology of industrial capitalism with the Russian mentality to find a continuation in the development of forms of organization and motivation, integrating the national mentality in the modern virtual economy Gvishiani, D.M. & Gromeka V.I. (1990).

Note the position expressed by one of the pioneers of Runet E. Mountain (Gornai, E. Ontology virtual personality. <http://www.zhurnal.ru/staff/gorny/texts/ovr.html>), which lists the following characteristics of e-commerce:

- 1) Immateriality, the reduction of the individual to its semiotic manifestations (ie tech skill in the broadest sense);
- 2) Anonymity, at least, the possibility of such - but anonymous in this case should not be understood as the absence of a name, but an arbitrary connection between "real" and "online" personalities;

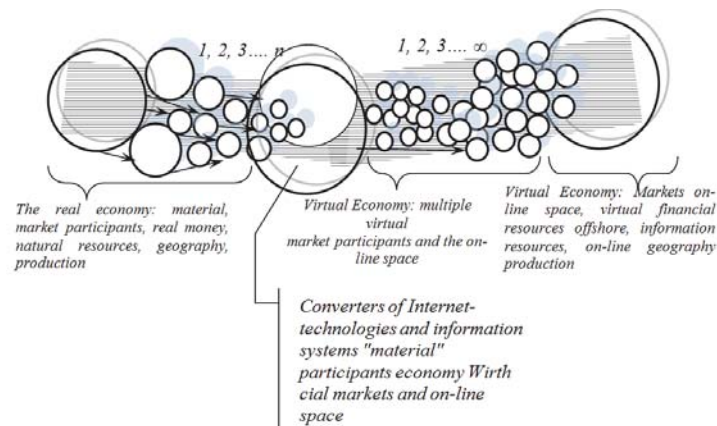
- 3) Enhanced identification, freedom to grant virtual-lich of any set of characteristics;
- 4) The multiplicity, the ability to have a number of different virtual personalities OD-simultaneously or sequentially;
- 5) Automation, the ability to fully or partially simulate the activity of a virtual personality using computer programs (that connects the virtual identity of artificial intelligence and robotics).

Noting the above-mentioned reasons, it is necessary to say that in the context of the destructive tendencies of the economy things are constructive in the context of the virtual economy. The real economy in Russian Federation retains the perspective of being indefinite chaiser, the virtual economy has a chance for the lead position. Both indicated the prospects tasks require large-scale mobilization and a clear orientation of all kinds of resources and effort. The history of economic development indicates that in an era when the burning question of accumulation, regroup and mobilize capital, interventionist and protectionist economic policies more conducive to economic growth than the regime of laissez-faire, which is more resultive during periods of expansion of the capital. Consequently the neo-liberal economic policies of privatization and deregulation cannot serve as an effective instrument of "forced virtualization" Ivanova, T.Y. & Prikhodko V.I. (2004).



**Figure 1.** Model view of the existence of the real economy, without the presence of a virtual objectification (1, 2, 3 ... n - agents of the real economy)

Virtual product, a virtual innovation, virtual work, virtual organization, virtual money and allow provoke quickening economic transactions, the spread of combinatorial logic. This leads to the fact that computer technology becomes the main mean (see. Fig. 1) as well as the very area of economical activities. The virtual economy brings to life the commercialization of Internet networks, which are now carried out not only the exchange of business information, and the complete cycle of the transaction Castronova Edward (1999). Bargains on the Internet network in 1994 brought income equal to 240 mln. USD., In 1995 - 350 million., And reaching the milestone of 7 billion. Projected for 2012 in the Internet are already functioning virtual supermarkets and virtual banks, operating with its own virtual currency Dihtl, V. Hershgen (1999).



**Figure 2.** Model representation of the transition of the real economy to a virtual economy from the perspective of informatization and industrialization (1, 2, 3 ... ∞ - agents of virtual economy)

Transactions committed in virtual storefronts using the same virtual wallet demonstrate that the information economy has not taken place. No information as such, otherwise explains denotation expedient, and the image, mobilizing affective connotations profitable. Analyzing Fig. 2, note that the model representation of the work in the action of the real economy,

without the presence of a virtual objectification defines an ordinary cycle "production - consumption", on output (right-hand side of the figure) needs.

In contrast, Fig. 2 illustrates a model representation of the transition of the real economy to a virtual economy from the perspective of informatization and industrialization, when there is a "transmitter" (the middle part of Fig. 2), and work in action Internet-technologies and information systems "material" of participants of virtual markets and on-line space .

The systemic nature of the changes in social production, determine the circumstances of the information economy, first of all, a large dynamic and uncertain external and internal environment of the organization, expressed in such important trends as the transition from mass production to the differentiation of products facing to the subjective satisfaction of consumers; crisis of large corporations and the viability of small and medium-sized businesses as agents of investment and sources of job creation; development of new methods of management (lean production); flexible organization of business and inter-company networks through cooperation and integration enterprises through the use of information technology and Internet and others.

One of the main directions of improving the management of the organization is to improve efficiency and quality, productivity and competitiveness in the virtual economy is a transition to new forms of functioning and development organizations - the virtual enterprise based on the principles of co-operation legally independent companies, geographically distributed, and carrying out their activities in an integrated information space Lapin, N.I. (1995).

The main advantages of virtual enterprises include the ability to select alternative ways of implementing the process of value creation (creation of the end product or service) through the use of agents and resource management network based on modern information technologies and, as a consequence, increase the speed of response to market changes (changes in volume and timing of deliveries, price fluctuations, and others.), an increase in customer orders and competitiveness Levchaev, P.A.

Consider options for integration of virtual enterprises. The main features that distinguish the virtual from the integrated form of such traditional forms are Lapin, N.I. (1995):

Virtual integration implies the sharing of functions and construction of distributed business network based on a common electronic space. Cooperation partners may be terminated immediately after the general innovation project (virtual associations and consortia) or wear a long-term character (virtual FPG). Integration of traditional enterprises is a long-term in nature and not strictly tied to computer technology.

Geographically distant from each other partners (often over long distances), the accelerated production and service leads to the construction and active use of the Internet supply chains and sales, corporate portals and Web-based representations of virtual enterprises. It is an opportunity to interact in cyberspace gave impetus to the emergence of virtual enterprises. Traditional as businesses do not have this dependency.

Some traditional integrated forms, such as group, lose their legal independence for the sake of economic benefits. Virtual enterprises usually operate within the framework of short-term and medium-term agreements, so regardless of the "hard" or "soft" forms of association of legal independence is maintained.

Loss of business or maintaining independence, the presence or absence of a single management in virtual enterprises is fully consistent with the traditional counterparts.

It should be noted that the virtual economy and ways to integrate it into business correspondence distributed type of production, governance, information and logistical cooperation, the increasing role of the customer in the process of creation and production-needed products.

All types of organizational structures of the enterprises can be attributed to the different areas of enterprise virtualization. We agree with Ivanova TY Prikhodko and VI 9. Ivanova, T.Y. & Prikhodko V.I. (2004), believing in the virtualization of the business systems, for the following reasons:

The company is transformed into a business system, elements of which are business processes - workflow;

It is the formation of a virtual communication space, which makes irrelevant such requirements of the enterprise, as a timely arrival of a job, schedule, time attendance, etc.;

Virtualization involves structural aspects of the enterprise, enabling customers to participate directly in the work of the organization in a mode on-line.

In virtual enterprises, we are studying the type of economy today are innovative team, which is important in the intellectual potential of employees, their professionalism, personality, responsibility and flexibility, ability to work effectively as a team. However, employment in the virtual enterprise is less stable. Also employees of virtual enterprises often identify themselves with ongoing projects, which lead to the transformation of the proportion of working time in the total time of the individual, and the negative effect of this is to increase the amount of stress in people involved in the virtual economy.

Note the restrictions that inhibit the formation and development of high-quality virtual enterprises, reflecting the

mentality of the Russian people, including an expression of the position of "irrational" behavior:

"In Russia people are not able to mundane, laborious, disciplined conduct of the case, when the meaning, the purpose of this case is not visible, but they are capable of an explosive release of mental and physical strength for the sake of completion of the case to be freed from his routine and "lose" a heavy load responsibility."

"People in Russia cannot exist hard, devoting oneself to it completely, but can live to work, handed full communion in your own team."

"In Russia people are deprived of the ability to analyze instrumental values as self-sufficient and simply follow their instructions, but they are able to consider any value as a tool and instructions indisputability doubt, wondering, "What's the meaning here?"

Further, it is worth noting the place of the virtual economy in the reproduction process is determined by the role of science and technology in the development of production. Technology as a set of advanced machines, devices, equipment, means of mechanization and automation has been an important component of the productive forces, the employee placing between himself and the subject of labor, are used to improve its performance in order to best meet the ever-growing material and cultural needs society and virtual economy.

Technology, being the embodiment of the process of learning, developing by science as a modern machine production cannot be developed on a simple empirical experience and objectively requires all expanding and speeding up the practical application of scientific and technological achievements and virtual economy.

The virtual economy, science and technology in the development of the productive forces and production, as a whole, forms a diverse communications innovation with various stages and elements of the reproduction process. First of all, in the virtual economy under the influence of innovation changed the composition and structure of the reproductive cycle, as research, development, design and construction work is organically included in the reproduction process. The statement is: "scientific studies have become an integral of virtually zero production cycle of each product, the information turned into a universal means of labor" Prigogine, A.I. (1989).

In fact in the virtual economy science became zero cycle of reproduction, the mismatch between the elements that embody the following: identified needs (requirements) of consumers, based on their respective scientific development is done to address these needs, the transmission of the results of the development to the production and sale of the resulting product to consumers.

Virtual economy is characterized by a relatively balanced distribution of information, free access and equality of partners, transparency (openness and constant availability of information to participants in the transaction), real-time execution of transactions, and absence of spatial boundaries. It is obvious that the current stage of development of the virtual economy overcomes many of the shortcomings of the real economy. The virtual economy help to reduce different types of costs (including transactional) increase the effectiveness of business processes, reduction of barriers to entry in the industry to new agents and minimizing the monopolization of existing markets. Perhaps these optimistic characteristics inherent only the initial stage of development of virtual markets.

In Russia, the formation and development of virtual enterprises occurs as an independent manner, and through the activities of the branches of major foreign companies, multinational corporations. Interoffice processes, corporate automation, software distribution and presentation of information and communication services are the need of the hour. However, the most prepared to take these innovations are enterprises focused on export activity, creating a branch network in other countries, industry leaders and enterprise software companies. It is they who primarily need the same forms and reporting standards, receiving, processing and presentation of information, access to knowledge bases and advanced technologies. Foreign companies actually broadcast their best practices of business organization in the branch network - transmitted configuration business, its standards, infrastructure elements are an integral part of organizational culture (New technology and organizational structure: Reduced, 1990).

Thus, it remains to note that in this article the provisions concerning the virtual economy, have their limitations. In particular, the situation did not affect the behavior of agents of the virtual economy, buying and selling virtual goods and services for consumption and resale, as well as some other factors. Excessive number of issues such as the economic plan and the legal participation of agents of the virtual economy remain open to learning that undoubtedly particularly actualizes research topic.

We add that at the moment there are no examples of systematic study of this area in the Russian economic literature. Subject affected only occasional references associated with the publication of the results of Western studies in the Russian press, which specializes in the analysis of global information flows and the industry of computer technology. Unwinding the industry of computer technology and Internet networks happens in Russia with a delay of several years compared to Western and Asian markets. Anticipating further development of e-commerce in Russia, we can say that in the near future, computer technology finally get rid of the status of marginal subcultures, and synthetic worlds of virtual

economy will influence the development of social and economic processes in the Russian Federation.

The development of the virtual economy does not allow to stay away from this phenomenon of XX-XXI centuries. It is clear that his study opens up new prospects for economists, financiers, academia, and for humanity as a whole. Synthetic worlds of virtual economy will be one of the hottest research topics in the new period of industrialization and innovative development of Russia in the XXI century.

It should be noted that in the knowledge economy of developed countries formed a virtual services sector. We give the author's definition of this concept. Virtual service is a reflection of a material object shape services: 1) projecting economic resource, wearing a complex character; 2) completely lost the physical form; 3) having an extensive public areas production and consumption; 4) comprising public, mixed and private goods; 5) the process of this creative individualized service in the "on-line" at the same time participating provider and the consumer; 6) The production and consumption of this service may not coincide in time; 7) are designed to meet the informative needs of economic agents in a variety of industries and occupations related to the development of business processes of the knowledge economy.

The specificity of virtual services allows for a variety of symptoms attributed to their unusual, non-traditional services. We believe that the reason for this is as follows:

1. The result is a virtual economic activity materialized or not materialized in the documents that can be stored on physical media. Materialized virtual services in the documentary, machine-readable form stored in the form of hard copies and computer-readable media (microfilm, computer hard drives, etc.) makes them suitable for storage (in bibliographic, video, audio, film and archives) and transportation (on the media or by means of telecommunications connection).
2. In the process of consumption of virtual services is the possibility of storing and transporting it by electronic means.
3. Modern information and communication links provide the ability to provision virtual services without direct personal contact of the consumer and the producer, ie, in the "on-line". This leads to a high degree of differentiation of the virtual services, due to the personification and individualization of demand, as well as the emergence of new, non-standard services
4. The high rate of turnover of capital in the process of production and the provision of virtual services provides benefits to business in this field and acts as a consequence of a short production cycle.
5. The specificity of the organization of production virtual services is that the suppliers of such services are mainly small and medium-sized enterprises in various fields. Their small size and high mobility provide ample opportunity for a flexible response to changing market conditions, which is very effective in terms of the local market.

The specificity of virtual services can be attributed to a special kind of social activities of people, based on creative work dominated the individual, which in varying degrees of use materialized labor and support services. Consequently, the main producer of intellectual and creative energy of the virtual services is the specific set of assets consisting of human and institutional capital and innovation intangible assets.

Despite the fact that virtual services retain all the previously reviewed the signs of non-productive activities aimed at different profiles of service facilities in order to change their status or behavior, they differ from other services to a number of additional features, which are derived from the specific creation and the provision of such services.

We expand the content of our proposed definition of virtual services, distinguishes them from the scope of common services.

1. Virtual Services, in our opinion, should be considered as an economic resource. Usually, an economic resource is defined as "stock" of the productive forces, which defines the process of production and all subsequent links of reproduction - "flow". Involvement of resources into economic circulation, transform their development resources in the factors of production, in the active, operating element of the productive forces 19.Stavtseva, T.N. (2010).

It should be noted that the dynamics of resources determines the continuity of social reproduction. Virtual service is a form of direct participation of science (creative activities) in the production process as a new factor of production. In our view, the virtual services have common features, similar to other economic resources and a number of features stemming from the specifics of their information, which is reflected in the radical nature of their effect on the growth of productivity and efficiency.

The features of the virtual information services as an economic resource:

- Unlimited virtual services as information and economic resources of the non-applicability to them the characteristics of "rare", the availability of such services to any number of users;
- Inexhaustible virtual services and increase their reserves for the development of society. It can be

concluded that in use the virtual service does not disappear, but is maintained. Note, even increasing it, what is happening with the help of local features and use accumulated experience;

- Paraphrasing Kanygin, Y.M. (1993) we note that if the treatment of tangible goods itself does not add to the wealth of nations, the appeal of virtual services itself increases the resource potential of the company;
- Virtual services act as complementary resource to traditional inputs, can replace them largely reducing the relative and absolute need for resources;
- Lack of independence of the virtual services as an economic resource, its inability to completely replace the material and labor resources. It represents a certain potential, appear only when combined with other resources;
- Virtual service is comprehensive, ie their production and distribution requires the fulfillment of ancillary works and maintenance of a number of material components. These materialized costs or to carry out the provision of virtual services, or after - in the process of their implementation.

Thus, the virtual service is predetermined leading role as creative services in the development of the knowledge economy. It should be stated that the active virtual effects maintenance services to the objects shown, with varying degrees of inertia in different time slots, as consequences of virtual services may occur both in the form of primary specific impact on economic agents through a relatively short period of time, and as a negative or positive historical effects caused by the process for producing virtual services.

2. Virtual Services has completely lost its material content, and may be: 1) as a specific intellectual work, 2) as a commodity in the case of the aforesaid market and 3) as paid work in the event of instant commercialization.
3. Extensive public areas of virtual production and consumption of services related to the computerization of all business processes prevailing in such fields as business, science, health care, higher education, and other financial activities. Informatization of business processes has a number of features: information influences production efficiency without increasing the traditional physical resources; Steps on the subjective factor of production - a man, his character and ability; information speeds up the process of reproduction by reducing the period of production and circulation Korabeynikov, I.N. & Korabeynikova O.A. (2009).

We believe that virtual services and immaterial vague in form and content to the end. It can lead to individualization poly-alternativeness multidimensional nature of its creation, delivery and communication to the end user.

It should be noted varying degrees of demand for virtual services on the market today, which is caused by the condition that the goods and services produced outside the effective demand are unclaimed society. Consequently, a number of current public systems for virtual services do not translate into effective demand of the market. Such services may include forward-looking society research with long-term payback period, exceeding the critical period of favorable market investments. As the only customer and buyer of these virtual services can serve society and finance their future. Thus, the estimate of use value of virtual services and their demand may change over time.

4. We consider it necessary to define a virtual service as good news for production purposes, which indirectly satisfy human needs, participating in the production process and influencing its outcome, thus becoming a factor of production.

Information and knowledge underlying the virtual services are important public goods which have special features:

- Devoid of the usual signs of market goods;
- Have the non-exceptable properties as objects of ownership and lack of competitiveness;
- The result of a specific act of social work and have specific social costs.

These features allow us to speak of them as objects of public property, which is regarded as part of the public sector of the economy.

It should be noted that the agents combined into virtual networks, in a sense, to coordinate their actions and their economic choices, but each of them, however, remains an independent entity relationships, decision-making and characterized by its own economic behavior, which can be more or less rational and more or less successful.

Because the good news is easily replicated (the costs of copying of information is much less than the cost of its original inception), it can be argued that the wider common good, the lower the cost of each of its instance and with the higher its value to users.

According to Nizhegorodtsev RM, the economic fundamental era of information technology is based on the fact that the value of information products derived from their multiplicity. The spread of information technology

brings tremendous positive externalities for users who have begun before using them (Nizhegorodtsev, R., 1999 & Nizhegorodtsev, R.M. 2010).

On the other hand, we can say that the virtual service is a private good. because the same information can be consumed by different agents at the same time and in full. And only from the economic agent will depend on how it is to dispose of it.

One of the features of most types of virtual paid services is that they not only deplete the intellectual and creative potential of the entity, which has had them, and multiply it by an information exchange between the producers of these services, and improve knowledge about the objects of service. The latter often retain ownership of all kinds of know-how that prohibit reproduction and dissemination of virtual services.

5. The characteristic point in the process of virtual creative individualized service is the fact that in the "on-line" at the same time participating supplier and consumer. Introduction of the customer in a virtual service allows him to keep track of the organization's work in real time and coordinate all the steps: from design changes to its provision of services. Without interactive virtual contact service cannot be effectively used or consumed.

In this case the consumer should be considered as an active participant in the process of producing the necessary cost him, which will not affect the value of the production assets of the organization and its internal ability to respond to client requests. In this case, the organization sells the service first, and only then it has. The use-value of virtual services is not always a monetary value, and therefore the effect of their use slightly comparable to the conduct and measured the cost of their implementation. The effect will depend on a number of factors: the content of these services, the impact of their development on the objects of service.

The functional properties of virtual services, which form the basis of their use value or not amenable to structuring and formalizing the process, or is accompanied by considerable difficulties. Therefore, the high level of informal structures in all virtual services leads to difficulties in forecasting demand for these services.

As the initiators of the virtual services can be:

- Customers and users of these services in-line formulate their requirements to quality of services and have the ability to adjust, if necessary, their functional properties and parameters;
  - Themselves producers of virtual services (individuals and legal entities), the internal intellectual potential, which is looking for a way to self-generating new ideas, without which they simply cannot exist. The extent of the demand for these kinds of spontaneous virtual services can be determined by the market economy is quite ambiguous.
6. Production and consumption of this service may not coincide in time, which is caused by the nature of intellectual investigation services.
  7. The main specificity of virtual services is its information and communication component. Virtual service is aimed at meeting the informative needs of the economical knowledge. We introduce the concept of "informative need," by which we understand the need for obtaining and processing the information needed in a certain direction to the consumer intangible means of production - specialized knowledge.

Our study helped identify a number of specific characteristics of virtual services:

- Not part of the information service, since arise as a result of penetration of the network economy in the world services (concept of "virtual services" is broader than the concept of "information service" - can be said that the last part of the first);
- Is a reflection of the product of human activity;
- Are of an intellectual nature (cognitive nature), which suggests a high share of value-added services under study, most of which are made with the help of highly qualified personnel;
- Address non-uniform;
- Are inseparable from the manufacturer, the customer is acting as a co-producer services, ie, at least its "shell" or even the whole service as a whole, if the latter is completely individualized;
- Variable estimates of different groups of consumers;
- There is the possibility of remote access to the service and the network of contacts between actors in its delivery;
- Facilitating the access of consumers to information and the empowerment of its choice;
- Vague and focused on customers and anonymous users.

In the context of post-industrial transformation and creating conditions for the approval of building an economy based on knowledge, are inherently dynamic and profound changes taking place in the change of the place and the role of education in the socio-economic relations. This formation of human capital has become the dominant factor of production and determines the priority of education in the development of the national economy and, consequently, the



influx of large investments in it from various sources, new technologies and competencies appropriate to the needs of innovative reproduction (Schumpeter, I., 1982 & 21. US: management science and innovation, 1995).

Educational services in a virtualization of the economy modernized, and this upgrade is due to virtualization of communication processes that underlie the educational process. Virtual relationships and virtual services are derived from the virtual nature of the educational services, supported by the formation of a global educational space, as well as the development of information technologies and mechanisms of the network organization of relations of educational services, enhanced conversion of the present economic system in financial economics, where the key importance is a virtual organization of the investment process. At the same time formed a new virtual learning designers, is a set of new educational technologies in the IT - space that is given a dominant role in the post-industrial society.

Virtualization educational designers, primarily due to the following factors:

- First, the rapid development of multimedia, media-communicational systems, mobile communication network;
- Secondly, the emergence, active dissemination, and the legalization of legislative regulation of distance learning;
- Thirdly, the increased demand for self-education and the emergence of the need for continuing education.

As a result, educational services become part of the virtual services and the education sector is developing in the direction of virtual education. Thus, under the virtual education, we understand the process and the result of interaction of subjects and objects of education, carrying out the interaction with virtual educational designers. Virtual education most closely matches the spherical model, which has an unlimited number of degrees of freedom and is not specified for each user of educational services unequivocal path of learning. Center of a spherical model is the ability, the desire, the need, as well as personal and educational potential consumers of educational services. In this single center for all consumers in such a model is not available, each developed and is formed by its individually selected program.

Creating virtual educational designers is a logical step in the organization of the virtual educational environment as part of the virtual economy. The structure of such education is aimed at designers of interactive information content of one of the most important functions is communication support interactive educational processes. According to Ivushkin E.B, Konovalenko V.V and Lantratova O.I. (2008) there are currently three types of educational virtual constructors:

- 1) Organizational - orienting designers - are devoted to orientation in the educational space, to help carry out a choice form of interest, directions and areas for further study;
- 2) The designers of distance education - allow you to organize the educational process, monitor it and evaluate the final result;
- 3) Support designers - complementing existing databases and site training to help the process of self-study and self-improvement.

However, in our opinion, this is only the beginning of virtualization and virtualization of the economy of educational relations. Because of the changing nature of relations of subjects of educational relations virtual educational services will necessarily adapt and become flexible and changeable, and the rate of change of both the virtual learning services and virtual designers will be directly proportional to the rate of change of the virtual economy.

Variability of virtual learning services and virtual educational designers will be caused by factors such as increased competition in the education market, a continuous process of education, the necessity of interaction and cooperation of individual educational areas.

The main effects of virtualization relations in education: the transition to a network organization of educational space; enabling remote access to quality educational services; development of new educational technologies; ensuring transparency of relations of the internal environment of an educational organization; increasing the investment attractiveness of educational institutions; the emergence of new educational designers in the form of a franchise and articulation.

In the context of the virtual space within the franchise agreement will be entitled to other educational organization, perhaps even in another country, to implement their programs under its control. It is also possible to apply the principles of articulation, ie the principles of pairing education programs, where different units of the educational process will be provided by different virtual learning platforms.

However, the virtual educational service has both advantages and disadvantages. The advantages include a distant education services, unlimited in time and space of educational process, mobility, new forms and methods of education. The cons include reproductive education when the student will be able to reproduce only available in the IT-environment information and will not be able to work constructively with their own material. As a consequence of this process - the quasi - virtual relationship, leading to the loss of verbal communication skills and interaction, lower quality of educational services, fake diplomas, the certification of paper, etc.

Between those, you need to understand that the virtual educational services have a clear specificity and they are

effective only when the consumers of educational services has experience of independent work, knows the algorithm for obtaining new knowledge, and he has the motivation and the ability to educate themselves in full the framework provided by the virtual sites.

Development of educational structures under virtual economy is only possible if constant monitoring needs of consumers of educational services, improvement of existing educational designers, the introduction of innovative methods and technologies for learning.

### 3. Concluding Remarks

Summarizing all the above, we can conclude that in a post-industrial society was the emergence of the virtual economy within the virtualization of basic economic relations and the globalization of the world economic space. The basis of the virtual economy is the dominance of financial capital over capital production sphere, which is based on a circuit of the transnational financial capital, is actually separate from the real sector. It is clear that the economy is greatly enhanced virtualization, and the economy of the future will be dominated by the services of the virtual sector having greater potency and opportunities. Part of this sector of virtual services already become educational services in a virtualization of the economy modernized, and this is due to the modernization of virtualization communicative processes that underlie the educational process. The main consequences of virtualization relations in education, in our opinion, will be the transition to a network organization of educational space; enabling remote access to quality educational services; development of new educational technologies; ensuring transparency of relations of the internal environment of an educational organization; increasing the investment attractiveness of educational institutions; the emergence of new educational designers in the form of a franchise and articulation.

However, our study did not affect the behavior of agents of the virtual economy, buying and selling virtual goods and services for consumption and resale, as well as some other factors. Excessive number of issues such as the economic plan and the legal participation of agents of the virtual economy are opened for study, which is undoubtedly very actualizes research topic.

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