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LEGAL REGULATION OF INSTITUTIONAL COMPONENTS OF NATIONAL INFORMATION INFRASTRUCTURE OF UKRAINE

The article elaborates on core elements of national information infrastructure, in particular, of the National Information Infrastructure of Ukraine. In particular, the author defines institutional components of national information infrastructure as subjects of information services that examine, collect, process, store, transmit and disseminate information.

Moreover, according to the information given, among institutional constituents of national information infrastructure, there should be outlined such as telecommunication services operators and providers, information and computing centers, information agencies. In addition to the classification given, the author scrutinizes each institutional component and provides personal thoughts concerning their legal nature and usage specifics.

Keywords: national information infrastructure, information infrastructure, information legal relations, telecommunication services, providers, operators, information agencies.

Introduction. In all its efforts undertaken over many years to set up the national information infrastructure, the Ukrainian government keeps struggling with bureaucracy and lack of institutional capacity when defining the legal framework of national information infrastructure – complex of software and hardware, organizational systems and regulatory frameworks. Modern technologies development, constantly spreading Internet coverage, roles of telecommunication services providers and operators trigger necessity of respective legal bases enhancement. Obviously, that in the modern digital era the necessity of proper legal regulation of information resources and relations must be a top priority for the Ukrainian government. In fact, the Ukrainian President Zelensky has declared that one of his core goals for his presidency tenure is to establish "a state in a smartphone".

As of today, the Internet has already become a significant factor in social, cultural and educational development of modern society, it keeps providing new opportunities for both public authorities and citizens, in particular, scientific researchers. The Internet eliminates any barriers for creating and disseminating any data, thus providing opportunities for sharing digital information, which amount keeps constantly increasing.

Such opportunities, namely the provision and transfer of large volumes of information; intensive online communication between people not only within their own country, but also between residents of different states; the ability to individually express yourself by creating and publishing your own websites and personal pages in social networks is, in most cases, used for legitimate business and private purposes.

The existing system of legal acts regulating information relations in Ukraine is characterized by its multi-levelness and influence on subjects of private and public law. Therefore, one of the main goals of the state should be the generalization and improvement of the relevant regulatory and legal array, primarily – concerning relations having public nature. In the opposite case, meaning if the effective and legally regulated National Information Infrastructure is absent, the provision of information to public authorities of Ukraine will continue to remain unsatisfactory¹.

The purpose of the proposed scientific research is to determine the prospects for the further development of legal regulation of the activities of providers, operators, information and computing centers and information agencies as institutional components of national information infrastructure within the global Internet network.

The objective of the article is to conduct systematic analysis of institutional components of the national information infrastructure, their establishment process and current development and maintenance, assess their importance and existing legal regulation.

¹ Соснін, О. (2004). Місце інформаційної діяльності в інноваційній моделі розвитку економіки України. *Стратегічна панорама*, 1, 172.

The main research material. From the advent of civilized society, the role of information and information technologies in human life only keeps expanding. Nowadays, the necessity to examine and understand not only comprehensible (for example, the laws of nature), but also new concepts and values of human society in general (literature, art, architecture etc.) appears to be growing. As noted by Robin Mansell in her research paper, the role of information in life is crucial – the research focusing on the life and times of the information society entices scholars with interests in both information production and consumption and in changes in society more generally, to undertake analysis of its meanings and implications¹.

The prerequisites for the formation of a progressive national information society and the effective implementation of e-government in Ukraine are modern information and analytical support of the activities of public administration bodies, organization of the national electronic information resources system, creation of new and improvement of the existing regulatory framework in the sphere of informatization and harmonization of standards regarding IT products and IT services with EU standards².

The formation, storage, development and dissemination of information resources (in particular, national ones) takes place within the framework of information infrastructures, and, thus, the issue of legal regulation of the institutional components of the National Information Infrastructure of Ukraine, their creation and use have emerged as the top state's priorities.

In particular, the structure of the National Information Infrastructure (the "NII") includes the following elements:

- information resources (information as data);
- means of communication and telecommunication (telecommunication networks, lines and communication facilities);
- regulatory and legal system for the NII functioning;
- automated information systems (organizational and technical systems in which the technology of information processing using the technical and software tools)³;
- system of human resources trainings to ensure proper maintenance of the NII⁴; and
- **institutional components of the NII** (subjects of information services that examine, collect, process, store, transmit and disseminate information – telecommunication services operators and providers, information and computing centers, information agencies).

Within the survey conducted while writing the article, author has scrutinized the institutional components of the NII, in particular institutions (information relations subjects) performing information resources processing and storage.

As regarding the legal definition of the subjects of information relations, according to Article 4 of the Law of Ukraine "On Information", the latter are defined as natural and legal persons, associations of citizens and public authorities, whereas information itself acts as an information relations object⁵.

D. Shpenov in his dissertation research has stated that information law subjects act as parties to legal information relations and carry rights and obligations stipulated in legal information norms. In doing so, such subjects may be either individual (individuals) or collective formations (legal entities, in particular public administration bodies⁶).

In this case, the institutional components (subjects) of the NII should include:

- state and municipal authorities (public administration) that provide information (electronic) services to individuals or legal entities (such information services are provided on the public bodies'

¹ Приймак, Ю. (2011). Розвиток електронного урядування в Україні: організація національних електронних інформаційних ресурсів. *Вісник Національної академії державного управління при Президентіві України*, 4, 126.

² Mansell, R. (2010). The life and times of the Information Society. *Prometheus*, 28 (2), 165–186
<https://www.researchgate.net/publication/227623728_The_life_and_times_of_the_Information_Society> (2019, July, 23).

³ Закон про захист інформації в інформаційно-телекомунікаційних системах 1994 (Верховна Рада України). *Відомості Верховної Ради України*, 31.

⁴ Нестеренко, О. (2014). Проблеми формування національної інформаційної інфраструктури та забезпечення її безпеки. *Реєстрація, зберігання і обробка даних*, 12, 2, 218.

⁵ Закон про інформацію 1995 (Верховна Рада України). *Відомості Верховної Ради України*, 1992, 48.
<<http://zakon2.rada.gov.ua/laws/show/2657-12>>.

⁶ Шпенюв, Д. (2012). *Інформаційні правовідносини*: автореф. дис... канд. рид. наук. Київ, 13.

websites, Unified State Portal of Administrative Services, iGov as the Governmental Services Portal or on other eligible platforms);

- operators and providers of information and telecommunication services (companies that provide services on information transfer to the end users within a single network, and other network operators, providing customers with the capability of traffic transmission through their networks);
- local or central information and computer centers providing information and computer services to enterprises, institutions and organizations of all forms of ownership, as well as public administration bodies; and
- information agencies (agents), which are legal entities and whose activities are aimed at collecting, processing and disseminating information in mass media.

As for public administration bodies as special institutions of NII, it should be primarily noted that as of 15 July 2019 750 bodies of public administration, enterprises and organizations have been connected to the System of electronic interaction of executive authorities (in particular, the Administration of the President of Ukraine, the Cabinet Ministers of Ukraine, the Verkhovna Rada of Ukraine, all ministries, 80% of other central executive bodies we connected¹).

However, despite the above positive insights, ensuring proper functioning of electronic interaction between public administrations is necessary to complete the implementation of the electronic workflow. Moreover, despite relatively high rates of informatization of central executive bodies, regional state and local authorities do not have a fully functioning system of electronic workflow. Thus, the government should pay special attention to comprehensive implementation of e-governance instruments in local municipal authorities.

Another NII institutions that provide information and telecommunication services under the Law of Ukraine "On Telecommunications" are operators and providers of information and telecommunication services. As an example of public telecommunication operators, it is noteworthy to mention the Electronic Interaction System of Executive Authorities, which is a state telecommunication system created to automate the creation, transmission, receipt, processing, use, storage, destruction of electronic documents creating, which have been signed using electronic digital signature and / or electronically sealed, as well as to ensure enforcement of public organizational decisions.

Thus, telecommunication services provider is an entity that has the right to carry out its own activities in the field of telecommunications, but without the corresponding right to provide technical maintenance or any other operational support to information and telecommunication networks, as well as to provide telecommunication channels for exploitation. In order to carry out its core activities a provider is not required to obtain any licenses and it may freely provide access to the Internet through the establishment of its own technical support.

Unlike providers, operator of information and telecommunication services is an entity that has the right to carry out activities in information and telecommunication spheres with the privileged right to carry out maintenance, repair and use the related information and telecommunication networks. Contrary to providers, in order to carry professional activity an operator must obtain the relevant license.

In accordance with applicable legal acts of Ukrainian legislation, the entity willing to act as a telecommunication services operator must obtain a license for maintenance and operation of telecommunication networks². Meanwhile, although local telecommunication services providers have the right to operate without an appropriate license, they are obliged to conclude agreements on network maintenance with local telecommunications operator that are licensed to provide corresponding in the same settlement. Based on the above, it becomes clear that operators and providers in their activities are interconnected actors for the provision of telecommunication services.

Having analyzed applicable legislation it can be concluded that a telecommunication provider has the following rights:

- to provide telecommunication services in accordance with the Law of Ukraine "On Telecommunications", the Law of Ukraine "On Radio Frequency Resource of Ukraine", the Resolution

¹ СЕВ ОБВ. Перелік організацій, підключених до Системи електронної взаємодії органів виконавчої влади версія 2.0 станом на 15.07.2019. *Державне підприємство Державний центр інформаційних ресурсів України*. <<http://dir.gov.ua/sistema-elektronnoyi-vzayemodiyi-organ/koristuvachi-sev-ovv>>.

² *Закон про телекомунікації 2004* (Верховна Рада України). *Відомості Верховної Ради України*, 12. <<http://zakon2.rada.gov.ua/laws/show/1280-15>>.

of the National Commission, which carries out State Regulation in the Field of Communications and Informatization (the "NCSRFCI") "On running the register of operators, telecommunication providers and invalidating the decision of the NCSRFCI dated 11 November 2010 No. 514" and the Resolution of the Cabinet of Ministers of Ukraine (the "CMU") "On Approving the Rules for the Provision and Acquisition of Telecommunication Services";

- to set particular tariffs for telecommunication services, which are provided in addition to the services regulated exclusively by the state;
- to reduce the existing list of telecommunication services or cease the provision of telecommunication services to consumers, who violate the established rules for providing and receiving telecommunication services;
- to disconnect the installed equipment of an active consumer, if the latter has not been installed in accordance with the procedure defined by the applicable law and there are no legal documents confirming the telecommunication services provider's compliance with all the requirements of regulations in the field of information telecommunications;
- to disconnect active consumers from final equipment based on a court decision, if such equipment was used by an unscrupulous subscriber to commit unlawful, criminal acts or acts that threaten the interests of national security (for example, actions to prevent cyber-attacks);
- to install telecommunication equipment owned by consumers in the premises, leased thereafter;
- –to grant providers of information and telecommunication services the right to connect telecommunication facilities to telecommunication networks of general use in accordance with the applicable legislation requirements, as well as with other rights stipulated by the Ukrainian legislation and agreements on information and telecommunication services provision;
- to terminate one's own activity in the field of telecommunication services in accordance with the applicable legislation.

Considering the fact that telecommunication services providers carry out their direct activities in the field of telecommunications in accordance with the law and agreements concluded with licensed telecommunications operators, some particular obligations of the respective telecommunication services providers should be outlined. In particular, it should be emphasized that providers of information and telecommunication services are obliged to:

- provide telecommunication services corresponding to approved quality indicators;
- provide consumers with sufficient and comprehensive information necessary for the conclusion of services contracts, as well as information on telecommunication services provided by a respective provider;
- maintain accurate and transparent accounting of telecommunication services provided by consumer to provider;
- ensure the accuracy of providing and applying statutory defined tariffs;
- keep records of information and telecommunication services provided to active consumers during a limitation period (specified by the applicable legislation) and provide information about the rendered information and telecommunication services in accordance with the procedure established by the current legislation;
- not violate fair competition on telecommunication services market under no circumstances;
- provide the Central body of executive power in the field of communications (the "National Bank of Ukraine" or "NBU") and the NCSRFCI with reporting and information in the amount prescribed by the law and in a timely and complete manner;
- announce existing valid tariffs for telecommunication services, not later than seven calendar days before their immediate introduction;
- warn consumers about possible reduction of the telecommunication services list or disconnection of their end-use equipment in cases and in accordance with the procedure provided for by the rules for the provision and receipt of such services; and
- perform other duties in accordance with the legislation of Ukraine.

Information and computing centers are another one institutional element of the NII. Thus, an information and computing center (the "ICC") is a subdivision, organization, or, to a lesser extent, a complex of premises intended for the placement of computer systems and auxiliary equipment for collecting, processing and using information. ICCs are commonly created on the basis of universities and

their subdivisions. The ICCs are intended to provide access to information resources of Internet networks, as well as software and technical support for scientific activities. Legal regulation of ICCs is done by secondary legislation.

Noteworthy, however, particularly information agencies play the ultimate role in the hierarchy of NII institutional components. Thus, in the course of information and telecommunication systems formation on national and global levels, intermediaries have emerged in relations between information sources and information distributors. In particular, information agencies became such intermediaries.

Information agencies are institutions and organizations that have been registered in accordance with the law. They might be private legal entities or public authorities that provide information activities related to information services provision and act in accordance with the Law of Ukraine "On Information"¹ and the Law of Ukraine "On Information Agencies"².

Particular attention should be paid to the matter of diving information agencies into global and national. Thus, the information agencies activity should be considered depending on the information agency type. For instance, international information agencies have the so-called "exclusive (sole) right to use" the news market in the territory assigned to each agency. At one time, restrictions imposed on the activities of national agencies contributed to the establishment of improper relations between global and national information agencies³.

In terms of the particular article, it is expedient to agree with the O. Harmatii's opinion, who stated in one of her articles that information agencies boom can be observed in modern Ukraine as well as in modern world. In Mrs. Harmatii's opinion, such tendency is triggered with constantly increasing importance of information agencies. In view of this, the study of basic principles and peculiarities of information dissemination is, without a doubt, a contribution to further development of humankind. Moreover, in the context of the information society, the continuously increasing importance of information dissemination will only grow, and, thus, the necessity of creating proper legal framework for information relations and information agencies will keep increasing⁴.

It should also be emphasized that the very formation of new types of demand for information has triggered radical changes in information services provided by information agencies and, in particular, has cause the creation of so-called "new media". Moreover, considering the fact that the combined provision of graphic, textual and audio information provided in real time is a distinct characteristic of new era media resources, the need to legally regulate the formation and functioning of institutional constituents of NII became of paramount importance for modern society.

Conclusions. Having analysed the full spectrum of legal acts defined the regulation of NII institutional components formation and development in Ukraine, it should be concluded that the applicable legislation of Ukraine (both private and public law) needs thorough development and improvement. Given the transience and changeability of information processes in global and national levels, the provision of information and telecommunication services by the subjects of National Information Infrastructure of Ukraine (telecommunication services operators and providers, information and computing centers, information agencies) must be thoroughly regulated and secured.

Relationships on information exchange that arise in virtual environment between individuals and businesses appear to be specific legally binding interactions. They might be of a volitional nature and consist of relative of absolute, legally protected and regulatory defined legal relations. It should also be noted that many scholars define relations within the Internet network as information relations, which makes it possible to state that relations in the Internet are a kind of information communication.

Prospects for further research in this area should be aimed at complex elaboration of the most relevant aspects of NII institutional components activities. In particular, concerning defining the functional

¹ Закон про інформацію 1995 (Верховна Рада України). *Відомості Верховної Ради України (ВВР)*, 1992, 48. <<http://zakon2.rada.gov.ua/laws/show/2657-12>>.

² Закон про інформаційні агентства 1995 (Верховна Рада України). *Відомості Верховної Ради України*, 13. <<http://zakon3.rada.gov.ua/laws/show/74/95-вр>>.

³ Пантелеймонов, О. (2013). *Діяльність інформаційних агентств світу в умовах формування глобального комунікаційного простору*: автореф. дис. ... канд. політ. наук. <<https://mydisser.com/en/catalog/view/247/250/12401.html>>.

⁴ Гарматій, О. (2015). Інформаційні агентства як об'єкт сучасних праць українських та зарубіжних дослідників. *Збірник праць Науково-дослідного інституту пресознавства*, 5, 334-347.

role of telecommunication services providers and/or operators, computing centers and information agencies, particularly the matter of their interaction with each other.

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