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“DIGITAL DIVIDE” IN UKRAINE AS A PROBLEM OF PUBLIC ADMINISTRATION

Abstract. The problem of “digital” inequality in the context of e-government in Ukraine are considered and shown that the bridge of the digital divide in Ukrainian society is one of the essential factors of the development of e-government, information society, building democratic society. Argued that the “digital divide” is a problem of the government as the fight against the “digital divide” head state, politics of such a struggle are based on public documents legalized by high-level political commitment formulated containing relevant authorities (the society, international organizations) succeed in overcoming the “digital divide” requires constant updates legislation. Internet access should be a public service.

Keywords: digital divide, e-government in Ukraine, information society, informatization.

“ЦИФРОВА НЕРІВНІСТЬ” В УКРАЇНІ ЯК ПРОБЛЕМА ДЕРЖАВНОГО УПРАВЛІННЯ

Анотація. Розглянуто проблему “цифрової” нерівності у контексті розвитку електронного урядування в Україні та показано, що подолання циф-

рового розриву в українському суспільстві є одним із необхідних факторів розвитку електронного урядування, інформаційного суспільства, побудови демократичного суспільства. Аргументовано, що “цифрова нерівність” є проблемою державного управління, оскільки боротьбу проти “цифрової нерівності” очолюють держави, політика такої боротьби спирається на легалізовані державні документи високого рівня, які містять сформульовані політичні зобов’язання відповідних органів (перед суспільством, міжнародними організаціями), досягнення успіху у подоланні “цифрової нерівності” вимагає постійних оновлень законодавства. Доступ до мережі Інтернет повинен стати загальнодоступним сервісом.

Ключові слова: цифрова нерівність, електронне урядування в Україні, інформаційне суспільство, інформатизація.

“ЦИФРОВОЕ НЕРАВЕНСТВО” В УКРАИНЕ КАК ПРОБЛЕМА ГОСУДАРСТВЕННОГО УПРАВЛЕНИЯ

Аннотация. Рассмотрена проблема “цифрового” неравенства в контексте развития электронного управления в Украине и показано, что преодоление цифрового разрыва в украинском обществе есть одним из необходимых факторов развития электронного управления, информационного общества, построения демократического общества. Аргументировано, что “цифровое неравенство” — проблема государственного управления, поскольку борьбу против “цифрового неравенства” возглавляют государства, политика такой борьбы опирается на легализированные государственные документы высокого уровня, которые содержат сформулированные политические обязательства соответствующих органов (перед обществом, международными организациями), достижения успеха в преодолении “цифрового неравенства” требует постоянных обновлений законодательства. Доступ к сети Интернет должен стать общедоступным сервисом.

Ключевые слова: цифровое неравенство, электронное управление в Украине, информационное общество, информатизация.

Target setting. The level of access to the Internet in Ukraine clearly reflects such tendency as “digital divide” in the Ukrainian society. According to data of the Ukrainian Internet Association, regular Internet users are 21 million people (63 % of the population) of Ukraine. Nevertheless, the divide between those who live in cities with a population of 100 thousand + in rural areas is substantially enough [6]. This greatly hinders the

development of e-government and e-participation of Ukrainian citizens in government.

Analysis of recent research and publications. Features of a legal support services and operation of development programs for information society, information and e-government in Ukraine, and innovative mechanisms for interaction with public in the system of public administration, issue of the e-government as an effective

mechanism of interaction and form of cooperation between the state and citizens in the information society, as well as current state and ways for improvement of e-governance in the local authority regulatory bodies have been examined by national authors in recent years.

In particular, the role of information technology in the system of public administration is reflected in the works of such scholars as A. Baranov, L. Honiukova, D. Dubov, I. Klimenko, K. Lynov, A. Semenchenko, A. Serant, A. Sylenko, Y. Umanskyi. The issues of e-governance were disclosed by A. Dubov, T. Jigo, A. Zahvoyska, A. Emelianenko, V. Nedbay. O. Litvinenko and others. Nevertheless, problem of “digital divide” requires constant attention of scholars in the context of state information policy analysis and implementation of state e-government into its activities.

The purpose of the article is analysis of the problem “digital divide” as a problem of the state administration and determination of possible ways for solving it in Ukraine.

The statement of basic materials. The results of the latest international assessment of an e-government’s state and e-participation of citizens in governance in Ukraine show that Ukraine has significantly improved its performance in 2016, by taking 62 and 32 places between 193 UN member states (assessment takes place once every two years; in 2014 it was 87 and 77 places). [30] However, there are still many problems to be solved, if we go from the general to more specific, it will be such as systematic education outreach activities among citizens,

widespread introduction of electronic technologies into state administration, and increase of its effectiveness in administration, alignment of “digital divide” among population, formation of conditions for use of the administrative services through e-government by people with disabilities, solving of problem of the personal data protection, minimizing the risks of cyber-attacks, training of public servants regarding effective use of e-governance. They are all interconnected between each other. In the center lies the problem of “digital divide” (in English “digital divide”, information inequality, information or digital split, a digital and electronic gap, watershed computer and a number of other expressions are used synonymously), that means that participants have different possibilities of using advanced information technologies, including Internet access. The term belongs to supporters of distinctive concepts that bind the fate of information structures, means and processes of their uneven distribution among citizens concerning issues of civil rights and material welfare (information inequality as social and economic inequality).

Why “digital divide” is a problem of governance? According to experience of running struggle policies against digital divide that exists in many countries of the world, first of all, such type of struggle against the “digital divide” in the country is headed by the state, and, secondly, the policy of this struggle is based on legalized state documents of the highest level, which includes formulated political commitments of relevant authorities (for society, international organizations), thirdly, achieving of success in overcoming the

“digital divide” requires constant updates of legislation, fourthly, access to the Internet should be a publicly accessible service.

The problem of “digital divide” is a significant problem with e-government. One of the development components of an information society in Ukraine, and construction of a democratic society – is implementation and effective functioning of e-government.

As indicated in the portal “implementation of e-governance, formation of e-government and establishment of e-democracy include new forms of organization and interaction of state bodies with citizens and organizations” [8]. E-governance simplifies procedures for obtaining administrative services to citizens by facilitating access to the information they need. It is also an indicator of openness and transparency in the public administration and local governments.

It is a way of governmental organization with help of system of the local information networks and segments of global information network that provides functioning of public authorities in real time, and makes their communication with citizens, legal entities, and non-governmental organizations more simple and affordable every day. The main component of e-governance is e-government – unified infrastructure of an interdepartmental automated information interaction of the state and local government with citizens and business entities.

As for the systematic education outreach activities among citizens and widespread introduction of the electronic technologies in public administration, improving of their efficiency in admini-

stration. Firstly, Ukraine has significantly worked out the regulatory framework for regulation of relationships in the field of e-governance. In particular, these laws “On electronic documents and electronic document workflow”, “On Access to Public Information”, “On the Fundamentals of Information Society Development in Ukraine for 2007–2015”, “On the National Informatization Program”. Also adopted “Concept of e-governance in Ukraine” and “Information Society Development Strategy in Ukraine”. Their analysis was carried out by author [4]. This legislative framework makes it possible to ensure the effectiveness and quality of administrative services to citizens and businesses, provided through information and communication technologies, and setting up of the system of electronic interaction of state bodies, development and implementation of conceptual principles of the integrated system “Electronic Government”, introduction to the activities of state of the typical organizational and technological solutions and ensuring their effective functioning, implementation of departmental information planning systems and report management within formation of the unified state control system for performance of public authorities in order to ensure development of the social and economic sectors, increasing awareness of citizens and public servants about opportunities that are offered in the framework of e-governance, education of the civil servants and local government officials regarding implementing of e-government.

As for the alignment “digital divide” among population and formation of conditions to use administrative ser-

vices through e-government to people with disabilities. Today, measure of success of an individual and society is not only possession of a specific gadget, but also opportunity and freedom of access to data transfer networks. While having frantic pace of development in the world of high technologies in Ukraine, there is still remains a problem of overcoming the internal digital divide, particularly, at the level “region-region” or “city-village”. An availability of the Internet both from the financial and technological point of view, in rural and remote informational depressed regions of the country – remains extremely low. And, with desire to bring Ukraine closer to the standards of the developed world, this problem is more up to date. The issue was researched comprehensively by experts of relevant market (Joint Venture “Tikon” commissioned by the corporation Intel, 2013) [26] as well as experts from the National Institute for Strategic Studies under the President of Ukraine [11] In summary, we should admit that the following conclusion will be –in order to overcome the growing digital divide and real provision of segments of the population with access to the Internet in Ukraine at this stage of its development, it is advisable to develop the idea of a specialized fund that corresponds to UN recommendations (such as “Global Digital Solidarity Fund”). Direct preparation of the concept of “Digital Solidarity Fund” should be preceded by work to determine the economic feasibility of the project, information mapping of Ukraine with clear information outlining of depressed regions, determining of an actual number of

users of this service and resources necessary for implementation of the priority objectives of the Fund. Establishment of the concept of “Digital Solidarity Fund” should be a joint project of the National Commission for the State Regulation of Communications and Informatization, ministries, companies in the private sector, IT representatives of civil society, scientific and expert institutions [11].

All mentioned criticism together does not remove the problem of overcoming the internal digital divide (at the level ‘region-region’ or ‘city-village’), that really needs to be solved. An especially acute problem is the problem of further spreading out of the Internet available (both financial and technological point of view) in rural and remote information depressed areas. Similarly, special care of the state should be a high-quality Internet access to vulnerable social groups (first of all, people with disabilities/ developmental disabilities).”In view of the economic performance of the Ukrainian state, it is somewhat premature to ask questions, whether the state will provide a real ‘universal’ access to the Internet for majority of people in the near future. Also, it is inappropriate to assume that such a ‘universal’ access will be able to ensure, without participation of the states, the ‘excellent technological solutions’, in fact, position of many opponents of this idea comes down to it.”

It’s worth remarking that citizens of Ukraine more actively learn modern information and communication technologies, by using them in personal, social and professional life, by implementing into business processes in order to

optimize the time and material costs, and, thus, increase their efficiency, the problem remains. Acquaintance of the citizens with mechanisms and tools of e-governance in Ukraine is quite slow.

As emphasizes Santiago Arhelich, Commercial Director of 'Kyivstar', "to overcome the digital divide in Ukraine one should solve two problems. The first is a lack of Internet access and possibility to buy the necessary devices or get them for use. The second reason is not so obvious, but no less serious: self-isolation or unwillingness to use digital technologies" [22]. This happens because of the fact that many citizens do not realize the benefits that provides access to the Internet. Sociologists also argue the fact that citizens are neither interested nor motivated to get new skills for mastering of new devices. Nevertheless, 'recipes' to overcome the 'digital divide' exist. They are reflected in the provisions of Okinawa Charter on Global Information Society, Ministerial Declaration 'Development and international cooperation in the XXI century: the role of information technologies in the context of a global economy based on knowledge', recommendations of a number of international expert/ analytical/ national groups. The Human Rights Council of the United Nations in 2012 declared that Internet access is one the human rights [28]. Thus, solving of the problem 'digital divide' requires a balanced nationwide systematic approach. Briefly it consist of: politics ('digital divide'- a measure of competitiveness, a national strategy, an internal policy, it is appropriate terms of economic development in these sectors), access (joint efforts of the state

and business aimed at development of information infrastructure), services (increase of diversity and quantity of services to public and business by using information technologies), content (permanent system research of national, ideological, political, economic, cultural, religious and other aspects of Ukrainian society and publicly available electronic information resources), knowledge and skills (online educational programs at all levels of education, scientific and educational projects, scientific and educational television programs), motivation (to explain the benefits of digital technologies (both quantitative and qualitative), time-saving; more likely to find a job, convenient online shopping and electronic banking, communication in social networking, pragmatic aspects of the Internet).

The acute problem of protection of the personal data has arisen, and necessity for minimizing risks in the cyberattacks. In particular, the question is not only theoretical, organizational and legal principles of protection of the personal data in the context of European integration of Ukraine, and practical aspects of the problem of protection of human rights in the information society [19]. As experts state, at this time the level of protection of information resources in Ukraine (both public and private, including objects with critical infrastructure), is one that does not meet the requirements of the present day (this fact is not new among experts in information security of Ukraine — Ukrainian Information Security Group).

"In terms of expected cyber aggression towards information resources in

Ukraine, actually, every owner of an information resource is himself to himself against an organized and powerful enemy. For example, from massive DDoS attacks one could protect himself only through third-party anti-DDoS-services, collectively". "Consequently, formation of a single trusted Coordination Center for exchange of information and information security incidents according to world standards" [27].

Government institutions and organizations react slowly to the growth of demands of the society regarding use of modern information and communication, networking technologies in their work. This complicates the process of interaction between the state and local government with citizens and business entities. In this situation, not only the lack of financing is key point, but also training of civil servants for effective use of information technologies. The low level of computer literacy among civil servants and local government officials is solved through request by state as an employer.

Modern researches define positive global tendencies in the development of e-government, generally. More and more countries involve citizens into decision-making by using innovations in the sphere of information and communication technologies in order to provide services and involvement of people into decision-making. Provision of services takes place while taking into account the individual needs. At the same time, within a country still the quite significant inequalities of access to e-government technologies. Lack of access to technologies, poverty and inequality do not allow people to take full advan-

tage of this potential for sustainable development of Ukrainian society.

Conclusions. It is obvious that general state of level of the information society in Ukraine does not provide currently accessibility to citizens of various forms of e-democracy. An open-ended question of development of e-democracy in Ukraine remains visible interregional 'digital divide'. In science of state administration, this issue should be developed not only in relation to the needs of theoretical analysis of administrative and political communication, but also from the standpoint of practice. Why this is a problem of government? The reason is that, firstly, there is a problem of consequences of a current de facto difference between users and non-Internet users for a political life of the Ukrainian society, participation of citizens in the process of developing and making important administrative decisions. Secondly, elimination (reduction) of 'digital divide' is responsibility of a democratic government that is committed to providing equal opportunities for citizens. Thirdly, problem of the digital divide represented evidently at level of the global community. Its problem consists in the fact that modern information technologies reinforce inequality between developed countries and developing countries. Consequently, governments of developing countries seek to integrate into the community of developed countries with provision of such conditions. In addition to it, the state should ensure coordinate efforts of all state authorities in Ukraine for widespread introduction of the ICT in public administration with simultaneous viewing and optimizing of the public pro-

cesses and objectives among which an alignment among population of 'digital divide', formation of conditions for use of the administrative services with help of e-government for people with disabilities; solving of a problem of personal data protection, while minimizing the risks of cyber-attacks, training of civil servants for effective use of e-governance, also, with systematic educational outreach activities among citizens regarding benefits of the digital technologies.

REFERENCES

1. *Abramenko* Yu. Yu. Foreign experience of e-governance and problems of its implementation in Ukraine [electronic resource] / Yu. Yu. Abramenko, I. A. Chykarenko // Public Administration: Theory and Practice: electronic collection of scientific papers. — Issued 2 (2) / 2009 — access mode: <http://www.dridu.dp.ua/zbirnik/2009-02/09ayypiu.pdf>. — Date of appeal: 2.1.2017.
2. *Arkipova* E. O. E-governance as a form of governmental organization [electronic resource] / E. O. Arkipova // Public administration, improvement and development. — 2015. — # 5. — Access mode: <http://www.dy.nayka.com.ua/?op=1&z=855> (date of request 05.11.16). — Date of appeal: 1.2.2017.
3. *Baranov* A. A. Information infrastructure: problems of regulatory activities: monograph / A. A. Baranov. — Kiev: Issued. Dmitry Burago House, 2012. — 352 p.
4. *Hasymov* R. A. Peculiarities of legal support and functioning of development programs for information society, information and e-government in Ukraine / R. A. Hasymov // Scientific Journal of the Academy of Municipal Management: electronic collection of scientific papers Series: Management / Academy Municipal Management; chief editor A. I. Datsiia. — Kiev, 2016. — Vol. 4. — 146 — 153 pp.
5. *Honiukova* L. V. The main directions of cooperation between the authorities and community and necessary conditions for it [electronic resource] / L. V. Honiukova // Public administration, improvement and development. — # 3. — 2015. — Access mode: <http://www.dy.nayka.com.ua/?op=1&z=819>. — Date of appeal: 2.1.2017.
6. *Data* of the statutory researches in IV quarter of 2016 // The research data of the Internet audience in Ukraine. — Access mode: http://www.inau.org.ua/analytics_vuq.phtml. — Date of appeal: 2.1.2017.
7. *Danil'yan* V. O. Information society and prospects of its development in Ukraine (socio-philosophical analysis) / V. O. Danil'yan. — X: Law, 2008. — 184 p.
8. *Activities* // the State Agency for E-Governance. — Access mode: <http://www.dknii.gov.ua/content/elektronne-uryaduvannya>. — Date of request: 2.1.2017. — Date of appeal: 2.1.2017.
9. *Handbook* of e-governance for local government in Ukraine practical instructions and best practices of local e-governance / Kh. Astok, L. Khyanni, E. Krenyeva, M. Lyekich, etc.. — K. E-Government Academy, 2014 — 66 p.
10. *Dubov* D. V. Information society in Ukraine: global challenges and national capacities: analytical examination/ D. V. Dubov, O. A. Ozhevan, S. L. Hnatiuk. — K., NISD, 2010. — 64 p.
11. *Dubov* D. V., *Ozhevan* M. A. "Building of the Digital Solidarity Fund in Ukraine as a promising direction to overcome the internal digital di-

- vide.” Analytical note // National Institute for Strategic Studies. — Access mode: <http://www.niss.gov.ua/articles/1157//articles/496/>. — Date of appeal: 2.1.2017.
12. *Law of Ukraine “On the National Informatization Program”* [electronic resource]. — Effective as of 04.02.1998; edition dated 02.12.2012 — Access mode: <http://zakon4.rada.gov.ua/laws/show/74/98-%D0%B2%D1%80>. — Date of appeal: 2.1.2017.
 13. “*Law of Ukraine on the Basic Principles for the Development of an Information-Oriented Society in Ukraine for 2007–2015*” [electronic resource]. — 09.01.2007 was adopted. — Access mode: <http://zakon4.rada.gov.ua/laws/show/537-16>. — Date of appeal: 2.1.2017.
 14. *Collection of legislative and regulatory documents in the field of science, innovation and information / L. A. Kurhuzenkova, L. V. Volosheniuk.* — K: UkrINTEI, 2011. — 356 p.
 15. *Ivanov G. V. Fundamentals of Informatics and Calculating Techniques: Textbook / G. V. Ivanov, V. V. Karasyuk M. V. Hvozdenko.* — X.: Law, 2012. — 312 p.
 16. *Integration of Law and Informatics, applied and substantive aspects: Monograph / editor: V. G. Ivanov, V. Yu. Shepitko, V. V. Karasyuk.* — X.: Law, 2012. — 248 p.
 17. *Information space of Ukraine: dictionary and handbook of legislative terms compiler Ya. O. Chepurenko.* — K. Education of Ukraine, 2008. — 544 p.
 18. *Information technologies as a factor of social transformation in Ukraine: collection of analytical examinations / under the editorship of D. V. Dubov.* — K., NISD, 2011. — 96 p.
 19. *Melnyk K. S.: Monograph / K. S. Melnyk; general editorship Pilipchuk V. G., V. M. Brizhko — K.: LLC “Pan-Tot.”* — 2016. — 126 p.
 20. *Resolution of the Cabinet of Ministers of Ukraine “On approval of the concept of e-government in Ukraine”* [electronic resource]. — Effective as of 13.12.2010. — Access mode: <http://zakon1.rada.gov.ua/laws/show/2250-2010-%D1%80>. — Date of appeal: 2.1.2017.
 21. *Resolution of the Cabinet of Ministers of Ukraine “On Approval of the Strategy for Information Society Development in Ukraine”* [electronic resource]. — Effective as of 15.05.2015. — Access mode: <http://zakon4.rada.gov.ua/laws/show/386-2013-%D1%80#n8>. — Date of appeal: 2.1.2017.
 22. *Santiago Arhelich. What is a price for digital divide in Ukraine. And how one can overcomes it // Forbes.ua.* December 01, 2014 — Access mode: <http://forbes.net.ua/ua/opinions/1383618-yaka-cina-cifrovoyi-nerivnosti-dlya-ukrayini>. Date of request: 02.01.2017.
 23. *Semchuk I. V., V. G. Mazur. E-governance in local government: state and ways to improve it / I. V. Semchuk, V. G. Mazur // Theory and practice of public administration.* — 2013. — Vol. 2. — P. 106–112.
 24. *Silenko A. Electronic Ukraine* [electronic resource] / Alla Silenko // *Political Management.* — 2003. — № 3. — Access mode: <http://www.politik.org.ua/vid/magcontent.php3?m=1&n=17&c=151>. — Date of appeal: 2.1.2017.
 25. *Current state, problems and prospects of development of the electronic administrative services in Ukraine: analytical note* [Electronic resource] / executed by A. O. Serenok, T. I. Oliynyk // National Institute for Strategic Studies under the President of Ukraine, 2014. — 72 p. Access

- mode: <http://www.niss.gov.ua/articles/1716/>. – Date of appeal: 2.1.2017.
26. *Broadband* Internet in Ukraine: current situation and prospects [electronic resource]. – Access mode: <http://1to1.iteach.com.ua/files/index.html>. – Date of appeal: 2.1.2017.
27. *National* Human Security Hackathon. – Access mode: <http://security.socialboost.com.ua/ideas/view/256>. – Date of appeal: 2.1.2017.
28. *The promotion*, protection and enjoyment of human rights on the Internet: 20th session of the Human Rights Council: Resolutions, decisions and President's statements, Symbol 20/8. Access mode: www.ohchr.org/EN/HRBodies/HRC/RegularSessions/Session20/Pages/ResDecStat.aspx. – Date of appeal: 2.1.2017.
29. *United Nations* E-Government Survey 2014-Government for the E future We Want. United Nations. – New York, 2014. – 284 p.
30. *United Nations* E-Government Survey 2016: E-Government in Support of Sustainable Development launched July 2016. – Access mode: <http://workspace.unpan.org/sites/Internet/Documents/UNPAN96407.pdf>. – Date of appeal: 2.1.2017.
31. *Zubchuk O. A.* Qualified higher education: the formation of human capital and increase of competitiveness of state and political risks // Public Policy and Economic Development. Scientific and Practical Journal, Adam Mickiewicz University; Petro Mohyla Black Sea State University, 2015, vol. 5 (9), p. 86–100.