

# The Transboundary Educational Space of the Eurasian Union: Current Digitalization Issues

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## ABSTRACT

The article clarifies the concept of cross-border education and cross-border educational space. The necessity and possibility of creating a cross-border digital educational space of the Eurasian Economic Union is considered. When creating it, it is necessary to overcome the external (high level of the international competition of educational spaces) and internal (uneven level of digitalization in the Union countries, different levels of preparedness) restrictions. For the cross-border space to function successfully, two fundamental tasks must be solved: a common digital platform has been created and a certain level of institutional design of the cross-border educational space has been achieved in each country. A cross-border educational space can be either general or single, therefore, for the Eurasian space, the experience of existing cross-border educational spaces must be used taking into account the realities of the economic and social development of the participating countries.

**Keywords:** cross-border education, cross-border space, digital economy, digital space, Eurasian Economic Union

## 1. INTRODUCTION

The current global trend is a request for higher education. Globalization, manifested in the transboundary interaction, has a significant impact on the processes of higher education. We can talk about the globalization of higher education or its transboundary nature. "International knowledge" has become a new factor in the global competition of talented students, resources, and reputation [1]. Cross-border education refers to the mobility of students, institutions, teachers, and programs in different countries. Actively formed cross-border educational space. At the same time, the role of local educational regions is growing, taking into account national-state and economic specifics [2]. The educational space of higher educational institutions of the Russian Federation can carry out collaboration in several geographical areas: within the framework of the Eurasian Economic Union (EAEU), a single European educational space, as part of the Asia-Pacific Economic Cooperation (APEC). It is necessary to assess the current state of existing transboundary spaces and identify possible ways, instruments, and forms of creating a transboundary educational space of the countries of the Eurasian Economic Union (EAEU). The creation of such a space is possible on the basis of an integrated modern digital platform in interested countries.

### 1.1. Related Work

The solution of the stated problems required an analysis of two types of sources. Firstly, works describing fundamental theoretical concepts: digital economy, digital politics, common and common space, cross-border education [1, 2, 3, 6, 12]. The second group of sources is statistical data and analytical reviews [8, 9, 17].

### 1.2. Our Contribution

An adequate research methodology is needed to analyze the transboundary educational space of the Eurasian Union. Based on earlier studies and synthesis of existing definitions describing transboundary spaces of different levels and contents, the theoretical concepts are clarified: digital economy and digital politics; the differentiation of categories of a single and common cross-border digital educational space is substantiated. The problems, ways, and tools of creating the EAEU cross-border digital educational space are identified.

### 1.3. Paper Structure

The structure of the work corresponds to the logic of the study. Section 2 describes the content of the digital economy and its correlation with digital politics. The identification of the principles of digital politics makes it possible to identify the ways, methods and tools of

creating a cross-border digital educational space. In turn, the formed transboundary space is considered as general and uniform. Section 3 presents the problems of the creation and functioning of the EAEU cross-border digital educational space.

## 2. BACKGROUND

### 2.1. Digital Economy and Digital Politics

The economy of the 21st century is primarily a digital economy that has an impact on all areas of activity. In many studies, the digital economy is seen as a policy of applying digital transformations for innovation, growth and social prosperity [3]. The goal of digital politics is to organize the process of effective implementation of information technologies in economic and social processes, the development and implementation of measures to digitalize the economy [4].

The functioning of the digital economy is accompanied by a number of controversial phenomena. In particular, digital inequality, which manifests itself as digital spatial competition. Some countries use advances in information and communication technologies to extract spatio-temporal rents [5]. The object of global competition for generating additional income using digital technologies has become cross-border education.

### 2.2. Features of Cross-Border digital Educational Space

#### 2.2.1 Quality of Space: from General to Uniform

In relation to international academic mobility, they use interchangeable terms: cross-border, transnational, offshore, and unlimited education. Transnational education means moving programs and providers across international borders. Cross-border education is wider in scope and includes student and scientific mobility, mobility of programs and providers [6]. Thus, cross-border education is any kind of academic mobility carried out in space and in time. Therefore, cross-border education should be considered, first of all, in the context of a cross-border educational space. Cross-border educational space consists of sovereign entities of different countries, providing educational services of various levels and forms, coordinating national institutionalized practices.

Cross-border educational space can be either general or single. A fundamental consideration of space as a common or unified one gives the basis for the separation of the activities of the subjects of space from others and the receipt of appropriate preferences by them. The criterion for distinguishing the level of spaces is the level of regulatory mechanisms. A single space presupposes the existence of supranational regulatory bodies [7]. World

experience shows that at present transboundary educational spaces function mainly as common spaces.

The creation of a common cross-border educational space is possible in two ways, which are based on the European or Pan-Asian tradition. In Europe, a common cross-border space was created, first of all, within the framework of the European Union. In the European Union, the alliance of higher education institutions has several goals. Higher education institutions can contribute to maintaining sustainable economic growth, the development of a more inclusive, cohesive and competitive Europe. The European educational space in which students communicate in at least two languages creates a sense of European identity and at the same time diversity. To increase mobility and student exchange, priorities are highlighted: the creation of a network of European universities, the automatic mutual recognition of diplomas, the introduction of a European student card. To solve these problems, the existing pan-European digital platform is used [8].

Within the framework of the Asia-Pacific Economic Cooperation (APEC), the Association of Pacific Rim Universities was created in 1997, which unites universities in 16 countries. A consortium of APEC training centers has been created to expand academic cooperation on key regional economic problems [9,10]. The experience of the transnational educational space in APEC is important for Russia according to a number of criteria: large open universities have been created, distance education based on the use of information and communication technologies is rapidly developing [11].

The success of local educational spaces has led to the initiative to create a new transnational educational space, uniting the European and Asian-Pacific educational space. In any case, coordinating structures are needed in the transboundary space. It is necessary to coordinate policies, tools, and methods to achieve the goals. National priorities in higher education need to be transformed into an institutionalized practice that reaches the intended beneficiaries [12]. In cross-border educational space, they are used as old forms of education: study programs abroad; new forms – the creation of cross-border branches and educational centers; and the latest are cross-border training programs such as Massive Open Online Courses (MOOC).

#### 2.2.2. Digital cross-border educational space

The successful functioning of the transnational educational space is possible with a certain level of integration and the presence of a common digital platform. Digital platforms contribute to:

- the use of new and latest technologies (blockchain platform) to connect the subjects of the educational space for the transfer and verification of various documents even without a supranational regulatory body [13];
- observance of confidentiality and creation of a “space of trust” [14];
- the implementation of virtual mobility of students (massive open online courses), especially for countries with emerging market economies.

Recently, a fundamentally new technological educational proposal has appeared - hypermedia (a combination of the hypertext information structure - the content of the message and multimedia form, texts, images, sounds) [2, p. 32].

In the EU space, a digital platform has been actively created since 2015 [15]. It allows communication between electronic systems of member states. In March 2020, the conference "Digital policy of the European Union: the role of universities?" was held at the European Commission. The program of universities' activities in implementing the digital policy program that Europe needs [16] was discussed.

In 2000, the Pan-Asian E-Commerce Alliance (PAEA) was created with the goal of promoting a reliable and secure IT infrastructure for the smooth exchange of regulatory documents. This digital platform underpins the creation of a cross-border Pan-Asian educational space.

### 2.2.3. Competition in the Transnational Educational Space

Transnational educational space heterogeneous and objective contributes to the division of space into the center and periphery. Obviously, the goals of participants in a cross-border educational space are opposite. New digital forms of education are becoming a profitable business. In the global educational space, there are two multidirectional flows. The flow of students is mainly from developing countries to developed countries, and institutional and program mobility is carried out from developed to developing countries. The number of foreign students in developed countries for the period from 2000 to 2012 declined. Over the same period, New Zealand and Russia show an increase in foreign students. The second decade of the 21st century is associated with the active introduction of new digital technologies, and hence new

**Table 1** Student Mobility in the EAEU

Country	In bound mobility rate		Outbound mobility ratio by host region		Gross outbound enrolment ratio by host region (2017)
	2013	2017	2013	2017	
Armenia	3.02	4.30	6.20	5.62	2.94
Belarus	2.41	4.20	6.79	5.35	4.73
Kazakhstan	1.11	2.21	6.93	13.51	6.78
Kirgizia	3.96	6.40	2.08	4.93	2.11
Russia	3.05 (2014)	4.26	0.68	0.96	0.79
Formed using: UNESCO Institute for statistics. URL: <a href="http://www.uis.unesco.org">http://www.uis.unesco.org</a> (Accessed: 05.02.2020)					

The possibility of creating the EAEU educational space coincided in time with the active introduction of the latest digital technologies. This creates the technological basis for the formation of the transboundary educational space

forms of cross-border education. In 2016 there were 32 IBC exporting countries and 76 educational service importing countries in the world. The largest exporters of branches of universities are the USA (82), Great Britain (38), Russia (20), France (16), and Australia (15). The largest importers of branches are the United Arab Emirates (32), China (27), Singapore (13), Qatar (11), and Malaysia (9). Thus, the cross-border vector of flows has changed. According to analysts, it is not clear what awaits higher education in developing countries as a result of fierce competition from foreign universities and online study programs and courses [1]. In this situation, we can talk about the competition of already existing transboundary educational spaces with new educational spaces.

## 3. FEATURES OF THE EAEU TRANSBOUNDARY DIGITAL EDUCATIONAL SPACE

### 3.1. Problems of Functioning of the EAEU Cross-Border Digital Educational Space

Currently, there is a need to create a common educational space of the EAEU as an important element of the integration union. The need to create a cross-border educational space of the EAEU is associated with the deepening and expansion of integration processes within the union; a common labor market, which requires common approaches to higher education; ensuring the global competitiveness of the EAEU. The dynamics of the incoming and outgoing student mobility in the EAEU countries indicates the demand for cross-border education (Table 1).

of the EAEU. The formation of the EAEU's cross-border educational space is proceeding in stages and lags behind the need for its real functioning in time. We believe that the integrated

cross-border educational space of the union is so far being formed as a common one. Moreover, each participating country has its own need, ability and speed of entry. The problem is the simultaneous participation of universities of the EAEU countries in other cross-border

educational spaces. This creates a certain tension in the interaction in the educational space and the strengthening of competition relations (Table 2).

**Table 2** EAEU Universities in the world educational space

<b>Educational spaces/number of universities from the country</b>	<b>Eurasian university association</b>	<b>European University Association, EUA</b>	<b>University Shanghai Cooperation Organisation</b>	<b>Association of Pacific Rim Universities</b>
Countries-members	Armenia (3), Belarus (4) Kazakhstan (17) Kirgizia (3) Russia (70)	Russia (16) Kazakhstan (10), Belarus (3), Armenia (2)	Russia (20) Kazakhstan (14), Kirgizia (8) Belarus (1 observer)	Russia (1)

The full functioning of the transnational educational space is possible subject to an appropriate common digital space. In

2015, within the framework of the Eurasian Economic Union, it was proposed to form a single digital space of the EAEU, i.e. electronic environment for a complete educational process with the ability to access anywhere in space.

The problem is also the level of digitalization in post-Soviet countries.

The educational space of the EAEU is objectively divided into the center and the periphery, including in the field of digitalization of education. Each country has adopted a special program for the development of information computer technologies (Table 3). In 2019, the general Charter on the digitalization of the educational space of the Digital University model was adopted.

**Table 3** Development programs of information computer technologies in the EAEU

<b>Country</b>	<b>Program</b>
Armenia	The concept for the development of the sphere of information technology for 2008-2018, a development program is being developed until 2030.
Belarus	State Program for the Development of the Digital Economy and Information Society for 2016-2020.
Kazakhstan	Information Kazakhstan - 2020, Digital Kazakhstan (2018-2022)
Kirgizia	Digital Transformation Program "Taza Coom" - 2040.
Russia	State Program "Information Society" (2011-2020) The concept of creating the Unified Digital Platform of Science and Higher Education of the Russian Federation (2019)
Formed with: [17] (Accessed: 03/19/2020)	

The integration of countries into a common cross-border educational space is the integration of different speeds.

Country digitalization level differs significantly (Table 4, 5).

**Table 4** Development of information and communication infrastructure (place from 139 countries, 2019)

Country	Use of virtual social networks/place in the world	Internet users		International internet bandwidth	
		Coverage percentage	Place in the world	Coverage percentage	Place in the world
Armenia	59	72.4	75	59.9	58
Belarus	-	79.7	-	168.5	-
Kazakhstan	93	78.9	62	87.2	49
Kirgizia	105	40.1	97	65.4	107
Russia	66	80.9	40	51.9	75
Formed with: [17] (Accessed: 19.03.2020) Internet World Stats <a href="https://www.internetworldstats.com/stats3.htm">https://www.internetworldstats.com/stats3.htm</a> (Accessed: 06.02.2020)					

**Table 5** Network readiness index of EAEU countries in 2016

Country	Rating (among 143 countries)			
	Network readiness index	Skills	Infrastructure	Availability
Kazakhstan	40	48	52	10
Russia	41	45	64	7
Armenia	58	68	74	71
Belarus	No data			
Kirgizia	No data			

For the successful functioning of the Eurasian educational space, it is necessary to actively modernize the education systems of the EAEU member countries. The creation of a common cross-border digital space for the EAEU will radically change the approach to student mobility: it will remove barriers to mobility, in particular related to the cost of training, and will help solve the brain drain problem. There will be a real possibility of creating a Eurasian network university; the ability to move from a portfolio-based exam technique to online grades, which will prove the true level of knowledge [19].

#### 4. CONCLUSION

Positive global experience in creating cross-border educational spaces can be used for the EAEU countries. The creation of the EAEU educational space includes two components: institutionalization of the cross-border educational space and assistance in the development of digitalization of higher education in the EAEU countries. It is necessary to take into account the various interests of national educational spaces, the different degrees of the digital readiness of countries. The solution to the problem is possible in stages, for example, by creating a Network

University in which digital centers of excellence in developing programs and courses in digital technologies are created.

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