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Transformation of Legal Reality under the Impact of Digitalization

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Abstract: The article examines the processes of digitalization of law, their causes, sources, driving forces, real and foreseeable consequences from a social constructivist perspective. Local experiences in the design and implementation of digitalization of criminal proceedings are described in detail, and expert assessments of the early successes and difficulties of digitalization in the sphere of rulemaking, law enforcement and law implementation in general are given. A counterpoint to the analysis of the processes of change in the legal reality, which takes place under the impact of its digitalization, is the hypothesis expressed in the literature about possible transformation of law into another social regulator or the birth of some hybrid form, which would include only certain elements of legal regulation. The article comments on the debate about the significance of digitalization for the essence of law as a social regulator. It considers the arguments of those who believe that the changes will lead to a radical transformation and the arguments of those who see these changes as merely technical details of law enforcement, not affecting its essence. Separate consideration is given to practical cases such as the project aimed at digitalization of criminal proceedings in the UK as well as experiments in digital, virtual and augmented reality in the US (digital environment "META," "virtual reality," "reality+," *etc.*). The philosophical and legal theoretical concepts of digitalization of law in

the context of projects of total virtualization of reality and digitalization of social practices are critically analyzed.

Keywords: digitalization; regulator; legal reality; virtual reality; digital reality; construction of reality

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Contents

I. Introduction

The aim of the study was to investigate the explicit and implicit impact of digitalization of individual law enforcement practices on the legal reality as a whole. In choosing and justifying the methodology best suited to the task, the authors proceeded from the understanding of the latter as a special type of rational-reflexive consciousness, aimed at assessing the appropriateness of individual methods and the possibility to combine them into a unified system. A peculiarity of the methodological

strategy of this research can be seen as a break with the traditional matrix of scientific method, which combines philosophical, general scientific and specific scientific legal methods into a rigid subordinated system. In line with the canons of the classics, philosophy is expected to proclaim general principles, such as the principle of systematicity or historicism, followed by their adaptation and actual transformation into a series of prohibitions and prescriptions meaningful at the level of legal theory and relevant practice. The now almost universal requirement of interdisciplinarity is realized in the work through the coordination of philosophical and scientific methods, each of which is defined according to the logic and pragmatics of the research, although it does not conflict with all the other methods individually or the entire configuration built up by them. In examining the various options for constructing reality, the authors have turned to the methods of sociology of knowledge and social phenomenology; the analysis of particular aspects of the impact of digitalization has updated many of the basic ideas of the systemic approach. Comparative legal methods, historical legal methods, as well as discourse analysis of special literature and content analysis of documents were used to study the changes that have already taken place and those that are just emerging in the regulatory framework and law-enforcement practices.

II. Transformation of Law in a Digitalized Environment: Forecasts and Reality

In 2018, Taliya Ya. Khabrieva predicted several options for the interaction between law and digital reality, one of which suggests "the transformation of law into a different social regulator allowing for the emergence of software code or some hybrid form" (Khabrieva, 2018, p. 16).

What can this regulator be if it inherently has social (which includes law) as well as technical components? According to classical ideas about the regulation of human behavior, it is customary to distinguish between two main types of regulators: technical and social. Theorists usually consider technical regulators to be traffic rules, construction standards, instructions for operating technical devices and machinery,

etc. Although control over compliance with technical norms is often regulated through administrative and even criminal law and other normative legal acts, and the process of regulated activity is often collective in nature, there is nothing social in the content of such norms. It is generally accepted that these norms regulate human interaction with the outside world, be it things, "man-made" technical devices or "non-man-made" natural phenomena.

Social regulators differ from technical regulators in the very fact that they contain, at the level of content, the whole variety of relations between people. These have always included law, custom, morality and religion. Modern scholars also note the increasing role of "normative arrays" resulting from "self-regulation" of various communities of people united by a common interest, professional activity or shared use of modern digital technologies (social networks, platforms, *etc*.) (Khabrieva, 2021, p. 7). Sustainable practices are also becoming a regulator, among them not only business customs, explicitly recognized as a source of law, but also sustainable practices emerging in people's online communication, in international business practices, in other autonomous entities, which scholars refer to as "non-state law" (Mazhorina, 2018).

The idea of the emergence of a new, "other" social regulator is more interesting because we can already say that it will combine social norms with technical ones. Of course, such "encounters" of technical and social norms have already taken place in history — the development and exploitation of technical devices have occupied an increasingly important role in human and social life in the process of civilizational development. But it is only today, as humanity moves from isolated and fragmented interactions with technology literally into a digital reality, that the norms governing this immersion will be both technical and social (Taplin, 2005).

III. Discussions on the Implications of Digitalization for Legal Reality: Merits and Risks

There are different views about the depth and extent of the changes in law itself as a social regulator, which actually boil down to two points

of view. The first view is that nothing significant happens to law as such in the course of digitalization and will not happen in the future. The second view is that a qualitative change in technical regulators cannot leave social regulators, including law, untouched. In other words, the transformation of social reality in the process of its digitalization will lead to a transformational change in such an important part of it as the sphere of law. The discussion includes, among others, representatives of the theory of criminal justice, who, using the example of this branch of legal regulation, show their vision of the impact of digitalization both on legal regulation and on the practice of law enforcement.[1] Proponents of the first point of view are convinced that the use of computers may speed up the work of law enforcers and allow them to concentrate on a more substantial part of their work by reducing the routine workload (filling in or checking documents, searching for information or processing it). But nothing will be transformed in the work of the court or the investigation, people will still be controlling machines and algorithms, and all these digital realities and the involvement of computers in the work of the court are just figures of speech and poetic metaphors. This idea is expressed by Leonid V. Golovko when he writes "even a complete transfer of the entire criminal case into a "digital" one changes nothing in terms of criminal procedure, just as nothing is changed in terms of literature, for example, by the possibility of reading Pushkin not only in a paper format (book), but also on electronic media (Pushkin is not turned into some new poet in this case)" (Golovko, 2019, p. 24). Seeing these innovations as a discussion of purely technical issues of storage of criminal case files, the author similarly assesses the discussions on the new quality of evidence, electronic evidence, blockchain, *etc*.

The exact opposite viewpoint is also widely represented in the literature. Even the notion of high-tech law was born. Lev V. Bertovskiy argues: "High-tech law is such a logistic, knowledge-intensive and technological regulator of social relations, which, on the one hand, uses high-tech in the process of law enforcement and, on the other hand,

[1] *See* Russian Legal System in Conditions of the Fourth Industrial Revolution. Collection of Articles of 6th Moscow Legal Forum. Sixteenth International Scientific and Practical Conference (Kutafin Readings). Ch. 3. Moscow: Prospekt Publ. 2019. Pp. 75–308. (In Russ.).

regulates relations arising with it. This research allows us to say with certainty that a new, fourth stage of law development has begun, which may be called the stage of high-tech law" (Bertovskiy, 2021, p. 742).

The authors of an impressive document published back in 2016 and posted on the website of the UK Ministry of Justice also argued that the introduction of algorithms would improve the efficiency of British courts.[2] This document describes the changes as follows: digitalization will help to improve the flow of cases through the various instances, increase the efficiency of their distribution between courts, and increase the speed of their consideration. Digitalization will also ensure that cases are heard close to the place where the offence was committed, allow for timely hearings and create the most convenient time for victims to attend the hearings.

It is not difficult to see that all these changes improve the work of the courts, making it faster and more efficient. But what do the authors who call the digitalization program "transformation" have in mind? Apparently, the mere fact that the courts are speeding up and the new conditions for handling cases cannot pass unnoticed for the results of compliance with seemingly the same procedures. "As new technologies bed down, — the authors state, — we anticipate that more and more cases or parts of cases will be carried out virtually or online. Meanwhile, those who use our courts and tribunals — including legal professionals — should expect two significant developments. The first is our aim for all cases to be started online, whether or not they are scheduled for the traditional system or for online resolution. The second will be the completion of some cases entirely online, which will be much more convenient for everyone involved" (Chernysheva, 2021, p. 39).

Even the usual speeding up of court proceedings by moving interrogations and debates online raises well-founded concerns about the impact of technology on court decisions. As Irina S. Chernysheva notes, "virtual trials themselves are also not that enthusiastic with all Brits. Richard Miller, head of the Law Society's Justice Department

[2] Transforming Our Justice System. By the Lord Chancellor, the Lord Chief Justice and the Senior President of Tribunals. September 2016. Available at: https://www.gov.uk/government/publications/transforming-our-justice-system-joint-statement [Accessed 02.05.2022].

(an independent professional body for solicitors), has expressed concerns about the use of video links in court" (Chernysheva, 2021, p. 39). Research into the digitalization of US justice has shown that online communication reduces empathy (sympathy) so court decisions rendered in virtual trials are harsher and imposed sentences tougher. The lack of trust in the words of someone who is far away and is giving evidence by video link increases the possibility that innocent people suffer as a result of the court decision.

IV. Digital Transformation of Law Enforcement: Objectivity vs Manipulation

There is another aspect to be considered, which is becoming more and more relevant as a result of the digitalization of the judiciary. New technical norms bring about a change in social norms and this cannot pass unnoticed in the whole social reality. It is easy to see that the above-mentioned issue related to digitalization affects the very essence of criminal justice, because it directly concerns the principle of objectiveness (neutrality), long considered an ideal and the highest value not only of criminal justice, but also of justice in general. This is rather a theoretical notion of a desirable quality of justice, whereas the statutory list of principles of criminal procedure (Chapter 2 of the Criminal Procedure Code of the Russian Federation) does not directly enshrine such a provision. However, the social and political nature of the judiciary requires the holder of judicial power to manifest objectiveness as a characteristic of all power in general (Voskobitova, 2017). The most important condition for the neutrality of the judiciary in the field of law enforcement becomes the requirement of trial fairness. In this context, M. de Salvia identifies "two types of fundamental guarantees:" organic guarantees and functional guarantees. The first of these includes the transparency of the procedure and the independence and impartiality of the court. The functional guarantees, according to M. de Salvia, focus "on a dynamic concept and on the equality of the parties throughout the process" (de Salvia, 2004, p. 376). The requirement of independence already applies to the judge in Russia, by virtue of which he must take decisions independently of any external influences on him by the State,

the legislative and executive branches of government and their officials or agencies. There is also a requirement of impartiality, *i.e.,* a clear manifestation and demonstration of a lack of personal bias and prejudice with regard to the circumstances of the case or persons involved in it by his or her conduct during the examination of the case. Therefore, the independent and impartial conduct of a judge is regarded as a guarantee of the objectiveness of the decision.

The very idea of objectiveness is one of the basic values of the Western rationalist tradition, with which the models of ancient philosophy, New European science, modern management by means of bureaucracy, *etc*. have been shaped. It would seem that the digitalization of judicial proceedings will bring us much closer to this ideal, due to the fact that the algorithm used to analyze all the circumstances of the case and correlate them with the provisions of the law, will avoid manifestations of possible subjectivity, human bias. However, the first experiments of court examination of criminal cases in the online mode have caused significant doubts among law enforcers themselves. Machine "objectiveness" seemed to them not entirely objective or even not objective at all: the use of an algorithm clearly demonstrates, at a minimum, the "soullessness of the machine" when it comes to deciding the fate of an animate subject such as a human being. Machine "objectiveness" destroys the human ideal aspiring to be understood; to be judged by a "court of one's peers" (Morhat, 2017).

Thus, the application of digital algorithm requires an unwitting, albeit significant, correction of the very notion of objectiveness. What was understood as objectiveness in relation to the characteristic of thinking, judgment or evaluation did not exclude the involvement of interest, emotion, will, values belonging to the individual in the mental activity. It has become clear that such an ideal of objectiveness, explicated not only in epistemology but also in law enforcement theory, does not contradict the human capacity for empathy. This hypothesis is fueled by real-life examples where a strictly legal criminal judgment imposed by court may appear to be questionable morally, as well as by everyday notions of justice. Moreover, the legislator himself implies a non-formalistic approach by the judge in assessing the unique circumstances of each criminal case. The sanctions enshrined in criminal law provisions usually

provide an alternative for the judge to choose the most appropriate type and amount of punishment so that it complies with the principle of justice enshrined in Article 6 of the Criminal Code. In addition, the law includes an exhaustive list of aggravating circumstances that may aggravate the penalty (Article 63 of the Criminal Code) and an open list of mitigating circumstances that enable the judge to consider as such even those circumstances that are not expressly mentioned in the law but that in a particular case play a mitigating role. In certain circumstances the judge is empowered to impose a penalty even below the lower limit specified by law (Articles 61–62, 64 of the Criminal Code). All attempts to improve legal provisions come up against the impossibility to fit the uniqueness of human life and the uniqueness of each episode of a life situation which is put on trial into the universal wording of law, so it is the individual with his/her ability for empathy and compassion who should evaluate uniqueness.

In light of these considerations, some advanced developments cannot but cause concern, and require the closest attention precisely because they aim to invade the essential aspects of a human being's personality: the free will, independent thinking, ability to make choices based on free evaluation and discretion. Thus, more and more widespread and accessible are various technical devices allowing for wiretapping conversations between people who are far away from each other and unaware that their conversation could be wiretapped, recorded on electronic media without their consent and even used against them or to their detriment. Mark Zuckerberg announced the new capabilities of the information digital system, formerly called Facebook and now called the metacommunity. According to this "demiurge," in the near future, the augmented reality headset will find and process statistical data and other relevant information in real time. While its user is communicating with other people, the "metaverse" will actually participate in communication, enter into a parallel and additional dialogue with the user, influence the user's mental processes and even the decisions he/she makes. The developers of the AI system have already been tasked with learning to "read the thoughts" of both the communicant himself and his interlocutor, appearing as a third, implicit, but potentially leading subject of communication. "Direct feedback is extremely valuable and

will allow us to leapfrog classical systems based on traditional personal data collection," Mark Zuckerberg explained (Bunina, 2021). However, the developers of such digital technologies are not yet talking about the possibilities of manipulating the mind of the person who would use such software. These manipulative possibilities are built into the software at the design stage. It may contain deliberate or reckless technical possibilities for "imposing" such digital interactions on actors, including pre-planned behavior/actions, assessments, decisions that the person would not like to manifest independently or even think of such options, and they will be activated at the level of use of such software. For example, during the interrogation of a witness, a law enforcement officer will be able to obtain various, including negative, information about this witness' personal life, which is not directly related to the facts to be proven, but can have a significant impact on the witness' behavior. He/she may be intimidated by the possibility of disclosure of such information and thereby implicitly coerced, and in fact coerced, into giving testimony that is necessary rather than that corresponding to the reality of the incident. The interrogated defendant could be intimidated without resorting to overtly coercive or psychological methods, which are prohibited at this time both at the national legislative level and at the level of international legal instruments. Such "manipulative" intimidation would be virtually impossible to detect in order to properly assess the admissibility and credibility of such testimony. It is clear from the above statement that the developers are keen to create technology to penetrate human mind, but nothing is said about the possibilities of protection against such intrusions or at least technologies to block them in order to protect human rights from digital technology.

The above shows that the digitalization of law is not only a technical and technological renewal of judicial proceedings, but also a transformation of many theoretical ideas and legal regulators. The above cases clearly show, for example, the difference between the idea of objectiveness as an ideal of cognitive activity and fairness/neutrality provided in the digital reality when using an algorithm, which in fact turns out to be rather synonymous with inhumanity, callousness. It turns out that the availability of exhaustive information about the participants of legal interaction can lead to a more accurate and reasoned

decision. However, the same technologies can generate the whole "industry of manipulation" of others' opinion, others' will. Software and accessories developed for the aggressive style of negotiation described by Mark Zuckerberg may also be used to the detriment of human rights. Consciously and arbitrarily, the operator of such accessories will be able to change the natural behavior of a person, deliberately shape only a unilaterally advantageous decision, induce decisions and actions disadvantageous to the person, *etc*. This demonstrates the fundamental need for more active interaction between lawyers and IT specialists in order to identify all possible transformations of the legal content itself, the meanings of legal regulation, to assess the relationship of legal goal-setting with the capabilities and limits of digital technology, to identify in advance possible legal, moral and other social risks that technology is capable to generate, but which can and must be stopped by man through, among other things, law.[3]

V. Levels of Transformation of the Legal Reality amid Digitalization

The impact of digitalization is far from being limited to procedural paperwork, the ability to conduct interrogations, investigations and court hearings using remote communication technologies. Nor is it confined to the collection, preservation and processing of digital evidence and the discovery, registration and examination of digital footprint. In addition to the direct impact of digital technologies on law enforcement practices, it can be assumed that law is being transformed significantly along with a qualitative transformation of systems of thought and structures of

[3] It is no coincidence that e-justice standardization has received considerable attention. *See*, for example, Recommendation No. R (95) 11 of the Committee of Ministers to Member States Concerning the Selection, Processing, Presentation and Archiving of Court Decisions in Legal Information Retrieval Systems (adopted by the Committee of Ministers on 11 September 1995 at the 543rd meeting of the Ministers' Deputies); Recommendation Rec(2003)14 of the Committee of Ministers to Member States on the Interoperability of Information Systems in the Justice Sector (adopted by the Committee of Ministers on 9 September 2003 at the 851st meeting of the Ministers' Deputies). European Ethical Charter on the use of artificial intelligence (AI) in judicial systems and their environment was adopted on 4 December 2018.

social interaction. Digitalization is likely to have a significant impact on the prevailing worldview, goals and values of the modern individual. According to Taliya Ya. Khabrieva and Nikolay N. Chernogor, digital technologies "are capable of changing the image of law, influencing its regulatory potential and efficiency, opening the way or blocking its action in new dimensions of social reality" (Khabrieva and Chernogor, 2018, p. 89). We have to agree with this opinion. At the same time, the first fragmentary attempts to introduce digital technologies into criminal proceedings have already revealed the need to clearly distinguish between several levels of both the legal reality itself and the digital transformation of the legal reality that the transition to high-tech law may encounter.

First, this is the level of general theoretical ideas about law and certain aspects of its characteristics. Digitalization will require not only a rethinking of the concept of law, its purpose and role as a social regulator. At present, the content of law is determined by the level of social relations, the state policy, and the system of values forming in society at the given moment of historical development. In general, the content of law is formed by such phenomenon as ideology and, therefore, is primarily conditioned by the social nature of human relations. The digitalization of law itself cannot but penetrate into its content. At the very least, apart from the social basis of law, a technical and technological form will emerge and become part of its content, requiring its regulation. The first experiments in the use of electronic vehicles on city streets can serve as an example. The driverless, self-propelled electric vehicle, its functional intrusion into the social environment and its interaction with people — passengers, pedestrians, *etc.* — is already raising many legal issues. For example, who should be held liable for a possible accident causing harm? Different options are being discussed: maybe the software developer, maybe the operator who controls the electric car. It is already clear that the content of road safety regulations will have to be substantially revised and changed. Digital technology will also require a different presentation and design of the content of the legal norm. Not only the text but also the legal meanings implicit in the legal regulation will have to be fixed and explicitly formulated. This, in turn, will require the improvement of legislative technique,

legal language, the style of presentation of individual norms, the clear construction of legal *corpus delicti* and sanctions for their violation, *etc*.

The second level of transformation of legal reality will be related to the interpretation and explanation of the content and meaning of legal norms. The algorithm must be trained not only to find the text of a norm that fits the given factual circumstances of the life situation. It will face the professional legal necessity of interpreting the text of an individual legal norm. Firstly, the task will arise to find the whole system of legal regulation of the given legal relation in its entirety. Secondly, the necessity of the interpretation will be conditioned by the context of uniqueness of the single life situation that requires legal enforcement. The multifariousness and variety of life situations regulated by law cannot be mechanically exhaustively accumulated in digital databases. They are constantly changing as life's conflicts themselves change. They cannot be captured and expressed in some generalized prescriptions as unambiguously as in a mathematical formula. Meanwhile, the algorithm and technology of its application will require just such unambiguity, even if the software provides opportunities to choose from several clearly defined variants. Therefore, we can already observe a certain transformation of legal reference systems when in addition to the official and up-to-date text of a legal act they include also accompanying explanations in the form of hyperlinks to additional information, if the programmer is aware of it.[4]

It should be taken into account that these legal reference systems (LRS) were originally intended to provide simple access to the texts of legal acts to the general public. However, as soon as the need emerges to implement a legal provision in a real-life situation, the task of interpreting such legal provision, identifying its meaning, understanding the legislator's intent, why and for what purpose such regulation was established, *etc*. immediately arises. It follows that the existing systems will have to be transformed and specialized versions of the LRS "for the professional law-enforcer" will have to be created on the basis of the existing systems. They must include not only the actual text of the law

[4] This practice is widely used, for example, by "Consultant Plus" legal reference system.

as a whole. It will also be necessary to add, based on article by article principle, all other necessary normative material, including material from various branches of law, if a real-life situation is found to border between the various sectoral regulation frameworks. All the judicial interpretations as well as explanatory, commentary and even doctrinal materials required to correctly interpret the text of the legal provision and to clarify its true meaning may also be required. This creates a fundamentally new enforcement situation. The sectoral demarcation of the law is replaced by the need for a comprehensive understanding of the legal regulation in relation to the specific legal relationship (Voskobitova, 2019). If the imputed charge, for example, relates to the economic activity of the accused, then without applying the civil law regulation in its entirety, applicable to the given situation, it is often very difficult to identify, understand and formulate the presence of criminal law characteristics of such an offence. For example, without reference to civil law provisions, it is unacceptable to mechanically use notions such as "beneficiary," "shareholding," "controlling interest," "owner and/or founder,", *etc.* in the course of the prosecution, giving them an arbitrary rather than strictly civil law meaning. Only the creation of specialized information and analysis systems for law enforcers will create conditions for the formation of necessary, detailed and comprehensive databases for digitalization of enforcement activities. Undoubdedly, constant interaction with such databases can have a significant impact on the knowledge and understanding of the law for all law enforcers, deepening and expanding their legal awareness.

The third level of transformation of legal reality will be the level of law implementation itself, which should provide the subjects of law both independent forms of implementation of legal regulations (use of their right, performance of their obligation, compliance with the established prohibitions) and the most complex and multi-subject form of law implementation — law enforcement. The most important and regulated form of law enforcement is court procedure, which is also the only form of exercise of the judicial power under Article 118(2) of the Russian Constitution. Therefore, the digitalization of law enforcement will affect practically all procedural branches of law as well as the regulation of administrative and other organizational aspects of judicial,

law enforcement and regulatory bodies. Therefore, the digitalization of law and the transition to high-tech law must not be regarded as a purely technical change, such as the replacement of handwritten documents with typewritten text. The digitalization of law cannot but affect the underlying and essential characteristics of the existence and operation of law at all levels: rule-making, interpretation and implementation.

VI. The Historical Experience of Social Reality and Law Transformations

Comprehension of the possibilities and limits of digital transformation on each of these levels of legal reality has yet to be understood. Therefore, the experience of previous transformations of social reality becomes important. As we know, back in the mid-19th century, Auguste Comte, the founder of positivist philosophy and scientific sociology, presented human history in the form of three stages: theological, metaphysical and positive. Each of these stages corresponded to its own way of explaining processes and phenomena, which predetermined not only the picture of the world, but also values and even the institutional structure of society. It is well known what trace these stages left in the history of the development of law. What the French theorist called the theological stage, modern science mostly refers to as the prehistoric period of civilizational development. There is still no distinction between nature and society, relations with people and animals, inanimate things and forces of nature are equally social. A human being in the theological stage is forced to come to terms not only with his own kind, but also with different "beings," whether it be the spirit of a bear killed in a hunt or the spirit of a river, the safe "interaction" with which is impossible without an offering or even a sacrifice. The extension of social experience to the realm that we now take outside society is linked to the lack of a conception of inanimate phenomena or processes that cannot be influenced. An agreement, along with the relation of kinship, becomes virtually the only social regulator, whether it is an agreement with gods, spirits or tribes.

The whole epoch of ancient civilizations can be described as a time of transition from the theological to the metaphysical stage — this

is when the notions of fate, destiny, predestination and inevitability appeared in the classical society of Ancient Greece and Ancient Rome, and also received their completion. One consequence is the separation of nature from society. Another consequence is the formation of Roman law, based on speculative metaphysics, philosophy and formal logic.

The New Age scientific and technological revolution, in which the metaphysical stage is replaced by a positive one, is marked not only by the mathematization (digitalization) of nature by Galileo, but also by the naturalization of law by Grotius. Society now appeared as a part of nature. The idea of social physics was first suggested by Thomas Hobbes, but only Auguste Comte and Karl Marx managed to bring it to its logical completion, as it was in their theories that society began to be comprehended as a reality. Without these truly tectonic shifts in thinking, subsequent transformations in the social structure, as well as in the understanding of law, law-making and law-enforcement would have been impossible.

There is every reason to believe that the changes in thinking and social reality brought about by digitalization, both those already taking place and those looming in the future, will be no less sweeping. The digitalization-induced changes in worldviews are already taking place — a digital world is being added to the familiar world, which turns out to be no less complex, and contemporary researchers are already questioning the existence of a structured "digital reality." George Towner singles out three types of digital reality, distinguishing them according to their origins, establishing their very origins by the "material" from which each was constructed. One digital reality is generated by behavioral practices, the second is formed by digital properties of physical things, and the third is created from ideal objects. Applying elements of set theory, Towner even establishes an appropriate hierarchy of powers: alef-zero, alef-one, alef-two, which makes it possible to compare them and solves the problem of the impenetrability of each of them to each other (Towner, 2020).

As Towner notes, "three types of digital reality correspond to our types of understanding. Feelings, thoughts, emotions, desires, *etc*. — our internal experiences as a whole — become parts of our behavioral reality. What we accept as external objects and events, including our

bodies, become part of our physical reality. Universals and *a priori* truths become part of our ideal reality. As they are classified and better understood, reality sets of each type can become elements of sets of other types" (Towner, 2020, p. 4). The behavioral type of digital reality is constructed, according to Towner, around the order of time, the main parameter of which becomes its linearity, *i.e.,* duration. The physical type of digital reality is generated by space, the main quality of which is density. The ideal type of digital reality appears as a hybrid of the first two, constituting a kind of complex pattern. This seems logical, because both human actions and physical things can equally be thought in terms of concepts, *i.e.,* be represented as idealized models.

This approach is, to a certain extent, consistent with the levels of digitalization of legal reality suggested above. We can look at legal reality as "*density*" in relation to the volume, scale and comprehensiveness of regulation of social interaction by norms of substantive legal regulation, which has a clear trend towards expansion and complication, following the development of social relations themselves. Moreover, the question of different vectors of development of legal regulation is rightly raised: (a) as a response of the state to the already established social relations, and (b) as a proactive development of law for purposeful formation of new social relations that are useful for society in the given trend of its development (Przhilenskiy, 2020). Such "legal density," despite its expansion, remains static in its real being, while the regulation itself is constantly "densifying" in its volume. It is structured, systematized and evaluated in terms of sufficiency or looseness, consistency or contradiction. It is valid and present in the social and legal reality proper and can technically be transposed into the digital reality as a given. In this sense, the law can be minimally transformed: it simply becomes machine-readable,[5] more accessible, both in its location and in the time it is accessed.

The legal reality as a "*behavior*" appears before us in the implementation of law, where a static provision comes to life and turns into a real functioning regulator of social relations. In order to

[5] *See* Concept for the Development of Machine-Readable Law, approved by the Russian Government on 27 September 2021. (In Russ.). Available at: http://www.consultant.ru/document/cons_doc_LAW_396491/ [Accessed 01.05.2022].

implement the legal reality legal provisions are activated either by active behavior of the legal subjects themselves or through law enforcement activities of the competent authorities or officials specially organized by the state. The application of law is accompanied by a certain compulsion to mandatory following the legal mandate. Thus the behavioral aspect of legal reality is mobile, functioning from the static state of the legal provision to the implementation of its regulatory function in social relations. Digitalization of the behavioral aspect of legal reality requires fundamentally different approaches. The most important of these is the clash between the personal activity of the legal subject, who has a set of human rights, will and interests,[6] and the technological reality that the subject of law enforcement and the developer of digital software or algorithms will now have to reckon with. It is here that the linearity of the case progress from its origin to its legal resolution and procedural conclusion will manifest itself. The duration factor will also affect both the progression of enforcement and the digital technology that enables it. An important factor in the behavioral aspect of legal reality becomes goal-setting and the pursuit of the chosen goal by legal means. It is here that a reasonable balance has to be found between the personal subjectivity of the behavior of the actor of this interaction and the objective algorithmic nature of digital technology. The method of inductive thinking "specifics-to-general" should be the most important principle of developing a behavioral type of digital reality in relation to the behavioral aspect of legal reality. The general will be a static right, while the specifics will always be a single life situation requiring law enforcement. The entire logic of constructing a behavioral type of digital reality must be subject to this logic. There are certain facts of the "life situation" which need to be known correctly in their legally relevant scope and detail. Only then is it necessary to find the most appropriate legal provision to be applied to that situation in the overall volume of legal regulation. This logic of digitalization of the enforcement behavioral aspect of law can provide the aspiration for objectiveness, which is not always present in subjective enforcement. On the other hand, the

[6] It can also be a legal entity with its own set of rights and obligations, as well as interests and objectives.

participation of legal subjects cannot be completely eliminated precisely because of the social, interpersonal interaction in the behavioral aspect of legal reality. An animate subject cannot, for moral reasons, be left at the "total disposal" of a soulless algorithm: the individual has the right to be judged by his peers, *i.e.,* for a court consisting of human beings. At the same time, one cannot ignore the fact that any technical innovation may to some extent encounter opposition from the person using it. In the case of law enforcement behavior, such opposition is potentially conditioned by the acute conflict situation of the legal dispute and the parties' desire to establish their case before the court and to convince it of the persuasiveness of their arguments. The second line of a possible conflict of interest is caused by the clash of state-authoritative interest and subjective interest of a participant to legal proceedings. The practice of digitalization of criminal proceedings shows some examples of unauthorized intrusion into the normal operation mode of digital software. In some cases it is done by officials seeking to strengthen their authority or accusatory position (Atakishi, 2019). In other cases, it can also be done by non-powerful actors in an attempt to obstruct in one way or another, including by hacking, the administration of justice in a particular case. It follows that the digitalization of the behavioral aspect of the legal reality will be the most difficult stage, including with regard to research and forecasting of all possible risks. It will also require the most rigorous design of legal, technical and technological measures to prevent such risks, to remedy their consequences and to find reliable protection against them.

The legal reality as ideology is an area of theoretical reflection on the concept of law, its value, meaning, goals and capabilities. Here, digitalization can provide new and hitherto unknown opportunities to obtain such a database for scholarly studies, which is very difficult to collect in the course of usual research mode. The possibilities of information accumulation, analysis of the collected data, their systematization according to the preset attributes or parameters — all of this creates fundamentally new opportunities for the development of scholarly studies, for interdisciplinary research, for the operation of large databases of empirical material and statistics. In fact, the researcher is able to dive into the legal reality as a whole, to see its

scope and depth at the same time. This gives hope for fundamentally new scholarly discoveries and breakthroughs in legal studies. At the same time, there are risks associated with the "contamination" of the legal reality by erroneous, false, unreasoned, plagiarized sources of information, *etc*. The digitalization of legal ideology must therefore first establish ethical principles for the existence and use of legal ideology, without restricting scientific creativity and its freedom in any way. Incidentally, these ethical requirements and conditions have yet to be constructed in relation to the digitalization of the ideological aspect of legal reality.

VII. Digitalization and Social Justice

It is no coincidence that David Chalmers, who calls his position virtual realism, notes that ethical, legal and political problems arising in virtual worlds, are similar to those in the real world. People cannot help but insist on carrying into the virtual world the values to which they are accustomed in real life. What deserves further discussion, according to Chalmers, is the difference in virtual reality values that cannot be imported into the new environment. The American philosopher is convinced that one of the central problems of political philosophy of virtual worlds is ensuring equality and justice in this field (Chalmers, 2022).

In considering equality and justice in virtual worlds, the American philosopher David Chalmers turns to John Rawls' book "A Theory of Justice," which begins with an intellectual experiment set at the intersection of two perspectives well known to all historians of political and legal thought. The first perspective is born of the legacy of Thomas Hobbes and JohnLocke, who in their intellectual experiments modeled the "initial conditions," according to which individuals "sign the contract" for establishing a society where all obey the laws and other rules of social life. The second perspective goes back to the modeling of the future carried out on the basis of quasi-scientific forecasting of social development by Karl Marx in his doctrine of communism. Thus, the theory of social contract received its tematization in the John Rawls' doctrine of in the context of the issue of fair (or unfair) distribution

of a limited amount of resources among the population. Rawls' book describes initial conditions where an individual finds himself in front of the veil of ignorance and cannot determine whether he will become rich or poor as a result of "signing" such a contract. However, in accordance with the theory presented, he accepts the proposed *principles* of a just social order, which, while preserving inequality, make it rationally and emotionally acceptable (Rawls, 1971).

In addressing the applicability of justice theory to virtual reality, Chalmers asks about the transformation of political, legal and economic relations in transition from the ordinary world to the virtual one What semantic changes will take place in the issues of the expediency of resource distribution, exchange or donation, property transfer, the classification of crime and punishment, the structure of democracy during their transit from the ordinary reality to the virtual one? The American philosopher even wonders if virtual worlds should have open borders or should all cross-border movements be carefully controlled? (Chalmers, 2022).

Chalmers considers the issue of distributive justice to be the most interesting. This term was introduced by Aristotle, who contrasted distributive (allocative) and commutative (reciprocative) types of justice, but in the context of our discussion only the former is interesting. Howard Curzer notes, "Aristotle says that the judge who unfairly distributes punishments is trying to obtain something for himself or herself. The judge is "aiming at an excessive share either of gratitude or of revenge." In general, Aristotle's gratitude or revenge suggestion is that intentional maldistribution is typically motivated by an excessive or defective desire for some good, though not necessarily, for the good being distributed. Disinterested maldistribution is not typical" (Curzer, 1995, p. 230). Here, the transition to the virtual world completely changes the above disposition as a whole. Chalmers thinks that Marx's model of the world of abundance, which Chalmers himself calls the world of the future or a virtual version of "society after scarcity," is appropriate for a mental experiment with virtual reality aimed at clarifying the issue of distributive justice.

According to the theorist conducting the mental experiment, we can hope to harness the power of the sun to produce an unlimited amount

of energy, and the development of medical care will remove all human anxiety about our own health and longevity. The amount of goods and services can also grow almost unlimited. There are special goods, which Chalmers calls "positional goods," whose main characteristic is that they will always be scarce. These goods or benefits depend on the position of each person in the society, and with any desire for equality, it is they that guarantee the preservation of social inequality. David Chalmers writes, "For example, fame is a positional good: not everyone can be famous. The same is true for power. Abundance of material goods in a virtual world cannot ensure abundance of these positional goods, and these goods may take on even more significance in a virtual world. If some groups have far more political power than other groups, a world with virtual abundance will not be a truly egalitarian paradise. More fundamentally, while virtual abundance may remove some distributive injustice, there is much more to equality than distributive justice" (Chalmers, 2022, p. 363).

VIII. Findings and Conclusions

All of the above allows us to see digital reality as a certain alternative to pre-digital reality — it removes previous constraining restrictions by creating new ones. As digital reality is generated by the latest enginery and related technologies, it can itself be seen as a technology. Here we may recall Eugen Kapp who called technology an organ projection — with technology man merely amplifies the natural possibilities of his organs, thus transforming his nature (Kapp, Noiret and Espinas, 1925). By so doing, it is impossible not to touch upon law, standard-setting and law enforcement, and this applies both to theory and practice.

To sum up, it can also be assumed that the law will undergo a transformation, and a very radical one. It is unlikely that the distinction between nature and society can still be appealed to in the context of digitalization, and that the one can be reduced to the other. In other words, the idea of the legal norm as a regulator of social relations will lose its usual meaning and will require transformation, as the representatives of the sociological approach in the philosophy of law do. Natural law and idealistic approaches will also lose their meaning

and require transformation, with all the ensuing consequences for lawmaking and law enforcement.

Traditional perceptions of the distinction between objective and subjective, unique and universal, potential and actual, all of which constituted notions of law and justice in previous ways of constructing reality, will undergo a transformation, if not disappear altogether. Even if the digital reality will only complement the social, physical or everyday reality, its impact on thinking and social, including law enforcement, practices will be very significant.

There is another side of digitalization that yet to be fully discussed in the specialist literature. It is referred to the problem of the relation between the unique and universal as two alternative ways of seeing the world. A trial consists of a series of events, and each of them is both typical and unique. Implementation of legal requirements by parties is designed to make their actions typical (stereotypical), but even this does not deprive each of the actual trials of uniqueness. Adherence to the principle of legal certainty obliges law enforcers to increase the predictability of court decisions. This can be achieved by improving the wording of the legal provisions that, by the way, must not allow for diversity of interpretations. The uniform practice of their application should turn the actions of law enforcement agencies into an analogue of machine-like actions or at least create the illusion of such both for law enforcement agencies and for the subjects of law enforcement. The latter is particularly important as they may include victims, defendants, witnesses and even external observers who may be present in court or may be informed of the trial and its outcome by the media.

Those who, from century to century, have painstakingly perfected the legal framework of judicial procedure and, step by step, eliminated every possibility of human subjectivity, will for the first time have the hypothetical opportunity to rely on the power of artificial intelligence in their movement. Just as in the legendary translation of the sacred books of the Old Testament from Hebrew into Greek, seventy rabbis were able to produce one single text, so seventy trials with the same class of plaintiffs and defendants, but with personally different judges and prosecutors, would have to end in the same way. This cannot happen with live people in real time, because retrial is in principle

different from primary trial — you cannot enter the same river twice. But computer modeling capabilities allow not seventy, but all seventy thousand or more lightning-fast virtual processes, each with its own separate interpretation of an act or utterance. One of the authors of this article has experience as an expert on a dissertation considered by a department and a dissertation council, is a member of the expert council of the Higher Attestation Commission, *etc*., and is somewhat familiar with the work of court experts. The conviction derived from this experience is one — expertise is better than no expertise at all. But a second conviction is that not only do different experts evaluate the same event, action or text differently. They are capable of interpreting it differently. Therefore, the digitalization of the legal reality on each of the levels discussed here should provide a technology of interaction not only for all subjects of law enforcement process, but also for the interaction between the human being with his subjectivity and the algorithm capable of producing a machine-like, *i.e.,* soulless-algorithmic objectiveness. It is necessary to search for a synthesis of such capabilities and capacities in order to preserve everything valuable in law and enrich it with new properties and opportunities.

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