Asian Journal of Research in Social Sciences and Humanities
ISSN: 2249-7315 Vol. 12, Issue 02, February 2022 SJIF 2022 = 8.625
A peer reviewed journal

ORGANIZATION OF DIGITAL LABOR DIRECTIONS, PRINCIPLES AND APPROACHES

Abdunabiyev Alisher Abdushukurovich*; YuldoshevaZulfizarSayfullayevna; Raxmanova Dildora Toshmurzayevna***; Fozilov Javohir Sohib Ogli******

*Assistant,
Samarkand branch of the Tashkent State University of Economics,
Samarkand City, UZBEKISTAN
Email Id: aaalisher80@gmail.com

**Assistant,
Samarkand branch of the Tashkent State University of Economics,
Samarkand City, UZBEKISTAN
Email Id: yoldashevazulfizar@gmail.com

***Assistant,
Samarkand branch of the Tashkent State University of Economics,
Samarkand City, UZBEKISTAN
Email Id: dildoraraxmanova85@gmail.com

****Student,
Samarkand branch of the Tashkent State University of Economics
Samarkand City, UZBEKISTAN

DOI: 10.5958/2249-7315.2022.00073.9

ABSTRACT

The article is devoted to the development and justification of a new socio-technical concept - the digital organization of labor. It is introduced into scientific circulation and the content of the concept of "digital organization of labor" is revealed. The features of its key areas are given, among which are: the development and implementation of network forms of division and cooperation of labor; designing optimal labor processes and systems based on information and communication technologies (ICT);formation of rational labor mobility; development and implementation of reasonable standards and rules in the field of digital work; training labor agents to work in the digital space; creation of balanced systems of remuneration, attraction and retention of labor agents. The methodological principles of the digital organization of labor are considered, as well as approaches for studying and solving theoretical and practical issues of digital labor organization.

KEYWORDS: *Digital Economy, Industry 4.0, Digital Ecosystem, Digital Work Organization, Work 4.0, Labor, Digital Society*

1. INTRODUCTION

The development of the digital economy and Industry 4.0 is characterized by integration of various fields of knowledge, industries, spheres of human life. It's not about local application. certain technologies, but about their merger, integration into a network, which entails deep structural transformations that manifest themselves in globally in virtually every country, industry and society in general **[1].**

These changes lead to the fact that in the modern economy the use of network models has come to be considered as the most successful approach **[2]** (Badzho, Sheresheva, 2014). Look at the economy as a system of developing communication networks gives a completely different socio-

economic perspective. An important feature of network interactions is that they affect the state of the economy at the aggregate level **[3]** (Karaev, Melnichuk, 2013). AtAt the same time, a number of studies note that recently the most effectivea network form of economic interaction is becoming an entrepreneurial ecosystem, which is "... an economic community based on the foundation that constitutes interacting organizations and individuals ... " **[4]** (Moore, 2006). "The ecosystem … includes consumers, market intermediaries, suppliers, … owners and other stakeholders, and in addition … government departments and regulators, associations and organizations that enforce standards and represent consumers and suppliers. To some extent, ecosystems include direct and potential competitors" **[5]**

On the other hand, the formation of the digital economy is closely related to the development digital technologies and Industry 4.0, where virtual and physical production systems interact with each other at the global level, providing the formation of new operating models. At the same time, as noted by foreign experts, the introduction of network digital technologies in the production cycle, vertical and horizontal integration processes leads to the unification by enterprises of their equipment, warehouse systems and means of production into cyber-physical systems (Cyber Physical Systems, CPS) with the ability to exchange data, initiate certain actions and manage each other **[6]** (Schwab, 2019).A new logic operates at the emerging smart factories production: smart products require identification and location at any time, have information about their creation and current state. Business processes are organized dynamically, operational adjustments can be made to the production cycle, which allows you to respond flexibly for malfunctions and downtime. In smart factories, the role of employees is also changing markedly. Growing importance real-time control makes appropriate changes to the content labor, in work processes and in the conditions of their flow. Companies are increasingly building their operations around distributed teams and dynamic composition of teams with continuous exchange of data on products or tasks, over which work is underway **[6]** (Schwab, 2019). Labor becomes autonomous, mobile, and the performance of labor functions is associated with the mastery of many competencies **[1].**

For this, it is necessary to strengthen personal responsibility, to reveal the identity of employees. In connection with these circumstances, a new model of labor and employment is currently being developed in advanced economies. By analogy with the technological paradigm "Industry 4.0", it was called "Work 4.0" and is characterized by a high degree of integration and cooperation, the use of digital technologies, development of flexible forms of employment**.** Thus, the patterns of functioning of modern production and the emergence of new types of social and labor relations require the formation the corresponding concept of labor organization, the content of which is inextricably linked to the determinants of development (growth drivers) of Industry 4.0 and the digital economy as a whole. In turn, the growth drivers of the digital economy include the following technologies that significantly affect the organization of modern labor processes: automation of production and the Internet of Things (IoT); digital design; virtualization (including remote office); cross-channel communications and mobile technologies In recent years, digital technologies have created a fundamentally new type of labor process, transforming all its main elements: the object of labor, means labor, the result of labor. Thus, in the digital economy, the subject of labor is increasingly acquiring an electronic shape. It acts as information, initial data, necessary for the implementation of labor activities, which are provided in digital format.

It is precisely to work with them that the activity of a modern specialist is directed, who, thanks to his knowledge and experience, the ability to produce innovations makes the necessary changes. Various digital devices become the means of labor, and the result of labor is a finished information product. Since the labor process itself acquires a network character and is carried out with mandatory use of information and communication technologies, and the interaction between the employer and the employee is increasingly taking place remotely, including the process of obtaining the task by the performer, control over the timing and quality of execution, transfer of

the result of labor to the customer and payment - all this allows talk about the transition to a digital organization of work. In a broad sense, it can give the following definition: digital labor organization is a complex dynamic system of organizational support and use of labor based on digital technologies. Therefore, such an organization can be considered digital labor, which, based on modern information and communication technologies, allows you to ensure the effective functioning of the system "man-technology-knowledge-environment" (labor system) of any level and the best execution of labor processes.

Analysis of modern operating models and management trends gives the opportunity to highlight the key areas of this concept, shown in figure Directions of digital labor organization In the opinion of the author of this article, the key areas that determine the content of the digital work organization are:

- Development and implementation of network forms of division and cooperation of labor.
- Designing optimal labor processes and systems based on ICT.
- Formation of rational labor mobility.
- Development and implementation of sound norms and rules in the field of digital labor.
- Training of labor agents to work in the digital space.
- Creation of balanced systems of rewards, attraction and retention labor agents.

1) The development and implementation of network forms of division and cooperation of labor is connected with the network organization of production and management. The most important factor here is that the production structure of the network (including a digital platform or ecosystem) can be geographically distributed over different regions (and countries of the world). Professional activity in it can be divided into separate tasks and specific projects with the involvement of performers located in any country of the world **[7]** (Sobolevskaya, Popov, 2009). This means that it is necessary to implement a network division and cooperation of labor within the entire structure. For solutions practical tasks within this area, the digital organization of labor is based on transport and communication networks, algorithms for interaction within logistics ecosystems, which can significantly reduce all types of costs and implement differentiation of labor resources.
2) Designing optimal work processes and systems based on ICT. In an environment where long and complex value chains are generated, when data volumes are constantly growing, and services are based on the collection and processing information, the key task of business systems is the transition to the principles of digitalization by revising the basic management algorithms, optimizing labor processes. To successfully achieve these goals, labor systems must meet all modern requirements. And for this, it is necessary to create new methods for designing labor processes and systems on the basis of modern information and communication technologies. These questions are currently is engaged in an independent scientific direction - labor engineering **[8]**
3) Formation of rational labor mobility. The development of the digital economy has created new opportunities for communication and interaction that supplemented and improved physical mobility. As noted by foreign specialists, the fusion of physical, biological and digital systems in the future will make it possible to overcome spatial and temporal constraints even faster, which will further stimulate the mobility of labor agents **[6]** (Schwab, 2019).
4) Development and implementation of sound norms and rules in the field of digital labor. With the transition to a digital economy, work on the organization of labor is fundamentally

changing, its center of gravity is transferred to digital ecosystems. By giving employers the opportunity to make decisions on all issues of labor organization, states, in turn, must create conditions for work in the digital space through legal, regulatory and methodological support, and, if necessary, harmonization of the interests of all subjects of labor relations. This requires action at the international level. World community partially solves this problem by developing international legal documents on trade, finance, labor, environment, human rights century, etc. In particular, the International Labor Organization (ILO) contributes in solving these problems by developing international labor standards. **[9]**

5) Training of labor agents to work in the digital space. Changes in The tasks and requirements for the competence of labor agents within the framework of the staffing of labor systems make it necessary to develop new forms and methods of training, tools for assessing qualifications, and stimulating the need for additional professional education. For these purposes, new models of educational processes, "centers of best practice", develop digital educational technologies. **[10]**
6) Creation of balanced systems of remuneration, attraction and retention of labor agents. Modern operating models present new requirements for corporate culture, for staffing labor systems. One of the most important factors in the development of competitiveness are personal abilities of attracted employees, and digital companies, realizing this, begin to build their activities based on the concept of talent management with a focus on highly qualified personnel. **[11]**

Principles of digital labor organization

The system of principles of digital labor organization requires the inclusion of both general methodological, specific for specific socio-economic sciences, and and some special principles, the content of which finds a specific expression only in the digital organization of labor.

Thus, the most important methodological principles of the digital organization of labor, in the opinion of the author of this article, are:

- Inclusion in the digital network environment (including digital platforms and ecosystems);
- Flexibility;
- Efficiency;
- Humanization and improvement of the quality of working life;
- Normativity.

The principle of inclusion in the digital network environment (including digital platforms and ecosystems) is one of the most significant in the digital organization of labor and is directly related to the digital organization of the production of goods. and services, implying vertical and horizontal integration in chains creating value. Vertical integration integrates all data on operational processes, their efficiency, quality management, etc. in real time in an integral network throughout the organization, from development products and ending with production, logistics and after-sales service. Horizontal integration goes beyond internal operations and covers suppliers, consumers and all key partners in the value chain. **[12]**

The principle of efficiency implies that the decisions made in the field digital labor organization should give the expected (predictable) result (economic and/or social effect) in a given time interval with optimal costs for their implementation. Based on the fact that many decisions in in this area are multivariate, that is, the achievement of the final result is possible in several alternative ways, the definition of the most effective, optimal solutions in the field of digital work organization is based on a broad using economic and mathematical methods, analytical

capabilities artificial intelligence, digital modeling, etc. **[13]**

The principle of labor humanization (from Latin humanus – humane) and improvement of the quality of working life is aimed at creating favorable conditions for labor human activity, manifestation of his creative abilities, professional self-realization, the approval of his good as a criterion for assessing socio-economic relations. The humanization of labor is designed to reflect and take into account the specific links between society, business, a person and his living environment in the context global problems in order to improve the way of human life. In this regard, the humanization of labor in the digital economy should be directed, first of all, to expand the scope of human freedom through the creation of humane network interactions, protection of his legitimate interests as a free agent of labor relations, elimination of the causes of professional degradation, ensuring security (including information).

Approaches to the digital organization of work

The digital organization of labor is a large-scale complex system, the study of which requires the use of appropriate scientific and methodological approaches. In our opinion, the following can be used as the most universal and significant for the theoretical and practical purposes of the digital organization of labor. approaches: ecosystem, integration, multidisciplinary, integrated, innovative. **[14]**

The ecosystem approach is a form of application of the theory of knowledge to the study of processes occurring in nature, the economy, and society. His the essence lies in the implementation of the requirements of the general systems theory, according to which each object in the process of its study should be considered as a large and complex system and at the same time as an element of a more general system. It means, that when formulating and solving issues of the digital organization of labor, the point review should be located in the global system, rising above the level of location analyzed object.

The multidisciplinary approach proceeds from the fact that in order to design modern labor processes and systems, improve the methods of network division and cooperation of labor, and understand the nature of today's labor mobility and other issues of digital labor organization, it is necessary to investigate interactions and feedbacks within digital platforms and ecosystems, to identify hidden mechanisms underlying their functioning. To address these issues it is necessary to integrate various scientific disciplines: economic, technical, social, natural sciences, etc., which is possible on the basis of a multidisciplinary approach. A key aspect of studying the problems of the digital organization labor within the framework of this approach is the use of ICT tools to obtain information about the structure of networks at a certain point in time, as well as about their development over time. **[15]**

An integrated approach provides for the parallel development of technical and technological, socio-economic, legal, communication, environmental and other aspects of the digital organization of labor in their interconnection.

2. CONCLUSION

The digitalization of the economy, the active penetration of networks into all spheres of human activity have led to a radical transformation of the sphere of not only production, but also labor in almost all countries, giving rise to new forms of its organization. and radically changing the way labor systems operate. Due to this a new type of labor process and social and labor relations arises on the basis of network infrastructure, global communications and data processing system, new rules of economic behavior, new values and motivation. The digital organization of labor acquires a special role in these processes. She associated with the need for a network division and cooperation of labor, the emergence of modern methods for designing labor

processes and systems based on digital technologies, the development of labor mobility, the formation of a new type of creative workers - free labor agents as the main driver of the digital economy. Today it is quite obvious that the development of the digital economy will be accompanied by further changes in social and labor relations, the generation of new strategies in the labor market, the development of new methods of social consent in resolving issues relating to a person, organization, regulation, regulation and remuneration of labor in the context of creating digital platforms and ecosystems. **[16]** These issues will be resolved most successfully by those states where relevant regulatory and scientific base, specialized services and organizations are functioning, aimed at theoretical research and practical developments in the field of digital labor organization, building new social and labor relations. All these trends are a kind of challenges to the domestic system training, signaling the adjustment of benchmarks in its processes. Since, in addition to IT industry specialists, the digital economy needs high-quality training of specialists in the field of digital labor organization, then is in the field of organizational support and the use of labor based on digital technologies, which should be reflected in the relevant training programs.

REFERENCES:

1. World Development Report 2019: The Changing Nature of Work. Washington: World Bank; 2019. 151p.

2. Baggio R, Sheresheva MYu. Network approach in economics and management: interdisciplinary character. Bulletin of Moscow University. Series 6: Economy. 2014;(2):3-21.

3. Karaev AK, Melnichuk MV. Modern Economics: Multidisciplinary approach. Business in law. 2013;(4):93–97.

4. Moore JF. Business ecosystems and the view from the firm. The Antitrust Bulletin. 2006;51(1):31–75.

5. Doroshenko SV, Shelomentsev AG. Entrepreneurial ecosystem in modern socioeconomic research. Journal of Economic Theory. 2017;(4):212-221.

6. Schwab K. The fourth industrial revolution. Translation from English. Moscow: Eksmo, 2019. 209 p.

7. Sobolevskaya AA, Popov AK. Post-industrial revolution in the sphere of labor. Moscow: Imemo Ran; 2009. 205 p.

8. Schwab K. The Fourth Industrial Revolution. New York: Crown Business, 2017. 192 p.

9. Konstantinova DS. Organizational and economic foundations of the multifunctional content of the worker's labor: dissertation for the candidate of economics. Sciences. Omsk: Omsk State. un-t im. F.M. Dostoevsky; 2009. 194 p.

10. Strengthening the capacity of the ILO to assist member States in achieving the goals of the Organization in the context of globalization: the fifth agenda item. International Labor Conference, 96th session. Report V. Geneva: International Labor Office, 2007. 85 p.

11. International Labor Organization: conventions, documents, materials: a reference guide. Moscow: Business and Service; 2011. 751 p.

12. Moore JF. The Death of Competition: Leadership and Strategy in the Age of Business Ecosystems. New York, 1996.

13. Adner R, Kapoor R. Value Creation in Innovation Ecosystems: How the Structure of

Technological Interdependence Affects Firm Performance in New Technology Generations. Strategic Management Journal, 2010;31(3):306-333.

14. Mercier-Laurent E. Innovation Ecosystems. New York: Wiley; 2013.

15. Mariani MM. Coopetition as an Emergent Strategy. Empirical Evidence from an Italian Consortium of Opera House. International Studies of Management & Organization, 2007;37(2):97-126.

16. Kim S, Kim NW, Pae JH, Yip L. Cooperate and compete: Coopetition strategy in retailer-supplier relationships. Journal of Business & Industrial Marketing, 2013;28(4): 263-275.