

Some Features of the Legal Regulation of Big Data

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ABSTRACT

Legal issues arising in connection with the need to regulate Big Data are investigated. For the purposes of this study, it is proposed to consider ways to protect Big Data, to analyze the security of Big Data from a technical point of view and from the point of view of the legislation of different countries. The need for legal regulation of Big Data turnover is assessed. The possible transformation of the law towards its fragmentation is discussed. The risk of loss of state control over the field of law is formulated due to the high degree of commercialization of digital technologies. A possible solution seems to be an emphasis on regulatory rather than prohibitive mechanisms, coupled with the policy of localizing information storage and processing centers within the jurisdiction of a particular state. As the next step in the research, it is proposed to pay special attention to the moral and ethical issues of the introduction and use of digital technologies.

Keywords: big data, legal regulation, digitalization, sustainable development, digital economy

1. INTRODUCTION

The rapid introduction of digital technologies into everyday life, the economy and basic institutions is induced and produces inevitable risks. At the same time, large Internet giants are able to influence the market and economy of not only a single country, but also the whole world. Thus, the Economist magazine noted this tendency in its programmatic article 2 years ago and expressed its concern about the possibility of the emergence of absolute world monopolists dictating their own terms [8].

The search for methods and ways of managing risks associated with technological development inevitably leads to the need to establish legal norms in the field of digital technologies. This paper presents the intermediate results of work under the RFBR project No. 18-29-16130 to study the features of legal regulation associated with the introduction of digital technologies, declared as one of the goals of scientific and technological development that ensure the global technological competitiveness of the Russian Federation [7].

The subject of the research was, first of all, big data technologies and related technologies (in particular, artificial intelligence technologies). As has been noted many times ([12][19]), big data technologies are a complex phenomenon, the study of which involves both the development of technical solutions and the understanding of the humanitarian aspects of high technologies. It is important to note that initially the collection of Big Data was carried out for the most part in the field of science and until now the volumes of collected and received information are comparable to the volume that is represented by social media despite their explosive growth.

2. METHODS OF LEGAL REGULATION OF BIG DATA IN DIFFERENT INDUSTRIES

Currently, there is no single approach to understanding what big data is in terms of legislative regulation [1]. In some countries, they are of the opinion that Big Data can be obtained from the Internet space and therefore they are defined as Big User Data, this approach currently exists in the Russian Federation [16]. You can also find the definition of Big Data as a process that offers an understanding of decision making. This process is used by humans and machines to quickly analyze large amounts of different data from different sources to gain practical knowledge[10].

According to the conclusion of the US Federal Trade Commission "big data" - arrays of structured or unstructured data, characterized by large volume, variety, high rates of change and processing in real time [6]. It should be noted that this definition is more common.

In fact, big data can be defined as a set of data and information that defies ordering and sorting at the present stage of human development. Having studied various sources, one can imagine that at present there is no common understanding and approach to the definition of Big Data. We believe that the following approach most fully reflects reality, according to which Big Data is not currently a legal term, but rather describes a phenomenon that has a great variety in scientific disciplines, such as economics, technical disciplines, legal and social sciences, and, probably, in many other areas for many years [15].

At the same time, most of the approaches operating with the concept of "Big Data" focus on the processing of large amounts of information and the existence of decision-making algorithms. One of the analogs of this problem in the theory of control of complex systems are unique

scientific installations, where the increase in the initial information of the so-called "data lakes" continues to outstrip the growth of computing power.

Such a wide discrepancy in understanding could lead to legal uncertainty in this area. In our opinion, the most applicable definition should emphasize a new qualitative property of large amounts of information, considered as Big Data, in comparison with the usual dataset; Thus, Big Data is perceived as a complex that includes both the data itself and the approaches and methods of their analysis. In this case, Big Data is a process, not an object. It seems logical to work on creating a unified approach to understanding Big Data. It is also worth noting that there is currently no universally accepted vocabulary. The development of a single universal glossary and its implementation should be the first step in the legal regulation of Big Data. This issue can only be resolved by the joint efforts of scientists, legislators, businessmen, etc [1].

The following principles can serve as a basis for developing such a glossary and a unified definition of Big Data:

- Big Data is a subject and, at the same time, a tool for unification (standardization) of global economic spaces;
- Big Data is a tool that sets trends in the technological, social, and economic development of these spaces;
- "Big Data" is a tool of global competition [2].

3. METHODS OF LEGAL REGULATION IN THE FIELD OF IMPLEMENTATION OF PROJECTS OF THE MEGASAYENS CLASS

Within the framework of this work, the main object of research was the sphere of organizing and supporting scientific research. The reason for this interest is related to the fact that it was in the scientific field that Big Data was first obtained. The functioning of international scientific teams is implemented mainly on the basis of megascience class installations (unique scientific installations).

As an example, consider the Nuclotron-based Ion Collider fAcility project [14]. The participants in this mega-science project are 18 countries and the issues of financing the project and the allocation of time are defined in internal regulatory documents, and the rights to the result are determined by the participants in a separate memorandum of understanding, which avoids the so-called "overshoot". This approach also exists at CERN. Within the framework of their organizational and administrative powers, CERN bodies issue obligatory normative acts that determine the general rules for the creation and functioning of international scientific collaborations [3].

As a legal basis for joint work, such collaborations use a memorandum of understanding (or understanding), in which issues of ownership of equipment and results, issues of risk insurance, rules regarding the distribution of

intellectual property, the procedure for delivery, transportation, installation and dismantling of equipment, mutual responsibility of members of the collaboration can be settled.

Also in science, two approaches to data availability have been formed. For example, an open data policy is being implemented, when the scientific results obtained by the collaboration are published and are in the public domain. Open access to raw (unprocessed) data is not expected. The data itself (in the processed format) is stored for a long time and is available for re-analysis by any interested actors.

A different approach, implemented in the European XFEL, is an exemption from the European XFEL open scientific data policy for private research. Namely, all raw data and associated metadata, as well as the results of raw data analysis obtained as a result of private research, will belong exclusively to the client who acquired the access and is not subject to the European XFEL Scientific Data Policy. For purely scientific experiments, it is assumed that their results will be available after the embargo. Processed data and intermediate analysis results and associated metadata are not considered by the European XFEL for long-term storage (5 years or more) [2].

It is interesting to note that scientific groups work comfortably and interact in the absence of strict legal regulation and make scientific discoveries.

Another important factor is the parties' lack of interest in violating their obligations, since this may not allow achieving the result for which the collaboration was created. We also note that disinterest in a breach of obligations does not completely exclude a possible dispute. At the moment, there is already a practice of satisfying the requirement of violation of the moral obligation of the party [3], which gives grounds to assert in this case the soft law becomes binding and actually becomes a new form - hoftlaw.

The examples considered show that in the scientific field, when working with projects of the megascience class, an effective approach has been developed, including to the regulation of Big Data, rights to research results. At the same time, it is important to take into account that the sphere of science is less of a conflict, in contrast to business, and, perhaps, not all developed methods will also be applicable in other areas.

4. CHANGES IN THE INSTITUTE OF LAW IN THE AGE OF DIGITALIZATION

Above, we examined the features of legal regulation of digital technologies, but the reverse process is also essential. In general, big data is now a necessary component in making critical decisions both at the level of large companies (for example, the acquisition of Whole Foods by Amazon) and at the government level, such as, for example, decisions of city authorities to invest in wireless networks (as an example, the same can be mentioned as in July 2015. Uber has disrupted plans by the

New York City Hall to limit the number of cars on city streets. And Airbnb in October of the same year was able to reject the initiative to limit the short-term lease of buildings for San Francisco). Thus, the formation and use of big data are becoming a key component of the political economy of the 21st century [9].

As part of our research, we identified a number of features of changes in legal regulation under the influence of the widespread introduction of digital technologies.

First, the source of law is shifting towards non-state institutions, an indicator of which is the fact that for the purposes of "efficiency" and "competitiveness" of the Russian economy, the issues of digitalization were transferred to the stakeholders of the relevant processes [16]. A clearly visible effect of this kind of processes [11] can be called "digital alienation" as a new manifestation of alienation proposed by late Marxism [5].

The second aspect of the deformation of law, directly related to the emerging need for legal registration of institutional and structural changes in the economy, called the digital economy [18], is a change in the nature of production technological processes. Thus, within the digital economy, pronounced degradation processes take place: the development of digital technologies often displaces high-tech (and, therefore, costly) production processes in favor of low-tech ones.

In view of the above, thirdly, one should expect the effect of fragmentation of law. It is noteworthy that this is not so much about the formation of new branches of law, but about the formation of various zones of law enforcement and jurisdiction. There is an opinion about the need to recognize a previously non-existent set of human rights - digital rights. A new legal definition of digital identity is introduced - a unique set of information about a person, presented in digital form, with the use of which individuals enter into legal relations, exercise their rights and obligations. In this case, a difference between digital identity and real one is allowed [4]. This "right" ceases to be a right subject to public control, including in the form of state institutions.

The way to overcome the described difficulties lies in the creation of regulatory institutions that provide control over the development of digital business, the digital economy in general and in its individual parts, including the creation of comfortable legal conditions for the introduction of new technologies into the Russian economy.

In the conditions of the digital economy, one should expect the acceleration of the processes of shifting the law from the model of "rules" to the model of "operational management", or, to put it emphasized, *seniorata*. It is this model that removes obstacles to the regulation and operational tuning of the digital processes being built. At the same time, digital technologies are an effective tool for such a *senior*. And in this "state" version there is a pronounced risk of fragmentation of the right to separate legal *seigneurs*, the reincarnation of territorial feudalism in the form of branch, guild feudalism. There is a pronounced risk of a return to previous generations of law, a rejection of a group of human rights and freedoms, new in their content and form of implementation, which arose in the

second half of the twentieth century. And excessive zeal can lead to overregulation of all legal processes to the point of complete impossibility to carry out effective business management of private companies (for example, tightening regulatory measures under the GDPR) [17].

Also, from the point of view of public administration, national sovereignty in the digital world can only be supported by indirect methods, the most effective is the policy of localizing data centers. This approach has been consistently implemented in countries such as the United States, China and the Russian Federation [12][19].

5. CONCLUSION

According to the authors, the issue of legal regulation not of the current result, but of the process of formation of the digital economy, is the key issue of modern institutional development in the context of a change in the technological order. Our research shows that there should be an understanding that society (represented by the state) sets the rules and regulations for business, and not vice versa. That is why it becomes socially necessary to form a well-thought-out and effective system of regulation by means of the law of relationships between man, science, state, society and nature.

In the particular case of regulating the turnover of big data, there is a lag in management decisions. The policy of bans and the introduction of new norms - in our opinion - can only lead to overload and "overregulation" of this area, which may lead to the impossibility of working in compliance with all norms. Thus, the regulation of the use of such data is at the discretion of the data operators and controllers. A possible solution to this problem would be the creation of integration or indirect (through, for example, localization policy) regulation.

The next step in the study of digitalization processes should be the study of possible socio-economic changes in society caused by the reformatting of ethical norms, and the formulation of proposals to curb negative trends in line with the primacy of social and humanitarian challenges [13]. In particular, the concept of maximum openness of society and the economy (open data) is currently being seriously discussed as an alternative to rigidly structured legislation that upholds property rights and the right to protect personal information.

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