UDC 349.2
DOI https://doi.org/10.32782/npnuola.v33.2023.4

I. V. Lagutina

DIGITAL ECONOMY AND NON-STANDARD FORMS OF EMPLOYMENT

Formulation of the problem. Global redistribution of material resources and competitive opportunities, interaction of breakthrough innovations, new ideas and technologies – all this imposes its impact both on the labour market and on the entire spectrum of social and labour relations.

A special place in these changes is occupied by digital technologies that intensively develop and penetrate into all spheres of life and production, transforming market labour and labour relations.

In the modern democratic state, the rights of man and citizen are the most important political, legal and social institution, which is a measure of the achievements of the development of society. The appearance of this category of rights is dynamically changed in time and space, the content of rights is clarified, that there were earlier and exist now, new rights are formed.

The social value of rights lies, mainly, in the fact that they themselves, as well as the guarantees of their real fulfillment, determine the position of a person in society, and therefore the level of development of society itself. The analysis of the digital employee's labour rights deserves a special note.

The formulation of the conceptual apparatus of labour law is one of the most important methods of legal technology, which uses legislative authority. Before determining the understanding of labour law, the legislator must approach it comprehensively, take into account the requirements of logic and linguistics.

In recent years, in the conditions of digitalisation, both the absolute number and the share of specialists in the field of information and communication technologies in the general number of employees have constantly increased.

On the second hand, under the influence of digital technologies, new working places are created in the lower branches of economics, in the field of services.

In most countries, the increase in demand for the labour force is observed in the field of culture, recreation, construction, health protection, energy and agriculture, less – in the public sector. The reduction of labour demand took place in the processing industry, business services, trade and transport. At the same time, the number of people employed

in the field of accommodation, transport, and other services through online platforms is increasing.

The **purpose** of this article is to study this new form of economic growth and the changes in income distribution it has caused, paying special attention to the impact of the digital economy on the labour market.

Analysis of recent research and publications. In the legal literature, research on the impact of digitalization on labour relations has already been subjected to scientific analysis by such domestic and foreign scientists as D. Acemoglu, P. Bai, K. Barefoot, X. Cai, L. Chen, Z. Chen, P. Choudary, D. Curtis, W. Craig, S. Daniel, M. Graham, D. Green, D. Guellec, R. Heeks, X. Huang, C. Freudenberg, Y. Jiang, W. Jolliff, C. Liu, Q. Kong, J. Nicholson, P. Restrepo, V. De Stefano, A. Stewart, Y. Zhang, Q. Zhang, X. Zhu and others.

Presentation of the main material of the study. Decent work is a fundamental condition for social justice. The decent work objectives in the key ILO declarations connect to the ILO Conventions and Recommendations as well as its Constitution. They make clear that certain fundamental principles and rights apply to all working people, irrespective of their employment status. This would include employees engaged through digital labour platforms.

Introduced into widespread circulation back in the mid-90s of the last century by the Massachusetts Institute of Technology professor N. Negroponte, the concept of the digital economy has firmly entered our lives. Moreover, if at first the process of digitization was considered as accompanying, auxiliary, mediating real economic activity, now digitalization has taken on a life of its own, shaping supply and demand, creating essentially a parallel economy, virtual, augmented reality, modifying the entire social fabric of modern society.

The digital economy represents a new organizational logic, correlated with a new technological paradigm [1] and which has found its physical embodiment in platform solutions. Digitalization of the economy can help solve pressing social and global problems, improving the quality of social services, increasing productivity, creating new opportunities for entrepreneurship and work, obtaining education, and for this it is important to coordinate the coherence of the impact in preparation for the upcoming changes between the state, business and educational institutions, as well as retraining and employment of released personnel.

The application of digital technologies has fundamentally reshaped people's lifestyles and industrial production methods, creating numerous new norms of livelihood and services unseen in the last century. China attaches great importance to the development of the digital economy, and makes great efforts to promote the integration of digital technologies such as big data, artificial intelligence and cloud computing with the real economy. As a result, the digital economy has expanded rapidly in China. From 2012 to 2021, the scale of China's digital economy grew from 11 trillion yuan to over 45 trillion yuan, and the proportion of digital economy to GDP increased from 21.6 to 39.8% (State Council Information Office of China 2022) [2].

The challenges for platform workers relate to working conditions, the regularity of work and income, and the lack of access to social protection, freedom of association and collective bargaining rights.

The labour market is the most important element of the economy, representing a system of social relations designed to ensure normal reproduction and efficient use of labour.

The digital economy is based on computer technology, mobile communications and the Internet. It should be recognized that the rate of emergence of new digital and communication technologies is constantly growing, these processes received a significant impetus thanks to the pandemic and, it seems, are not going to slow down.

In the context of digitalization of the economy, the labour market is undergoing enormous changes. As a result, a flexible, virtual labour market is being formed and the classical employment model is becoming obsolete.

In addition, digitalization leads to the spread of such atypical forms of employment, such as remote work (telework) and freelancing, as well as crowdworking and crowdsourcing, with in which communication between the contractor and the customer is carried out through online platforms still remain outside the legal fields in many countries.

"Old" professions are disappearing during the period of digital transformation. Labour market demand will shift toward jobs such as data analysts, software and application developers, and social media specialists – jobs that rely heavily on the use of technology. However, it is expected that jobs based on "human" skills will also grow, such as customer service representatives, sales and marketing specialists, training and development specialists, and innovation managers [3].

The software basis for the digital revolution is cryptotechnologies: blockchain, distributed registries, cryptocurrencies, mobile banking, and the material embodiment is the development of nano-, bio-, info-, cogno-, socio-directions as the foundation of the future production structure of the world.

Digital labour platforms offer two types of work relationships: workers who are directly hired by the platforms (internal employment), and workers whose engagement and work are mediated through the platforms (external employment).

The majority of workers engaged on online web-based and location-based platforms are below 35 years of age. About four in ten workers on online web-based platforms are women, while in developing countries only about two in ten are women. Workers on online web-based platforms are generally highly educated, especially in developing countries. The working conditions and worker experience on digital labour platforms can vary considerably. The majority of workers on online web-based platforms, particularly in developing countries, would like to undertake more online work. Many employees have another paid job, in developed (56 per cent) and developing countries (41 per cent), and the country-level surveys show these proportions to be quite high in Ukraine (68 per cent) [4; 137–147].

It is important to note that, on the one hand, digital technologies open up new opportunities for us, and on the other hand, digital reality also has weaknesses, including:

the risk of cyber threats associated with the problem of protecting personal data; an increase in unemployment in the labour market, as the risk of the disappearance of some professions will increase; "digital divide" (a gap in digital education, in terms of access to digital services and products, and, as a consequence, a gap in the level of well-being of people in the same country or in different countries) [5].

Digitalization potentially creates an unprecedented extension of work surveillance with an exponential rise in the use of smartphones and tracking technologies such as Fitbit and other wearable trackers. Moreover, algorithmic systems are being used across the economy to control fundamental aspects of work. Control of task allocation, performance supervision and productivity assessment through algorithms has been increasingly used, not only by digital labour platforms, but also in traditional sectors such as logistics, manufacturing, or white-collar occupations. For instance, employees' mood or fatigue in the workplace can be easily identified through AI-powered sentiment analysis of voice or facial expressions [6]. For example, the data-driven HR application of employee data collected through surveillance has raised issues about profiling and discrimination [7]. The adoption of algorithmic systems also raises concerns over the intensification of workload and the erosion of human judgement, skill and agency [8].

Although digital employment can increase economic inclusion, empirical research has revealed that there are also explicit or inexplicit forms of discrimination based on location, ethnicity, religion, gender, etc. [9]. Research reveals that a considerable proportion of workers on digital labour platforms experience discrimination or harassment [10]. For instance, workers from certain developing countries may be excluded from performing tasks with high pay because of discrimination.

Digitalization has varied effects on individuals' working time. The mass adoption of mobile devices has enabled a constant connectivity with work which not only brings flexibility over managing work and effective communication, but also the possibility of a lengthening of working time. [11]. Employees' experience in digital employment regarding obtaining work, performing tasks and receiving income is heterogeneous, and working conditions vary considerably across digital workers. Research shows that many of the newly created jobs during the digitization process are irregular or low-paid ones in the retail industry and logistics, such as warehouse and delivery workers for Amazon [12].

A significant problem is also the documented recording of disciplinary faults, about which the employer will find out by the remote employee by means of digital technologies (for example, the employee's not having an online connection with the employer for a certain hour). They are collapsing with the reasoning and bringing to the court whether this failure was made for technical reasons (for example, the failure of the Skype program, the weak Wi-Fi-signal) or the fault of the employee.

Other folds, for example, are related to the fixation of downtime, if it is caused by the output of a computer or software equipment, through a viral attack or the action of the employee himself, etc.

From the other side, the appearance of such platforms and their abilities for the expansion of opportunities for labour activity of unprotected and weakly protected cate-

gories of citizens, which ennoit natural discrimination in the labour market (women with children, persons with disabilities, youth, labour migrants).

The emergence of new professions causes the need to adjust the requirements to the qualification of personnel, stimulates the demand for new competencies, develops distance and digital methods of training.

In this situation, the training of management personnel deserves special attention. Existing advanced training programs require adjustments to meet market needs. It is managers who must acquire skills that allow them to carry out activities in the context of the functioning of the digital economy.

The conditions of the digital economy give rise to special digital competencies that specialists must possess to successfully perform their job duties. These competencies include: systems thinking, ability to solve turnkey problems, adaptability and work in conditions of uncertainty, understanding of the basics of cybersecurity, "digital dexterity", the ability to continuously learn.

Digitalization is facilitating non-traditional forms of employment which provide greater flexibility. Short-term work contracts are becoming increasingly common.

On online web-based platforms the need to work unsocial hours not only limits platform workers' ability to be flexible in choosing their own working times but also has an impact on their work–life balance, and at times can also lead to social isolation [13]. The survey of freelance platforms from Ukraine shows that for many respondents, work–life balance did not improve, or stayed the same, compared to their previous job situation (61 percent). In addition, 23 per cent reported that they were either often or always stressed, and the majority (58 percent) were worried about having enough work in the future. Such situations have implications for the health of these workers, many of whom are already confronted with long working hours in front of a screen.

Freelancing seeks to achieve a wide range of types of economic activity: programming, content creation and translation, marketing research, sales, consulting, finance, administration.

A freelancer does not have face-to-face contact with assistants: searching for work, arranging contracts, issuing orders, negotiating ongoing work supplies, transferring the results of work and payment is made via the Internet. Although it is obvious that in practice this form of work can be implemented using more traditional methods. The general public understands an electronic freelancer as an independent worker who carries out activities via the Internet [14].

The rise of remote work increases the dependence on data, software and networks, and will require employers to invest more in data security and migration to the cloud to enable effective and safe remote working [15]. This trend will obviously drive a stronger demand for skilled workers in certain roles such as cybersecurity, cloud computing and networks systems (ibid). In addition, those workers entering into remote working arrangements would require at least basic digital skills and strong soft skills such as communication, adaptability, collaboration and emotional intelligence to carry out tasks

effectively in a remote environment. Furthermore, employers considering the adoption of remote work as a more permanent option beyond the pandemic would need to craft skills and training strategies that are also adapted to working remotely [16]. The biggest demand in the gig world is for graphic design, software development and technology.

Measuring the gig economy through the OLI, while novel and useful, also has its limitations. One of them is related to the fact that the OLI measures the gig economy by tasks. This means that, over time, with the technological developments that will allow for finer task fragmentation, the index may overestimate the true growth of the gig economy. Another challenge is posed by the fact that, recently, some of the online labour platforms on which the index is based have started handling the vetting and hiring of the online digital workers on their clients' behalf. Lastly, the rapid proliferation of online platforms, and also of job postings through alternative online media, such as closed social network groups, will mean that the OLI will represent a continuously shrinking iceberg of the gig economy [17].

Social protection, or social security, is a human right and includes benefits for unemployment, employment injury, sickness, old age, disability, survivors and health protection, as well as for maternity, children and families [18]. The organization of work on digital labour platforms has raised considerable concerns regarding inadequate social protection coverage for workers engaged on such platforms. Only a small proportion of workers on online web-based platforms have social security coverage.

An important role in the conditions of building a digital economy is given to collective negotiations and consultations between employers and employees. The first comparative studies of the impact of digitalization on collective labour rights (work based on Internet platforms were considered) began to be carried out within the ILO [19].

The level of unionization is quite low among employees on both online web-based and location-based platforms.

Collective bargaining has long sought to balance the unequal relationship between employers and individual workers. Through collective action, workers are enabled to have an effective influence on their employment and working conditions. However, the nature of the digital economy does not adhere to the conventional notion of collective bargaining, challenging workers' ability for collective organization. In the digital economy, work is performed independently, with digital workers classified as independent contractors, who often work in isolation and over geographically expansive regions. This means that the typical employer-employee relationship is no longer relevant because digital workers might work for multiple 'employers', aggregated on a digital platform performing work which is often short term or task-based. Consequently, digital workers, although representing a tiny percentage of the overall workforce, have become a special group with no clear mechanism for collective bargaining. Other challenges include regulations which have not kept pace with changes in technology, work in multiple jurisdictions and conflict with competition law [20].

Conclusions. The main tasks of modern labour law should be the recognition and development of the system of labour rights and freedoms, the establishment of state

guarantees of their observance and protection, the regulation of individual and collective labour relations, in which individual and collective labour rights are implemented.

Non-standard employment is a forced measure and does not always correspond to the interests of an employee, which largely contradicts the task of humanising social and labor relations and calls into question the possibility of simultaneous humanisation and digitalisation. To solve this contradiction, it is necessary to consolidate the efforts of all participants in social and labour relations: the state – in the legislative recognition of new forms of employment and the provision of social guarantees for non-standard employees, employees – in the creation and enhancement of the role of professional communities, employers – in ensuring decent working conditions for non-standard employees.

Bibliography

1. Castells M. The Information Age. Economy, Society, and Culture. Vol. I: The Rise of the Network Society. Oxford, Wiley-Blackwell, 2010. 625 p.

2. Yang et al. Digital economy and wage gap between high- and low-skilled workers. Digital Economy and Sustainable Development 2023. P. 35–46.

3. WEF – 5 things to know about the future of jobs. Url: https://etradeforall.org/wef-5-things-to-know-about-thefuture-of-jobs/

4. World Employment and Social Outlook 2021: The role of digital labour platforms in transforming the world of work. International Labour Office – Geneva: ILO, 2021. 285 p.

5. Davos 2020: Here's what you need to know about the future of work. URL: https://www.weforum. org/agenda/2020/01/davos-2020-future-work-jobs-skills-what-to-know/

6. Phoebe V. Moore, Martin Upchurch, and Xanthe Whittaker, 'Humans and Machines at Work: Monitoring, Surveillance and Automation in Contemporary Capitalism', in Humans and Machines at Work: Monitoring, Surveillance and Automation in Contemporary Capitalism, ed. Phoebe V. Moore, Martin Upchurch, and Xanthe Whittaker, Dynamics of Virtual Work, 2018, P. 1–16.

7. Spencer et al., 'Digital Automation and the Future of Work', European Parliamentary Research Service, 2021.

8. Abigail G. et al., 'The Amazonian Era: The Gigification of Work', Institute for the Future of Work, 2021.

9. Graham, M., Hjorth, I., and Lehdonvirta, V., 'Digital Labour and Development: Impacts of Global Digital Labour Platforms and the Gig Economy on Worker Livelihoods', Transfer: *European Review of Labour and Research*, no. 2. 2017. P. 135–162.

10. ILO, 'World Employment and Social Outlook 2021: The Role of Digital Labour Platforms in Transforming the World of Work'. 2021. 248 p.

11. Spencer D. et al., 'Digital Automation and the Future of Work', European Parliamentary Research Service, 2021.

12. Coyle D. Precarious and Productive work in the digital economy. *National Institute Economic Review*, 240(1). (2017).

13. Anwar, Mohammad Amir, and Mark Graham. Does Economic Upgrading Lead to Social Upgrading in Contact Centers? Evidence from South Africa. *African Geographical Review* 38 (3). 2019. P. 209–226.

14. Agrawal A., Horton J., Lacetera N., Lyons E. Digitization and the Contract Labor Market: A Research Agenda. – Working Paper, no.19525, 2013.

15. Burning Glass Technologies. After the Storm: The Jobs and Skills that will Drive the Post-Pandemic Recovery. 2021.

16. ILO. 2021f. Working from Home: From Invisibility to Decent Work, ILO: Geneva. 2021.

17. ILO. Changing demand for skills in digital economies and societies: Literature review and case studies from low- and middle-income countries. 2021.130 p.

18. ILO. 2017a. World Social Protection Report 2017–19: Universal Social Protection to Achieve the Sustainable Development Goals. 2017.

19. Johnston H. Land-Kazlauskas C. Organizing on-demand: Representation, voice, and collective bargaining in the gig economy. Geneva, ILO. 2019.

20. Johnston H., Land-Kazlauskasand C., Organizing On-demand: Representation, Voice, and Collective Bargaining in the Gig Economy, ILO Conditions of Work and Employment Series № 94, 2019.

Summary

Lagutina I. V. **Digital economy and non-standard forms of employment.** – Article.

The article examines the features of the labour market in the period of digital technologies, which are associated with changes in the demand for labour resources and their supply in the economy as a whole. The main competencies necessary for the implementation of breakthrough technological projects, as well as forms of employment that will be in demand in the future, are highlighted.

The impact of digitization on the labor market has its advantages and disadvantages. Among the factors that will contribute to the growth of employment, the following are highlighted: the creation of jobs due to new professions; growing demand for existing professions in the IT field; reducing frictional unemployment due to reducing the time of searching for a job via the Internet; increasing the number of jobs in remote areas.

Factors that will contribute to the growth of unemployment: automation of jobs, which will displace a certain number of professions; structural unemployment is possible due to the time difference between the need for highly qualified workers and the training of such workers.

In the context of increasing rates of implementation of digital technologies in all areas of activity, the question of the readiness of the economically active population, and not only others, to master new relevant competencies arises especially acutely. A modern employee must be flexible and motivated to constantly learn and improve their skills.

The problem of the labour market is considered one of the current topics in the study of the economic side of society. The current state of the economic situation indicates that the state, enterprise, as well as people are direct participants in the global system of changes.

Key words: digital economy, digital technologies, labour market, labour rights, human resources.

Анотація

Лагутіна І. В. **Цифрова економіка та нестандартні форми зайнятості.** – Стаття.

У статті досліджено особливості ринку праці в період цифрових технологій, які пов'язані зі змінами попиту на трудові ресурси та їх пропозиції в економіці в цілому. Висвітлено основні компетенції, необхідні для реалізації проривних технологічних проектів, а також форми працевлаштування, які будуть затребувані в майбутньому.

Вплив цифровізації на ринок праці має свої переваги та недоліки. Серед факторів, які сприятимуть зростанню зайнятості, виділяють: появу робочих місць за рахунок нових професій; зростання попиту на існуючі професії в IT-сфері; скорочення фрикційного безробіття за рахунок скорочення часу пошуку роботи через Інтернет; збільшення кількості робочих місць на віддалених територіях.

Фактори, які сприятимуть зростанню безробіття: автоматизація робочих місць, яка витіснить певний ряд професій; можливе структурне безробіття через різницю в часі між виникненням потреби у висококваліфікованих працівниках і підготовкою таких працівників.

Цифровізація призводить до поширення таких нетипових форм зайнятості, як дистанційна робота та фріланс, які дозволяють виконувати її поза місцем знаходження роботодавця. Краудворкінг та краудсорсинг, при яких зв'язок між виконавцем та замовником здійснюється за допомогою онлайн-платформи, що вже знаходяться в полі зору вивчення сучасних вчених-юристів, але поки що залишаються поза правовим поля у багатьох країнах.

В умовах наростання темпів впровадження цифрових технологій у всі сфери діяльності особливо гостро постає питання про готовність економічно активного населення, і не лише до освоєння нових актуальних компетенцій. Сучасний працівник має бути гнучким та мотивованим на постійне навчання та підвищення кваліфікації.

Проблема ринку праці вважається однією з актуальних тем щодо економічного боку суспільства. Сучасний стан економічної ситуації вказує на те, що держава, підприємство, а також людина є безпосередніми учасниками глобальної системи змін.

Ключові слова: цифрова економіка, цифрові технології, ринок праці, трудові права, людські ресурси.