Abstract—Under virtual labor migration, or telemigration, in the expert community it is customary to understand remote work or the provision of services that are carried out in a cross-border format. The presence of the word migration in this term logically prompts us to consider the designated process in a migration context. From the standpoint of the concept of migration transition, the spread of virtual migration can be interpreted as a new link in the chain of mobility transformations generated by multifaceted digital transformations. With this kind of migration, a person crosses only virtual borders of states and, without leaving the country of residence, actually works outside it and performs the tasks of a foreign customer in a remote electronic mode. The short duration and rapid turnover of most jobs in cyberspace makes this process extremely circulatory, uncharacteristic of traditional labor relations. So far, this employment model has been limited in scope, but it is rapidly developing, having gained great momentum in the context of the COVID-19 pandemic, and may become significant in the future. While paying dividends to workers and employers interacting in global digitalized labor markets, virtual migration simultaneously exacerbates chronic imbalances and generates new sources of social tension. They are connected, among other things, with the global asymmetry of socio-economic and digital development, the emergence of new factors and areas of competition for workers in the labor market, and insufficient social protection of the workers. Optimization of the development of virtual migration could be facilitated by comprehensive regulatory measures at the level of international organizations, states, and companies.

Keywords: international population migration, digital technologies, virtual migration, telemigration, mobility, circulation, cross-border telecommuting, digitalized labor platforms, international trade in services, social imbalances and differences

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The rapid and large-scale penetration of digital technologies (DT) into all spheres of social life is causing deep and diverse transformations. Serious changes are also taking place in the cross-border labor mobility of the population. A striking sign of the digital age is the spread of telemigration, in which an employee, while in his country of residence, interacts with a foreign employer and actually works in another country using online platforms.

Telemigration is transforming the nature of the presence of foreigners in labor markets, changing perceptions of migration and migrants, and integrating into the discourse of social development and governance. Being purely virtual, such interactions are associated with real physical processes taking place in the global economy. A powerful impetus to the development of such a redistribution of the labor force was given by the COVID-19 pandemic. However, due to the novelty of this phenomenon itself, virtual migration has so far been little studied.

With what processes in the global economy and how is virtual migration associated? What opportunities and benefits does it offer for workers and employers, especially in today’s conditions of economic and social instability? What role does it play in maintaining and exacerbating existing chronic imbalances and in the emergence of new sources of social differentiation and tension? What is its place in the global economy? What are the prospects and limitations of its further development? This article attempts to answer these questions.

Telemigration as a new and special form of cross-border mobility was analyzed on the basis of theoretical provisions on the international migration of the population in linking and correlating the circulation of workers in cyberspace with their physical movements in the context of the globalization of the labor market. The authors relied on the conceptual constructions

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and assessments of digital transformations offered by foreign and domestic researchers, using data from sociological surveys of workers and analytical materials from international organizations, consulting companies, and virtual labor exchanges.

CONCEPT FIELD AND FACTORS OF VIRTUAL MIGRATION

The decades leading up to the coronavirus pandemic were marked by dramatic changes in the nature of cross-border population movements: the once most common settlement type of movement gave way to temporary and increasingly circular migration. The latter, in turn, was overtaken in dynamism by nonmigratory (without changing the country of residence) mobility, in particular, international tourism [1]. Now, under the influence of the large-scale digitalization of modern societies, accelerated by the pandemic, or rather by anti-epidemic restrictions on human flows, telemigration is gaining momentum and an increasingly noticeable scope, when the employee, as it were, leaves for another country without actually doing so.

A clue to understanding modern extraordinary shifts is provided by the classical concept of migration transition, developed more than half a century ago by the American geographer V. Zelinsky [2] and expanded in the works of H. De Haas [3], R. Skeldon, and other researchers. Through the prism and in terms of this concept, which links the transformation of the nature, forms, and directions of human movements to the development of society, the spread of virtual migration can be interpreted as a new link brought to life by digitalization in the chain of mobility transformations. Or, using the expression of A.G. Vishnevskii, as “an integral part of the global transition to multidimensional mobility” [4]. Accordingly, the slowdown in the dynamics of long-term human movements observed in the current century, which under the conditions of the pandemic has taken the form of a sharp contraction and even a temporary cessation of flows, is seen not so much as the attenuation of some of them as the transition of some of them into a different—virtual—state. The short-term and fast turnover of most jobs in the gig economy gives this process the character of digital circulation of performers, which corresponds to a new stage of economic development associated with digitalization. National economic activity is increasingly shifting from the physical space to the digital one, and information and communication technologies are becoming increasingly important among the mechanisms of the functioning of the economy.

The term virtual migration was introduced into scientific circulation by the American sociologist of Indian origin A. Anish [5]. As he believes, physical labor migration, which he calls body shopping, becomes an anachronism, represents the “old” economy, and reproduces a world divided by various kinds of borders, barriers, and prejudices. On the contrary, virtual migration, or “migration without migration” [5, p. 2], virtually unaware of such obstacles, has become a new channel and symbol of globalization. The spread of virtual migration, personifying the “new economy,” serves as a kind of indicator of the development, the information content of the national economy, and the quality of foreign labor used. In the context of the epidemic and the closure of the territorial borders of states, the permeability and openness of their information space gave additional impetus to virtual flows.

The germs of virtual mobility, or rather its hybrid with physical mobility, were noticed back in the 1990s by the Japanese physicist T. Makimoto and the British writer D. Manners, who published the book Digital Nomad in 1997 [6]. Digital nomads are not tied to any particular territory; they can constantly move and work or study anywhere thanks to the use of “nomadic technologies”—the Internet and mobile communications. Digital nomads live under many “flags” and are considered “global citizens.” Their cohort includes freelancers, company owners, top managers of “businesses without an office,” highly paid expert consultants, students, etc. [7, 8].

At the same time, the phenomenon of virtual migration does not correspond to the accepted definition of international population migration, according to which the main criterion for the latter is a permanent or temporary change of the country of residence. Virtual migration can be considered migration only conditionally, in a figurative sense, since this is a special type of global labor mobility that involves crossing only virtual borders. Movements in cyberspace are usually short-term, often measured in days or even hours. Russian scientist G.I. Glushchenko writes, “Conceptually and legally new forms of digital mobility are emerging, calling into question the unambiguous understanding of legal territories and, consequently, the fundamental categories of regulation and understanding of migration” [9, p. 59]. At the same time, virtual mobility often occurs at the junction or in conjunction with physical migration and is a virtual projection of real economic processes.

The Swiss economist R. Baldwin makes an attempt to conceptualize telemigration, considering it as a form of international trade in services, in which the places of production and consumption of services are separa-

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1 Back in the 1970s, Zelinsky foresaw that in future superdeveloped societies, as communication and logistics systems improve, some existing forms of mobility may be curtailed and new ones may emerge [2, p. 231].

2 The gig economy is a system of work in which employees are not hired on the staff but are involved as third-party contractors for specific projects to complete certain tasks within the agreed time frame. It is also called the platform economy of short-term contracts or the economy of crowdsourcing.
rated in space according to differences in their cost [10, p. 2]. More precisely, digital circulation is associated with the cross-border provision of services in electronic form (under the 1st mode of delivery of services under the General Agreement on Trade in Services (GATS)). This type of trade in services, including tasks and the results of their implementation, is intensively developing in the conditions of the tradability revolution and generates the migration of jobs. Thus, it becomes a driver of counter virtual flows that mirror such migration and at the same time an alternative (often a brake) to physical labor migration.

The main factors of virtual, as well as physical, mobility of workers are differences in socioeconomic and demographic development and the state of labor markets in different parts of the planet, and integration processes in the world economy; an important role is played by the motivations and attitudes of modern migrant workers in the field of professional self-realization. However, of course, digital technologies have played a decisive role in the emergence and spread of telemigration. Their global penetration, the expansion of the technical capabilities of the population for online work in real time, and the increase in the affordability of information and telecommunication services for the mass layers allow people to work at any time of the day and from anywhere, including from home, and provide services in a cross-border format. Compression of distances and reduction of their importance for the implementation of the professional competencies of workers contributes to the delocalization of economic activity (weakening of connection with a specific territory).

The main prerequisites for telemigration are laid down by radical digital transformations in the economy and the social sphere, primarily transformations in the structure and mechanisms of the labor market, the nature and methods of performing work, and the composition and types of workers [11]. Digital transformations are causing major shifts in labor demand, in particular, the rapid growth of the economy’s demand for new, “digital,” professions, which educational systems cannot keep up with. With the automation of work performed by representatives of many mass types of occupations, a “qualification hole” and an acute shortage of piece specialists are formed. According to a survey by the consulting center Manpower Group, at the end of 2021, 69% of firms experienced difficulties in hiring professionals [13]. The presence of noticeable imbalances in some segments of the labor market in the context of a pandemic sharpens the issue of the need to use the labor of foreign workers and actualizes their involvement through virtual channels.

The emergence of flexible and nonstandard forms of short-term employment is associated, giving virtual migration the character of digital circulation, with the erosion of classical production structures and the formation of business models of the gig economy, the talent economy, etc., functioning on the basis of DT. First of all, we are talking about telework, platform employment on a project, request, etc., which coexist with traditional types of work. Thanks to DT, offshore online outsourcing of services is gaining ground, especially in the areas of information technology, business processes and business intelligence, and management. It involves the hiring of freelance, including agency, foreign workers using the Internet and the provision of services by them to customers who are not residents of the workers’ countries of residence/location [14, 15].

The digitalization of the economy also contributes to the creation of conditions for changing the system of labor relations, the massive replacement of organized wage labor with individualized independent labor, and the rapid increase in the cohort of workers who increasingly act as independent contractors, freelancers, and not full-time employees [14, 16, 17]. Moreover, a new type of worker is being formed, who “should not only be a specialist in a particular field, but also independently manage his/her time, organize a workflow, conduct financial activities and accountability,” have “the ability to self-learn, and be willing to work in an unfamiliar culture, uncertainty, and stress” [17, pp. 35, 36].

The remote participants in virtual migration interact mainly on platforms (in information systems) of digitalized (in the form of implementation) labor. There are global transactions between sellers of labor in countries with its low cost and buyers with high wages, which, with such price gaps, allows both parties to gain in the international market for information, etc., services in the absence of physical migration [18, 19]. Through digital channels, workers and employers create temporary production networks and partnerships and maintain communications; in the same way, performers transfer the products of their work to customers in digital form.

Among the most popular digital work platforms, now numbering in the thousands, are Freelancer.com, the world’s largest freelancing and crowdsourcing platform, uniting more than 55 million users from almost all countries at the end of 2021; Upwork, the leading international trading system in the field of professional services (in 2018, 16 million registered freelancers); Crowflower; Amazon Mechanical Turk (AMT); etc.

Among virtual, as well as real, migrants, there is a clear differentiation in areas of employment, in particular, in two segments of online employment of foreign workers (although not strictly separated), which

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3 According to the Atlas of New Professions 2020, in the next 15–20 years, professions such as a cybertechnician of smart environments, a cyberinvestigator, a developer of nanorobots, a moderator of sharing platforms, and a designer of neural interfaces may appear in Russia [12].
Microwork (by the name of the corresponding Microworkers platform) involves the fragmentation of a task into microtasks that can be completed in a very short time and quickly replace each other. The virtual circulation of workers is extremely intense, much higher than in physical space. Activities such as removing prohibited content from social networks, data entry, word transcription, image categorization, capturing sample lines, etc., usually require varied sets of, as a rule, elementary competencies without reference to a specific profession, primarily a basic level of literacy and numeracy skills. Therefore, these so-called collarless [16, p. 16] microworkers are among relatively low-paid categories.

Online freelancing is a professional services sector. These workers find themselves in the framework of larger and more labor-intensive projects with macro-tasks that are completed over a longer time and require employees to have developed and, accordingly, more valued competencies in specific areas, for example, areas such as graphic design, programming, web development, web design, multimedia creation, writing technical reports, editing, translating texts into other languages, research, etc.

The spread of virtual labor migration, based on the well-known advantages of telework (the possibility of a more productive use of an employee’s time, a balanced combination of work with personal and family life, saving employers on costs, etc.) [20], is also facilitated by a number of other circumstances. According to the idea of a “flat world” put forward by the American journalist T. Friedman, the Internet opens up unlimited opportunities for fruitful and full-fledged interaction of people in the world economy in real time [21]. The access of the population of the planet to the global bank of job offers is expanding, which can be performed all over the world, in any corner of it connected to the Web. Professionals can engage in more highly paid, interesting, and promising work in their familiar social environment, without breaking their roots in their homeland. The performance of small and simple tasks that do not require special skills allows the less educated and vulnerable layers, including the underemployed and the unemployed, to stay afloat, especially in depressed regions and less developed countries [18, 19].

Facilitating the access of employers, including those representing small firms, to the global pool of talents and performers, expanding the ability to select quickly the most suitable candidates, the best experts for the required period, without enrolling them on the staff, and creating international teams of workers promises to solve the personnel problems of companies. The use of such “alternative” workers as part of mixed work teams makes it possible to distribute tasks more rationally among workers and concentrate resources on the main areas of business activity, increasing maneuverability and flexibility [15].

This new approach to personnel management saves employers from the expenses associated with the organization of foreign branches in the territories where gifted specialists and high-class experts are concentrated or with payment for the relocation of in-demand foreign workers to the country of employment. In addition, this practice creates conditions for enhancing the cultural diversity of the staff, which, as studies show, contributes to the growth of innovation and labor productivity and also increases the attractiveness of the company in the eyes of its potential foreign employees [22]. All this ultimately has a positive effect on the efficiency and competitiveness of business activities.

Thus, telemigration involves the circulation of workers in the digital space. It is associated with real processes in the global economy and is carried out through cross-border remote employment and international trade in services. The opportunities offered by virtual migration for workers and employers contribute to further globalization of the labor market.

SPREAD OF VIRTUAL MIGRATION

Due to the lack of methodology and well-established mechanisms for collecting data on virtual migration, aggravated by the lack of information about counterparties on digitalized labor platforms, a large number of such platforms, and multiple user registrations and work performed, there is no systematized virtual migration statistics yet. However, trends in this area can be judged from the results of surveys of large consulting companies, data on the cross-border employment of specific firms, the number of international contracts concluded on labor platforms, and expert estimates.

Foreign studies allow us to say that, so far, the scale of the spread of virtual migration is quite modest, as well as its role in the global economy. According to Oxford University staff, in 2020 there were 163 million users registered on online freelancing platforms worldwide, of which 14 million had ever worked on such a basis (including for customers from their own country) and only 3.3 million had been engaged in this occupation actively (earned at least $1000 or completed at least ten tasks/projects) [23]. According to various data, with the help of digital platforms, about 1–3% of working-age residents of the countries of the North find work (including at home) [24, p. 32], many fewer do in the South.

In the personnel policy of companies, foreign outsourcing usually served only as an addition to immigration. According to survey data from the Manpower Group, in 2018, 33% of business leaders named immigration as a means of overcoming the talent shortage,
and 16%, outsourcing from other companies and from abroad [25]. However, with severe anti-COVID mobility restrictions, cross-border remote employment is increasingly becoming a substitute for foreign labor in the country of the customer. This, in particular, is indicated by the mass transfer to home work of commuting border migrants from the EU countries.

The results of the analysis of contracts in the field of online freelance, presented in the ILO report 2021, indicate a significant increase in the volume of cross-border trade in this type of services in the 2010s [26]. The trend towards replacing part of physical migration with virtual fits more and more organically into the long-term strategy of business activity. Companies have appeared, including rather large ones, that operate in the format of a completely remote and distributed activity (dispersed on the Web between the fulfillers of the work [14]). This approach to personnel management is being especially actively implemented in DT and IT, especially in software development.

Thus, more than 1500 employees of GitLab Inc., engaged in software integration and positioning itself as the world's largest completely remote organization, live and work in 66 countries, including Russia. About 1800 employees of Automattic Inc., specializing in the development and maintenance of software for websites, work remotely in 90 countries, with a population that speaks 114 languages, including more than ten employees living in Russia. The fully remote time tracking software company Toggl has a team of over 80 people spread across more than 40 countries. The marketing company Buffer is a fully distributed team of 85 people working remotely in 15 countries.

Global Internet surveys conducted by the international consulting company BCG in about 190 countries and covering about 200,000 people, among which people aged 25–49 with a bachelor’s or master’s degree predominated, indicate a weakening of the intentions of physical emigration in favor of virtual. According to the results of these surveys, globally, the share of people willing to move abroad to work (including those already employed there) decreased from 64% in 2014 to 57% in 2018 and then to 50% in 2020. (The emigration intentions of the Russians were not as strong and were relatively stable, probably due to the sanctions of Western states.) In the same Covid year of 2020, 57% of all respondents on the planet would like to work remotely for a foreign customer who is not a resident of their country of residence, which significantly exceeded the proportion of people who wanted to work abroad while physically being there (50%) (Fig. 1). Remote work is especially attractive to respondents with experience in digital technology and analytics, as well as in the IT and engineering fields. The greatest interest in cross-border remote work was shown by residents of Latin America and sub-Saharan Africa (80–84% of respondents), who face serious difficulties in immigrating into the countries of the North (Fig. 2).

The geography of virtual and real migration flows actually coincides, reflecting the commonality of the main driving forces of these types of mobility, which projects and reproduces the global asymmetry along the North–South axis. It is indicative that the list of countries most attractive from the point of view of BCG respondents for cross-border remote work (the United States, Australia, Canada, Germany, and Great Britain) almost completely coincides with the rating of centers of attraction for physical migrants. The main thing that is attractive when choosing a country and a customer in a completely remote work scenario is the amount of remuneration, the content of the work, and the reliability of the customer.

The data from the BCG surveys are in line with other surveys. According to American economists, the main recipients of virtual offshore migrants, both in terms of the number of contracts concluded by

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4 https://about.gitlab.com/company/team/
5 https://automattic.com/about/
6 https://toggl.com/jobs/
7 https://buffer.com/about
employers on the Upwork platform in 2015 and the amount of remuneration they paid, were rich English-speaking countries: the United States, Australia, and Great Britain. The ranking of remote workforce providers in terms of the number of contracts was led by the Philippines, India, and Bangladesh, which have a significant English-speaking population. It is noteworthy that Western countries are included in cross-border trade in services as both sellers and buyers [28].

ILO data point to the expansion of the geography of virtual migration in the 2010s, while the main directions of flows from poorer to richer countries remain unchanged [26]. This is confirmed by Oxford University staff estimates: in 2020, 41% of the global demand for online freelance work was in the United States; 8%, in Great Britain; 16%, in the rest of Europe (primarily Germany); 6%, in India; and 3%, for the whole of Africa [29]. The largest donors of telemigrants remain the countries of South and East Asia, which have a developed ICT infrastructure and massive cohorts of workers with the required qualifications and knowledge of foreign languages [26], although there are many such specialists in the regions of the North. According to Baldwin’s calculations, based on data on the number of people looking for work in November—December 2020 on online labor platforms, among this category of users of the Freelancer site, India accounted for 25.5%; Bangladesh, for 19.1%; Pakistan, for 11.7%; Russia, for 3.6%; and Ukraine, for 2.7%. On the Upwork exchange, 23.4% of job seekers were listed as living in the USA; 15.9%, in Ukraine; 4.9%, in the Philippines; 4.8%, in Russia; and 4.7%, in India [30, p. 23]. At the same time, there is also a country specialization of virtual migrants in certain classes: for example, Indians specialize in software development and business process management; the British, in accounting and auditing, legal and consulting services; and countries of sub-Saharan Africa, in data entry and translation [17]. Thus, the current flows of virtual migrants reflect the new division of labor that is emerging in cyberspace.

Although the English-speaking segment dominates in the field of virtual employment and online trade in services due to the leading role of English as the lingua franca, especially on the Internet, markets based on Chinese, Arabic, Spanish, and Russian are also developing. According to Upwork and other sources, Russia is among the countries with the most dynamically expanding activities of domestic digital work platforms and the growth of client markets for online outsourcing of national companies. In line with global trends in the Russian-speaking Internet space, two segments of online employment stand out—freelancing and microwork.

On the Russian market of remote freelancing, there are both platforms of a general orientation: FL.ru (in 2019, the number of users was 1.5 million), Kwork.ru (1.5 million), etc., and specialized portals, for example, in the field of copyright [31]. In 2018, customers and workers from more than 100 countries, primarily from Russia, Ukraine, Belarus, and Kazakhstan, were represented in this segment of digitized labor of medium and higher skill levels; over 38% of all contracts formed on the FL.ru platform were concluded between employees and employers from different countries [32, p. 36]. The severity of structural imbalances in modern labor markets contributes to the growth in demand for such resources and, accordingly, the number of their users.

Among domestic information resources in the field of microtasks, toloka.yandex.ru stands out (four million users in 2019, including from Ukraine, Belarus, Kazakhstan, and Uzbekistan). They are available to people who have basic skills in the field of ICT and who know Russian to some extent without special qualifications. Due to the spread of artificial intelli-

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8 The Philippines is a case in point: in 2016, online outsourcing generated revenues of 7% of GDP (compared to a paltry figure in 2000), employing 1.1 million workers (a 1000% increase in employment vs. 2000) and earning twice the national level in their respective activities. According to a 2018 study by online payment company PayPal, 60% of Filipino service freelancers worked for the United States [cited from 10, p. 20].

Fig. 2. Share of respondents willing to work remotely for a customer who is a resident of another country, 2020, %. Compiled according to [22].
gence (AI) technologies, the growing popularity of crowd marketing, and the promotion of products on social networks, the needs of Russian companies for cheaper foreign project contractors are likely to increase.

Although virtual and physical flows can exist as complementary elements in parallel spaces, in a pandemic, telemigration is increasingly acting as a substitute, flowing into an alternative space. The spread of virtual migration, even in the English-speaking segment, is still small, but the rapid expansion of the global sphere of digitalized work indicates an increase in its scale.

PROBLEMS OF VIRTUAL MIGRATION AND POSSIBLE WAYS TO SOLVE THEM

In accordance with the forecasts of various organizations and scientists, further expansion of telemigration is expected. At the beginning of the second decade of the 21st century, even before the pandemic, the American researcher W. Mitchell foresaw the multiplication of digital nomads and other categories of teleworkers as information technologies developed and spread [33].

An important role in the development of virtual migration can be played by the improvement of machine translation and the development of AI-based translation platforms, which will not only reduce the cost of translation services, but also reduce barriers to interaction between people who speak different languages. The digitalization of the economy and the intensification of the use in the coming decades of the so-called remote intelligence (RI), which involves remote control of the work of (tele)robots, including from abroad, is associated with the expansion of the remote provision of various services in the future. An example is the management of production processes, handling and transport vehicles, rescue and other operations using unmanned aerial vehicles, maintenance and repair of household appliances, tele-surgery, patient and elder care, cleaning rooms in hotels, and mowing lawns [10, p. 7]. The replacement of some low-skilled foreign workers with telerobots and the limitation of the physical migration of the latter are seen as opportunities to curb xenophobia and sociocultural contradictions in the host countries [34].

At the same time, the development of virtual migration is associated with several real limitations that contradict the idea of a “flat world.” It faces barriers in the planetary market of digitalized work, the possibilities of which in practice are by no means unlimited [19], and gives rise to serious social challenges.

First, the virtualization of migration has technical and technological limits that reflect the general level of socioeconomic development and the professional structure of employment. These boundaries are set by the possibilities of transferring labor to a remote online format. Globally, only 18% of workers are engaged in work activities that can be done via telephony, according to estimates by ILO experts and others. In high-income countries, the share of this category of people reaches 27%, and in low-income countries, only 12%. This figure is 34–37% in the United States, 31% in Sweden and Great Britain, 29% in Germany, 28% in France, 25% in Spain, 24% in Italy, and only 6% in sub-Saharan Africa. Professionals engaged in intellectual activity have the widest opportunities for remote employment, and workers of manual labor and low qualifications have the least opportunities [35, 36]. This affects the different involvement of individual social groups in virtual migration and the role of the professional composition of the latter towards specialists.

Second, telemigration from less developed regions, especially from Africa, is hampered by a lack of qualifications and language skills of workers (with the imperfection of modern machine translation) and an insufficient level of infrastructure development for high-quality work.

Third, with significant national differences in the field of labor relations, taxation, and social security, unified international rules and mechanisms for regulating virtual migration have not yet been formed, which brings spontaneity to this process and limits its manageability. Due to legislative gaps and lack of control, digital workers, like undocumented physical migrants, suffer from the absence of many state social guarantees and employers’ obligations (for example, regarding the professional development of workers) [19]. In general, this occurs from the recommodification of the labor force in the segment of online labor (after several decades of its decommodification in the entire labor market). 9

In addition, workers often face cases of unreasonable refusal to accept the work performed, nonpayment of remuneration, etc., 10 while companies, in turn, are experiencing difficulties with tax and other reporting.

Fourth, platform employers prefer to hire fellow citizens, and in case of attracting foreigners, they give preference to people from countries with similar languages and cultures to avoid problems associated with cross-cultural communications. They also choose

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9 Decommodification of the labor force means lowering the role of wages in the reproduction of the labor force through an increase in state financing of social services (health, education, social insurance, etc.), their removal from the market distribution of vital goods. Recommodification of the labor force is the reverse process of decommodification. For the concept of labor decommodification, see [37, pp. 86–88].

10 Although Russia is considered one of the most advanced countries in the regulation of remote employment (the provisions on which were introduced into the Labor Code of the Russian Federation in 2013), contractual relations (if any) on the platforms still remain outside the field of labor relations regulation. Guarantees and standards in the field of labor and social security, the responsibility of the parties for failure to fulfill obligations under the contract, etc., are not regulated.
candidates from geographically close countries about which they have more information. This gives rise to various types of discrimination against workers from poor countries [38]. The segregation of platform workers is facilitated by their excess supply and high competition in the global labor market, as well as their limited ability to bargain with the employer. All this is more related to the sphere of microlabor [19], which limits the potential of virtual migration to improve the situation of vulnerable groups and develop lagging territories.

Fifth, the telemigration of “cloud talents,” like physical migration, poses certain threats to the employment of highly qualified specialists in the developed regions of the world and can become a factor in increasing the discontent of the local population. In the context of tight labor markets in host countries, it will be necessary to streamline the use of online labor of workers abroad and make legislative changes regarding the possible introduction of permits for cross-border provision of services by analogy with immigration ones.

Sixth, decentralization of business activities across countries in different time zones (for example, Toggl operates in 19 time zones, Buffer in 10) is fraught with organizational difficulties, sometimes threatening to paralyze work temporarily, and often turns into a need for employees to work at night.

Seventh, when transferring data across national borders, there may be a threat to information security.

Eighth, since there are no clear rules or optimal mechanisms governing the earnings of offshore online workers and the payment and transfer of remuneration to them, a large part of virtual migrants find themselves in disadvantageous and uncomfortable conditions. Some platforms, such as Upwork and Fiverr, provide services for making payments, as well as tax reporting and arbitration in case of disputes, charging freelancers 15–20% of their remuneration for this.

At the same time, many of these obstacles are not insurmountable. National legislation is being updated in relation to remote, including platform, employment. During the pandemic years, Germany, Switzerland, France, Austria, Luxembourg, and Belgium adopted special tax documents, according to which work from home for the benefit of a foreign customer, performed in the country of residence due to anti-COVID restrictions, is equated to work in the employer’s country, regulated by rules accepted in the European Union. In addition, it was allowed to allocate up to 25% of working time for cross-border remote employment at home under a contract with a foreign employer [39]. However, so far there are no rules for taxation of remote labor activity carried out in a third country (for example, in a foreign home or in conditions of “stuck” abroad) [40].

The ILO is pushing for the implementation of earlier standards that are applicable to today’s telework-
The spread of virtual labor circulation as a new form of global mobility, partially replacing some physical flows, organically fits into the concept of migration transition. This global process owes its emergence and development to multifaceted digital transformations, primarily in production activities, in the labor market and in trade in services. Although the scale of virtual migration is still modest, its intensive development indicates the prospects for a noticeable increase in this phenomenon.

In the context of anti-COVID mobility restrictions, telemigration has become a resource that is in demand both by employees focused on the implementation of projects for foreign customers and by employers in need of foreign personnel. Beneficial to participants, virtual migration simultaneously exacerbates chronic imbalances and generates new sources of social differentiation and tension between platform employers and workers, especially from the South; virtual migrants and physical workers; and persons employed in different segments and territorial spaces of digitalized labor.

Thus, the expansion of virtual migration is associated with both considerable limitations and serious challenges, as well as prospects for optimizing the labor market in the new conditions. Efforts being made at various levels to introduce telemigration into a regulated channel make it possible to count on its further development under more favorable scenarios.

CONFLICT OF INTEREST
The authors declare that they have no conflicts of interest.

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