

THE FUNDAMENTALS OF DIGITAL ECONOMY

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Abstract: Nowadays, the economy is a dynamic and complex system that determines the relationship between partners both within markets and countries, and at the global level. Moreover, thanks to scientific and technological achievements, network marketing is being increasingly used. Markets within the Internet have begun to develop. At this stage of development, it should be noted that the economy is based on the widespread use of digital technologies. This phenomenon has been termed as "digital economy". The digital economy is an economy that ensures the transition to the next level of interaction, the opportunities, and threats of which we are just beginning to realize now. Currently, the subject of the digital economy is being actively studied by both Russian and foreign scientists. They all concur on one thing: digitalization of all aspects of society, including economic activities, is one of the main trends of the global economy.

Keywords: Scientific and technological progress, Technological revolution, Innovations, E-economy, Digital economy, High-tech industries, Information and communication technologies, Digital technologies.

1 Introduction

The relevance of digitalization for economic entities is thanks to the following features of the modern economy:

- Globalization of the system of economic relations, which has created the opportunity to use the economy of scale when implementing IT technologies in the production and distribution of a product;
- Growth of the capabilities of digital technologies in terms of saving time and money for companies and organizations in the course of development of these technologies;
- Standardization of the processes of individual manufacturers and unification of their tasks, which ensures an acceptable capacity of IT solutions used for certain production tasks and enables to scale the results of using IT technologies in production and distribution;
- Intensification of the competition at all levels of the system of economic relations, thereby forcing companies and organizations to look for ways to improve their economic performance.

The experience of most of the world's leading economies shows positive effects, whereby digital technologies act as the drivers of their growth.

At the same time, digital technologies give rise to many new challenges at the country and company level. These challenges are associated with digital security and the development of digital culture, changes in the labor market and the qualification requirements for specialists, the issue of retrieving knowledge and necessary information from the huge data flow, as well as the ability to use this new knowledge in management.

However, there are new opportunities for business, including the possibility of personalizing customer relationships, rapid design and experimentation, sharing resources without owning them, management algorithmization, the organization of after-sale services for equipment and many others.

It is important that not only global, but also the national experience of the successful use of digital technologies, the

creation of business ecosystems and the development of platform technologies, both in large and small businesses, is being accumulated. But it is only at the stage of its inception and is used in a limited number of business areas.

The digital economy is a broader concept, which covers a variety of areas, including medicine, transportation, utility services, finance, education, tourism, and other industries. It relies on digital connectivity and smart technologies, "big data" and algorithms for its processing, as well as creates a virtual and mixed reality. However, all researchers note that the humankind has just embarked on a path towards the digital economy and may be in for many surprises on this path.

2 Materials and Methods

Amid strengthening global geo-economic and geopolitical processes, the economy is a dynamic and complex system that determines the relationship between partners both within markets and countries, and at the global level. Moreover, thanks to scientific and technological achievements, the network structure, which is present in almost all spheres of life and business, is being increasingly used. Markets within the Internet are actively developing.

As a result, at this stage of development, it should be emphasized that the economy is based on the widespread use of digital technologies. This phenomenon has been termed as "digital economy." (1-19)

The digital economy is an economy that ensures the transition to a whole new level of transformation, the opportunities and threats of which we are just beginning to realize now. (1-8, 20, 21)

The term "digital economy" has a long history. It was coined amid the rapid and active formation of information and communication technologies. Naturally, the global and overall development of the world wide web (the Internet) and various possible mobile communications is the basis of the digital economy. However, it should be noted that the development of the Internet has also had a real impact on all sectors of the economy and social activities, in particular, on manufacturing, medicine, healthcare, etc. The World Bank defines the digital economy as "a system of economic, social and cultural relations based on the use of digital information and communication technologies." (22) The most important value of the digital economy is its ability to improve production and services, as well as to increase productivity.

It is obvious that digital technologies are changing the business landscape and business models of companies. They are undermining the foundations of many economic sectors and requiring a global transformation. A case in point is the taxi service and the publication of encyclopedias. Digital technologies are creating new business branches, enabling to collect huge amounts of data about consumers, equipment, etc. in pretty much real-time mode.

It is believed that the main advantages created by the digital economy are enjoyed by representatives of households such as consumers, which is beyond controversy. In fact, thanks to the digital economy, the modern consumer has received a number of added value services such as numerous benefits available in social media networks, as well as the opportunity to purchase goods at lower prices, e.g. electronic versions of various literary publications or musical works. Thanks to e-commerce, the buyer can make bargain purchases with immediate payment.

Digitization of economic processes is becoming increasingly popular, covering both the information and communication industry and all sectors of the economy. E-commerce, digital agriculture, "smart" energy systems, unmanned vehicles,

healthcare, HR and all areas you are dealing with will be affected by the digital revolution. (23-25)

Nowadays, most corporations, regions, countries are building their own development strategy based on the digital economy and are creating their long-term competitive advantage by developing new technologies, goods, and services in the existing market.

There are many approaches to defining the term “digital economy”. The first definitions, as well as the concept of the modern digital economy, appeared at the end of the last century, when in 1995 the American computer scientist Nicholas Negroponte used a metaphor about the transition from the processing of atoms that which make up the matter of physical substances, to the processing of bits that make up the matter of software codes. He said that the material substances considered as raw materials and products have their drawbacks such as the physical weight of goods, the need for resources to produce them, the use of space to store them, as well as the logistical costs and problems associated with their transportation. In his opinion, the advantages of the digital economy as a “new” type of economy could include the absence of the physical weight of goods after being replaced by data volume, the lower cost of resources used for the production of electronic goods, several times smaller space occupied by products (usually electronic media), as well as the instant global movement of goods via the Internet. (20, 21)

A look at digitalization from the perspective of a time horizon enables us to see the features which usually escape the notice of those who write about it based on modern experience and context only. In particular, when considering the process of digitalization in retrospect, it is clearly seen that as digital technologies develop they become more efficient and cost-effective in comparison with analog technologies. At first, the use of digital format was justified only in exceptional cases (as a rule, this was due to communication systems and the confidentiality of transmitted information). Then digital electronic computers appeared. They were used for complex calculations in space and nuclear industries. But, as it turned out, these machines were quite universal, and therefore they gradually replaced analog computers in other sectors of the economy. Digital format and digital technologies rapidly took

over the entire media sphere, and then begin to penetrate into a variety of industries, including energy, construction, and transportation. Thanks to the lower cost of searching for information and negotiating contracts, the new forms of business based on networks and digital technologies emerged. (1-8)

However, there are a number of outstanding critical issues, in particular, those related to the impact assessment of the digital economy’s advantages in the context of individual sectors, regions and even social groups. It is still unknown how the supply chains of lagging sectors will be established, how the level of employment will change in regions that are far from the digitization process. To what extent will the role of transnational corporations in the functioning of national and regional economies increase?

In the 20th century these issues were not resolved and clearly formulated. Finally, their processing requires a number of complex applied studies that will help us to better understand, systematize and find reliable solutions for future threats in our country.

“Every year there are more and more similar examples that can only confirm what each of us sees in our environment. It is safe to say that we exist in the age of the digital economy. In addition to the above quote, let’s analyze the statistics suggesting that today more than 7.7 billion search queries are made in Google every day. About 152 million calls are made via Skype, 58 million messages are sent by Twitter, 36 million purchases are made through Amazon, and 2.3 billion gigabytes of information are stored on the Internet. Every minute and every day, 204 million emails are sent, 2.4 million messages are posted on Facebook, 72 hours of videos are posted on YouTube, and 216000 photos are displayed on Instagram.” (22)

Based on the assessment of an effect from the digital economy on the development of society, the importance of reports made by the Organization for Economic Cooperation and Development (OECD). In 2008, a declaration for the future of the Internet economy was signed in Seoul, South Korea. The main themes of this declaration, as shown in table 1, were the seven most important issues for the development of the digital economy.

Table 1. Discussion Area in the G20 Leaders’ Seoul Declaration for the Development of Digital Economies and for the future of the Internet Economy

Theme	Description
Internet access with high-speed infrastructure as the basis of the Internet economy	Development of high-speed networks, including improved access to existing networks; development of competitive conditions; ensuring convergence; IPv6 configuration; use of radio frequency spectrum; improvement of the rating system
Digital content and “green” information and communication technologies (green information and communication technologies (ICT)) (hereinafter – “green ICT”)	Digital content was considered in terms of the development of a relevant market and the creation of local content. Public sector information, protection of intellectual property rights, etc. Green ICT meant the efficiency of using ICT resources, the creation of sensor networks, smart applications and ICT networks
Development of “smart” Internet applications	Intelligent traffic, networks, power supplies etc., including the spread of smart devices
Cybersecurity & privacy	The issues of information systems and networks security, personal data protection and digital identity management were discussed.
Powers and consumer protection	The B2C e-commerce market was discussed, especially with regard to online payments and mobile payments for buying digital content; selling via social media networks and using joint purchase schemes, as well as dispute resolution and damage settlement
Ensuring transparency of the Internet economy	Ensuring openness to the creation of innovation and growth of the Internet economy, as well as to the development of Internet policy principles
Ensuring global interaction in the Internet economy	Creating conditions for increased access to the Internet and related ICT in developing countries, including the development of cloud technologies.

According to a survey conducted by the OECD in 2016, 32 member states and 6 other partner countries commented on the existing development strategy of the digital economy. The Australian government announced that starting from September 2017 a digital economy strategy would be launched. In the United States, the creation of a digital economy program was announced in 2015. In 2016, a digital economy panel was

established under the Ministry of Commerce in order to create a number of tasks and solutions for the development of the Internet, information security and innovative advertising, etc., which are implemented by the private companies. (9-11) Table 2 shows the OECD digital economy development rating based on the analysis of existing policies and surveys.

Table 2. Priorities for the Development of the Digital Economy in OECD Countries

Objective	Priority for 2017, rating	Priority for 2020-2022 expected rerating	Number of countries that have included this goal into their strategy
Improving e-government services	1	0	21
Developing telecommunication infrastructure	2	-3	22
Promoting ICT-related skills and competencies	3	0	16
Increasing security	4	+2	18
Increasing access to data	5	+1	6
Promoting ICT adaptation in small and medium-sized business	6	-1	3
Promoting ICT adaptation in specific sectors such as healthcare, education, etc.	7	+1	3
Strengthening personal data protection	8	0	5
Strengthening digital identity	9	0	2
Developing the ICT sector, including international markets	10	0	2
Promoting e-commerce	11	-1	5
Addressing global challenges, Internet government, climate change, etc.	12	+1	1
Strengthening consumer protection	13	-1	0
Expanding Internet access for the elderly and disabled	14	+1	4
Keeping the Internet open	15	0	4

Based on the results of a survey conducted by OECD experts, much attention should be paid to the objectives of “improving e-government services” and “developing telecom infrastructure”. Such objectives are reflected in national strategies (mentioned 21 or 22 times).

However, it should be noted that the survey was conducted for developed countries (the USA, all countries of Western Europe, Canada, Japan, Australia, and New Zealand, South Korea, Singapore, Hong Kong and Taiwan, Israel, and Brazil, Mexico, Russia, but they are included more by territorial superiority rather than by the level of development). In this context, the challenges associated with combating the negative effects of digitization, including unemployment, technological and economic backwardness and growing dependence on a small number of transnational (large) companies, were ignored for the purposes of this survey.

3 Results and Discussion

The modern digital economy has emerged thanks to a thirty-five-year development of the information society. It is customary to divide the years of its development into several stages.

The first stage of development of the digital economy was marked by the creation of the Internet. Since the 80s, the Internet has tended to grow rapidly, increasing the number of its users. Initially, the Internet was conceived as a means of e-mail transmission, but as it expanded, much more opportunities for data transmission appeared. Thanks to the globalization of the Internet, the first online store was eventually opened in 1994. This event heralded the emergence of global e-commerce. (23)

After that, many owners of large businesses began to invest in the development and support of e-commerce. Also in 1994, along with e-commerce, an American bank Stanford Federal Credit Union launched the first Internet banking system, thanks to which it was possible to pay bills and transfer funds using a personal computer (of course, if connected to the Internet). Online shopping and online banking became the foundation and enabled the digital economy to move to the next stage of development and to begin globalization (Table 3).

Table 3. Development Stages of the Digital Economy

Stages	Periods	Description
Stage 1	1980 – 1994	The inception of the digital economy. The emergence of the global Internet. Development of telecommunication technologies and means of communication.
Stage 2	1994 – 2011	The emergence of the first economic entities operating in the digital economy: online store and Internet banking system. Global penetration of the Internet in all spheres of everyday life.
State 3	2011 – 2019	The advent of virtual goods and e-money. Development of commodity exchange, electronic payment for services. The beginning of a separation of the digital economy from the real sector of the economy.

During the meeting held in Antalya in 2015, G20 leaders recognized that we are living in an era of the Internet economy that creates both opportunities and challenges to global growth. The G20 is a forum of governments and governors of central

banks of the countries with the most developed and developing economies. In turn, the digital economy is defined as a new stage of economic development, which is based on the integration of physical and digital objects in terms of production and

consumption. (24) It includes various economic activities in which the use of digital information and knowledge plays a key role. Modern information networks are increasingly becoming an important area of activity, and the effective use of information and communication technologies (ICT) acts as an important driver to improve performance and optimize the structure of an economy.

The Internet, cloud computing, “big data”, “the Internet of things”, financial and other new digital technologies are used to collect, store, analyze and share information in digital format and transform the ways of social interaction. (21) Thanks to digitized, network-based and intelligent technologies, the modern economic activity is becoming more flexible, dynamic and “smart”.

Currently, the digital economy is characterized as follows:

1. High growth rates;
2. Rapid implementation of innovations;
3. Widespread use in other economic sectors. (12)

It is an increasingly important driver of global economic growth and plays a significant role in accelerating development, increasing the productivity of existing industries, creating new markets and industries and achieving sustainable growth.

The development of the digital economy is a complex process. It is based on several fundamental ideas. They are presented in Figure 1.

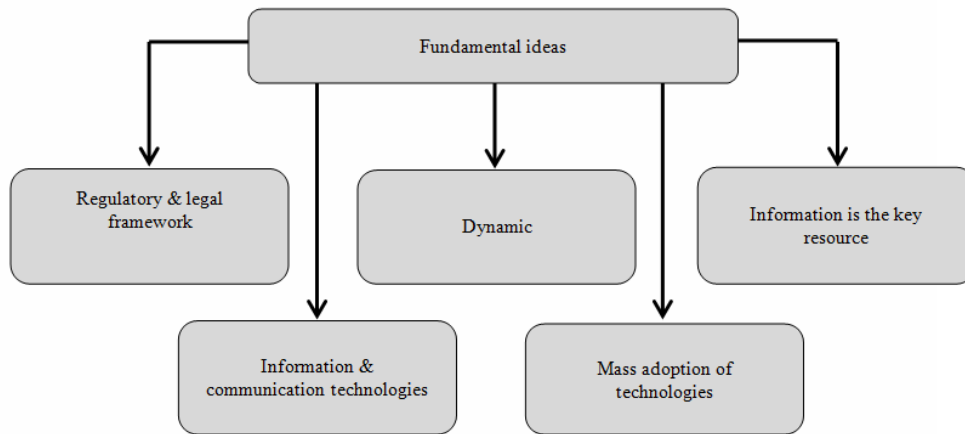


Figure 1. The Fundamentals of the Digital Economy

Firstly, the information economy depends on whether there is a regulatory and legal framework associated with the development and approval of relevant regulations governing the development of information and communication technologies.

Secondly, the development of the digital economy is based on information and communication technologies.

Thirdly, the information economy involves the massive introduction of information technology in all spheres of society.

Fourthly, in this area, the labor and capital productivity grows at a more dynamic pace than in other industries.

Finally, the key resources of this economic model are information and knowledge.

Currently, the digital economy is developing rapidly. The digital transformation is expected to change the functions and position of digital technologies in business, namely, from the ancillary position to the central one. General principles of digital economy development are presented in Figure 2.

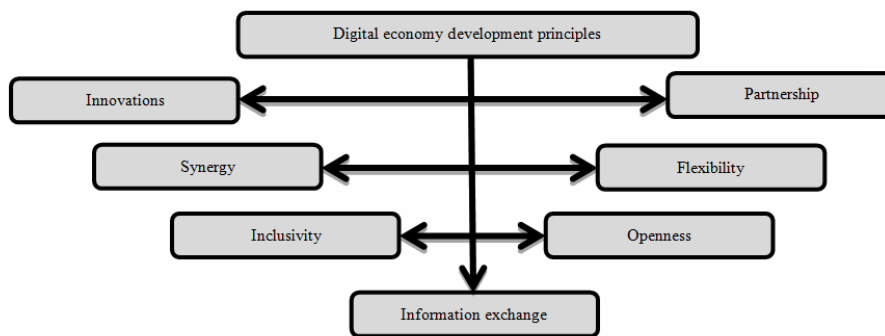


Figure 2. General Principles of the Digital Economy Development

Technological innovations in ICT, as well as innovations in ICT-related economic activities, are among the most important factors for inclusive economic growth and development. Besides, it is also necessary to invest in human resources, because without them it will be impossible to operate some technologies. It is human capital that is believed by many experts to be the basis for the future economy. (17)

A closer partnership between the G20 members by sharing knowledge, information, and experience as part of a constructive dialogue to overcome differences and respect different interests may contribute to strengthening cooperation, addressing common issues and developing the global digital economy. (15)

Since the digital economy affects almost all economic and social sectors and is closely linked to other areas, in particular, innovation and the new industrial revolution, the G20 members work together to seek synergies in the discussion of these issues in order to avoid duplication and ensure consistency. (16)

The changes are primarily driven by increasing flexibility in the workspace. Today it is possible to work anywhere and from any device that has access to the Internet. This is made possible by technologies that allow safe and efficient operation.

Increasing access to and use of digital technologies in order to bridge the digital gap between different segments of the population should remain key elements in the development of the digital economy. They promote universal participation regardless of gender, a region of residence, age, disability or economic status. The digital economy can simplify the process of ensuring sustainable development for the period up to 2030. (21)

For the digital economy of exceedingly great importance are the following factors: the private sector, the favorable and "transparent" legal, regulatory, political conditions, as well as the promotion of open and competitive markets. Among other things, compliance with competition and consumer protection laws, which improve the access to markets and technological

innovations in ICT, as well as the growth of the digital economy, plays an important role.

Information is exchanged in order to ensure economic growth, trust and security. The free exchange of information, ideas and knowledge are essential for building a digital economy. They have a positive impact on development. There is also strong support for ICT policies aimed at preserving the global nature of the Internet, facilitating the cross-border flow of information and providing legitimate online access to information, knowledge, and services to Internet users at their choice. At the same time, there is a need to comply with the regulatory framework on the protection of privacy and personal data, as well as intellectual property rights, as they play a crucial role in building confidence in the digital economy. In order for ICTs to remain a reliable factor in accelerating economic development, it is necessary to increase the level of security of the critical infrastructure in which they are used. (12)

In view of the above principles governing the digital economy, the priorities for cooperation in the digital economy should be identified. These priorities will contribute to creating an enabling environment for its development, accelerating economic growth and ensuring the availability and accessibility of digital technologies. To achieve these goals, you need to consider the priorities that are presented in Figure 3.

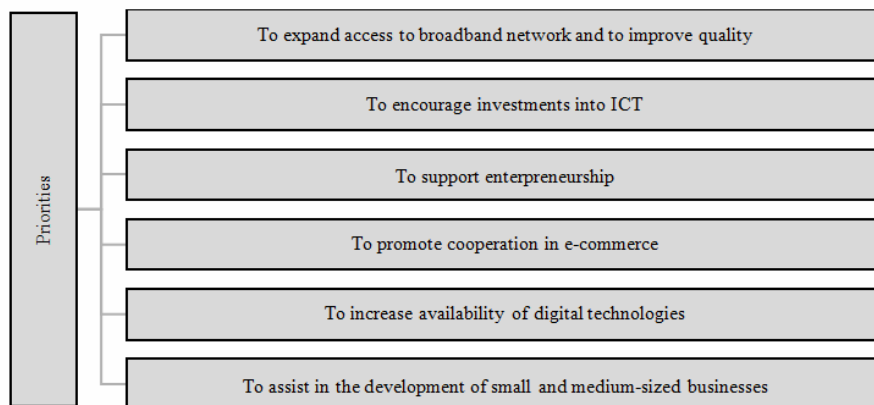


Figure 3. Cooperation Priorities in Digital Economy

The access to broadband networks should be expanded and the quality of traffic should be improved, thus accelerating the creation of network infrastructure and ensuring network cooperation. One should call upon all countries to make the issue of access to the Internet central among their development and growth initiatives. It is important to promote the expansion of broadband coverage, improve bandwidth and quality while ensuring a legally predictable competitive environment. In particular, to explore the possibility of expanding access to high-speed Internet and connecting to this network at affordable prices. (8)

Investment in ICT should be encouraged. This will improve the business environment by developing innovations. It is important to promote public-private partnerships, the establishment of commercial investment funds, as well as social funds for investment in ICT infrastructure. In addition, it is necessary to encourage the organization of events for exchanging investment-related information between ICT companies and financial institutions. (26)

Business support will ensure the transition to digital technologies. Such support can be provided by creating an enabling legal environment and programs aimed at assisting research, development, and innovation, as well as by ensuring proper operation of the capital markets for innovative enterprises. Organizations should leverage the advantages

offered by the Internet in order to promote their products and services on the market.

In order to create a more interconnected network intelligent industrial sector, the state should promote the integration of digital technologies and production. This can involve the use of ICT for improving education, healthcare, and safety, for protecting the environment, as well as for enhancing healthcare and other public services.

Particular attention should be paid to the continuous development of such areas of services as e-commerce, e-government, e-logistics, online tourism, Internet Finance and "shareconomy". The transition to digital technologies in agricultural production, operations, and management, as well as the transformation of the agricultural distribution system on a network basis, should be facilitated.

In order to implement the digital economy model, it is also necessary to create conditions for enabling broadband service providers to expand the range of their services, to offer innovative solutions, as well as to ensure consumer protection and competitiveness. (27)

Another principle is to promote cooperation in the field of e-commerce. The cross-border e-commerce should be facilitated using such reliable digital tools as:

1. Electronic customs clearance;

2. E-documents on commercial transactions;
3. Mutually recognized e-signatures;
4. Electronic and online payments.

Moreover, the cooperation aimed at preventing market access barriers and other barriers should be strengthened. Among other things, the international efforts aimed at measuring e-commerce indicators and estimating the macroeconomic impact from the development of the digital economy should be stepped up.

At the same time, it is important to pay attention to strengthening cooperation in the field of consumer protection and in the development of approaches to the settlement of disputes, thus providing consumers with opportunities geared to the peculiarities of e-commerce within the framework of national laws and regulations. Building user confidence is a key element of the digital economy. (11)

One of the most important principles is to increase the availability, accessibility, and affordability of digital technologies. Its implementation requires various policies and technical means to bridge the digital gap between and within countries, especially between developed and developing countries, regions and groups, as well as to promote universal access, including open access to the Internet, by creating equal digital opportunities for all. The spread of broadband Internet connectivity among the poorest segments of the population, especially among the poorest 20% of the population, as well as residents of the areas with low population density, should be facilitated. Also, one should strive to provide universal and inexpensive Internet access in the least developed countries.

The use of technology in primary and secondary education, as well as in non-formal education, including libraries, museums, and other public institutions, should be promoted in order to reduce the income gap and to develop a workforce for the digital economy. An increase in the number of primary and secondary

school students with full access to educational materials, broadband Internet and digital tools in the classroom should be aimed at.

The use of digital technologies in socially important areas such as food distribution, education, healthcare, benefits, and public administration should be promoted.

However, the digital economy development may pose threats and challenges due to lack of skills or their failure to meet demand. Inequality may also increase as some do not have time to adapt to the changes due to the lack of skills required. Consequently, it is necessary to promote training in digital technologies and preparing a more competitive workforce through cooperation between educational institutions and technical schools, libraries, business, and social organizations. The level of training in digital technologies for all citizens, including youth and the elderly, women and men, people with disabilities, illiterate and vulnerable groups, as well as the population of low-income countries and developing countries, should be increased in order to enable them to become part of the digital economy, while realizing the potential of creating quality jobs, decent work, as well as the potential of income growth and well-being improvement. (23)

The development of micro, small and medium-sized enterprises (MSMEs) should be promoted in terms of ICT in order to develop innovation and competitiveness, as well as to open new market channels.

Among other things, the creation of an accessible digital infrastructure should also be facilitated in order to digitalize the operations of MSMEs. (28-40)

The digital economy is an object of research with a complex structure. Currently, there are several industries. They are presented in Table 4.

Table 4. The Industries of the Digital Economy

Industry	Description
1. E-commerce	It is a kind of commerce in shops, but with obvious difference, i.e. it is carried out through the Internet. Moreover, for this kind of commerce, it is enough to have a virtual store. A potential buyer can contact the seller via a personal computer, choose products posted as catalogs or individual products on the website of the virtual store. The seller may offer both product and service, real estate, banking product, etc. (in accordance with the applicable laws and regulations). The main advantage is that the consumer spends much less time searching for and buying the right product, as well as that he or she can find reviews about a particular company and see the product. As for the seller, the advantage is that it is possible to expand the target audience.
2. E-money	All virtual means of payment
3. E-marketing	A whole range of marketing activities carried out by a company through electronic means.
4. E-banking	Technologies of providing banking services on the basis of orders sent by a customer remotely (without a visit to the bank) by using computer and telephone networks.
5. E-insurance	Insurance services that can be ordered via the Internet.

The humankind has entered an era of global change. Further penetration of digital technologies into life is one of the characteristic features of the future world. The digital economy is very different from the real economy.

Firstly, it is the virtuality of the digital economy. It can exist only in the virtual world, as it is a set of electrical signals and data that are stored on various media.

Secondly, this model of the economy depends on telecommunication networks and computer hardware. This is the key difference between the digital economy and the real economy. If telecommunication networks and computer technology disappear, the digital economy becomes impossible, because all forms of virtual economic activity are built on their basis.

Thirdly, there is a direct interaction between producers and consumers. The development of information and communication

technologies enables a manufacturer to interact with each end user. It becomes possible to cut out the middlemen.

Fourthly, it is personification. The digital economy makes it possible to produce goods and provide services that meet the requirements and needs not of the average consumer, but of each individual customer.

Fifthly, the high growth rates ensured by the Internet. It is thanks to the development of the Internet that goods and services have become more available. This has led to the demand for products and the growth of the digital economy. (40)

Finally, virtual goods and money. They are the unique property of the digital economy because they cannot exist in the physical domain (i.e. the real economy).

4 Conclusion

Thus, every year the digital economy is becoming increasingly relevant. Thanks to the creation of personal computers and the Internet, as well as their subsequent globalization, the digital economy is now growing rapidly. It enables not only to organize new markets and commerce but also gives a chance to develop small businesses and new organizations. It is also worth considering that this stage is only the "tip of the iceberg". In view of the opportunities afforded by the digital economy, it is possible to achieve new heights of development. Moreover, with its development, the old methods of doing business are gradually being replaced, which also encourages entrepreneurs to further develop and promote their products.

Given the fact that digital technologies have begun to transform economic and social processes, it is necessary to maintain close cooperation both within the country and internationally. In order to maintain a dynamic pace of development, it is necessary to encourage exchanges at various levels involving governments, private sector, civil society, international organizations, technical and academic communities, as well as other stakeholders, such as trade unions and associations, which will enable to exchange views and, hence, to facilitate cooperation in the digital economy.

It should also be taken into account that the new stage in the economic development is significantly changing the world community, countries and the humankind as a whole, including the main spheres of life, i.e. social, economic and political. Significant changes are ahead of each country, its people and government, as well as the relationship between them.

The new way of life transforms a person's position in the world, changes his or her inner world, relationships in the family and with society, alters the usual lifestyle, domestic affairs, family, living environment, socio-economic processes in society, as well as the system of economic relations with regard to property. However, risks, instability, and crises may increase. The digital economy has both advantages and disadvantages for humanity. Of course, there are much more advantages than disadvantages. Therefore, the main thing is to be able to leverage these advantages in order to neutralize the disadvantages.

The expansion of digital technologies and their introduction into the everyday life of a person transforms his or her inner and outer world, which will assume more individual, but at the same time extremely contradictory features. However, the use of digital technologies in business will definitely ensure flexibility for a company to be able to operate in a volatile environment.

Literature:

1. Abuzjarova MI. Tendencies, law of development and economic content of innovative entrepreneurship. *Modern Economy Success*. 2018; 1: 43-50.
2. Bakhtizin R, Evtushenko E, Burenina I, Gaisina L, Sagitov S. Methodical approach to design of system of the logistic centers and wholesale warehouses at the regional level. *Journal of Advanced Research in Law and Economics*. 2016; 1(15):16-25.
3. Borovikova TV. Methodological bases of formation of the intellectual potential of territories in the conditions of innovative economy. *Modern Economy Success*. 2017; 6:46-49.
4. Gadzaov AF, Dzerzhinskaya MR. Mathematical methods of analysis of the periodic components of economic processes. *Modern Economy Success*. 2018; 1:14-18.
5. Gaisina LM, Bakhtizin RN, Mikhaylovskaya IM, Khairullina NG, Belonozhko ML. Social technologies as an instrument for the modernization of social space in the social and labor sphere. *Biosciences Biotechnology Research Asia*. 2015; 12(3):2947-2958.
6. Gladkova VE, Yakhyaev MA, Korolkov VE, Smirnova IA, Litvinenko IL, Pinkovetskaya JS. The access of Russian small enterprises to public procurement markets: data analysis. *Amazonia Investiga*. 2018; 7(15):20-31.
7. Grigorenko OV, Klyuchnikov DA, Gridchina AV, Litvinenko IL, Kolpak EP. The development of Russian-Chinese relations: prospects for cooperation in crisis. *International Journal of Economics and Financial Issues*. 2016; 6(S1):256-260.
8. Gadzikovskiy VI. *The digital processing of signals*. Moscow: SOLON-Pr.; 2015.
9. Kireev SV, Litvinenko IL, Zelinskaya MV, Arutyunova AE, Fateva SV, Shcherbakov VN. Economic clusters: concepts and characteristic features. *International Journal of Applied Business and Economic Research*. 2017; 15(13):123-132.
10. Kiseleva EM, Artemova EI, Litvinenko IL, Kirillova TV, Tupchienko VA, Bing W. Implementation of innovative management in the actions of the business enterprise. *International Journal of Applied Business and Economic Research*. 2017; 15(13):231-242.
11. Kistrin AB, Kostrov BV. *Designing digital devices*. Moscow: INFRA-M; 2019.
12. Kitovoy OV. *Digital business*. Moscow: INFRA-M; 2018.
13. Kupryushin PA, Chernyatina GN. Economic and environmental aspects of rational nature management and optimization of the process of import substitution in the agro-industrial complex. *Modern Economy Success*. 2017; 3:44-48.
14. Kuznetsov AA, Ignatyeva TA, Kuznetsov AO. Strategy and key elements of competitiveness. *Modern Economy Success*. 2018; 1:25-29.
15. Lapidus LV. *Digital economy: e-business and e-commerce management*. Moscow: INFRA-M; 2018.
16. Lipsits IV. *Economics: textbook for college students majoring in Economics*. Moscow: Master's, NITsINFRA-M; 2018.
17. Litvinenko IL. Humancapital as the basis of an innovative economy. *Human. Society. Inclusion*. 2016; 1(25):87-101.
18. Litvinenko IL, Pinkovetskaya JS, Korolkov VE, Protas VF, Solovyh NN, Terskaya GA. Differentiation of small and medium enterprises based on headcount. *The Turkish Online Journal of Design Art and Communication*. 2018; 8(S-SPTMSPCL):2802-2812.
19. Litvinenko IL, Klochko EN, Zelinskaya MV, Polyanskaya OA, Martynenko NK. Features of managing innovative clusters of modern Russia. *Espacios*. 2018; 39(31):23.
20. Roldugin SV, Parinov AV. *The digital processing of signals*. Voronezh: Scholarly book; 2016.
21. Semenov AK, Nabokov VI. *The fundamentals of management* (5th edition). Moscow: Dashkov & Co; 2016.
22. Digital space development strategy for Eurasian Economic Union-2025 [Internet]. Available from: <http://d-russia.ru/wpcontent/uploads/2016/10/strategy.pdf>
23. Luzin VI, Nikitin NP, Gadzikovskiy VI. *The fundamentals of creating, transmitting and receiving digital information*. Moscow: SOLON-Pr.; 2015.
24. Markova VD. *Digital economy*. Moscow: INFRA-M; 2018.
25. Makeeva AA, Chubarova EA, Mishanova VG. Risk management as an element of enterprise management. *Successes of Modern Science and Education*. 2018; 2:10-14.
26. Gorfinkel VY. *The economy of innovations*. Moscow: College textbook; 2015.
27. Devyatkin OV, Akulenko NB, Baurina SB. *The economy of an enterprise (company, firm)* (5th edition). Moscow: INFRA-M; 2018.
28. Litvinenko IL, Pinkovetskaya JS, Sergeeva AE, Laptev SV, Krikliyeva MG, Li AS. Assessment of the financial aspects of small and medium-sized enterprises: Russian experience. *Amazonia Investiga*. 2018; 7(12):287-298.
29. Litvinenko IL, Zernova LE, Kiyanova LD, Korolkov VE, Buevich AP, Protas VF. Public-private partnership based clustering in the sphere of innovations. *Ponte*. 2018; 74(4):152-162.
30. Minakova IV. Social and economic condition of Russia and possibility of its transition to innovative hi-tech model. *Modern Economy Success*. 2017; 6:24-27.
31. Mindlin YB, Litvinenko IL, Zhanigorazova ZS, Shichiyakh RA, Veselova NY, Petruk GV. Formation and development of cluster management in the regional economy of the Russian Federation. *International Journal of Applied Business and Economic Research*. 2017; 15(13):201-211.

-
32. Moiseenko ZN. State support of small forms of management in agro-industrial complex: state and development trends. *Modern Economy Success*. 2017; 4:12-17.
 33. Novikov SV. Government stimulation and regulation of Russian innovation producers export expansion. *Modern Economy Success*. 2017; 3:24-27.
 34. Olkhovskiy VV. Assessment of the impact of macroeconomic and demographic factors on the Russian model of employment. *Modern Economy Success*. 2018; 2:31-37.
 35. Shcherbinina AG. Macroeconomic perspective forecasts for business. *Successes of Modern Science and Education*. 2017; 11-12:102-108.
 36. Smolentsev VM, Demin SS, Mezentseva LV, Litvinenko IL, Tupchienko VA. Industrial clusters development in the regional economic system. *Espacios*. 2018; 39(31):5.
 37. Sobina NV, Loginov MP. Project management in commercial banks. *Finance and credit*. 2016; 20:14-23.
 38. Tsareva KV, Nikitina EN. The rationale for the creation of a project management framework creation for implementing project technologies. *The alley of science*. 2017; 5(16):475-478.
 39. Veselova NY, Kurnosova TI, Litvinenko IL, Polozkov MG, Lipchii NV. Research of crises features in regional economic systems: trends and patterns. *Espacios*. 2018; 39(31):21.
 40. Vernigor NF. The system of state support of agricultural production (case study - the example of the Altai territory). *Modern Economy Success*. 2017; 6:7-10.
 41. Farrakhov AG. *Management theory: the history of managerial thought, the theory of organization, the organizational behavior*. Moscow: NITs INFRA-M; 2016.

Primary Paper Section: A, I

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