



# DIGITALIZATION OF LABOR LAW: TRENDS AND **IMPLICATIONS**

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22

**Abstract:** The article discusses some aspects of the digitalization impact on labor relations. It is concluded that the digital economy could not but affect the labor legislation, since it is economic relations and the nature of labor organization that largely determine the content and specific nature of labor legislation. It is noted that many scientific materials on this issue affect only certain aspects of the digitalization of labor relations. This is largely due to the fact that the digital economy development process in Russia began somewhat later, and therefore the first works appeared only at the beginning of XX century. However, there is already a reason to conduct a comprehensive study of the problem at the moment. The authors offer to start by highlighting

some trends in the development of labor law that are caused by the digital economy. It seems that further work shall be carried out with the definition of trends to identify the risks of digital changes and develop the most optimal proposals for legislation. Based on the trend consideration results, their positive or negative impact on labor relations is noted. It is noted that digitalization opens opportunities up new organization of labor and employment, but it carries a huge number of threats to the stability of labor relations at the same time.

**Keywords:** digital economy, labor law, digital unions, atypical labor relations

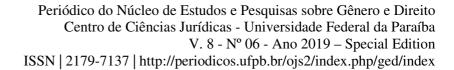
Introduction

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At the end of XX - beginning of

XXI centuries, the world has entered a period of deep transformation, which philosophers, sociologists, political scientists, economists call differently: "post-industrial society", "information society", "second era of machines", "fourth scientific and technological revolution", "fourth industrial revolution" [1-4], etc. Its symbols are computers, the Internet, robots, and gadgets. The consequence of such changes was the formation of a new type of economy - the digital economy. This term was proposed by the American

scientist N. Negroponte in 1995 [5]. In

its most general form, the digital

economy is the economic activity of

society using electronic means.

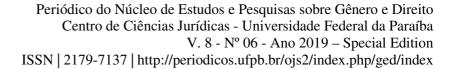
Law and economics are in a complex interaction [6]. One of the most important points of their contact is the field of labor relations: it is obvious that the economic relations and the nature of labour organization largely determine the content and specific nature of labor legislation. Accordingly, changes in the economy could not but affect the development of labor law.

It is obvious that the digital economy involves a significant degree of

transformation of the industrial (traditional) employment model [7]. The number of people employed in the "digital space" is growing by tens of percent annually, and Russia, where this indicator reaches 40%, is no exception [8]. This allows talking about gradual digitalization of labor law, which is a consequence of the development of digital economy.

This phenomenon is recognized by Russian researchers. Thus, according to the certificate on information and bibliographic resources of the Office of Library Funds (Parliamentary Library) prepared in January 2018, more than 40 publications, mainly scientific articles, were published in Russia on this subject [9]. However, the materials presented are fragmentary and affect certain aspects of the digitalization of labor relations for the most part. In our opinion, the interaction of labor law and the digital economy is already so strong that digitalization is not just a "trend", but already serves as a source of new changes. There is reason to conduct a comprehensive fundamental study of the identified problem. This issue especially important due to the fact that many digital solutions will require large-

2





scale changes in labor legislation, and the task of modern science is to be able to identify risks and offer the most optimal and painless version of the changes.

At the moment, we have attempted to identify the main trends in the development of labor law caused by the digital economy, as well as highlight the positive and negative consequences of such an impact. We think that the definition of trends shall start further work to comprehend the events that are taking place.

#### **Methods**

We used the system-structural method to consider the interaction of the problems of digital economy and labor law, identify the channels of their mutual influence and determine the transformation of labor relations in the context of organizational and technological innovations.

The comparative legal method was used to compare trends inherent in the economically developed countries and Russia in terms of understanding the trends in the development of labor law in the era of digital economy.

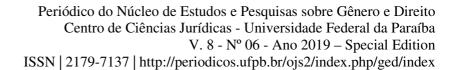
#### **Results and Discussion**

Almost all researchers identify three main features of the current changes associated with the digital economy, which leave their mark on the field of labor relations:

1. The speed and everincreasing pace of digitalization of all fields of public life. Thus, for example, the volume of electronic commerce doubled almost every year from 2011 to 2014, and the volume of electronic commerce in retail trade exceeded 10% in some countries (for example, Great Britain and Germany) [10]. Employment is no exception. Today, more and more labor activities are performed with the help of computers and computer programs, and the employee is required not so much to use physical force as his/her knowledge, skills and digital competencies.

2. Depth and scope of changes. Currently, the question is not just about changes, but, to a significant extent, about a change in approaches to technical and social processes, about the transition to a new scientific paradigm. Some sociologists are currently writing about the fact that information flows form a new structure of political and

24







economic power and even about the power of communications [11]. The changes taking place at the moment in the field of employment also require a rethinking of the goals, objectives and principles of labor law.

3. The complexity of changes. The interconnection of social and technical processes leads to the fact that shifts in one sphere lead to an avalanche-like process not in centuries or decades ("butterfly effect"), but in a short time or directly in real time. Thus, computer technology has changed not only the nature of information transmission, but also the working conditions. In this regard, the digital economy provides a chance for an increase in the number of quality jobs, overcoming poverty and social inequality [12].

At the same time, the development of digital economy in Russia has its own features, which cannot be ignored:

1. The digital economy development process in Russia began somewhat later in the economically developed countries. This is due both to objective factors (the collapse of the Soviet Union, etc.), and some errors in

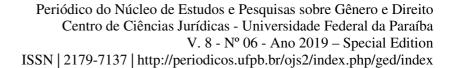
the economic policy (reliance on the raw materials sector of the economy, etc.).

- 2. In turn, this led to the fact that this problem began to be actively studied only at the beginning of XX century in the Russian science of labor law [13-15]. For comparison: the studies of the impact of transformation processes in the economy on labor law were carried out already in the early 90's [16], and these changes have already become a paradigm at the beginning of XX century in the West [17].
- 3. Russian scientists initially focused on problems such as electronic document management, remote work and use of technical means, primarily computers. Meanwhile, the labor law issues of the digital economy are much wider and deeper.

Our further task includes a brief overview of the most relevant trends, taking into account the identified features of trends, requiring further scientific understanding and legal regulation.

### **Summary**

1. Digitization is gradually changing the labor nature





The reason lays not only in the fact that digitalization, as already noted, is changing the traditional signs of labor relations. Remote workers, who can perform a labor function outside the employer's location, are one of the most striking examples of workers in the digital era.

The problem lyes in the fact that new forms of employment appear that are outside the legal framework and the very nature of which remains debatable. Let remote labor relations are atypical, but they are in the field of legal regulation. Remote workers enter into employment contracts, they are guaranteed wages, vacation, social benefits. And new forms of employment are deprived of such state guarantees.

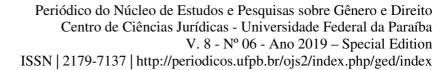
For example, crowdfunding has become quite widespread, i.e. the work, which is organized using online Internet platforms, which allow establishing contact between an indefinite number of people, regardless of their territorial remoteness. In this case, either all or part of the work represented as a result is transmitted through information and telecommunication networks, including via the Internet [18-19].

The work on demand through applications is increasingly developed. This work, which is organized using mobile applications, is geographically limited, is carried out realistically and relates to traditional types of services, such as transportation services, cleaning, delivery, accountant, lawyer, designer. Even frightening conclusions are made that the new economy of joint consumption, developed with the help of mobile applications, will lead to the end of our usual forms of employment [20].

The list of such non-traditional labor relations can be continued. It is no accident that the question was raised not only about the organizational and (or) financial dependence of the employee on the employer, but also about "information dependence" as criteria for labor relations already in the 90s.

Of course, new forms of employment have their positive aspects, primarily for the modern economy, the engine of which is represented by the work for the mass consumer. Also, online services and applications allow being employed to those categories of citizens, who have difficulties in finding a "standard" job — for disabled people, youth, single mothers. At the same time,

26





such work is devoid of the most important sign of traditional employment - stability. New forms of labor that are not included in the field of labor law deprive citizens of the most important guarantees related to work. In this regard, it is important to bring new forms of employment from the informal sector and provide citizens with the possibility of legal employment, for which it is now necessary to talk about amending the law.

2. The issue of copyright on the labor results (inventions, prototypes, etc.) under an employment contract is exacerbated.

Creativity cannot be paused, and getting work results in and out of the office becomes quite relative for the digital economy. This requires a more extensive "copyright section" in the employment contract and more detailed legal regulation. The same applies to the obligations of the parties to the employment contract not to disclose certain information, the "noncompetition pact", etc.

It is noted that one of the possible scenarios for the development of labor law is to expand the scope of its

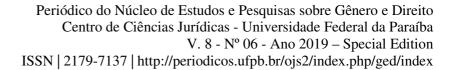
legal regulation and include, in addition to the issues of health or social protection that are traditionally important for employees, a block for the protection of intellectual property [21].

# 3. The use of new production means raises the question of labor safety on a new plane.

particular, this include provision of the information security (and not just protecting the personal data employee), prevention of an "information pressure" or a kind of virtual mobbing. In addition, the use of multiple gadgets can have a negative cumulative effect, while they do not pose a threat individually. This brings a kind of informational protection of labor and mental health of the employees to the agenda.

# 4. Personnel records can and shall become digital over time

The use of blockchain technology, electronic keys and signatures shall minimize the search and provision of information, references, etc. The first step can be recognized as Russia's refusal to issue paper work books for the employees entering work





since 2020. This will facilitate not only the registration of labor relations and documentary checks, but also allow Russian personnel officers becoming modern personnel managers. In addition, this will facilitate the provision of evidence in case of dispute about law, in establishing facts of legal significance, etc. It will become virtual to bring local regulatory legal acts and other orders of the employer to the employees, etc.

# 5. Individualization of employment in the digital economy can be contrasted with the so-called digital unions

The activities of such trade unions based on blockchain technologies can be largely carried out and are carried out on the Internet, starting from the entry and registration of membership to holding general meetings, election of representatives, discussion of draft local and collective contractual acts, etc. This puts on the agenda the issue of electronic protocols, signatures, confirmation of authority and identification of union members, etc. Perhaps the whole institution of social partnership will become more digital in terms of information interaction. According to some experts, the digital form of trade

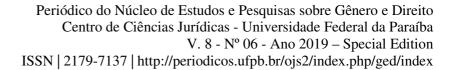
union activity will not only save, but also increase the number of its members, objectively and independently represent the collective voice of trade union members on the labor market [22].

# 6. The process of production robotics will require solving not only technical problems, but also labor, legal and even ethical problems

We are talking about the use of information after machine processing, the results of robotic programming, the use of bots for working with clients, etc. This will require, perhaps, more stringent rules and even a ban on making personnel and other decisions only on the basis of information processing without human intervention.

# 7. Payment of wages, other payments, as well as compensation for harm may take place not only in electronic form, which in fact has been happening for quite some time, but also in digital currency

This refers not only to bitcoins, but also to other forms of digital settlements. Probably, this will require not only legislative, but also collective contractual regulation.





**Threats** 

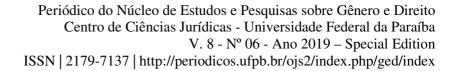
The digital economy, in addition to the obvious positive aspects, carries many hidden and open threats to the stability of labor relations. And this is not only an increase in the number of flexible (atypical) labor contracts, atypical employment [23] precarization [24]. Researchers write about a possible "digital concentration camp," and for workers - "digital aquarium", when all the information about the employee will be available, which opens the way for pressure and manipulation. Total control may be not only over the labor process, but also the personal life of the employee (personal correspondence, location under a mobile phone, preferences in purchases with a card, etc.). The salary risk cyberthreats, third-party interference in labor process with negative consequences for the employee, access to personal data of the employee of third parties, etc. are also associated with this. Robotization and replacement of typical labor is fraught with unemployment, the possible scale of which is still difficult to predict, and which will raise the question of ensuring everyone a guaranteed minimum. Social and property inequality in the digital economy may not decrease, or even increase, depending on the education level of employees, place in the hierarchy, access to information, etc. (the so-called "digital divide").

#### **Conclusions**

Digital economy is an objective reality, a kind of challenge to the science of labor law, which requires an adequate response. At present, it is obvious that the digital economy opens up new opportunities for organizing labor and employment, rationalizing their legal regulation, and this is both in the interests of workers and employers, as well as of the whole society. However, one shall take into account potential threats associated with the "erosion" of the subject of labor law, a decrease in the level of guarantees of labor rights in connection with the spread of atypical labor relations, and the emergence of new types of informational dependence of the employee on the employer.

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### Bibliography

Wootton D. The invention of science. A new history of the scientific revolution.

M.: Azbuka-Atticus, 2018. 1130 p.

Lushnikov A.M. Scientific and technical revolutions and labor law (historical and legal essay) // Labor Law in Russia and Abroad. 2019. No. 1. P. 9-11

Schwab K. The fourth industrial revolution. M.: Eksmo, 2016. 138 p.

Rutger Bregman Utopia for Realists: How We Can Build the Ideal World. Little, Brown and Company/Hachette Book Group USA., 2017. 336 p.

Negroponte, N. Being Digita / N Negroponte - NY: Knopf, 1995. 272 p. Lushnikov A.M. Law and economics. M.: Prospekt, 2019. 192 p.

Stone, K. V. W. (2004). From widgets to digits: employment regulation for the changing workplace. Cambridge: Cambridge University Press. Pp. 27-51, 87-119.

Program "Digital Economy of the Russian Federation". Approved by the order of the Government of the Russian Federation No. 1632-r dated July 28, 2017 // Official Gazatte of the Russian Federation. 2017. No. 32. Art. 5138. (Null and void).

Web-site of the Parliament of the Russian Federation. URL: <a href="http://bar.parliament.gov.ru">http://bar.parliament.gov.ru</a>, access date 07.06.2019.

The big information explosion // Russian Reporter. 2017. No. 2. P. 52-53.

Costels M. The power of communications. M.: Publishing House of VSHE, 2016. 564 p.

Eric Brynjolfsson, Andrew McafeeThe second machine age. Work, progress, and prosperity in a time of brilliant technologies. New York. London. W.W. Norton company, 2014. 172 p.

Kiselev I.Ya. The new face of labor law in Western countries (a breakthrough into a post-industrial society). M.: CJSC



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"Business School "Intel-synthesis", 2003. 160 p.

approaches at the EU level. Friedrich-Ebert-Stiftung. 2018. P. 10.

Lushnikov A.M., Lushnikova M.V. Labor rights in XXI century: current status and development trends. M.: Prospekt, 2015. 272 p.

Sundararajan, A. (2016) The Sharing Economy. The End of Employment and the Rise of Crowd-Based Capitalism MIT Press, Cambridge, Massachusetts, 2016, 256 pp.

Lebedev V., Radevich E. (eds.) Labour Law in Russia: Recent Developments and New Challenges. Adapt labour studies book-series: Cambridge Scholars publishing, 2014. 315 p.

Katherine V. W. Stone. A Labor Law for the Digital Era. Employee Responsibilities and Rights Journal, June 2009, Volume 21, Issue 2, pp 145–161.

Lord Wedderburn (ed.) Labour Law in the Post-Industrial Era Aldershot. Brookfield USA, Singapore, Sydney: Dartmouth. 1994. 152 p.

Kotova S.I. The concept of employment: digital unions, the right to employment, an absolute social security relationship // Labor Law in Russia and Abroad. 2018. No. 2. P. 10-13.

Langille B., Davidov G.(eds.) The idea of Labour Law Oxford. Oxford University Press, 2011. 441 p.

Kirillova L.S., Lushnikov A.M., Lushnikova M.V. The realization of the concept of flexicurity in atypical employment relationships // Journal of Legal, Ethical and Regulatory Issues Volume 19, Special Issue, 2016.

Chesalina O.V. Work through the Internet platforms as a challenge to the employment relationship // Labor Law in Russia and Abroad. 2019. No. 1. P. 12-15;

> Guy Standing The Precariat. The New Dangerous **Bloomsbury** Class. Academic. 2011, 209 p

Risak M. Fair working conditions for platform workers. Possible regulatory