

# Perspectives and consequences of implementation and development digital economy

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**Abstract.** In the article, it deals with necessity and consequences of digital economy introduction in modern society life. The strategy of the making “Digital” economy has been seen in the USA, positive and negative sides of the using different approaches of the formation “digital” economy have been analyzed, it’s basic directions in Russian Federation have been represented. Based on the study of the problems and perspectives of the developing digital economy, the conclusion of the necessity to provide the assessment of the scale of the negative impacts and innovations in the possibility of the minimizing them.

## 1 Introduction

The distinctive feature of the current development of the humanity is global changes, touching all industries. Every day a persons’ life, production relationships, the structure of the education and the economy undergo significant changes, using digital technologies. Obviously, that one of the characteristic features of the future will be further development of the digital technologies and their further penetration.

Electronic technologies and services and also voluminous, diversified data represented in a digital way, which processing and analyze let significantly increase efficiency and quality in production and consumption of the goods, works and services and also in management procedures in comparison with traditional ways of the management. All of these steadily lead to changes in traditional way of the life and economy, thereby contributing to the development of a new direction – “digital economy”.

“Digital economy” is aggregate of the relations, arising between subjects regarding production different data in digital way, their processing and analyzes, directed on increasing efficiency of the different technological types, equipment and data storage in comparison with traditional ways of the management.

Through the development of the information, communication and financial technologies, as well as the availability of the infrastructure, the maximum satisfaction of the needs of all participants is possible through the use of the information. For maximum interactions, all subjects and objects of the economy should acquire a significant digital component.

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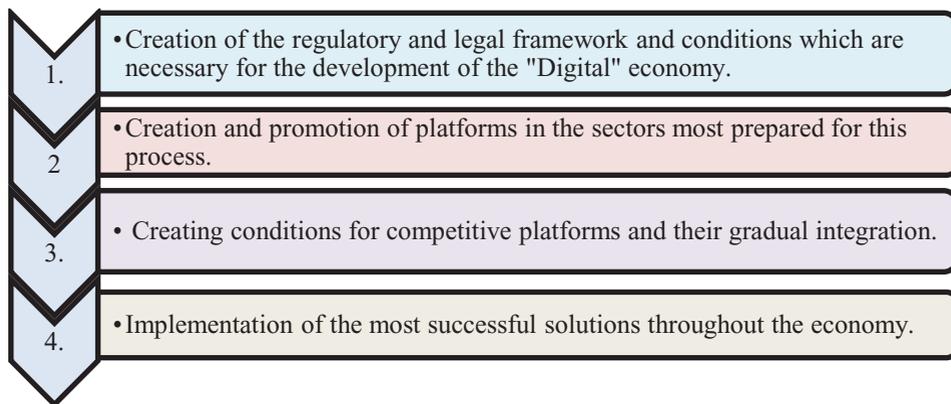
In a building of the digital economy two approaches should be allocated: planned and market. The strategies, developing and realized by different states in this direction, are combinations of the designated approaches.

## 2 Materials and Methods

In conditions of the market approaches the state creates favorable conditions for the functioning of the digital economy and as a consequence optimal conditions for transition of the commercial entities to a new sector. For increasing efficiency of the direction implementation it is necessary to participate in attracting as many independent entities as possible, namely, commercial structures. The starting point for the development of the "digital economy" in a market-based approach is the close interaction of the state with private business, the creation of a legal framework and conditions, participation in the development of the relevant industry in general or the company.

The distinctive feature of the planned approach to building a "digital" economy is developing the infrastructure under the leadership of the state and filling the existing platform with different economic subjects. Directions of the "planned digital" economy are affirmed exclusively by the state. Among the advantages of this approach, it should be mentioned that the basis created for implementation "digital" economy is universal.

The bright example of the using the market approach in building a "digital" economy is the USA. Conventionally, the process of the building the digital economy of the US can be divided into four blocks:



**Fig. 1.** The building strategy «Digital» economy in the USA.

The strategy is pretty long from the point of the formation of the digital economy view, but with regard to the US a very reasonable number of the factors:

1. The presence of a large number of the economic and technical advantages over the rest of the world
2. An opportunity to interact off the building "digital" economy with multinational companies such as Google, Amazon and others;
3. The presence of a large number of the private commercial structures that can support the spontaneous development of a "digital" economy with benefits not only for themselves but for the entire state as a whole.

## 3 Results

The representative of the formation of the opposite development of the "digital" economy is China. The main directions of China in the development of the "digital" economy are:

1. Introduction of the industrial Internet and, as a consequence, digitalization of the production.
2. Use of the Internet for further expansion of the sales markets.  
 This strategy is aimed at the development of the following four components:
  - total digitalization of the production and logistics;
  - development of the regulatory framework;
  - digitalization of the control systems, creation of the digital platforms;
  - Integration of the digital platforms and ecosystems into a single space

In the implementation of these approaches, there are undoubtedly both positive and negative points.

**Table 1.** Advantages and disadvantages of the using different approaches to formation “digital” economy.

Market approach (the USA)		Planned approach (China)	
+	-	+	-
The state has minimal costs	Long terms of infrastructure formation for implementation of the "Digital" Economy	Minimum time for building a technological base	The state has big costs
	"Digital" economy primarily realizes the interests of big business		The number of technologies that can be used in this direction is limited.

According to the US and China, many countries such as European Union countries, Australia, Belarus and other different ones made a decision about the realization of a new direction, namely, the penetration of the digital economy.

Analyzing the documents and legal framework of the above states, it should be concluded that neither country has a holistic notion of what constitutes a "digital" economy.

In many countries, the development of new forms of the payments and communications with consumers is traced, but there are still no new forms of the management and economic relations, which leaves an open niche for the formation and implementation of the process of the building a "digital" economy.

In Russia, the development of the "Digital" economy has an initial stage, therefore, the analysis and the possibilities for introducing strategic directions for the two approaches indicated at the present time is very relevant for the Russian experience [5, 6].

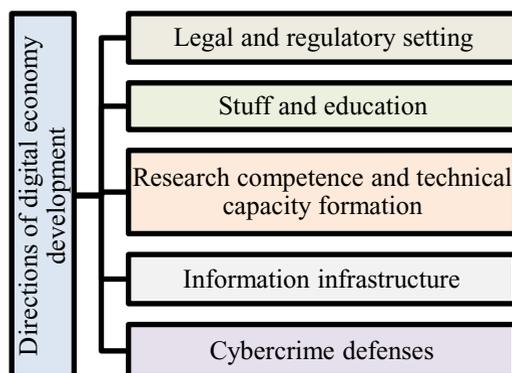
The willingness of the countries to use digital technologies is measured using a digital readiness index. The improved index measures how well economies use digital technologies to improve competitiveness and welfare and also assesses the factors that influence the development of the digital economy.

According to this index, Russia is only in 41st place in readiness for the digital economy, far behind the leading countries in this area.

Among the thwarting progress problems of the digital economy in Russia should be noted:

- lack of the regulatory documentation, providing development of the digital economy in Russia;
- uncongenial climate, holding the business and innovations development;
- low level of the digital technologies utilization by business-structures.

Definitely, nowadays active attempts of the digital economy implementation and development are being carried out. So, five basic digital economy directions of the development are chosen for the period until the 2024 year, that is (fig. 2):



**Fig. 2.** Basic digital economy directions of development in Russian Federation.

A composite legislative control of the relationships is needed to be formed, arising in conditions of the digital economy development, for favorable legal structure formation. It is also necessary to take actions to stimulate various activities, related to development and implementation of new digital technologies. For the purpose of the set goals achieving, legal and regulatory setting is needed to be developed not only in basic frames, but in an applied direction of the digital economy, which means various centers close cooperation, providing monitoring and improvement of the developed documents on long-run perspective [7, 8].

In perspective, Russian economy digitalization will lead to workers and employers need to step up at new level of the labor conditions and its administration.

Employers will face with necessity of the human labor replacement with machinery, which will lead to considerable labor release, creating so new difficulties for government and employers.

There are both negative factors and several factors, positively affecting on labor market in "digital economy" conditions:

- stuff searching simplification;
- reduction of the job search terms;
- productivity of the employees increasement;
- increasement of the employees involvement in economy by creating distant workplaces.

Coordinated preliminary actions, to prepare for future changes, and also to reeducation and job placement of the released labor, will need from government, business and education institutions.

The accelerating digitalization of the economy issues challenges to the government and commercial structures that they have not previously faced. Until present, the labor market has not responded to economy and digital technologies changes. Response to the changes showed itself mainly in the form of the job cuts and thus in decreasement of the overall costs level. If no action is taken in the nearest future to promote the labor market development and to current conditions adaptation, that will threatens to further job placements reduces and the threat of the falling behind modern digital technologies [9].

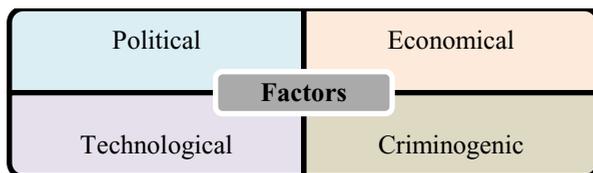
For which reason, a priority task to the government and commercial structures is to create:

- conditions for various levels stuffs' preparation, answering digital economy requirements;
- increasement of the labor market efficiency;

- motivation system for the necessary competencies development and stuffs participation in the Russian digital economy development [10].

Due to the use of new technologies, a serious problem that is safety provision. Development and creation of new technologies have actually led to replacement of the biological human environment by the technological one. When making decisions on the development and implementation of new technologies, even now it is necessary to think about environmental compliance, according to which technological area is considered as an ever-expanding part of the human environment.

Information-telecommunication technologies became integrated in our life and became its necessary habitat, showing multifactorial impact to society and people. One of the main information society's problems is digital divide, in other words the users' differentiation by the information access level. This caused by political, economic, technological, subjective and criminogenic factors (fig. 3).



**Fig. 3.** Factors, influencing on information society divide.

The economic component's formation of the digital divide is the result of a large prices spread, both for the information itself and for the cost of its transmission. That is why the ability to certain information access is determined by solvency margin of its consumers.

In terms of the technology, information access is hindered by the lack of the receiving and transmitting information systems, as well as by the technical imperfection of the telecommunication systems limiting information delivery possibility throughout the country, as well as beyond its borders [11].

Imperfection of the information protection systems creates the threat to citizens' personal security, and in some cases, its non-availability.

The use of the information and telecommunication technologies is of the great importance for the government national security. For example, information-telecommunication technologies are being actively used for terrorist purposes in present, as an unauthorized information impact on society, as well as on technical security systems. Thus, the issue of the technologies planning and expertise as early as during their creation, as well as technologies use control in order to minimize possible negative consequences, is under consideration [12].

## 4 Conclusion

Summarizing all the above, it should be mentioned that countries are on the edge of the new discoveries, new digital technologies, which further promotion has both positive and negative sides. First, before making a decision about digital technologies development, it is necessary to figured out the scale of the negative impacts and the possibility of their minimization.

The "Digital economy program" established by the Ministry is not the first authorities initiative to technological re-equipment of the country. Obviously, it is impossible to foresee and take into account all the problems that will be faced on the way of the concrete implementation at the moment of the document establishing. That is why the key role in success achievement will play management system.

At present, an autonomous non-profit organization "Digital economy" has been established. The sphere of this organization activity includes the authority to create working groups and competence centers in the program areas, business cooperation and efficacy evaluation of the program as whole, as well as providing information support to technological startups and small businesses, formation of the digital technologies forecasts.

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