

State regulation and development of digital educational platforms

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Abstract:

The introduction of digital platforms influences all areas of social development, including the education sector. The Russian government, in a bid to take advantage of this, has encouraged the development of a solid educational system that can support digitalization's effect on the economy. The paper aims to analyze the development of Russian digital platforms in general and educational platforms, as a decisive factor in economic competitiveness on the world market. The study was a descriptive research and Russia was the main population for the study. The research made use of secondary data from national and international sources. An analysis of modern practices in the field of digital educational platforms shows that educational organizations cannot independently use digital technologies at the new level of requirements. For this purpose, a functioning digital ecosystem is needed that would be able to provide a variety of new technologies in education.

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Introduction

The development of digital platforms for Russia in general and educational platforms in particular is a decisive factor in economic competitiveness on the global market. It is believed that the achievement of the planned indicators of the digital economy by 2024 is associated with the development of digital platforms in the national program "Digital Economy of the Russian Federation" (The National program, 2018). The program is based on the concept of developing digital platforms to meet the needs of government, business, and society. The introduction of digital platforms affects all areas of social development, including the education sector. The structural framework of the entire education system changes and becomes more complicated with the introduction of digital technologies (Dobrolyubova, Yuzhakov & Starostina, 2021; Dobrolyubova & Yuzhakov, 2020; Kvon et al., 2019; Camelia, 2020).

Today, a wide variety of educational technologies are being implemented around the world through online courses, gamified learning, flipped classrooms, machine learning, the use of learning management systems (LMS) and much more (Bartek & Nocar, 2018; Mishra, 2018; Karaca, 2020). However, an analysis of modern practices in the field of applying digital educational platforms shows that educational organizations cannot independently use digital technologies at a new level of requirements. For this purpose, a functioning digital ecosystem is needed that would be able to provide a variety of new technologies in education. In addition, the development of digital educational platforms creates a new challenge for the state associated with the problem of legal regulation of this activity, as well as the problem of controlling new players on the education market (Alekseeva et al., 2015; Abdrakhmanova et al., 2019; Goloshumova et al., 2019a; 2019b; Romanova et al., 2019; Salakhova et al., 2019; Usak et al., 2020; Larionov, Sheremetyeva & Gorshkova, 2021).

Methodology

This research was qualitative research which utilized secondary data collected from approved sources and websites. The level of analysis for this research was the international level, with Russia being the main population for the study. The research, which was descriptive in nature, collected data through international and national websites, documents, as well as academic research papers. The Federal law of education of the Russian Federation was under perspective and the research also drew data from The National program from 2018. The supreme executive body of the European Union, the European Commission and UNESCO, served as the benchmark for the analysis.

Findings

3.1. State Regulation of Digital Platforms

The supreme executive body of the European Union, the European Commission, indicates that digital platforms and the ecosystem around them are one of the key factors in the development of innovations, which entail both new opportunities and new challenges for states (Online Platforms and the Digital Single Market, 2016).

The regulation of digital platforms is directly related to their function and scope. Currently, depending on the functions of digital platforms, the following types can be distinguished (Evans & Gawer, 2016; Styryn & Dmitrieva, 2021; Nooren et al., 2018):

- a transaction platform, which is a product or service and acts as an intermediary between market participants
- an investment platform that serves as an information system for concluding investment agreements using remote technologies and technical means
- an integrated platform that combines transaction and innovation components

– innovation platform - a platform where participants in the innovation ecosystem develop mutually complementary technologies, products, and services.

Analyzing the classification of existing digital platforms, we can conclude that they all represent a special organizational element in the general digital environment, claiming an independent legal status and a legal regulation regime (Goceri, 2018; Belykh, Konkov & Bolobonova, 2020). To determine the legal status and regulation of digital platforms, it is necessary to outline their basic characteristics:

– digital platforms contribute to the creation of new markets and the destruction of existing ones; the emergence of new forms of business based on Big data.

– provide an opportunity to embrace various sites and control user interaction.

– digital platforms have a "network effect".

– digital platforms have quick access to users and depend on infocommunication technologies.

The presented substantive characteristics indicate that regardless of the type of digital platform and its functions, when using digital platforms, various legal relationships are formed, which are regulated by the following legal acts and areas of legal regulation:

– Federal Law "On Personal Data" dated July 27, 2006, No. 152-FL (Federal Law, 2006a);

– Law of the Russian Federation "On Protection of Consumer Rights" dated 07.02.1992 No. 2300-1 (as amended on 22.12.2020) (Federal Law, 1992).

– A set of economic, administrative, and legislative measures implemented by the Federal Antimonopoly Service of Russia;

– Federal Law of December 18, 2006 No. 230-FL "Civil Code of the Russian Federation. Part Four" (Federal Law, 2006b);

– Jurisdictional, investment aspects;

– Legal acts in terms of stimulating business in the digital environment, etc.

The development of information technologies necessitates the modernization of approaches to legal regulation and specific changes in legislation. Traditional normative legal acts do not provide regulation of a new form of relations emerging in digital reality. For example, laws operating within one jurisdiction become inapplicable to the activities of multi-jurisdictional participants in relations developing within the digital platform. In this regard, the problem of legal regulation is solved with the help of contractual instruments that are offered independently by the platform operators. The lack of a unified regulatory framework in the field of legal regulation of the activities of digital platforms at the level of government leads, in turn, to the growth of many problems and difficulties.

Approaches to Regulating Digital Platforms

Analysis of digital platforms makes it possible to determine the following requirements for the implementation of regulation:

– The digital platform should have a single control center;

– A strict hierarchy of the entities' responsibility operating the digital platform;

– Digital platforms should have a strict data classification (national and supranational segments) (Meltzer & Lovelock, 2018; Fioretti, 2018);

— Digital platforms should have uniform basic principles, the implementation of which is carried out through self-regulation documents (compliance with the relevance and reliability of the data provided; ensuring the protection of personal data, etc.) (Shum & Smith, 2018; Burgess, 2018);

— Digital platforms must have a stable demand that ensures business scaling (for example, stable demand can be regulated at the state level - the demand for digital educational platforms is ensured through legal acts from the government) (Decree of the Government, 2020; National project, 2018; Hamdan, Isik & Jallad, 2019)).

3.2. Analysis of Practices in the Field of Regulation of Digital Platforms

At present, the four models of regulation of interstate digital platforms are being implemented:

- 1) centralized,
- 2) decentralized,
- 3) hybrid
- 4) a model of regulation of commercial platforms.

Let us consider each of them in detail.

1. Centralized model.

The digital platform is created by an international treaty that regulates all issues related to its operation. Control over the platform's activities is exercised at the level of the bodies of an international organization or the supranational agency of an integration association. Data operation is regulated with international treaties. Certain types of confidential data are regulated at the level of the platform operator's act.

2. Decentralized model.

The digital platform is created by an act of an international organization, which regulates all issues related to its functioning. The platform is managed by an operator specially created by an international organization.

3. Hybrid model (centralized regulation - decentralized implementation).

An international treaty creates a unified legal environment within which individual providers offer their services to users. "Control is exercised at the level of an international treaty. The unified legal environment provides - along with national supervisors - a parity central regulatory and notification body. Data exchange is regulated both with international treaties and through the regulation of individual characteristics of the services provided" (Blinkin, Dupan & Ivanov, 2019).

4. Commercial model.

The platform is created in accordance with an act of a private company that owns the platform. The regulation of the platform is carried out by the legal acts of the company itself, which are developed taking account of national legislation. The platform is managed by its owner, the exchange of data is regulated through the company's acts.

Problems of regulating digital platforms

The development of digital ecosystems, along with positive effects for the social and economic sphere, leads to the emergence of certain challenges for the state of any country. These are primarily problems associated with 1) information security and personal data protection (The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems, 2019); 2) with discrimination against users (lack of equal opportunities and conditions); 3) competitiveness in the business community; 4) lack of

transparency in the activities of digital platforms; 5) issues of regulation of labor relations, taxation, etc.

Thus, the development of digital platforms has both positive and negative effects on the socio-economic growth of countries.

3.3. Areas of Activity in the Framework of Digital Platform Regulation

The problem of regulating digital platforms poses a difficult task for the state in adapting regulatory instruments to the conditions of the new digital reality. It should be noted that at present the focus of legal regulation in this area is increasingly shifting towards the responsibility of the subjects of platform interaction themselves. Therefore, these subjects independently develop rules of conduct in the digital ecosystem, rights, and obligations, establish the procedure for resolving conflicts. Whereas the existing national and supranational instruments of regulation and coercion are not used (if the platform participants do not interact with public legal entities (state bodies, financial organizations) (Blinkin, Dupan & Ivanov, 2019).

3.4. State Regulation of Digital Educational Platforms

The analysis presented above in the framework of the problem of digital platform regulation allows us to move on to a more specific analysis of the issue of regulating digital educational platforms by the state.

As it was mentioned earlier, the development of the digital ecosystem affects all areas of social relations, and education is no exception. The analysis conducted by us shows that this area is characterized by a variety of problems and difficulties in the field of applicability of legal acts regulating the activities of digital platforms by the state. The identified problems and solutions apply to all digital platforms, but educational ones have their own specifics.

The era of rapid demographic changes, changes in the labor market, heightened competition and shifts in the institutional form lead to the formation of new forms of education. Education is carried out using the latest information technology. However, almost always, the pace of innovation and the creation of new institutional forms exceeds the state's ability to regulate this activity.

State regulation of any sphere, including digital educational platforms, is determined by the state policy goals. However, the existing goals of contemporary state regulation of digital educational platforms contradict each other (Table 1).

Table 1: *Goals of state regulation of digital educational platforms*

No	Contradictory goals	
1.	Support of innovations, change and competition in education	A wish to control the quality with the focus on traditional views of education
2.	A wish to diversify capital	A tendency to avoid commercialization of education
3.	Creation of new infrastructure (technological, legal, political, financial) for new forms of education	Reluctance to provide the sphere of education with new resources
4.	Encouraging institutional autonomy, diversity, and competition	Preserving the centralized type of management, coordination, planning, monitoring, control
5.	Striving to rationalize higher education to achieve greater effectiveness and a wide range of services	An inclination to preserve traditional views

The presence of contradictions in the goals of state policy on digital educational platforms has a profound impact on the regulation process, and as a result - its legal component. Even though regulation is associated with restrictions and coercive measures on the part of the state, most of the regulation in the public sphere is aimed at providing public benefit. Every member of society has the right to get education, including through information technology based on digital educational platforms. The question arises: what mechanisms is it possible to implement this right with and what rules and regulations will be able to ensure the effectiveness of this activity?

An analysis of contemporary practices shows that it is possible to identify *six ways of regulating digital educational platforms*. These methods are not alternative and perform different functions.

- 1) State regulation based on the existing regulatory framework.
- 2) Independent accreditation is an external regulatory mechanism that has a certain set of standards.
- 3) Mechanisms of funding (private or public capital).
- 4) International regulation (OECD / UNESCO) - is not inherently a means of regulation but provides a set of principles and standards (OECD, 2004a; 2004b; 2005; 2006; UNESCO, 2004; 2005).
- 5) Sectoral regulatory models that represent best practice and can serve as a standard.
- 6) Professional communities - regulation in which participants of digital educational platforms (private organizations / business) unite and set their own standards, thereby providing a self-regulation regime.

It should be noted that today no single way has been chosen to regulate digital educational platforms. Regulation is defined as a set of legal acts governing the activities of platforms; as ways of developing a digital educational system; as the nature of the relationship between participants in the digital ecosystem; as a monitoring and evaluation system (accreditation and licensing).

Regulation takes many forms, irrespective of whether it occurs at the institutional level (educational institution), at the level of the content provider (which may not be the same as the institution), or at the professional licensing level. As a result, in these conditions the question arises - who, what and whom should be controlled? To answer this question, it is necessary to study which legal acts govern this process.

3.5. Regulatory Jurisdiction of Digital Education Platforms

Taking account of the fact that digital educational platforms aim to provide educational services to every student (regardless of their location, legal status, etc.), we are not entitled to use the regulatory mechanism in digital learning which is applied to traditional one. At present, a rather complex environment has formed in which several regulators have the ability to regulate the same institution. The situation becomes even more confusing in the e-learning environment. The state can take a decision to control a certain activity, but there must be a certain legal base within which this control can be exercised (Harley & Lawrence, 2006; Kelkay et al., 2020). Today, there is no such regulatory framework and regulation of digital educational platforms is implemented by educational service providers (self-regulation).

- The idea of different approaches to the regulation of commercial and non-commercial educational platforms is dubious, since there should be a single legal basis for this activity.
- Digital educational platforms challenge the value of traditional learning, which requires regulators and accrediting bodies to develop a deeper understanding of the differences between e-learning and traditional learning in different educational institutions and in relation to different student groups;

- It is necessary to develop principles and standards governing the outsourcing of services in the field of higher education;
- It is necessary to form a new system of interdepartmental interaction between controlling bodies. There are too many controlling bodies with overlapping and often competing jurisdictions.
- It is important to clearly understand the differences between quality assurance rules and rules that create barriers for users of digital education platforms (such as access to telecommunications infrastructure and knowledge);
- It is necessary to develop a transparent set of standards for measuring the quality of education provided by digital educational platforms;
- It is necessary to design a mechanism for informing the controlling agencies;
- It is necessary to take account of the needs of users (since we do not know the needs of learners, efforts to address issues related to the creation of a regulatory framework it may not lead to results).

Conclusion

At present, the issues related to the problem of legal regulation of digital platforms have acquired particular importance in connection with the rapid technological development, its impact on the socio-economic relations of society. The objectives of the new legal regulation should be focused on the economy of the future, and discussions on the development of a new legal framework in its regulation should lead to changes in this area right now.

The development of state regulation of digital platforms should incorporate:

- the consolidation of the norms of law - the rules of behavior or the legal model should be provided by the state coercion system;
- the state should integrate into the new reality of self-regulation of digital platforms by offering participants in platform interaction clear and simple procedures (services) in cases where participants in digital platforms are interested in receiving services from the state or public entities (for example, financial institutions);
- the state should move away from the model of self-regulation of organizations to new forms of self-regulation;
- the state should implement the ecosystem approach, when the necessary changes are considered immediately in relation to all elements of innovation ecosystems and are introduced, possibly iteratively, but consistently in various areas;
- it is necessary to involve various parties in the discussion of the desired long-term future - economy, society - and its reverse "unfolding" into the regulatory development agenda.

Recommendations

Based on the study, we make the following recommendations. For regulatory jurisdiction, it is necessary to understand clearly, what launches the regime of state regulation of digital platforms? Who are the key participants in the relationship who make decisions in this process, their degree of responsibility and scope of rights? It is also necessary to distinguish clearly between the concepts of state and private regulation. In this regard, research is needed on cooperation between controlling bodies and educational institutions.

In financial aspects, studies are needed to elucidate how the regulatory environment within digital platforms affects a country's economic growth (financial flows). Public and private funding issues require attention.

Also, in telecommunications, studies are required to investigate the impact of private investment on digital education platforms (for example, allowing commercial providers to take advantage of new technologies to reach more students and whether there is any conflict between improved ICT and higher education and / or user preferences).

"Import" and "Export" of education is also necessary to identify problems specific to the international educational environment.

For issues of competition, research is needed to explore how government regulation promotes or hinders the development of digital education platforms. The existing regulatory framework is based on a uniform approach, so learning from best practices of innovative activity can contribute to a better understanding of how regulation and innovation can be balanced, and how new and best practices can be applied.

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