

**OLHAR EDUCACIONAL NAS POLÍTICAS DE TRANSFORMAÇÃO DIGITAL
DA ECONOMIA MUNDIAL**
***VISTAZO EDUCATIVO A LA ECONOMÍA MUNDIAL POLÍTICAS DE
TRANSFORMACIÓN DIGITAL***
***EDUCATIONAL GLANCE AT THE WORLD ECONOMY DIGITAL
TRANSFORMATION POLICIES***

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RESUMO: O desenvolvimento extensivo dos sistemas econômicos, característico da economia pré-digital, a reprodução ampliada como objetivo das atividades da empresa, perdem sua relevância. o objetivo principal do estudo é dar uma olhada educacional nas políticas de transformação digital da economia mundial. Para tanto, são utilizados os métodos monográfico, econômico-estatístico e abstrato-lógico. As tecnologias digitais transformam o espaço econômico, mudando completamente as conexões nas cadeias de

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valor globais, aumentando os desequilíbrios existentes na economia global (devido ao gap no grau de digitalização das economias nacionais). Assim, o desenvolvimento das tecnologias digitais está repleto de contradições: de um lado, a polaridade dos sistemas políticos; de outro, a integração desigual, mas contínua, do espaço econômico digital.

Palavras-chave: Economia Digital. Aspectos educacionais. Globalização. Políticas.

RESUMEN: *El desarrollo extensivo de los sistemas económicos, característico de la economía pre-digital, la reproducción ampliada como objetivo de las actividades de la empresa, pierden su relevancia. El objetivo principal del estudio es dar un vistazo educativo a las políticas de transformación digital de la economía mundial. Para ello se utilizan los métodos monográfico, económico-estadístico y abstracto-lógico. Las tecnologías digitales transforman el espacio económico, cambiando por completo las conexiones en las cadenas de valor globales, aumentando los desequilibrios existentes en la economía global (por la brecha en el grado de digitalización de las economías nacionales), por lo que el desarrollo de las tecnologías digitales está lleno de contradicciones: por un lado, la polaridad de los sistemas políticos, por otro, la desigual pero continua integración del espacio económico digital.*

Palabras clave: *Economía digital. Aspectos educativos. Globalización. Políticas.*

Abstract

The extensive development of economic systems, characteristic of the pre-digital economy, expanded reproduction as the goal of the company activities, lose their relevance. the main aim of the study is to take an educational glance at the world economy digital transformation policies. To do so, the monographic, economic-statistical, and abstract-logical methods are utilized. Digital technologies transform the economic space, completely changing the connections in global value chains, increasing the existing imbalances in the global economy (due to the gap in the digitalization degree of national economies). Thus, the development of digital technologies is full of contradictions: on the one hand, the polarity of political systems, on the other, the uneven, but continuous integration of the digital economic space.

Key words: Digital Economy. Educational Aspects. Globalization. Policies.

Introduction

The processes of the world economy digital transformation also affect the Russian Federation as an important element of this system. The digital transformation of the Russian economy is one of the priority goals of state policy. Let us note only some of the normative documents on this issue:

- The passport of the national program "Digital Economy of the Russian Federation" (approved by the Presidium of the Council under the President of the Russian Federation for Strategic Development and National Projects on December 24, 2018 No. 16) [1];

- The Decree of the President of the Russian Federation (May 9, 2017) No. 203 "On the Strategy for the Development of the Information Society in the Russian Federation during 2017 - 2030" [2];

- The Decree of the Russian Federation Government (August 21, 2020) No. 1266 "On the abolition of the subcommittee on the digital economy of the Government Commission on digital development, the use of information technologies to improve the quality of life and the conditions for doing business, as well as on changing and invalidating some acts of the Russian Federation Government" [3];

- The Decree of the Russian Federation Government (December 26, 2017) No. 1642 "On approval of the Russian Federation state program "The development of education" (with amendments and additions) [4], etc.

As the part of the developed document implementation, the digital transformation of state-owned companies begins. On April 19, 2021, the Ministry of Telecom and Mass Communications of the Russian Federation announced the government approval of directives on digital transformation of state-owned companies. They are aimed at business efficiency increase by introduction of Russian digital solutions and stimulation of import substitution.

It is planned that by 2024 all companies with a 50% share of the state will join the implementation of the directives.

State-owned companies should develop the strategies for digital transformation in the form of a separate document using guidelines [5]. The project is being developed for a period of at least 3 years. According to the recommendations, the following sections should be presented in the draft strategy (Figure 1).

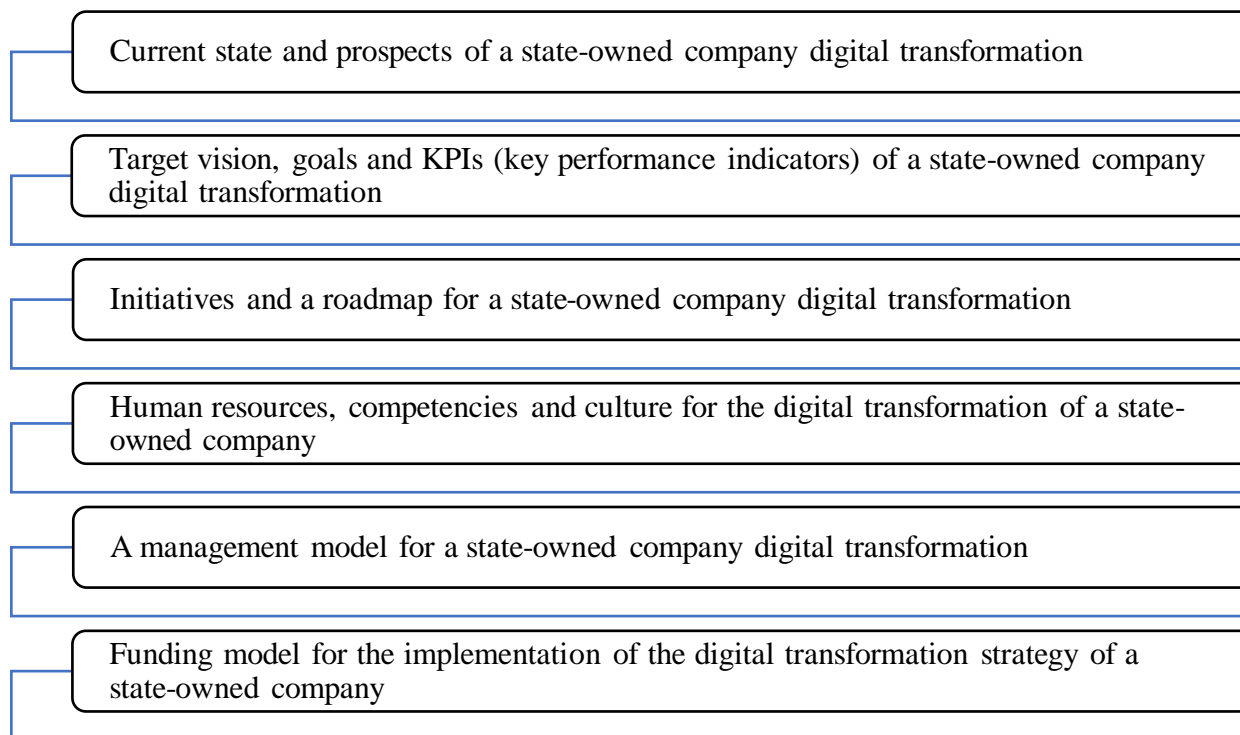


Figure 1 - Elements of state-owned company draft strategy

According to the recommendations, an obligatory part of the digital transformation strategy of a state-owned company should be import substitution measures aimed at ensuring the transition to the predominant use of Russian software and radio-electronic products of Russian origin. It is assumed that every quarter the state-owned company will generate and send a report on the progress of the strategy implementation, indicating the planned and actual values of KPIs for import substitution.

Thus, the regulation of digitalization at various levels of management accelerates the transformation of economic systems, also under the influence of the crisis phenomena caused by COVID-19.

Methodology

The theoretical and methodological basis of the study was provided by:

- regulatory documents governing the development and implementation of the digital economy;

- scientific works of domestic and foreign scientists on the digital economy in the context of the economic crisis, which was intensified by the pandemic.

To achieve the goal and solve the problems posed in the process of writing the work, the following methods were used: monographic, economic-statistical, abstract-logical, etc.

Results

The transformation of the world economy in general and the domestic economy in particular is influenced by many factors that cause a number of economic and social consequences. Let's consider only two positions of this multiaspect problem:

- the impact of COVID-19 on the digital economy;

- the introduction of digital technologies in the financial sector of the economy (this sector affects all links of the economic system and is of greatest interest in the context of the problem under consideration).

The impact of the pandemic on the global economy is manifested not only in the impact on society, but also affects the financial policies of companies. In particular, the percentage of expenses on digital transformation before and after COVID-19 by industry is shown in Table 1 [6,14].

Table 1 - Impact of COVID-19 on the percentage of expenses on digital transformation

Industry	Before COVID-19, %	After COVID-19, %
Business and transport services	18,6	9,8
Construction	19,9	13,4
Manufacture	14,8	11,2
Mining and extraction of resources	15,7	8,0
Information and communication	18,1	13,8

The impact of the pandemic on the digital transformation of the global economy has negative consequences:

- world GDP growth decrease;

- falling population incomes and increased unemployment;

The PWC report provides the number of jobs that can be lost as the result of workflow automation in different countries by 2030: 38% in the US, 35% in Germany, 30% in the UK, and 21% in Japan [7, 8]. By 2030, according to a number of experts, 45.5 percent of the Russian Federation residents may lose their jobs due to the ongoing processes of automation and digitalization [9,17].

- negative balance of the state budget, public debt increase;
- a significant deterioration of the financial condition of companies in such industries as tourism, restaurant and hotel business, etc.

However, the pandemic also had positive consequences:

- widespread use of online services;
- growth of online sales;

Brand alliances or co-branding are a good example in the struggle for consumer attention (the influence on the consumer in the digital space comes through the need to take into account the potential of promoted brands in the context of alliance development to achieve higher consumer confidence). It is the consumer experience that has become the driver of digital retail development, the main components of the value propositions of which are personalized offers, interactive hangers, payment automation, sales robots, etc. [10,15].

- the transition to a remote form of work in many companies and educational institutions (which contributes to the introduction of digital technologies).

The introduction of digitalization will strengthen the emerging positive trends:

- making purchases through digital channels;
- reduction of the fixed costs of companies (for example, the cost of office rental);
- benefits for IT companies;
- introduction of new technological solutions (system integration, cloud computing, robotics, cybersecurity, additive technologies (3-D printing), etc.).

A number of authors (in particular, M.P. Glyzina, E.I. Ivanova) speaks of the fourth industrial revolution in the context of digitalization [11].

In this regard, the state needs to monitor the social consequences of digitalization constantly:

- informal employment increase;
- low quality of Internet services in a significant proportion of territories, low level of digital infrastructure;
- education level reduction.

Tracking the impact of digitalization at the micro level is carried out through the development of a number of strategies (Table 2).

Table 2 - Types of strategies formed by taking into account the peculiarities of the digital economy

Type	Description
Engaging strategy	Customer can become a participant in the process of new consumer value creation and generate the ideas for new products and services. There is a high possibility to enter new markets.
Cost reduction strategy	Reduction of production costs due to the high cost of the production process, the emergence of a new resource - information.
Digital strategy	High importance of digital competence.
Adaptation, investment and development strategy	Focus on the impact of the external environment uncertainty on the company activities through the use of information resources.

The importance of an information resource increases during the formation of all types of company strategies (including the companies in the financial sector of the economy).

Digitalization in the financial sector of the economy is manifested as various innovative technologies:

- organizational (the models of interaction between consumers and providers without intermediaries);
- technological (the emergence of cryptocurrencies);
- product.

The term Fintech is used more and more often for the financial sector to describe the financial technologies that use the latest software during the provision of financial services. Fintech startups offer innovative and efficient ways of financial service delivery, which significantly increases the competition in the financial sector. The field of financial technology (fintech) includes the development and practical application of innovative technologies in the banking sector and other segments of the financial sector. 74% of

Russian financial service providers plan to prioritize partnerships in fintech during the next three - five years [12, 16].

For example, the growing popularity of the neobank model is the consequence of the financial sector digitalization. These are the banks with a full range of services provided through websites, mobile applications and social media accounts.

The main obstacles to financial sector digitalization are not only the high cost associated with the material and technical base update and the development of digital competencies of personnel, but also the action of a number of risks (Table 3).

Table 3 - Risks associated with digitalization processes

Type	Examples
Legal risks	incentives for consumers to use innovative forms of cash storage
Operational risks	<p>time (not only theft of funds, but also the leakage of confidential information)</p> <p>probability of operational failures</p> <p>dependence on third parties during the provision of services</p>
Economic risks	<p>state regulation (or its weak efficiency due to the inconsistency of the legal framework with the digital economy realities)</p> <p>instability in the financial services market, the aggravation of which is associated with the emergence of new financial institutions in addition to traditional ones</p>

Thus, the presence of significant risks requires the state to continue a competent policy of the economy digitalization, in particular, to improve legislation (including tax legislation).

Taking into account the existing problems of the digital economy development in Russia, let's highlight the following priority areas of state policy in this area:

1. Provision of digital technology availability for the population.
2. Stimulation of business demand for digital technologies.
3. Support for the human resources potential in digitalization.
4. Creation of conditions for the development of IT companies in the Russian jurisdiction.
5. Promotion of Russian digital technology accelerated development.
6. Development of digital technology legal regulation.
7. Development of the data market and digital platforms [13].

When assessing the degree of set goal achievement (monitoring the implementation of the developed strategies), it is necessary to focus on KPIs that reflect the degree of their achievement (Table 4).

Table 4 - KPIs reflecting the degree of the company strategic goal achievement

Levels	Modules	Indicators
ation to the ed efficiency through transformation of strategic transformation	ion of reduction in operating costs	ment of earnings increase before interest and d capital costs
	e growth	ion of revenue increase due to digital mation
	ction of digital business	ment of revenue share from new business in its total amount
transformation of key s and interactions with ers	ing functions	f revenue in digital channels f digital products and services in revenue r of active users of digital solutions
	ing functions	of digitalized business processes in ing functions
conditions for digital mation	infrastructure and data	f cloud server power r of active API users age of data domains that meet the nents of the digital economy
	workforce, encies and culture	f managers, experts and employees with the dge in the field of digital transformation
	ent and digital mation management	volume of investments in digital mation, their share in the total amount io of digital transformation investment to of expenses for the purchase of Russian e ed investment in domestic solutions in the information technology

Conclusions

It must be remembered that digitalization, with all its undoubted advantages, will not completely replace the real economy, and will not neutralize the crisis phenomena that have arisen during the post-industrial period of development. With the digital transformation of economic systems, one cannot ignore the basic economic laws of the world economy operation (in the context of contradictory trends in economic globalization and political decentralization), which make it possible to mitigate the impact of cyclical crises and determine the degree of state regulation.

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References

1. The passport of the national program "Digital Economy of the Russian Federation" (approved by the Presidium of the Council under the President of the Russian Federation for Strategic Development and National Projects on December 24, 2018 No. 16).

2. The Decree of the Russian Federation President (May 9, 2017) No. 203 "On the Strategy for the Development of the Information Society in the Russian Federation during 2017 – 2030."

3. The Decree of the Russian Federation Government (August 21, 2020) No. 1266 "On the abolition of the subcommittee on the digital economy of the Government Commission on digital development, the use of information technologies to improve the quality of life and conditions for doing business, as well as on amending and invalidating some acts of the Russian Federation Government."

4. The Decree of the Russian Federation Government (December 26, 2017) No. 1642 "On approval of the Russian Federation state program "The development of education" (with amendments and additions).

5. Digital transformation of the largest business // Analytical center TAdviser. - 2020. - Text: electronic. – URL: <https://www.tadviser.ru/>

6. New IDC Spending Guide Shows Continued Growth for Digital Transformation in 2020 // International Data Corporation (IDC). – 2020. – January. – Text: electronic. – URL: <https://www.idc.com/>

7. Risks of unemployment in the context of the economy digitalization. / E.V. Yanchenko // Labor Economics, No. 8, 2020. - pp. 677-692.

8. Professional resocialization in the context of digitalization: content and factors of success / G.A. Bannykh, S.N. Kostina // "Social and labor research", No. 2, 2021. - pp. 119-131.

9. Labor market of the Russian Federation in 2020-2021: unemployment and

structural changes / A.V. Kashepov, K.V. Afonina, N.V. Golovachev // "Social and labor research", No. 2, 2021. - pp. 33-44.

10. Consumer experience in the development of digital economy businesses / V.V. Kolesnik, O.I. Matvienko, E.V. Shcherbenko // "Bulletin of the Altai Academy of Economics and Law", No. 8 (part 1), 2021. - pp. 32-38.

11. Modernization of functional strategies of an organization in the context of the digital economy / M.P. Glyzina, E.A. Ivanova // "Bulletin of the Altai Academy of Economics and Law", No. 2 (part 1), 2021. - pp. 26-31.

12. Interaction of the real and financial sectors in the context of the economy digitalization. // Association of Russian Banks. - 2019. - September. - Text: electronic. – URL: <https://asros.ru/>

13. Development of the digital economy in Russia: opportunities and limitations / T.B. Yakimova, M. V. Ustinova, O.V. Egorova // Bulletin of the Altai Academy of Economics and Law, No. 3 (part 2), 2021. - pp. 254-259.

14. Chernyavskaya S.A., Polonkoeva F.Ya., Dyuzheva M.B., Mukhambetova A.A., Tokaeva B.B. (2021). Digital corporate culture as an element of an organization transformation in the context of digitalization. Journal "Modern problems of business and government." 27, No. 2, 2021.

15. Brizhak O., Klochko E., Adamenko A. Neoindustrial Paradigm of Russian Corporations Integration into the Economy System Under the Conditions of Transition to the Sixth Technological Order. Lecture Notes in Networks and Systems, 2020, 111, pp. 619-626.

16. Golovina T., Polyandin A., Adamenko A., Khegay E., Schepinin V., 2020. Digital Twins as a New Paradigm of an Industrial Enterprise. International Journal of Technology. Volume 11(6), pp. 1115-1124. DOI: 10.14716/IJTECH.V11I6.4427

17. Kashukoev M.V. Features of model building for an inter-sectoral agro-industrial cluster as a quasi-integrated structure / M.V. Kashukoev, K.E. Tyupakov, M.A. Marieva, B.M. Musayeva, A.V. Misakov // AD ALTA: Journal of Interdisciplinary Research. 2020. V. 10. № 2 S12. pp. 126-128.

