

Artículo de investigación

Prospects for the law development in the digital economy conditions

Perspectivas para el desarrollo de la ley en las condiciones de la economía digital

Perspectivas para o desenvolvimento da lei nas condições da economia digital

Recibido: 10 de mayo de 2018. Aceptado: 11 de junio de 2018

Written by:

Aleksey I. Ovchinnikov¹⁸

Elena V. Astapova¹⁹

Marina V. Alekseeva²⁰

Tatiana V. Veselaya²¹

Natalia A. Antsiferova²²

Abstract

The authors consider the problems of forming the digital economy from the position of law in the article. They analyze the main trends in the development of individual branches of law. They identify the problems arising in the process of legal regulation of digital policy and the economy of modern states.

Keywords: Law, robotics, digital economy, legal paradigm, law trends.

Resumen

Los autores consideran los problemas de formar la economía digital desde la posición de la ley en el artículo. Analizan las principales tendencias en el desarrollo de ramas individuales de la ley. Identifican los problemas que surgen en el proceso de regulación legal de la política digital y la economía de los estados modernos.

Palabras claves: Derecho, robótica, economía digital, paradigma legal, tendencias legales.

Resumo

Os autores consideram os problemas de formar a economia digital a partir da posição de lei no artigo. Eles analisam as principais tendências no desenvolvimento de ramos individuais da lei. Eles identificam os problemas que surgem no processo de regulação legal da política digital e da economia dos estados modernos.

Palavras-chave: Direito, robótica, economia digital, paradigma legal, tendências legais.

18 Doctor of Legal Sciences, Professor, Professor of the Department of Theory and History of State and Law of the South Federal University, Professor of the Department of Theory and History of State and Law of the Rostov Branch of the Russian State University of Justice, Professor of the Department of Theory and History of State and Law of the Russian Presidential Academy of National Economy and Public Administration, Russian Federation

19 Head of the Department of Civil Law of the Don State Technical University, Candidate of Legal Sciences, Associate Professor

20 - Head of the Department of Theory of State and Law of the Don State Technical University, Candidate of Legal Sciences, Associate Professor

21 Associate Professor of the Department of Civil Law of the Don State Technical University, Candidate of Philological Sciences, Associate Professor

22 Associate Professor of the Department of Civil Law of the Don State Technical University, Candidate of Legal Sciences

Introduction

More than twenty years ago, in 1995, the American computer scientist Nicholas Negroponte defined the concept of an electronic economy based on the mankind transition from processing atoms to processing electronic bits in its economic activity, which have the following features: lack of product weight, virtuality of economic ties, significant reduction in the requirements for raw materials, unnecessaryness of a cumbersome transport infrastructure, possibility of rapid global movements, use of new digital currencies, etc. (Vaipan, 2017; Kabasheva et al, 2017; Villalobos Antúnez, 2015). Since then, the digital economy has become a full-fledged reality, where the completely new, previously unknown social relations are emerging, requiring legal regulation in a new paradigm of law, which can be easily called the digital paradigm of law.

Literature review

In the Russian legislation, the problems of forming the digital economy have already become the subject of consideration of the scientific and theoretical studies and the object of regulation of certain regulatory acts that establish the doctrinal documents as planning acts. In this regard, the Presidential Decree, giving the strength to the Strategy for the Development of the Information Society in the Russian Federation, attracts attention (Decree of the President of the Russian Federation dated. (2017). As the doctrinal documents, it is worth noting the Message of the President of the Russian Federation to the Federal Assembly dated December 1, 2016, where the head of state set the goal of forming a new technological generation - the digital economy - as the basis of national security, technological independence and future of the Russian Federation as a whole.

Let's consider its completely new nature for the habitual legal reality with the example of artificial intelligence and robotics. The Decree of the Government of the Russian Federation dated July 28, 2017 No. 1632-r approved the program "Digital Economy of the Russian Federation" (hereinafter - the Program). The Program is aimed at implementing the Strategy for the Development of the Information Society in the Russian Federation for 2017-2030, approved by the Decree of the President of the Russian

Federation dated May 9, 2017 No. 203. The Program stipulates the implementation of the concept of comprehensive legal regulation of relations arising with regard to the development of the digital economy until 2024. By the second quarter of 2019, it is planned to create legal conditions for the most effective application of the intellectual activity results, which include the drafting of regulatory acts aimed at liberalizing and globalizing the circulation mode of the intellectual property objects in the interests of the digital economy development. According to clauses 2.9 and 5.6 of the Roadmap, a regulatory framework for regulating the social and labor relations and the legal regime for machine-to-machine interaction for the cyber-physical systems (through the adoption of national standards for machine-to-machine interaction) should be developed by the end of 2019. In accordance with clause 5.7.9, it is necessary to achieve target values of safety performance indicators and use of technical solutions that provide information interaction through the computer and cognitive interfaces by 2022.

It is important to note that the Strategy establishes the principles for the digital economy development, where the following principles can be highlighted. Firstly, it is the principle of preserving traditional and customary for citizens (different from digital) forms of receiving goods and services. This principle allows keeping an alternative for those who consider that the risks of digitalization and informatization of society are unacceptable. Secondly, the priority of traditional Russian spiritual and moral values and compliance with the behavioral norms based on these values when using the information and communication technologies. This principle is extremely important for guaranteeing the rights of citizens in the field of private life and freedom in political, cultural, religious and other fields.

The fact is that the risks in the digital economy are huge to these areas. The technological backwardness of Russia can lead to the fact that the digitized system of state administration will become transparent to the external view. It is no accident that right after the seminar of the World Bank in Moscow "Concept, International Trends and Vision of Digital Economy - on the Way to a Long-Term Strategy", it was decided to include Russia "in the process of global digital

transformation" on December 20, 2016 and the development of digital economy on a global scale was given special attention at the G- 20 Summit Meeting on July 7, 2017. And on February 20, 2018, large parliamentary hearings took place under the chairmanship of Vyacheslav Volodin in the State Duma on the topic: "Formation of Legal Conditions for Financing and Developing the Digital Economy", where the First Deputy Prime Minister Igor Shuvalov said: "A person's life becomes transparent, but there is no other way out"(Sensational revelation: "Digital Economy Needs Digital People" \ URL dated March 15, 2018). Meanwhile, the IT experts warn: "We are talking about the digital economy, and we are all talking about its advantages. I want to talk about the risks... New digital technologies are associated with remote management. The data on our citizens, on the basis of which the geopolitical conclusions can be drawn, present very serious risks. By implementing those technologies coming to us from the West, we are going down to a state of digital colonization". This was stated by the president of the group of companies InfoWatch Natalia Kasperskaya.

Methods and materials

The domestic legal system is gradually moving towards the formation of the digital paradigm of law. It should be noted that this process does not always go "from above". The departmental dissemination of the experience of law digitization is of great importance. This experience also suggests new legal terms. For example, the concept of a digital ecosystem. "The ecosystem of the digital economy is a partnership of organizations that ensures constant interaction of their technological platforms, applied Internet services, analytical systems, information systems of government bodies of the Russian Federation, organizations and citizens" (Decree of the President of the Russian Federation dated. (2017)- defines the Strategy for the Development of the Information Society in the Russian Federation for 2017-2030 years. The ecosystem of the digital economy of the Russian Federation is understood as the system "where the data given in digital form is the key production factor in all fields of the socio-economic activity and which ensures the effective interaction, including cross-border, business, scientific and educational community, state and citizens" (Order of the Prosecutor General's Office of Russia dated, (2017)- defines another document.

At the same time, the departmental documents contain also a completely new terminology for legal reality: digital transformation of the prosecutor's office; digital ecosystem of the prosecutor's office; digital environment of the prosecutor's office, etc. As an example, the concept of digital transformation of the bodies and organizations of the prosecutor's office of the Russian Federation may be referred to up to 2025 (Order of the Prosecutor General's Office of Russia dated, (2017).

It should be noted that foreign acts use also new terms that have not yet been defined: digital market, digital environment, digital agenda, etc (Directive No. 2001). In many countries, the regulatory acts have already been adopted in the field of digital economy. For example, there is the UK Digital Economy Act in the UK, which contains a Provision on Electronic Communications of the Infrastructure and Services that restricts access to the Internet pornography; Provisions on Protection of the Intellectual Property with regard to use of electronic communications; Regulations on Data Exchange; etc. (Digital Economy Act 2017). The United States has the Digital Millennium Copyright Act (DMCA) (H.R, 2004). The Law of the Republic of France "On Trust in Digital Economy" provides definitions of e-trade, e-commerce, etc. In February 2017, the European Parliament sent a proposal to recognize the special legal status of the electronic personhood for complex robotic systems that make independent decisions in order to assign to robots the responsibility for damages caused by them in a resolution to the European Commission. It is planned to establish a European Agency for Robotics and Artificial Intelligence, designed to carry out technical, ethical and regulatory expertise in the relevant field.

In foreign law, the digital terminology has manifested itself for a long time. But there is still no unity with regard to the most important terms. For example, the concept of "e-commerce" appeared in 1993 in the media through the English phrase "electronic commerce", and in the specialized literature for describing the economic processes taking place using the computer networks. There is another term along with this one: "Electronic business is a set of various business processes, where the use of the Internet and related telecommunications networks, information and computer technologies is a prerequisite for the

implementation and provision of one or more stages of entrepreneurial activity" (Borshchev, 2004). Very often, "e-commerce is seen and understood as marketing, buying and selling products and services on a technological basis called Internet".

Results and discussions

The legislative definition of the terms "e-trade", "e-commerce", "e-business" and others, has a great impact on the development of the digital economy. The fact is that there were already two drafts with different understandings of these words in the lawmaking of Russia in this field. In the draft Federal Law "On E-Commerce", introduced by the deputies of the State Duma V.I. Volkhovsky, L.S. Maevsky, O.A. Finko, A.V. Shubin, the e-trade was understood as "the conclusion through the exchange of electronic documents of the following transactions stipulated by the Civil Code of the Russian Federation (but not limited to them): sale and purchase, provision of services, transportation, loan and credit, financing for the assignment of a monetary claim, bank deposit, bank account, settlement, storage, insurance, instruction, commission, agenting, property trust management, commercial concession, public promise of a reward, public competition, as well as acquisition and implementation of rights and duties in the field of entrepreneurial activity through the electronic means. And in the draft Federal Law " On E-Trade", introduced by the deputy of the State Duma of the Russian Federation V.Ya. Komissarov, the "e-trade" was considered as "a system of concluding, using the electronic means of mass communication... stipulated by the current legislation of the Russian Federation, transactions aimed at acquiring and exercising rights and obligations (sale and purchase of the goods, providing and receiving services), including in the field of entrepreneurial activity, as well as negotiations with regard to the conclusion of such transactions, executed through the exchange of electronic documents" (Vasilyeva, 2006).

Meanwhile, according to some authors, the legal regulation of all economic activities carried out with the use of the global computer network Internet cannot be carried out in Russia on the basis of legal constructions, where the bearing elements will be the notions of "commerce", "e-commerce" (Tedeev, 2003). This is due to different interpretation of the term, which not only has no spread in the civil law, but is also

differently understood by the economic theory and practice. A.A. Tedeev formulates the term of "electronic economic activity", which he understands as the "entrepreneurial activity and closely related non-entrepreneurial activity (other economic activity not prohibited by law) implemented in a fundamentally new electronic form - using modern communication tools in the information environment of the global computer network Internet".

It should be noted that the term "e-commerce" has taken its root and has become the object of a number of monographs. One of the last definitions is as follows: "e-commerce is a set of goods, services and other objects arising with regard to the transactions, as well as goods advertising in the Internet and other information and telecommunications networks" (Savelyev, 2016). The legal literature considers the most diverse problems of e-commerce: transaction recognition as not concluded, the person's ignorance of the terms and conditions of the agreement, technical failure, unfair conduct of the parties to the agreement or third parties, unfair conduct of the persons performing the data transfer, identification of the signatory's identity, discrepancy between the will and expression of will of the signatory, ineffectiveness of the ways to protect the violated rights, etc (Lazarev, 2016).

The digital law is gradually becoming an independent branch of legislation. This poses the question whether it can be regarded as a branch of law. This is due to the fact that the legal regulation method is not fully understood. If the subject can be identified as the exchange processes in the field of digital communication, then there is nothing to identify as the method. We think that it is too early to talk about this, but it is already obvious that it is possible to talk not only about a new industry, but also about a new system of law tailored in completely different patterns than the existing system of law in the new paradigm of law.

According to the analysts' forecasts, almost all jobs in the world financial centers will be occupied by robots in 10 years. According to EY data "47% of professions will be highly automated in the developed countries in the next 20 years" (Robot on the Workplace of a Bank Employee, 2016). The results of studies by experts from the international consulting company McKinsey Global Institute demonstrate that the process will most clearly take place in China, India and Russia: about 50% of workers

may lose their jobs in the near future in these countries. The airline company Boeing, which uses 1/3 fewer jobs than in the 1990s but produces 20% more aircraft, in which hundreds of workers were replaced by robots in 2015, can be an example of a change in the labor market in the industrial field. This accelerated the workflow and reduced the reject ratio by 2/3.

The transformation of law and legislation of ALMOST all states does not correspond to the speed of changes that are taking place. According to the analysts in the field of labor relations of the International Bar Association (IBA), given in the report "Artificial Intelligence, Robotization and their Impact on the Workplace", 1/3 of the workplaces occupied by the graduates of higher educational institutions can be replaced by machines and software in the near future. In addition, the advantages of countries with cheap labor will be eliminated, since the robots are cheaper than a human worker. If 1 hour of the employee's labor working at the car factory cost more than 40 euros, the robot's work cost only 5 - 8 euros (cheaper than similar labor in China) in Germany in 2017.

Thus, the labor law is also affected by the development of robotics and artificial intelligence. All companies are trying to select candidates for jobs for a number of qualifications. It is obvious that even today the robots perform their work much better than people in a number of specialties (Krylov, 2016). Robotics will not require so many costs as it takes to train and control human activities. In our opinion, it is required separate legislative guarantees for the employment of a person, which implies state intervention in the field of private interests of the entrepreneurs. Depending on how robots get the skills of creative problem solving inherent in human, as well as how the customers, for example banks, use the information systems, the list of tasks solved with the help of a robot without a human is increasing.

Already today, many states are experiencing difficulties associated with the so-called technological unemployment. In many countries, the lawyers are engaged in the development of new legislation related to solving problems arising in the process of introducing artificial intelligence into the labor field. There are various legislative solutions: legislative establishment of the list of professions, where it is allowed replacing a person with robotics (for example, a kindergarten teacher); development of legal

standards for mutual relations in the processes of joint activity of a robot and a human in one workplace; quoting the number of jobs for a human at the enterprises. The ethical standard of human behavior, the chief or head of which can become a robot, is especially difficult.

The problems of legal regulation of the use of exoskeletons, prosthetic devices with artificial intelligence functions, surgical robots and microrobots that are used for targeted delivery of drugs to organs and tissues, as markers, auxiliary pumps for maintaining cardiac activity, as venous or heart valves, filters, jumpers, require a special solution (Artemova, 2017). For example, to work with a robot and maintain it, it is necessary to conduct training for the institution's employees, as well as it is possible to reprogram the robot in the light of the specific situation. Who will be responsible for: a doctor using a robotic surgeon or a programmer, a teacher or a creator.

We should not also forget about the development of representative functions of household robotics. There is a problem of concluding the contracts on the Internet with the help of special programs-robots, attracted for the transfer of the expression of will (response to the expression of will) even today. As indicated in the literature, a person gives in advance his/her consent to all possible letters with proposals to conclude a contract (or with acceptances, if a public offer is placed on the web-site) in this situation. These programs-robots automatically change the offer on the sale of goods, located on the seller's web-site, correcting the latter in real time, taking into account the availability of goods in the warehouse, currency exchange, etc.; provide the ability to quickly correct the mistakes. Some authors believe that even representation may be possible: "The will expressed in the contract is the will of the owner of program-robot" (Ananko, 2013). However, as noted in the literature, "the intelligence of such software and its ability to function with little or no human control entails the possibility of a number of problems that are similar to the problems of the representation institution: conclusion of transactions with go beyond the received instructions (powers), including as a result of illegal actions of third parties" (Dmitrik, 2006). In other words, as a result of a malfunction, a voltage jump, a virus, etc., there may be a discrepancy between will and the expression of

will: it may be made a transaction, to which the web-site owner has not given any consent.

It is possible other violations of the civil law by the program-robot. For example, the programs are set up in such a way that the price varies from buyer to buyer depending on the number of appeals, address, etc., that is, each buyer has been invoiced with its "own" price. In these cases, the pricing issue is not explained to the buyers and the latter, by virtue of clause 5 of Art. 426 of the Civil Code of the Russian Federation, has the right to apply for the contract repeated conclusion on more favorable terms, but such violations are practically impossible to detect and there are almost no such cases in practice (Dmitrik, 2006).

Conclusions

Legal literature increasingly refers to digital law, digital paradigm of law, and digital development imperative. "The digital imperative as the transformation basis implies not only revolutionary technological changes and innovations that lead to tectonic shifts in the form of transition to a digital economy (transforming the chain of creating a new commodity value), digital adaptation of social processes (including the formation of the digitalization mechanism for law as a social institution), but also the formation of new public relations and the structure of public administration based on digital technologies in the long term" (Kartskhia, 2017). In fact, one can hardly imagine planning the development of the economy, politics, culture "in isolation" from the inevitable digitalization. It is necessary to take into account these processes in the field of law.

In conclusion, it should be noted that the development of digital law should proceed under the influence of moral norms. As the specialists write, "there is a need to directly consolidate the principle of observing the moral norms while carrying out creative activity in the legislation of the Russian Federation on copyright" (Sitdikova, 2013).

References

Digital Economy Act 2017 // <http://www.legislation.gov.uk/ukpga/2017/30/introduction> \\
 H.R. (2004). 2281 - Digital Millennium Copyright Act // <https://www.congress.gov/bill/105th-congress/house-bill/2281/text/enr>

No. 2004-575 Loi du 21 juin 2004. Loi pour la confiance dans l'économie numérique (1) // JORF dated June 22, 2004.

Ananko A. (2013). Contract Conclusion through the Electronic Data Exchange // <www.russianlaw.net/law/doc/a123.htm>.

Artemova I.V. (2017). Accounting for Surgical Robots. Accountant's Adviser in Public Health. No. 8. P. 5.

Borshchev V.G. (2004). Formation and Development of Entrepreneurial Activity in the Internet Economy. Thesis of the Candidate of Economic Sciences. St. Petersburg, P. 16 - 17.

Vaipan V.A. (2017). Theory of Justice: Law and Economics: Monograph. M.: Yustitsinform, P. 126.

Vasilyeva N.M. (2006). E-commerce as a Legal Category. Yurist, No. 5. P. 12.

Directive No. 2001/29/EC of the European Parliament and the Council of the European Union "On Harmonization of Certain Aspects of Copyright and Related Rights in the Information Society" [Rus., Eng.] // Consultant-Plus Search and Information System

Dmitrik N.A. (2006). Implementation of Subjective Civil Rights using the Internet. M.: Walters Kluver, P. 112.

Krylov I. (2016). ROBOTS ALREADY REPLACE THE SECRETARIES. "Human Resources Management", No. 11. P. 4.

Kartskhia A.A. (2017). Digital Imperative: New Technologies Create New Reality // IS. Copyright and Related Rights. No. 8. P. 17 - 26.

Lazarev Ya. (2016). Digital Environment is a New Field for Civil Law // EZh-Yurist. No. 19. P. 10.

Order of the Prosecutor General's Office of Russia dated September 14, 2017 No. 627. "On Approval of the Concept of Digital Transformation of the Organs and Organizations of the Prosecutor's Office until 2025" (together with the "Concept of Digital Transformation of the Organs and Organizations of the Prosecutor's Office of the Russian Federation until 2025") "Legality", No. 12, 2017 (Order).

The Program "Digital Economy of the Russian Federation". Official Gazette of the Russian Federation, August 7, 2017, No. 32, art. 5138.

Robot on the Workplace of a Bank Employee: Fantasy or Reality (Gelashvili M.) // "Bank Review. Annex "BEST PRACTICE", 2016, No. 1

Savelyev A.I. (2016). E-commerce in Russia and Abroad: Legal Regulation. 2nd ed. M.: Statut, 640 p.

Sensational revelation: "Digital Economy Needs Digital People" \\ URL dated March 15, 2018: http://ruskline.ru/news_rl/2018/02/22/sensacion

noe_otkrovenie_dlya_cifrovoj_ekonomiki_nuzhny_cifrovy_lyudi/
Sitdikova R.I. (2013). Providing Private and Public Interests with Copyright / Ed. by M.Yu. Chelyshev. M.: Statut, 159 p.
Tedeev A.A. (2003). Electronic Economic Activity in the Internet Network // Legislation and Economics. No. 11. P. 22.
Decree of the President of the Russian Federation dated. (2017). May 9, No. 203 "On the Strategy for the Development of the

Information Society in the Russian Federation for 2017 - 2030" // Official Gazette of the Russian Federation, May 15, 2017, No. 20, art. 2901
KABASHEVA I.A., KHAIRULLINA A.G., I. A. RUDALEVA I.A., Analysis of scientific and technical activity resourcing in Russia, Astra Salvensis, Supplement No. 10, 2017, p. 355-365.
Villalobos Antúnez J.V. (2015). Ética, gobernabilidad y estado de derecho en América Latina, en tiempos de globalización. Cuestiones Políticas, 18(29), Pp. 11-44