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Network Law Doctrine Development: Concepts and Methods

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Research Article

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Abstract

Questions about the methodology, concepts, and origins of network law theory are addressed in this article. The focus of this study is on online social contacts, how these relations are governed legally via network law, and the novel possibilities that this regulation presents. The integration of relatively recent phenomena like cyberspace and networks with more established ones like the law will need the development of a novel network theory of law. The object includes principles of the theory of network law; principles and methods of informational modernization of law. We presented potential avenues for applying the theory of network law to the advancement of subfields within legal studies and the law as a whole, and we advocated for a more automated system of lawmaking and law enforcement through the widespread use of information and communication technologies.

Keywords: *network law theory, network law, network state, automation of law implementation, information and communication technologies*

1. Introduction

1.1 Introduce the Problem

Economic and financial crises, since new administrative tools are needed to govern social ties in real time and not simply respond to different changes, due to the fast growth of the economy and businesses. It is necessary to update the law based on the most recent scientific and technological discoveries as it often does not provide efficient ways of quickly and accurately regulating the ever-changing social reality. Issues with information-based law include the ever-increasing amount, complexity, unpredictability, and inconsistency of laws. These issues lead to the following outcomes: 1) Social relations are inefficiently regulated by imperfect and out-of-date legal norms; 2) Due to the complexity and variability of legislation, there is widespread legal ignorance and, in some cases, the inability to accurately comply with the law; 3) There is a lack of tools that allow laws to be tailored to the ever-changing realities of life.

1.2 Topicability of the Subject of the Research

It seems that the only way to address these issues is to completely revamp the legal system, which isn't going to happen until the fields of law and information and communication technology (ICT) work together to counteract each other. The development of network law is an expected outcome of information-based legal modernization. This legal trend needs to be established because numerous

nations are already transitioning into "network" states, like Russia, in pursuit of their vision of an informational society. Despite the fact that many states have established network economies, no corresponding network laws exist. Since social contacts involving electronic computer networks or at least some degree of virtual space usage are expected to exhibit unique characteristics, the goal of network law is to provide rules for managing these types of interactions.

1.3 History of investigation of the Subject

Articles and monographies begin to address the issues surrounding the modernization of law, providing the first accurate definitions of terms and posing new challenges. Informational law is the emerging area that is mostly used to study the informational elements of law. Experts in history, law, and philosophy have provided the theoretical groundwork for the study in the publications of (Elon, 2002), (Polyakov, 2003), and (Bergel, 2000). Authors such as (Abramson et al., 1988), (Bell, 1973), (Castells, 1996), (Drucker, 1993), (Masuda, 1980), (McLuhan, 1989), (Nora and Minc, 1980), (Susskind, 1998), and Zeleznikow and Hunter (1994) have examined the expanding use of information and communication technologies in several disciplines.Newer research on the components of legal doctrines has focused on the following areas: principles of law and their development (Trofimov, 2010); principles of law and doctrinal understanding (Puzikov, 2010); principles of law and legitimate interests (Subochev, 2010); principles of constitutional law (Komkova, 2010); principles of international tax law (Smirnov, 2010); principles of civil law (Vavilin, 2010); and principles of labor law (Abalduev, 2010). It was necessary to examine the principles of network law (Goloskokov, 2010) and the topic of this research is network law doctrine, as there were no theoretical studies of these principles at the same time.

2. Method

Weakening its communicative role, regulating social connections in real time, evolving in cyberspace, automating law-making and law enforcement, and speeding up legal procedures are all new ways of informationally modernizing the law. Such a strategy was necessitated by the rapid evolution of ICT, particularly in contrast to the sluggish pace of qualitative changes within the law or its adoption of new technology. On top of that, information technologies are integral to so many human endeavors; in fact, they provide a constant boost to innovation in every sector. Therefore, there is a need to rapidly incorporate new technologies into the legal sphere so that these processes can adapt to each other. The creative process in this area can be described as follows: shaping the foundations of network law theory; defining principles and methods of informational updating of law; defining functions of a network state; developing network legal tools; and establishing legal relations. Through the deep integration of ICT into legal processes and procedures and the concurrent information modernization of the economy, network law aims to provide instruments for the maximum automation of law-making and law-administration processes. The establishment, upkeep, and expansion of a legally binding network communication system amongst individuals, the state, and its institutions is one potential method of social relations control.

2.1 Classification of methods

Theoretically, there are two parts to the process of legal modernization that seeks to create a network legal system: the form and the contents. The following solutions will be provided for the form's modernization: 1) separating normative legal activities into paper and electronic versions, with the latter increasingly replacing the former as the default; 2) establishing a standard structure for the text of laws in both formats, including a unified system for naming portions of laws and electronically numbering each symbol, line of text, and paragraph; 3) each law's content saved as a file, with each

section divided and numbered in an electronic database; using hyperlinks to show hidden references, decipher terminology, etc.; 4) including a database of all lobbyists and writers into the electronic text of each statute, which should be viewable via a specialized viewer, together with specific authorship indications of each area of the text; 5) Knowledge of the legislation, including how to simplify and standardize their presentation. To bring legal material up to date, other approaches are required: first, a complete merger of IT and legal systems; second, the mechanization of the processes involved in analyzing norms and laws; and third, the automation of the actual enforcement of laws. 4) real-time legal regulation; 5) intricate automation and visualization of the lawmaking and administration procedures 6) moving from paper-based to electronic-based legal interactions, and from face-to-face to distant subject-to-network connection; 7) using real-world subjects in models and experiments; 8) Advancement of legal procedure through the development of judicial-technological tools that automate routine legal norms and procedures These tools should be based on electronic technologies and initially oriented towards networks, including remote ones. The goal is to have as much automation as possible in legal interactions between persons.

2.2 *Application of methods*

3. We must not miss a single chance to use specialized information programs (i-robots) as go-betweens in the interconnections of legal networks. These robots may do mundane legal tasks and processes and, in time, even contribute to creative endeavors. We also suggest bringing the concept of a new kind of electronic passport—metapassport—to fruition. This would enable: 1) the establishment of a system for the legal communications between individuals and the state, complete with an instantaneous, fully functional round-trip connection; 2) the implementation of real-time legal regulation (for specific types of . complete switch to electronic currency; and, 4. legal entanglements. As proposed by Goloskokov (2001), a metapassport would be a network terminal—like a cellular phone—that could replace a person's passport, driver's license, insurance, medical insurance, bank credit cards, and any other form of identification. It would also settle accounts after each transaction and act as a tax agent, automatically estimating and transferring taxes from each transaction into the budget based on the person's status and any applicable subsidies, compensations, or tax benefits. In reality, the data may be kept in departmental databases, and the metapassport would only get the necessary amount of data from there. It is our intention to introduce metapassport first as a legal concept, a cornerstone of network law, and a tool that opens doors to network legal communications; only thereafter will we consider it as a technical system. A person's metapassport, which may be either physically present or spread in space as a "virtual" design, is safe from loss or destruction and doesn't need physical carrying. The core of it is the automation of travel fare and transport insurance, retail sales, purchase deals, etc., as well as the creation of a comprehensive person identification system that uses facial features, iris scans, fingerprints, voice, and other biometric data to facilitate access to protected objects and complete transaction and account settlements. Supplying fixed devices of Public identity systems aim to automatically identify and accommodate individuals (where feasible) without the need to display tangible data carriers such as cards, certificates, passports, or those equipped with radio frequency identification chips. To prevent the system's reliance on any one technology—no matter how advanced—and to ensure safety on both the legal and technical levels, it is recommended that many identifying methods be employed concurrently. Other sensitive and complex issues, such as privacy and respect for human rights, are purposefully not addressed in this article. Additional research is needed to solve these problems, and they deserve their own section in the theory of network law. However, we shouldn't let ourselves be discouraged by the difficulty of the problems caused by new technologies. Instead of giving up on computers, networks, and ICT and going back to the "safe" and "serene" pre-computer era, we should seek solutions using the latest technologies.

3. Getting Down to Business In order to accomplish the tasks at hand, lawmakers must be mandated to do the following: 1) consistently and methodically search for legal norms or their components that can be automated in their creation or implementation, and to amend laws accordingly; 2) when creating legislative packages, lawmakers must establish norms that enable the automation of separate but interdependent processes of their legal implementation. Part of the solution to the problem of legislation's variability could be to separate the norms of law into stable and changeable categories and put them in separate statutory acts. This way, the norms that are susceptible to operational changes wouldn't be able to enter the law that is meant to demonstrate stability. That can only be achieved by presenting the legislative process as a tree with three distinct levels: long-term, intermediate-term, and short-term. To make the latter a reality, an "independent body" with the power to carry out the duties of various branches of government and facilitate online communication between legal scholars and administrative professionals in order to swiftly establish distinct legal standards (such as tax rates, customs duties, and turnover taxes) that can implement, through a network, precise, timely, or anticipatory legal impacts on the dynamic reality, especially in the economic realm. Construction of the network law, which should allow the following as a result of the application of ICT, is one of the duties of a network state: 1) the expansion of the domain of automated network legal interrelations; 2) the automation of some administrative and law-making processes, reaching the level of complete automation; 3) the transfer of some operative legal regulation powers from the legislative level to an autonomous body, all while automating these processes. A network state will also have the responsibility of forming an autonomous entity that is responsible for the following: implementing legal regulations for the efficient and timely completion of all economic, financial, tax, customs, migratory, and other related processes; updating the state's economic policy in a seamless and effective manner; and managing the national economy in response to both internal and external factors. 4. Network Law First Principles A concept that is complimentary to the law-in-force might be offered as a general principle of network law, as as it seeks to lessen penalties, which give the statute an oppressive tone. It is feasible to provide the following as particular principles of network law: 1) the mechanization of the processes involved in developing and implementing the laws that would allow for more adaptable operational legal administration; 2) a slow but steady migration of distinct parts of legal standards into the domain of network law, which allows for the automated regulation of certain legal contacts in cyberspace; 3) making legal standards or their components easier to comprehend and implement via the use of computer networks, which is essential for automating their analysis and implementation; 4) the ease with which new statutes and other normative legal actions may be put into effect; 5) the changeover to electronic transactions and the mandatory reporting of all capital movements and transactions in real time via the state network; 6) keeping up-to-date electronic channels of communication between the state and its entities and the subjects of law; seven, the use of information technology to prevent the breach of legal standards; eight, the sharing of responsibility between citizens and the state; The number of automatically created elements of legal norms should be equal to the quantity of automatically executed aspects of such rules; 10) the creation of some parts of legal standards solely using electronic means; 11) setting up automated law-executive procedures in a way that prevents the mistaken application of distinct legal standards in theory and automates as many control processes as feasible; 12) a system for online arbitration justice that distributes arbitrators geographically farthest from the online process's parties in order to reduce corruption and the influence of regional and local authorities; 13) an optimization of the network law of parity between discrete and continual elements, with a trend toward discrete ones, which is fundamental to information and communication technology.

4. 4.1 What is required to put the concepts into practice The modern concept of a legal norm proposes that all citizens should be treated fairly under the law, with equal rights and duties, and that rules should be crafted to be applied repeatedly and should address non-specific recipients of the law's effects (these

are ongoing principles). Since there can be no unregistered subjects of law in a network, one distinctive aspect of network law is its orientation toward a massive but ultimately final collection of physical and legal individuals, each of whom is known personally (discrete principles). At that point, they are first "known" to the network system; but, in a very unusual circumstance—one that, according to our hypothesis, is highly unlikely—the individual may also become "known" to a state agency that is investigating the individual or fixing an error in the network system's operations. One component of legal modernization is the possibility of providing online economic regulation through taxes through the development of tax-registration complexes installed on the terminals of physical persons and corporations. These complexes would automatically calculate and exempt some or all taxes, as well as track financial flows. Get rid of tax responsibility and avoid repressive measures by switching to a minimum quantity of different types of taxes with a sufficient range of tax rates within each tax and the ability to smoothly and continuously change these rates. This would allow for the planned budget income to be collected and, if needed, adjusted. Establish a reliable system of legal management through the use of taxation's beneficial regulating functions. Make changes to tax rates predictable. Some law-administering procedures in the field of commercial law can be complexly automated. Electronic contracts can be drafted using information and communication technology (ICT). The legislator can develop and legitimize all possible variants of the given kind of contract, and the parties can choose a suitable one during network interaction. This would partially solve the problem of presumption of knowledge of law. Automated execution and legal processes procedures may be used to these types of contracts. The implementation of online elections, referenda, recalls of politicians, and a substantial devolution of power to the people through networks would not be possible without the use of information and communication technologies. This would allow for citizens, elected politicians, the state, and its bodies to engage in round-trip legal communication through networks. Automating voting processes via the use of information and communication technology (ICT), personal terminals, and voting in a network without visiting polling locations is crucial to the process of improving fundamental democratic values. The network legislation is expected to provide a novel method of tracking migrant movements and automatically ensuring that they adhere to certain legal standards. First, the system aims to prevent migrants from committing offenses and crimes (such as not paying taxes or staying in the country for an extended period of time), second, it will prevent criminals, terrorists, and drug traffickers from freely moving about, and third, it will counteract criminal money laundering and the financing of terrorism.

In order to safeguard human rights within the framework of network law, it is necessary to automate the enforcement of certain public law imperatives, such as those pertaining to finance, taxes, and customs, the failure to comply in the current legal system results in criminal law offenses. The network must safeguard human rights associated with the transfer of personally identifiable information. To ensure that government personnel have little access to personal data, the legislation recommends automating as many law administration operations as feasible. Since network law promotes the establishment of an environment free of corruption rather than the more conventional "struggle" against it, it has the potential to significantly reduce corruption. The network legislation will be based on an electronic system of subject interaction, where only registered E-currency would be legitimate, eliminating the possibility of corruption caused by the unlawful circulation of unregistered cash. Crimes involving the unlawful use of unregistered currency, such as terrorism, organized crime, drug selling, and money laundering, may be combatted by the automation of similar methods. Fifth, the Outcomes of Applying Network Law Theory As a result of our studies, the theory of network law has emerged to govern the establishment, upkeep, and expansion of a system of real-time legal communications amongst citizens, the state, and its institutions within electronic computer networks, as well as the social relations that occur within these networks as a result of their use.

It is fairly uncommon for legal ideas to remain unimplemented for hundreds of years (such as Montesquieu's separation of powers thesis, which dates back to 1748). Four years after the author defended his PhD thesis in 2006 and published the theory's central assertions, application of the theory of network law started in Russia. Also, the author has used a novel approach to disseminating the theory's concepts. Dissertations, books, and articles were sent to various Russian government agencies, parliaments, ministries, courts, and libraries across the country. Prosecutors' offices, scientific libraries, and libraries at major public and private universities in Russia also received these materials. After much theoretical deliberation, Russia adopted Federal Law #210, "On organization of public and municipal services," on July 27, 2010, and a Universal Electronic Card was introduced to the country (albeit the author's study referred to it as metapassport). Since the Russian government discovered very effective management tools in the theory of network law, it had a worldwide impact.

The Russian Federation has only just begun implementing the Universal Electronic Card, but the country has already declared its intention to transform it into an electronic passport—the same metapassport that the author had suggested.

5. Discussion

The theory of network law has its detractors. The importance of network law theory has been questioned by certain academics. Civil law, they said, adequately describes all procedures accessible in the network realm. Metapassport, they reasoned, is nothing more than the author's speculative fantasy, and even if it does exist, it can't be more than a century old. The central premise of the doctrine of network law was exceptionally swiftly put into reality, nonetheless, since legislators, ministries, and departments saw a potent weapon of public administration in the theory of network law. In just four years, they put it into action. The creation of the Universal Electronic Card, the main technical component of the doctrine, was prompted by the adoption of Federal Law #210 dated 27 July 2010 "On organization of public and municipal services." This law will eventually bring into reality numerous other provisions of the theory of network law. Concerned that the Universal Electronic Card may be used for ultimate control, the Russian Orthodox Church voiced its concerns about it in 2015. It is, nevertheless, safe to presume that the authorities will go on with the Universal Electronic Card initiative.

6. Conclusions

The author came up with certain concepts for the network society and the network state after seeing the theory of network law put into practice successfully. "The Doctrine of a Virtual Network Innovative State" was published as a consequence of more research. "Public and Private Law" and "New Legal Thought," two prestigious Russian legal journals, published it. The Doctrine proposes the following notions. The issue of social and technological innovation and modernization has gone unsolved by the Russian government. A system of interconnected academics, engineers, students, and other professions was advocated as a solution by the theory. They are tasked for gathering investments, discovering new ideas and technologies, and initiating the investment process in cutting-edge scientific advancements. They need to experiment with different ways of establishing states in a micro-state model and then suggest implementing the most effective ones throughout the Russian Federation; this is all part of their humanitarian mission. A novel approach holds the seemingly simple concept that a country's progress cannot be ensured by the total control of a system based on vertical power. A large, well-connected population with many personal financial interests and horizontal ties is essential for a prosperous state.

In order for a state to grow and prosper, its inhabitants must take the lead and work together. Because networking technologies allow for an effective public administration, Russia has been able to successfully adopt concepts from the theory of network law. Our next scientific idea – is idea of "virtual network innovative state" (a mini-model of the state, destined for innovation, investment and other aims). This is cutting-edge technology for global change, but it doesn't square with the current Russian model of vertical authority. Possibly, Russian authorities don't need the network of active professionals, united in a large international scientific organization. The restrictive character of several new Russian laws lend credence to this theory. Now we face a complex and fascinating task. We ought to continue scientific work in the existing conditions and to obtain practical results.

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