### Digital Work Platforms in the Modern Labor Market



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### 1 Introduction

After the collapse of the Soviet Union, many studies confirmed that the employment of the economically active population is one of the most acute problems in Georgian society. During the last three decades, the governments of Georgia have been trying to implement various employment programs and policies that will respond to the challenges of unemployment, although the results have not been very effective. It is significant that the measures implemented in the direction of solving the unemployment problem were based on the experience of different countries of the world. However, in the modern digital era, the labor market requires new approaches, which involve the development of new forms of employment and the promotion of expansion. Digital work platforms create new opportunities to solve the unemployment problems of the economically active population, but new challenges must also be taken into consideration. In addition, digital work platforms are a novelty in the reality of Georgia, and therefore the implementation of scientific research in the mentioned direction is actual and necessary action.

In order to study digital work platforms in general and in relation to the labor market of Georgia, we examined the research carried out on digital work platforms and the labor market in Georgia and abroad. Also we have analyzed reports, studies, and statements of international organizations, as well as official statistical data on the labor market of Georgia.

## 2 The Essence, Types, and Models of Digital Work Platforms

The field of labor is characterized by constant changes with a certain periodicity. The most crucial change in the field of labor in the last decade is the emergence and development of digital work platforms. Like traditional labor markets, digital labor platforms involve a combination of demand and supply sides, where, theoretically, the price of labor is determined by the interaction of supply and demand. However, in digital work platforms, digital mechanisms play the role of an intermediary, which is not characteristic of the traditional labor market. In contrast to the traditional labor market, digital work platforms are new and still in the process of formation and development, therefore, research on digital work platforms is intensive. There are also different opinions about the essence and definitions of digital work platforms. It is also worth noting that the definitions of the digital work platform change over time. For example, Horton (2010) in his work refers to the online work platform as an online labor market and conveys the following opinion: "I propose a definition of OLMs that captures the essential common features of all markets and yet distinguishes the markets from other examples of online work: a market where (1) labor is exchanged for money, (2) the product of that labor is delivered "over a wire" and (3) the allocation of labor and money is determined by a collection of buyers and sellers operating within a price system." Later researchers (Codagnone et al., 2016) proposed a more complex and, as the researchers themselves call it, an adapted version of Horton's definition. Eurofaund (2018)<sup>1</sup> web page summarizes the features of digital work platforms and states that "The main characteristics of platform work are the following: Paid work is organized through an online platform. Three parties are involved: the online platform, the client and the worker. The aim is to carry out specific tasks or solve specific problems. The work is contracted out. Jobs are broken down into tasks. Services are provided on demand." "Researchers from various universities and representatives of international organizations, (Johnston et al., 2020) in joint work, note that digital platforms that connect workers with work—have emerged as a new trend in the world of work. Connecting predominately selfemployed workers with clients in need of services on an on-demand basis, platforms have proved capable of transforming how, when, and where we work. They have become a reference point in discussions on industry transformation, labor market innovations, and the future of work and employment." In the final report of the European Commission (2021), digital labor platforms (DLPs) are defined "as private internet-based companies that act as intermediaries, with greater or lesser extent of control, for on-demand services requested by the individual or corporate consumers. The services are provided directly or indirectly by natural persons, irrespective of whether such services are performed in the physical or online world." Last year's International Labor Organization report (ILO, 2021) noted that platform work is

<sup>&</sup>lt;sup>1</sup>European Foundation for the Improvement of Living and Working Conditions.

work undertaken on digital labor platforms. These "facilitate work using "digital technologies to 'intermediate' between individual suppliers" (platform workers and other businesses) and clients (Hauben et al., 2020) or directly engage workers to provide labour services." In the same report, it is mentioned that digital labor platforms are the predominant form of platform connecting workers with businesses and clients, and have significant implications for the world of work. Researchers Piasna et al. (2022) consider digital work platforms in a broader sense, based on paid activities performed online that do not fall under standard employment relationships.

From the definitions given above and also by analyzing numerous other scientific works, in our opinion, the definition of digital work platform can be formulated as follows: The digital work platform is an intermediary between supply and demand in the labor market. These intermediaries are private companies based on Internet technologies, whose purpose of intermediation is to make a profit. Digital job platforms use different business models for generating revenue. It is possible for digital intermediary platforms in the labor market to be created not only for the purpose of profit, but also with the aim of increasing employment or hiring opportunities, financial or other benefits of the society as a whole or a certain part of it. Within the framework of the digital work platform, the supply side of the labor market is represented by the labor force registered on the work platform, which offers services in exchange for payment. And the labor demand side is represented by individuals or companies registered on the digital work platform, who offer remuneration in exchange for services. The relationship between labor demand and labor supply within the digital work platform is based on algorithmic management system.

Classifications of digital work platforms are proposed in the published scientific literature on types of digital work platforms. It can be said that given some different formulations. For example, according to the definition of a group of scientists (De Groen et al., 2016) "digital work platforms can be divided into at least two distinct groups: i) provider of virtual services that can be performed anywhere in the world and ii) providers of physical services that inevitably need to be performed locally." A relatively detailed typology of digital platform works is presented in a study conducted under the auspices of the European Parliament (Hauben et al., 2020), where digital job platforms are divided into four types of jobs: "lower-skilled offline or on-location work (type 1), higher-skilled offline or on-location work (type 2), lower-skilled online work (type 3), and higher-skilled online work (type 4)." In our opinion, a typical classification of the digital work platform is given in the report of the International Labor Organization (ILO, 2021), in which we read: "Currently, there are two main types of digital labour platform: online web-based platforms, where tasks are performed online and remotely by workers; and location-based platforms, where tasks are performed at a specified physical location by individuals. Online web-based platforms include microtask, freelance, contest-based, competitive programming and medical consultation platforms, while location-based platforms include those offering taxi, delivery, domestic, care and home services. Much

Digital work platforms	Tasks, Services
Online web-based platforms	Online clerical and data entry tasks, micro tasks
	Online professional services
	Online creative and multimedia work
	Online sales and marketing support work
	Online software development and technology work
	Online writing and translation work
Location web-based platforms	Transportation services
	Delivery services
	Housekeeping and other home services

Table 1 Main categories of digital labor platform work services and tasks

Authors' elaboration. Source: European Training Foundation. 2021. THE FUTURE OF WORK. New forms of employment in the Eastern Partnership countries: Platform work

attention has been given in recent years to location-based platforms such as Deliveroo, Glovo and Uber, especially in developed countries."

The basic typology of the services implemented within the framework of the digital work platform is proposed in the report of the European Training Foundation, (ETF, 2021), where it is presented in detail and succinctly what the main categories of tasks and services of both directions of the digital work platform include (on the example of Eastern European Partnership countries). (see Table 1).

In recent years, hybrid digital platforms have begun to develop. Digital work platforms are part of hybrid digital platforms. However, a hybrid digital platform does not mean the combination of online web-based and location-based platforms. Hybrid digital platforms include not only digital work, but also e-commerce, payments, and other services.

"According to the final report of the European Commission (2021) DLPs are for-profit companies structured as limited liability, though the precise legal form varies by country. Only the largest are publicly traded, while many are held by large international holding companies (e.g., Delivery Hero for food delivery DLPs). A small minority of DLPs are structured as collectives or cooperatives, which are collectively owned and operated. In fact, among the DLPs active in the EU 31 cooperatives (6% of active DLPs) were identified. Cooperative DLPs seem to be more common in Spain, France, and Belgium. They almost exclusively provide food delivery through a joint platform established by the CoopCycle association. Cooperatives are estimated to generate far below 1% of earnings of people working through platforms".

Obviously, profit-oriented online web-based and location-based work platforms use different business models. According to a study conducted by the European Training Foundation (ETF, 2021) "In the most general sense, labour platforms generate revenues by collecting commission fees on each transaction from workers, clients or both. However, the exact business models vary by platform."

If we generalize the business models of digital work platforms, we will note that digital work platforms receive income from workers and clients registered on the

platform in exchange for the mediation offered to them. However, the main revenues of digital job platforms come from the fees of registered workers on the platforms. This is confirmed by researches and reports carried out in recent years. For instance, the report of the International Labor Organization (ILO, 2021) states that "Upwork generated 62 per cent of its 2019 revenue from various types of fees charged to workers, while 38 per cent was generated through fees charged to clients. On location-based platforms, workers typically pay a commission fee on taxi platforms whereas on delivery platforms, it is businesses and customers that generally do so."

Online job platforms also differ from each other in terms of subscription plans. A number of platforms charge both the client and the registered worker a monthly subscription. Some platforms do not charge any party, while some platforms charge monthly subscription fees only from registered users or only from clients. According to the information provided on the web pages of the platforms, the monthly subscription fee can be as little as 1 dollar in some places, and on some platforms, it can exceed 1000 dollars per month.

There are also significant differences between location-based platforms in terms of setting fees for clients and workers. For example, delivery platforms charge restaurants, shops, and supermarkets a commission fee and charge customers a delivery fee. And the revenue model of taxi platforms is based on charging commission fees to the taxi driver. The commission fee, which is a percentage of the ride fare, varies within and between platform companies. Commission fees that location-based platforms impose depend on the country, the income of the population, the duration of the start of the operation, etc.

### 3 Dissemination of Digital Work Platforms

The use of digital work platforms does not have a long history. However, the number of digital work platforms is growing and covering an increasing geographic area. Focusing (ILO, 2021) on online web-based platforms and location-based platforms in the taxi and delivery sector, globally, there were at least 777 active platforms operating in January 2021. In 2021, almost 80% of the world's digital work platforms operated in the G20 countries. Within the G20 countries, platforms are largely concentrated in the United States of America (37%), followed by the European Union (22%), India (10%), and the United Kingdom (6%). Globally the number of platforms in the delivery sector is the highest (383), followed by online web-based platforms (283), taxi sector (106), and there are five hybrid platforms which provide varied types of services such as taxi, delivery, and e-commerce services.

The number of registered workers on the platforms gives us an idea of the dissemination of digital work platforms. It should be noted that there are no accurate data on the number of people employed on digital work platforms. Although some information can be obtained from the websites of the companies, however, job seekers are not limited to being registered on several platforms at the same time,

and thus, the information is still not accurate. Also, the number of people registered on digital work platforms does not give us the real idea of the number of people employed by the digital work platform, since registered people may not be employed through the platform for a long period of time. Additionally, digital job platforms often do not publish how many of the job seekers registered on their platforms are actually employed (internal employment). When considering at the number of people employed on digital work platforms, we must take into account that, according to the ILO report (2021) "there are two types of work relationships on digital labour platforms: workers are either directly hired by a platform or their work is mediated through a platform. Data on the number of workers hired by platforms are available either from annual reports or Crunchbase and Owler databases. The data shows that most of the digital labour platforms are micro and small enterprises employing either fewer than 10 employees or 11-50 employees. Only a few delivery and taxi platforms have more than 1000 employees." For example, Uber has 26,900 internal employees (marketers, software engineers, lawyers, managers, etc.). Also, as of 2020, more than 5 million people are employed on the Uber platform. Taxi drivers own or rent cars. Their employment status are self-employed or "partner drivers." They are employed through the mediation of the company. Uber uses a business model (Teece, 2018), where the service provided by them, matches customers with drivers through the appropriate application based on algorithmic management.

Compared to Uber, the number of direct hires (internal employment) is small, only 50 people, on the PeoplePerHour platform, although it employs a much larger number of workers through mediation.

The number of freelancers registered on digital work platforms around the world and the actual employment situation provides us with a certain idea about digital work platforms. A group of scientists (Kässi et al., 2021) combine data collected from various sources to build a data-driven assessment of the number of such online workers (also known as online freelancers) globally. In their opinion, "there are 163 million freelancer profiles registered on online labour platforms globally. Approximately 14 million of them have obtained work through the platform at least once, and 3.3 million have completed at least 10 projects or earned at least \$1000." In the results of the same study, the researchers indicate a margin of error, according to which the number of freelancers registered on digital work platforms can be more than 200 million, and among them, the number of people employed through platforms can reach up to 21 million.

We can get some idea about the spread of online work platforms through the new economic indicator "Online Labour Index (OLI)<sup>3</sup>" published by The iLabour Project at the Oxford Internet Institute.<sup>4</sup> According to researchers (Kässi & Lehdonvirta, 2018) "The Online Labour Index is an index that measures the utilization of online labour platforms over time and across countries and occupations." Online Labor

<sup>&</sup>lt;sup>2</sup>The study refers to online work platforms and does not cover on-location work platforms.

<sup>&</sup>lt;sup>3</sup>http://ilabour.oii.ox.ac.uk/online-labour-index/.

<sup>&</sup>lt;sup>4</sup>https://ilabour.oii.ox.ac.uk.

Index includes platforms for online freelancing, microwork, and similar activities, but excludes on location platforms such as Uber, Deliveroo, and so on. The OLI is based on tracking all projects and tasks posted to the five largest English-language online labor platforms; Freelancer.com; Guru.com; Mturk.com; Peopleperhour.com; Upwork.com. These five platforms account for at least 70% of all traffic to Englishlanguage online labor platforms. Since 2020, the OLI covers six non-English language platforms, three in Spanish and three in Russian. A group of researchers (Stephany et al., 2021) analyzed OLI and in their article notes that "In the last half decade (2016–2021), demand for online freelance work, measured by the OLI, has increased significantly. In early 2021, roughly 90% more projects were demanded via online freelance platforms than in mid-2016 when the OLI started. This equals an annual growth rate of 10%, which is significantly higher than changes in national (on-site) labour markets, which have plummeted in many countries as a result of the Covid-19 pandemic." Analysis of the structure of online labor demand by country shows that as of May 2022, 5 42.0% of online labor demand comes from the United States, 8.1% from the United Kingdom, 6.3% from India, 6.2% from Canada, 6.1% from Australia, 2.1% from Germany, etc. It is also interesting what kind of jobs are in demand on online job platforms. For the same date, as of May 2022, 6 the structure of online labor demand by occupation was presented as follows: Software development technologies—38.8%; Creative and multimedia 21%; Clerical and data entry 13.4%; Writing and translation 12.3%; Sales and marketing support 10.9%; Professional services 2.6%. The analysis of the Online Labor Index gives us some insight into the structure of the online labor supply by country. For example, as of 2021 (Stephany et al., 2021) India accounted for the largest share of labor supply on online job platforms at 33%, followed by Bangladesh at 15%, Pakistan at just over 12%, followed by the United Kingdom and the United States with approximately 5 and 4%, etc.

From the web pages of individual companies, we can have a certain idea about registered job seekers and actively employed (external employment) who received certain incomes after registration. For example, as of 2020, (ILO, 2021) there were 1,048,575 people registered on Guru<sup>7</sup> (as of September). Of these, only about 0.5% (4862 people) completed at least one project and earned at least \$1 after signing up. And only about 0.1% (1385 people) registered on the Guru platform completed at least ten projects and earned at least \$1000 after signing up. The latter means that the oversupply of workers on this platform was 99.9%. With a similar approach, the oversupply of workers is 91.0% on the "PeoplePerHour" platform; 90% on the "99designs" platform; 73% on "Freelancer" and so on.

From the point of view of analysis, the studies conducted at the level of individual regions also provide useful results. According to the research (Piasna et al., 2022), there were 12 million platform workers (external employment) and 3 million internal

<sup>&</sup>lt;sup>5</sup>http://onlinelabourobservatory.org/oli-demand.

<sup>&</sup>lt;sup>6</sup>http://onlinelabourobservatory.org/oli-demand.

<sup>&</sup>lt;sup>7</sup>https://www.guru.com.

platform workers in the EU countries as of 2021. According to the same study, in the EU as a whole, people employed by online work platforms (external employment) spend about 72 million hours per week within the framework of online work platforms. According to the authors, this number of total hours spent per week is equivalent to the work time spent by 1.9 million full-time employees.

The proliferation and growing importance of digital work platforms can be judged by the value that is created within digital work platforms. According to the International Labor Organization, in 2020 Global revenue generated by platforms amounted to US\$ 52 billion, 49% of which are in the United States: 11% Europe: 23% China; 17% Other regions. According to the research conducted on digital work platforms in the countries of the European Union (European Commission, 2021) "the total size of the DLP economy in the EU27 has increased almost fivefold in the past five years, from an estimated EUR 3 billion in 2016 to EUR 14 billion in 2020. This reflects the consolidated revenues of the parties involved, including the platforms, people working through the platforms and fourth parties. An estimated threequarters of the DLP economy originates from taxi and delivery platforms". The researchers Tay and Large (Tay & Large, 2022) in relation to revenue and labor supply note that, "Digital labour platforms do not have an equal presence across the world. While platform revenue is channelled to the Global North, labour is concentrated in the Global South. This is especially the case for web-based online platforms. As of March 2022, India supplied 25 per cent of online web-based labour, yet in 2019–2020 represented only around 3 per cent of the global revenue from digital labour platforms."

According to existing studies, it is also clear that digital work platforms are only a source of basic income for a small number of people. For instance (Tay & Large, 2022) "US and EU surveys show that 16 per cent of US adults and 11 per cent of the working-age population in 14 EU states (aged between 16 and 74) have earned money or provided a service via a platform, while a smaller proportion use digital labour platforms as their primary source of income." For example, labor platforms were primary source of income for 1.4% of EU citizens (ILO, 2021).

The impact of COVID-19 on the spread and operation of digital work platforms will become one of the main directions of research in this field in the current period and in the future. Based on the final report carried out by European commission (2021) "COVID-19 has had a significant impact on the activities of certain types of platforms. More specifically, until 2019 the digital labour platform economy was dominated by taxi platforms, but due to COVID-19 this has shifted to delivery platforms. Indeed, food delivery platforms more than doubled in size during 2020, whereas taxi platforms lost about a third of their activities. Likewise, for platforms oriented towards the leisure and retail sectors, though these are significantly smaller in size." "After the start of covid 19, a large majority of platform workers in the European Union (EU) report either working more hours or re-starting working on platforms because of the pandemic" (Barcevičius et al., 2021). This applies to both types of digital platform work despite the different effects of restrictions on social contacts for online and on-site workers. COVID-19 also changed the way and methods that many on-location digital labor platforms operate.

## 4 Benefits and Challenges of Participants on Digital Work Platforms

Digital work platforms can have a positive impact on labor markets, although research shows that the development of digital work platforms is accompanied by certain challenges as well.

When talking about the benefits and advantages of digital work platforms, flexibility is particularly emphasized in studies and reports of international organizations. Jobseekers registered on the job platform have the opportunity, in some cases, to work according to their preferred schedule and from different geographical locations. It can be said, that the flexibility of job location and schedule, along with the absence of formal skill requirements, lowers barriers to entry into the digital labor market, thus making digital work platforms attractive to workers. The flexibility of digital platform work is also important from the central argument (Cano et al., 2021) most commonly used by platform companies is that platform work offers workers the "freedom" and "flexibility" to work whenever and wherever they want, becoming a source of income while positively contributing to platform workers' work-life balance. The attractiveness of flexibility for workers is confirmed by global studies (ILO, 2021) according to which the motivation to work on online web-based platforms for 29% of workers was due to job flexibility. In some countries, the motivation to work through a digital work platform is even greater because of the flexibility. For example, flexibility is the main motivation factor for 42% of those working on a location-based platform in Chile. Despite the differences of opinion, it should be assumed that the flexibility factor contributes significantly to the work-life balance of those working with the digital work platform.

Along with flexibility, the **possibility of employment and income** is an equally important factor in motivating working through a digital work platform. Platforms provide access to a larger pool of potential customers for independent workers, and greater opportunities to market their skills. That is why digital work platforms are considered a new form of employment that has great potential for development. The information presented in the previous chapter also confirms that the number of employees with the digital work platform is increasing. Accordingly, the number of people who receive income from digital labor platforms is increasing. It is also worth noting that so far (Kässi et al., 2021), there are not many people in the world who earn high incomes through platforms, although the number of people with some small income is increasing and has a growing trend. Despite the low incomes of the majority of digital work platform workers, from the workers' perspective (Engels & Sherwood, 2019) "digital platforms provide access to flexible additional income generation opportunities by removing market entry barriers." Additionally, in terms of employment opportunities for the population, it should be noted that platforms can facilitate a more balanced geographic distribution of opportunity for workers, both globally and within countries, through creating more opportunities for remote working and bringing work and services to marginalized communities. It should be emphasized that online work platforms provide employment opportunities not only

to workers in general, but platforms are a good opportunity for people with disabilities, as well as the population of regions, to perform certain tasks for payment.

One of the benefits of a digital work platform is the **reduction of transaction costs**. For example, digital work platforms can reduce the costs of searching for information about both registered people and customers. The time and financial costs of both parties (demand, supply) are reduced, as well as the minimization of auction or trade costs by the digital work platform. Another advantage of a digital work platform should be considered the savings that clients can make when using the platform's workers. In particular, demand side clients (companies and individuals) can hire fewer people on a fixed salary and pay the online platform worker for specific work done through the labor platform. Online web platforms (companies) can access talent from all over the world, allowing them to use these platforms for recruitment processes and greater efficiency. Also, unlike the traditional works and labor market, online platforms do not need any capital assets.

In our opinion, the economies derived from digital platforms have led to the **outsourcing** of labor from developed countries to developing countries. However, the growth of labor outsourcing by digital work platform clients is not accompanied by labor migration, as a significant part of the work is done online through the digital platform. In general, it can be said that online work platforms are an opportunity to reduce the outflow of labor force from developing countries, and thus represent an alternative to population migration.

Along with the benefits of digital work platforms, researchers and specialists convey the challenges that appeared in the labor market along with the expansion of the activities of digital work platforms.

Algorithm codes are often discussed in relation to the digital work platform. The problem lies in the following: Both On location-based and Online web-based digital work platforms are based on **Algorithmic management.** Algorithms on digital job platforms determine worker ratings, job allocation, work schedules, job offer acceptance, future job availability, work hours, job offer rejections, etc. All of this is done through algorithmic codes, which raises questions about the flexibility of the digital platform's work and the autonomy of the workers. There are also questions about the platform's control over work. Researchers (De Stefano & Taes, 2021) note that "The continuous monitoring of workers may also cause an undesirable blurring of work and private life." An International Labor Organizations report on algorithmic codes states: on location-based platforms, the apps are sometimes designed in such a way that they allow for human biases in the code of the algorithms, which can then lead to inadvertent discrimination against some workers.

One of the challenges of digital platform workers is related to the **status of the employee.** The working conditions of the employees are determined by the terms of the service agreement developed by the platform (working time, remuneration, etc.). According to the mentioned conditions, the workers of the digital platform are independent contractors, referred to as self-employed. Therefore, since they have the status of self-employed and not of employed, they are not included in the country's social protection system. Employees of the digital work platform have to cover all their own social security costs. In this regard, another problem arises,

namely, because they do not have the status of employees, they cannot receive financial or other types of assistance during the period of unemployment, which is provided to the unemployed people in different countries.

The challenge for digital job platform workers is the **excess supply** of job seekers compared to the demand for work, due to which the possibility of getting a job decreases, the competition among job seekers increases and the financial income of those employed with the digital job platform goes down. At the same time, the excess of supply gives platforms the market power to influence working conditions, which in many cases is expressed in charged fees to access work. Also, another challenge for digital platform operators, along with high competition, is **high commission fees**. As we saw in the previous subsection, the main income of digital work platforms is high commission fees. The **non-remunerated time** spent by workers is also important. We are talking about those working on location-based platforms, who often spend a lot of time waiting for work. However, they will not be compensated for this time.

Among the challenges of the demand side of the digital work platform, it is worth noting the **dominance of large digital work platforms** in some fields, which prevents the functioning of the market based on the principles of free competition. Dominant digital work platforms create problems for both traditional businesses and new digital work platform startups wishing to operate in the same sector.

In the scientific literature, there are many contradictory opinions about the advantages and challenges of the digital work platform. For example, researchers (Cano et al., 2021) conclude that some platforms limit workers choice despite promising full flexibility. In other words, in the case of some platforms, the benefits of the digital work platform (for example, flexibility) are not actually received by the employed workers.

In addition to the benefits and challenges presented in this subsection, other benefits and challenges are discussed in the academic and scientific literature. For example, in the report published by the World Economic Forum (2020) on the benefits and challenges of the digital work platform, it is noted that "digital work/ services platforms offer considerable benefits to consumers, workers and employers. Benefits of the sector for workers include flexibility; geographic diversity; greater demand; inclusivity; expanded employment; improved matching; formalization and reliable payment. However, for these opportunities to be realized, certain challenges for workers need to be addressed: reasonable pay; benefits and social protections; security; upskilling; dignity; representation and balance of power." In the scientific literature published by researchers, the benefits are found under different names, although they are often similar in content. The same applies for challenges. For example, when we talk about the problem of the employee's status within the digital work platform, in some cases, it is automatically meant the employee's social security, career, employment stability and other challenges that are closely related to the employment status.

The challenges listed above require appropriate approaches, otherwise according the world economic forum (2020) "if the challenges posed by platform work for work quality and social security are not addressed, the expansion of this type of work

could also lead to increased precarity and insecurity for workers. Companies will need to ensure that platform work intermediaries are meeting necessary standards. Regulation will need to evolve to appropriately balance the risks and rewards of platform work. And work/services platforms themselves will need to ensure that they are leading on their societal and stakeholder responsibilities."

In order to solve the problems related to digital work platforms, various countries have laid the foundation for initiatives Around digital labor platform, which implies the introduction and implementation of certain regulatory mechanisms. For example, in 2016 in France the government (Tay & Large, 2022) "introduced the El Khomri law which means that, under certain conditions, the platform operator must provide reimbursement for insurance against occupational accidents or illness and contribute to professional training; the law also gives workers the right to form and join a trade union; In 2019 in Australia Uber drivers have been classed as independent contractors by the Fair Work Ombudsman; In 2019 in Israel the Ministry of Labour and Social Affairs offers training in digital skills to allow workers to take advantage of opportunities in the platform economy; In 2021 under the new labor code in India gig workers will receive minimum wages across different sectors; In Finland the Public Employment Service has integrated digital labour platforms into their digital job-market platform (Työmarkkinatori) to offer work opportunities; In 1921 in China the Ministry of Transport, the State Administration for Market Regulation and other government agencies published separate guidelines calling for better protection of workers on food-delivery platforms, including minimum-wage income, social security and insurance coverage; in 2021 in USA (New York City) a minimum wage was extended to Uber and Lyft drivers" and so on.

The research conducted on digital work platforms and the reports of international organizations discusses the necessity of state regulation of platforms. However, comprehensive studies on the impact of the regulation of digital work platforms in different countries or the future consequences have not yet been conducted.

# 5 Unemployment, Employment, and Digital Work Platforms in Georgia

The official indicators of unemployment and employment in a country depend on the criteria used by official statistical offices to count the employed and unemployed population. According to the current accounting methodology, the unemployment rate in Georgia in 2021 was 20.6%. If we take this level of unemployment in absolute numbers, it means that in the same year, more than 300,000 people out of

<sup>&</sup>lt;sup>8</sup>https://www.geostat.ge/en. In Georgia, since 2019, a new methodology of registration of unemployed and employed is being used. It is necessary to take this into account since the level of unemployment in Georgia was much lower with the old methodology.

<sup>&</sup>lt;sup>9</sup>https://www.geostat.ge/en.

1.5 million economically active population were unemployed. In the last 8 years, the lowest level of unemployment was recorded in 2019, when the unemployment rate was 17.6%. However, the unemployment rate has continued to increase in the following period, which is most likely related to the start of the Covid 19 pandemic. According to age groups, unemployment is highest among young people aged 20–24 and is 41.0%. The unemployment rate among 25- to 29-year-olds is also high, at nearly 28% in 2021. In the same year, the unemployment rate among women was 17.8% and among men 22.7%. According to the level of unemployment, there are significant differences between the regions of Georgia. For example, in 2021, the highest unemployment rate was recorded in Racha Lechkhumi and Kvemo Svaneti (30%) and the lowest in Kakheti region (8.7%). The unemployment rate in Tbilisi, the capital of Georgia, was 23.8% last year.

According to the data of the National Statistics Office of Georgia, 10 in 2021, 1217.4 thousand people were employed, which is 40.4% (employment level)<sup>11</sup> of the population over 15 years old. The employed population in Georgia is divided into two categories: employed (hired) people, who make up 68.1% of the total employed (829.3 thousand people), and self-employed people, who make up 31.8% (387.1 thousand people). A significant part of the workers is employed in the informal sector, where according to official statistics, the share of informal employment in non-agricultural employment in 2020 was almost 29.0%. The distribution of employees according to the types of economic activity shows that the main areas of employment are agriculture (18.9%), retail trade (14.8%), education (12.0%), and industry (11.3%). The average monthly salary of employees in 2021 was 1357.4 GEL. If we take into account the average exchange rate<sup>12</sup> of the Georgian Lari in the same year, the average salary in Georgia was equivalent to 356 euros in GEL. The difference between the wages of men and women persists over the years. For example, in 2018, women's average monthly earnings were about 64.0% of men's average monthly earnings, and the same figure in 2020 was 67.6%. There is a significant difference in average monthly wages between regions. For example, the average monthly wage in Racha Lechkhumi and Kvemo Svaneti region in 2020 was only 43.4% of the average monthly wage in Tbilisi, the same rate was also low in Guria (48.7%) and Shida Kartli (54.6%).

If we summarize the current situation in the labor market of Georgia according to the presented indicators of unemployment, employment, and wages, as well as the results of previously conducted research on the labor market, we can highlight some essential characteristics of the labor market of Georgia: The level of unemployment in Georgia is very high; Unemployment rates vary dramatically by age group and are particularly problematic among young people.<sup>13</sup> The Covid 19 pandemic

<sup>&</sup>lt;sup>10</sup>https://www.geostat.ge/en/modules/categories/683/Employment-Unemployment.

<sup>&</sup>lt;sup>11</sup>The employment rate expresses the number of persons who are employed as a percent of the relevant aged population.

<sup>&</sup>lt;sup>12</sup>2021-EUR/GEL (Period average)- 3.8140.

<sup>&</sup>lt;sup>13</sup>https://www.geostat.ge/en/modules/categories/683/Employment-Unemployment.

(Paresashvili et al., 2021) further exacerbated the unemployment problem in Georgia; Unemployment levels are different in regions (Kvirkvaia, 2016), and this difference does not change over the years; A significant part of the workforce is concentrated in Tbilisi, and internal migration (from the regions to the capital) has not decreased over the years; The external migration of the labor force from Georgia has an irreversible characteristic, the main reason of which is to find a job abroad (State Commission on Migration Issues, 2021); A significant part of the employees works in the informal sector (Danish Trade Union Development Agency, 2021); Along with unemployment in the labor market of Georgia, there is a shortage of qualified personnel in a number of specialties (Badurashvili, 2019); The average salary of employees in Georgia is low (compared to developed countries), And men's and women's salary (Bendeliani, et al., 2014) differs significantly; A significant part of the workers is employed in agriculture, where the wages are low and mainly low-skilled labor is used; There are sharp differences between the average monthly salary levels between regions. About a third of employees are selfemployed, and a significant part of them is inefficiently employed (Tsartsidze, 2018) because the vast majority of self-employed people receive very low financial compensation, or do not generate financial income at all. It is confirmed by previously conducted studies that organizations have a problem of mismatch (vertical 14 and horizontal<sup>15</sup> mismatch) between the knowledge and qualification of an employee and job requirements. Young people's choice of profession (Charaia et al., 2018) is not made thoughtfully considering future employment opportunities (Tsarsidze, 2018); Inadequate cooperation between employers and higher education institutions (Kikutadze et al., 2021) which, among other factors, ultimately makes it difficult (Dekonidze & Bardak, 2018) to enter and stay in the labor market.

In Georgia, despite many efforts, it is not possible to solve the listed problems. Moreover, the severity of the number of issues increases over time, there is inefficient employment in the labor market, and the unemployment rate remains at a stable high level. Obviously, labor market problems in Georgia cannot be solved with a one-time program. However, a short period of time will not be enough to address these issues. It is also clear that traditional approaches within the active and passive policies of the labor market are not enough to ensure effective employment and the problem of unemployment in the labor market. In order to solve the problems over time, along with other measures, new forms of employment need to be developed. In our opinion, digital work platforms can be one of these directions. The problems in the labor market in Georgia are complex, and digital work platforms are not a way to fully solve the problem. However, the experience of other countries confirms that this new form of employment will improve the situation in the labor market in several directions.

<sup>&</sup>lt;sup>14</sup>Level of education and qualifications is less or more than required.

<sup>&</sup>lt;sup>15</sup>Level of education or qualifications is appropriate for the job, but the area of education or skills is not suitable for the job.

The existence and functioning of digital work platforms in Georgia have not been properly studied yet. However, there are some materials that give us an idea of the situation in Georgia in terms of the development of digital labor platforms.

In Eastern European partner countries, last year, an important study was conducted by the European Training Foundation (ETF, 2021), which covered Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine. The purpose of the research was to study new forms of employment and digital work platforms in the listed countries. According to the study, digital work platforms in Georgia, as well as in many other countries of the Eastern Partnership, are just beginning to emerge. There are both local and international digital job platforms in the country. In Georgia (ETF, 2021) "Among the on location-based platforms, the most common are Glovo, Bolt, GG Taxi, Alo Modi and Yandex Taxi, The actual number of workers is not available on the platforms, but relevant Facebook groups provide some indications. For example, Bolt Food couriers in Tbilisi had around 900 members <sup>16</sup> as of early 2021, whereas Glovo and Wolt group had 1 800 members. <sup>17</sup> Local platforms such as caru.ge; mrmaster.ge; profy.ge; alomodi.ge were also gaining in popularity for other on-location services, mostly for repairs and handyman work. Among online web-based platforms, Ido.ge (2846 clients, 481 service providers) and Cartooli (work.cartuli.com) were the most popular in Georgia by the end of 2020."

The activity of Georgian citizens on some platforms is higher than that of some Eastern European countries, and there are also online work platforms where the activity of workers from Georgia is less compared to other countries of the Eastern European Partnership. For example, on the Online web-based platform "Freelancer," which is an Australian company, by the end of 2020, 2800 job seekers from Georgia were registered. In terms of the number of registered job seekers on the mentioned platform, Georgia was ahead of all Eastern European Partnership countries except Ukraine. The situation was the opposite, for example, on the English-language online work platform "Guru." With 800 registered people, Georgia was in one of the last places among the Eastern European Partnership countries. The activity of Georgian citizens was low on Russian-language online job platforms as well. For example, on the Russian-language platform—"Weblancer," Georgia had the smallest number of registered users among the reviewed countries. The analysis of the activity of Georgian citizens on the GURU, WEBLANCER, AND FREE-LANCER online job platforms in terms of gender shows that the number of men registered on the platforms (about 66.0%) is twice the number of women (about 33.0%). It should be noted that the percentage of registration of women on online work platforms in Georgia is the highest among the Eastern European Partnership countries. When discussing digital work platforms in Georgia, we cannot ignore the spread and scope of social media. They do not belong to digital work platforms that mediate between the job seeker and the client based on algorithmic codes. However, in Georgia, LinkedIn and Facebook are no less important than typical digital work

<sup>&</sup>lt;sup>16</sup>See more: https://www.facebook.com/groups/226776118846039.

<sup>&</sup>lt;sup>17</sup>See more: https://www.facebook.com/groups/298595938058493.

platforms, on the one hand for finding jobs and on the other hand for finding the necessary specialists. The importance of social media can be judged by the number of people united within different social media platforms.

Creative and multimedia, software development, as well as clerical and data entry, translating, and other jobs were the most of all offered to Georgian citizens registered on the websites of major international platforms.

From the web pages of the On location-based platforms registered in Georgia, it is clear that the status of the workers is self-employed or an individual entrepreneur who is a service provider. Within the framework of on-location-based platforms, services were first launched in the capital, however, over time, the provision of their services also increases in the big cities of Georgia. It is also clear from the web pages of location-based platforms that, in most cases, no special knowledge is required for those seeking employment. Most platforms require that the minimum age of registrants should be 18 years.

Those working on location-based platforms in Georgia face the same challenges that are typical for those employed by these platforms in general. This is confirmed by the strikes and protests of On location-based platform workers in the past years. The main demands of the workers were related to working conditions and the amount of wages.

#### 6 Conclusions and Recommendations

Digital labor platforms are becoming an important part of the modern digital economy. In the last decade, the number of digital work platforms has been steadily growing. The number of people employed through the platform and the number of job seekers registered on the platforms are also increasing. Digital job platforms have become a new form and direction of employment, which has great potential for employment of the working-age population.

In Georgia, as well as in other Eastern European countries, digital work platforms are at the initial stage of development. So far, digital work platforms cannot play a significant role in solving the problems in the labor market of Georgia. However, the development of digital work platforms can bring significant benefits to the country.

Digital labor platforms create multiple opportunities for different groups of the population. However, in the case of Georgia, due to the severity of the problem (very high level of unemployment among young people), special attention should be paid to the possibility of employment of young people. In the mentioned direction, it is necessary to take into account that the development of digital work platforms in Georgia requires a workforce with appropriate skills and knowledge, which the country's education system can provide. However, the connection between higher educational institutions and the labor market in Georgia is weak, and the forms of cooperation are still not diverse. Accordingly, higher education institutions, along with other labor market requirements, should take into account and reflect in their academic programs the skills needed for employment on digital work platforms.

With such an approach, higher education institutions will help prepare competitive labor force for local and international labor markets.

When discussing the issues of employment in Georgia in general and employment of young people in particular, together with their education, we should take into account that labor outsourcing from the United States of America and EU is taking place in developing countries, which is one of the good opportunities for employment of the population of Georgia.

Georgia is characterized by horizontal<sup>18</sup> and vertical<sup>19</sup> mismatch in the traditional labor market. Digital work platforms are not immune from these inconsistencies. Therefore, training and retraining for digital work platforms should be based on current and prospective demand in digital labor markets.

In addition to flexible work schedule, additional income and other typical benefits, digital work platforms can become a means of reducing one of the most acute problems in Georgia, the labor migration of the working-age population. An important part of the labor migrants from Georgia is a qualified labor force who, in case of proper training (especially young people), have the potential to be employed on online web-based platforms. The development of on-location-based platforms is a good alternative to labor migration of low-skilled workforce.

Another benefit that society can get from digital job platforms is the opportunity for people with disabilities, ethnic minorities and some rural residents to get employment and earn income (primary or supplementary) through digital job platforms. However, so far, in Georgia and other countries, the mentioned population groups are underrepresented in the online labor market.

Discussions on the policy to be implemented in order to promote employment within the framework of the digital work platform and also to deal with the challenges related to the platform have not yet started in Georgia. However, we consider the Social Economic Development Strategy of Georgia (Government of Georgia, 2020) as a positive step in the development of digital work platforms in Georgia, where several target areas to enhance the digital ecosystem are outlined, including High-speed Broadband Internet for future development, e-Literacy and Capacity Building, Innovation and High-Tech, and e-Government.

In order to develop the online work platform, the issues of statistical registration of the mentioned category of employees should be regulated. In particular, the methodology of registration of those working with the online work platform should be developed and their employment status should be specified. Systematic character should also be given to foreign language and IT skills development trainings.

It is necessary to give a certain place in the labor legislation to the online work platform and the working conditions of the people employed by this platform, the risks of discrimination, the employment status and other social issues. However, it

<sup>&</sup>lt;sup>18</sup>Level of education or qualifications is appropriate for the job, but the area of education or skills is not suitable for the job.

<sup>&</sup>lt;sup>19</sup>Level of education and qualifications is less or more than required.

should be noted that digital work platforms are largely outside the scope of regulation, and that is why they are attractive.

However, it is not easy to predict how effective and attractive these forms of employment will be after regulation. In any case, if we are talking about the necessity of regulation, it will be appropriate to be on a very minimal extent. However, this issue requires further in-depth study.

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