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THE INFORMATION SOCIETY AND DIGITAL TRANSFORMATION OF A STATE: DEVELOPMENT AND INTERPRETATIONS IN THE FUTUROLOGICAL THOUGHT

ABSTRACT

The theories of the information society and the idea of the modern digital state need an interdisciplinary approach. Practical realization of the concept of the digital state issues a challenge to public administration. It might be observed that public entities, while they work on electronic solutions, do not focus adequate attention on their cooperation. In Poland, the scope of digitalization and electronic services provided by public administration has extended. The digital transformation of public institutions is of high importance in the context the human rights. Cybersecurity and some contemporary threats related to the public sphere (cybercrime, cyberterrorism, cyberwar, fake news) trigger the changes in legal systems and public institutions. They also affect people, their cognitive abilities and identity. It is significant that the predictions concerning the information society and the digital state in the context of social changes have been present in the futurological thought. They include the thoughts of Alvin Toffler, Samuel P. Huntington, and Francis Fukuyama. The authors deal with the civilization changes, transformation related to dissemination of modern ICT technology, clash of cultures and their influence on societies and states.

KEYWORDS: *ICT technology, digital state, information, bureaucracy, futurist, social changes*

INTRODUCTORY REMARKS

The theories of the information society and the idea of the modern digital state need an interdisciplinary approach. The digital transformation of public institutions is of high importance in the context the human rights. Cybersecurity and some contemporary threats related to the public sphere (cybercrime, cyberterrorism, cyberwar, fake news) trigger the changes in legal systems and public institutions. They also affect people, their cognitive abilities and identity. It is significant that the predictions concerning the information society and the digital state in the context of social changes have been present in the futurological thought.

With the transformation of a geopolitical situation where the ideological differences between communism and capitalism determined worldwide politics and the dominance of the United States of America and Russia was incontrovertible, a variety of prognostic theories about the world of politics, economy, and social changes have appeared. The most popular theories derive from the American academia. They include the thoughts of Alvin Toffler, Samuel P. Huntington, and Francis Fukuyama. The authors deal with some aspects of civilization changes, transformation related to dissemination of modern ICT technology, clash of cultures and their influence on societies and states from the perspective of futurology. Regardless of the differences among these authors as far as their diagnosis are concerned, their predictions are closely related to the social and political aspects of changes as well as their impact on an individual. They are based on a rich factual material that predicts the future to some extent. It should be taken into account that the list of authors presented above is incomplete. For example, Marcin Kowaczyk in his book *Cyfrowe państwo. Uwarunkowania i perspektywy (Digital State. Determinants and Perspectives)* mentions the other futurologists whose concepts influenced the development of contemporary information society, e.g. Stanisław Lem, Philip K. Dick, Isaac Asimov, Arthur C. Clark, or William Gibson¹.

The present article focuses on the development of information society from the perspective of chosen representatives of the futurological thought. The main questions the present study strives to answer are: What are the

¹ M. Kowalczyk, *Cyfrowe państwo. Uwarunkowania i perspektywy*, PWN, Warszawa 2019, p. 121.

purposes of the information society and digital state? In which way is the vision of futurologists compatible with reality? How can we assess Polish experience in the context of the development of the information society? In this particular study, the descriptive method of theoretical analysis, and the formal-dogmatic method (according to the Polish typology) were applied to address the research questions and to reach some conclusions. The concepts of the information society and digital state are presented in the first part of the article. The second part of the publication is devoted to the deliberations of Alvin Toffler referring to 'the third wave', and the problems of adaptation to new technological conditions. Then, the redefinition of the world order in the perception of Samuel P. Huntington and some more optimistic concepts of the future governance formulated by Francis Fukuyama are shown. The last part of the article deals with the digital transformation and present Polish empiria. Unfortunately, since the modest scope of this article does not allow for an exhaustive treatment of the subject, the present work is contributory in nature.

SEARCHING FOR DEVELOPMENT: THE MODERN DIGITAL STATE

It is worth mentioning that there is not any universally accepted concept of what exactly can be defined as the information society². It seems that information society is a successor to the industrial society. Michał Goliński perceives the information society as a synthetic term describing new social, economic, political, and cultural phenomena that took place in the 2nd half of the 20th century, as a consequence of evolution and operation of information

² M. Goliński, *Spółeczeństwo informacyjne. Geneza koncepcji i problematyka pomiaru*, Oficyna Wydawnicza szkoły Głównej Handlowej, Warszawa 2011, pp. 27-30; F. Webster, *Theories of the Information Society*, 3rd edn., Routledge, London and New York 2006, pp. 8-31. See also G.D. Garson, *Public Information Technology and E-Governance: Managing the Virtual State*, Jones and Barlett Publishers, Mississauga 2006, 541 pp.; R. Heeks, *Implementing and Managing E-Government: An International Text*, Sage 2006, 304 pp.

and digital techniques³. Information technology goes beyond the internet. In fact, it influences other areas, and there are discussions over how big this influence really is.

Frank Webster, a British sociologist, is of the opinion that the character of information has transformed the way we live today because of the emergence of an apparently new way of conceiving contemporary societies⁴. In fact, his critical writing on the information society has been widely discussed and criticized. Information as a distinguishing feature of the modern world was taken into wider consideration in scientific research a few decades ago. The prioritization of information heralded the development of the 'e-society'. The United States, Japan, Germany, Great Britain and other nations with a similar way of life have been identified by many commentators as 'information societies'. With the development of the European Union, the idea of 'the global information society' has evolved. In the perception of Frank Webster, the concept of information society has been a source of controversy. On the one hand, "it constitutes the beginning of a truly professional and caring society"⁵. On the other hand, "it represents a tightening of control over the citizenry"⁶. Furthermore, to some it announces the emergence of a highly educated part of society "which has ready access to knowledge while to others it means a deluge of trivia, sensationalism and misleading propaganda"⁷.

The issue of information society and digital transformation of a state unavoidably leads to the concept of the digital state. The digital transformation of a state might be defined as the transformation of the activities of public organizations which is expressed in the intense integration of digital technologies and business process of these units, and consequently it leads to the development of a new model of the state operation. Integrated information

³ M. Goliński, *Spółeczeństwo informacyjne. Geneza koncepcji...*, op. cit., p. 31. For more, see also idem, *Spółeczeństwo informacyjne: problemy definicyjne i problemy pomiaru*, "Dydaktyka Informatyki" 2004, no. 1, pp. 43-55.

⁴ F. Webster, *Theories of the Information...*, op. cit., p. 2.

⁵ Ibidem.

⁶ Ibidem.

⁷ Ibidem.

technology systems will be the core of a new state. The destination effect of such transformation will be the digital state⁸.

In the context of public organizations, particularly public administration units, the issue of transformation is of high importance. Currently, individuals and business entities expect public administration units to assure the rational use of public funds (as in a private sector). It expresses in the expectations to be provided for such organization of a public sector which comprises an integrated approach to the multichannel service provision thanks to electronic (e.g. on-line) and traditional methods (e.g. individual contacts). In fact, it requires carrying out some deep changes in the sphere of the whole public sector operation. The changes should be of systemic nature, and the perspective of the whole country, not only an individual, should be taken into account⁹.

The digital transformation of a state stands out from a variety of the other transformation undertakings. It is significant that the perspective of a public sector as a whole (not individual citizens) should be taken into consideration during the transformation activities in order to assure the effective cooperation of public organizations at national level. The emphasis is put on an individual citizen, not on 'a client' of public administration. There is also intention to engage citizens, as the owners and participants, into the process of creation of public digital service, because they should not be treated as passive consumers or recipients. Therefore, there are realized such initiatives which target is to transfer some part of public service into digital sphere, in which the civil servants are directly engaged because they are also beneficiaries. Health care and educational system might be examples here¹⁰.

⁸ *Cyfrowa transformacja państwa*, oprac. A. Sobczak, Ośrodek Studiów nad Cyfrowym Państwem, <https://cyfrowepanstwo.pl/wizja-cyfrowego-panstwa-transformacja-organizacji-publicznych>, access 05.06.2021.

⁹ *Ibidem*.

¹⁰ *Ibidem*.

THE ATTEMPTS TO PREDICT THE INSTITUTIONAL FUTURE OF THE DIGITAL STATE

Sets of rules and ideas arrange more or less recognizable patterns in every culture. Understanding the present, reconstruction of the past and looking forward to the future may prepare the ground for the rationally organized desired future. The hypothetical predictions are not usually free from the subjective interpretation. They might be based on some verifiable, empirical facts but we have to assume the importance of our imagination. Although the attempts of scientific interpretation of political, economic, and social events in a holistic way might be risky, we need such types of diagnosis because they allow us to anticipate the events, to shape the reality and situate it in the intended general formula. In fact, we need to determine the conceptual framework of scientific predictions and some outlines of axiological hierarchy because it may allow us to shape the reality in which we operate.

Alvin Toffler (1928-2016) is an American sociologist and writer regarded as one of the world's outstanding futurists. He is known for his works discussing modern technologies, communication, and digital revolution, where he put the emphasis on their effects on cultures worldwide. The author of *Future Shock* (1970)¹¹, *The Third Wave* (1980)¹², and *Powershift, Knowledge, Wealth and Violence at the Edge of the 21st Century* (1990)¹³ assumes that the main determinant of civilization changes affecting the speed and scale of interdependence relationships is the development of modern technologies. He notices a fundamental premise of the change of a whole structure of civilization in their improvement. It is also marked by extraordinary dynamism and expansionism. By the interaction of three great waves (in metaphorical terms), Toffler tries to determine the importance of these elements of the system, because they will determine the future and revolutionize the current model of the world. In this context, he analyzes a series of transformations which take place, e.g. in commerce, in culture and natural environment, inside a family, or in law. In

¹¹ Publisher Random House, New York 1970.

¹² Publisher William Morrow, New York 1980.

¹³ Publisher Bantam Books, 1990.

his perception, the first wave represents the agricultural civilization, the second one – industrial, and the third one (related to dissemination of modern technologies)–postmodern. The main pivot of conflict occurs between the industrial and post-industrial governance¹⁴.

The second wave created so-called ‘mass society’ and ‘mass production’. The states of the third wave mainly refer to intellectual resources, and mass production is a cultural relic¹⁵. The clash of the historical waves of civilization causes profound transformations in the political, axiological, epistemological, sociological, and normative spheres. It generates a series of social tensions, which may become a hotbed of conflict situations. Their arena is primarily the Western civilization because it evaluated from a particular agricultural civilization into a worldwide industrial civilization, and currently it takes the form of even more universal post-industrial civilization. The other key symptoms are changes in the structure of employment. Transformation, coming together with a third wave, implements some processes in high developed countries connected with the internal deconstruction and reconstruction activities. Huge corporations and governmental bureaucracy lose their importance. Some new modular organizations appear and the market breaks down into smaller fragments. Everything evolves in this system¹⁶. A new global system consists of regions, corporations, non-governmental organizations, and some political movements. They all confront with each other, they have different interests, and they reflect different degrees of interaction. Divergent economic needs of the first, second and third waves are reflected in radically different concepts of ‘a national interest’¹⁷. It might trigger some strong tensions among the countries in a short period of time¹⁸.

¹⁴ A. Toffler, H. Toffler, *Budowa nowej cywilizacji. Polityka trzeciej fali*, Zys i S-ka, Poznań 1996, p. 17.

¹⁵ Ibidem, p. 29.

¹⁶ A. Toffler, *Wojna i antywojna: jak przerwać na progu XXI wieku*, trans. B. Budzanowska-Budrecka, L. Budrecki, Warszawskie Wydawnictwo Literackie Muza, Warszawa 1997, p. 124.

¹⁷ It should be taken into account that the concept ‘a national interest’ has become anachronistic.

¹⁸ E. Sokalska, M. Augustyniak, *The Influence of Civilization Changes on Legal Cultures in the Reception of the Chosen Representatives of Political and Philosophical Thought*, [in:] *Collection of Papers from the International Academic Conference. Clash of Legal Cultures in Europe*. Bratislava Legal Forum 2016, eds. M. Lenhart, J. Andraško, J. Hamulák, Univerzita Komenského v Bratislave, Právnická Fakulta, Bratislava 2016, on-line:<http://lawconference.sk/>, pp. 87-88.

In *Future Shock* Alvin Toffler argues that people overwhelmed by change suffer not only concrete biochemical consequences, but also marked psychological distress, confusion disorientation, occasionally lapsing into apathy or even violence. Toffler's term 'future shock' refers to what happens to a society if changes occur too fast. It results in social confusion and disruption of the ordinary decision-making process¹⁹. He analyzes the political, social, and psychological implications of accelerating changes. It is significant that he recommends a new form of political process—anticipatory democracy, and changes in education or control of technology. He assumes that “if accelerating techno-social change was creating an alien society in our very midst, perhaps much of the widespread disorientation, alienation, psychological stress, and even breakdown we see the result of adaptation failure”²⁰. Then he adds that “perhaps people could suffer from ‘the premature arrival of the future’ and go into ‘future shock’²¹”.

The peaceful balance of the twenty-first century requires a deep understanding of the new revolutionary links of knowledge, prosperity, and a war. The crisis that the world is facing today is the lack of peaceful formula corresponding to conditions and realities of the third wave. The increasing diversity of the causes and forms of conflict requires a variety of concepts and actions to preserve peace. Particularly, there must be taken into account the transition of a modern world from two to three levels of the governmental system. This transition disposes an agrarian, industrial, and 'oversymbolic' economic order²². In the last one, there should be considered even such phenomena as: the increasing importance of transnational forces, the flow of an intellectual potential, the cosmic space that begins to change the balance of military forces on the planet, info – and eco-terrorism, or illegal markets of weapons or drugs. Peaceful strategies that do not accurately reflect the reality, in which we live, may

¹⁹ A. Toffler, *Future Shock...*, op. cit., 505 pp. See also J.B. McGrew, *Future Shock. Alvin Toffler. New York: Random House, 1970. 505 pp.*, “The Bulletin of the National Association of Secondary School Principals” Nov. 1970, no. 54, issue 349, pp. 123-129.

²⁰ *Interview with Alvin Toffler*, „Citation Classic” Nov. 1982, no. 45, p. 20.

²¹ *Ibidem*.

²² For more about 'oversymbolic' economic order in the perception of Alvin Toffler, see E. Kundera, *Koncepcja gospodarki nadsymbolicznej Alvina Tofflera*, “Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach” 2016, no. 259, pp. 60-69.

prove to be ineffective and also dangerous. The diagnoses of the present are insufficient, and preventive efforts for peace also require a careful look forward the future²³.

It is significant that some of the Toffler's diagnoses have appeared accurate. Although, Toffler predicted that people would work at home ('the electronic cottage')²⁴, in 1983, during his conversation with Wiktor Osiatyński, he assumed that work at home might pose a threat to people. An individual may feel lonely and isolated²⁵. Toffler anticipated negative effects of centralization of bureaucracy of the European Union. In 1994, for *New Scientist* he stated that "the European Union should not be a bureaucratic, nation-based union – it will have to be a Europe of regions. And it will have to recognize the importance of science and technology [...], and it will have to break up the remaining centralized PTTs and accelerated the development of electronic infrastructure"²⁶. Toffler also forecasted collecting big electronic data, out-source labor, and desktop manufacturing as specific forms of tasks' allocation outside companies²⁷. He pointed out that knowledge might be compressed in the form of abstractive symbols ('the outside brain'). One of the side effects of the digital age in his perception is 'information overload'.

The subject of rational communication of the cultures in the era of digital transformation is taken into closer consideration by Samuel P. Huntington (1927-2008). The relationships among various civilizations are in the centre of his deliberations presented in his famous book *The Clash of Civilizations and the Remaking of World Order*²⁸. He did not devote as much attention as Alvin Toffler to digital revolution but technological innovation is examined by him in the context of the emerging global politics, international security, the structure of civilizations, shifting balance of power among civilizations, and

²³ E. Sokalska, M. Augustyniak, *The Influence of Civilization Changes...*, op. cit., pp. 87-88.

²⁴ M. Kowalczyk, *Cyfrowe państwo...*, op. cit., p. 118; D.G. Garson, *Public Information Technology...*, op. cit., pp. 12-13.

²⁵ W. Osiatyński, *Przedmowa*, [in:] A. Toffler, *Trzecia fala*, trans. E. Woydyłło, Państwowy Instytut Wydawniczy, Warszawa 1985, p. 12.

²⁶ Alvin Toffler: *still shocking after all these years*. *New scientist meets the controversial futurologist*, "New Scientist" 1994, 19 March, pp. 22-25, <http://www.sociosite.net/topics/texts/toffler.php>, access 20.06.2021.

²⁷ Gardels N., *Alvin Toffler Saw The Future Before It Arrived*, "Huffington Post" 07.04.2016, https://www.huffpost.com/entry/alvin-toffler-passes-away_n_57768737e4b0a629c1a9b03c, access 10.06.2021.

²⁸ First published in 1997 by Simon & Schuster UK, Ltd.

conflicts generated by Western universalism. He clearly recognizes the need to redefine the function and importance of nation-states based on one law, one language, one history, and one worldview. Relationship between a state and a nation has been weakening gradually. Countries find it increasingly difficult to ensure safety for their citizens. Their actions in this regard are ineffective if they are not related to the other political organisms, international institutions, or global investors.

Huntington argues that more significant than economics and demography are problems of cultural suicide, moral decline, and political disunity of the Western civilization. The manifestations of moral decline are “increases in anti-social behavior, such as crime, drug use, and violence”²⁹. In his perception, “family decay, including increased rates of divorce, illegitimacy, teen-age pregnancy, and single parent families”³⁰ are also visible indicators of moral decline. He also adds here “a decline in ‘social capital’, that is, membership in voluntary associations and the interpersonal trust associated with such membership; general weakening of the ‘work ethic’ and the rise of a cult of personal indulgence; decreasing commitment to learning and intellectual activity”³¹. In fact, the future of the West and its influence on other societies depends on the success in coping with the mentioned trends³².

In Europe, international institutions have assumed important functions previously performed by states. New bureaucratic structures operate directly on individuals. We are the witnesses of reduction of the power of governments through the cession to the political regional, provincial, and local sub-state units. Some regional movements strive to substantial autonomy or secession. As a result of this, national governments have lost, to some extent, their control over the international flow of money. States have lost the ability to control the flow of ideas, technology, goods, and people. National boundaries become increasingly permeable. As a result

²⁹ S.P. Huntington, *The Clash of Civilizations and the Remaking of World Order*, Simon & Schuster, London-Sydney 2002, p. 304.

³⁰ Ibidem.

³¹ Ibidem.

³² S.P. Huntington, *Zderzenie cywilizacji i nowy kształt ładu światowego*, Warszawskie Wydawnictwo Literackie Muza SA, Warszawa 2001, p. 537.

of these developments, compact uniform states have turned into complex, multilayered international order³³.

According to Huntington, modernization, which involves the adoption of modern production technologies, industrialization, urbanization, the development of communication, and the change of social organization should not proceed in parallel with the process of westernization. Moreover, the attempts to reject the own culture, and the introduction of social and legal institutions acquired from Western civilization can hinder the process of modernization in other cultures. Finally, the changes that occur in civilizations are conditioned by their own specificity, which should be reflected in political, legal, and economic system. Culture diversities will be the core aspect of a new world conflict³⁴.

One of the most optimistic concepts of the future governance is formulated by Francis Fukuyama (1952-)³⁵. He is of the opinion that end of the Cold War would mean the end to the conflict determining global politics and the emergence of fundamentally harmonious world. Liberal democracy which defeated hereditary monarchy, fascism, and communism would be the final point of the ideological evolution of humanity, and the same it would constitute the 'ultimate form of government', which will be the real 'end of history'³⁶. According to Fukuyama, western achievements in the field of empirical science significantly contribute to the harmonization of civilized societies. It will be technology that will decide about the victory in the wars, it will establish a uniform way of producing goods, and it will create the possibility of the

³³ S.P. Huntington, *The Clash of Civilizations...*, op. cit., p. 35. See also the characteristics of the waves of democratization presented in S.P. Huntington, *Trzecia fala demokratyzacji*, trans. A. Dziurdziuk, Wydawnictwo Naukowe PWN, Warszawa 2009; A. Skorupka, *Demokratyzacja świata według Samuela Huntingtona*, "Rocznik Filozoficzny Ignatium" 2016, no. 22 (2), pp. 206-221.

³⁴ Cf. D. Miłoszowski, *Zderzenie cywilizacji – mit czy rzeczywistość*, [in:] *Świat współczesny. Wyzwania, zagrożenia i współzależności w procesie budowy Nowego Porządku Międzynarodowego*, ed. W. Malendowski, Wydawnictwo Naukowe WNPiD UAM, Poznań 2008, p. 310. See also the methodological analysis of the civilization paradigm as perceived by Samuel P. Huntington presented by Grzegorz Bednarczyk in *Paradygmat cywilizacyjny Samuela P. Huntingtona. Droga do zrozumienia współczesnych problemów Zachodu?*, "Kultura i Wartości" 2017, no. 21, pp. 29-60.

³⁵ F. Fukuyama, *The End of History and the Last Man*, Free Press 1992, 446 pp.; idem, *Political Order and Political Decay. From the Industrial Revolution to the Globalization of Democracy*, Farrar, Straus and Giroux, New York 2014, 690 pp.

³⁶ Idem, *Koniec historii*, Wydawnictwo Znak, Kraków 2009, p. 9.

endless accumulation of goods by meeting the growing human needs. These processes contribute to the increased homogenization of society, regardless of cultural heritage and historical experience of nations and states.

Fukuyama perceives human history as history of searching the best form of fulfillment of human needs. The liberal system is based on the principle of freedom of the market, while the essence of democracy is the pursuit of political equality. The universal foundation of these values is a rational recognition of the dignity of every human being, regardless of his race, nationality, gender, and religion. The struggle among variety of ethnic groups for recognition of their national dignity is irrational, and it leads to a stalemate on the international scale. The liberal-democratic state demonstrates rationality because it reconciles the conflicting demands of people on the basis of universal recognition of the inherent identity, dignity, and sovereignty of each individual as a person³⁷. In some sense, the predictions formulated by Fukuyama confirm the events of last two decades of the century, in particular, the increase of democratic countries (so called the third wave of democratization).

THE DIGITAL TRANSFORMATION OF A STATE AND POLISH EMPIRIA

In Poland, the 'deliberative turn' enabled the development of the civil society, where citizens have a real influence on the directions of the state policy, both at the central and local levels. The experimental forms of civic participation in politics undoubtedly became one of the reasons for the popularity of deliberative democracy. Undoubtedly, the development of ITC technologies has been important in the context of the development of deliberative democracy. Polish local self-governmental bodies develop some new forms and tools of communication. Information and communication technologies (ICT) mould public opinion, and shape the subjectivity of citizens. They give the opportunity to faster exchange of information and answers to the local problems. At the local level, they are advantageous to broadly understood dialogue

³⁷ Ibidem, p. 298. Francis Fukujama is of the opinion that stagnating wages and growing inequality will soon threaten the stability of liberal democracies and dethrone democratic ideology, cf. F. Fukuyama, *The Future of History*, "Foreign Affairs" 2012, no. 91(1), pp. 53-61.

between local self-government and local society, engaging local inhabitants, NGO's, and entrepreneurs. It is interesting to consider that local authorities more frequently transfer the conduct of public dialogue into virtual reality, particularly, its fundamental dimensions as information, consultation, and co-decision. In Poland, rural and urban municipalities apply different ICT, and rural municipalities have to adjust the Internet tools to their capabilities³⁸.

Społeczeństwo informacyjne w Polsce w 2020 r. (Information Society in Poland in 2020) is a statistical analysis of Statistics Poland (Poland's chief government executive agency responsible for collection and publication statistics related to the country's economy, population, and society at national and local levels)³⁹. It presents the results of research conducted in 2016-2020 on the use of information and communication technologies in public administration, enterprises, and households. The scope of presented information on digitalization and the scope of electronic services providing by public administration has extended. According to the data, ICT usage in public administration, households, and enterprises has evolved. In 2019, an annual increase in expenditure on research and development in the ICT sector by 12,9% was noticed. The percentage of public administration units using the technology of broadband Internet access via a fixed connection increased up to 99.8 %⁴⁰.

CONCLUDING REMARKS

Practical realization of the concept of the digital state issues a challenge to public administration. It might be observed that public entities, while they work on electronic solutions, do not focus adequate attention on their cooperation. While public service is being designed, real needs of citizens and entrepreneurs are taken into consideration only to some extent. Cybercrime and cyberterrorism develops, and electronic register and records concerning citizens issue

³⁸ See more in E. Sokalska, *Flaws and Advantages of the Polish Local Self-Government in the 21st Century: Social Consultations at the Local Level*, "Lex Localis" 2021, no. 19(1), pp. 19-37.

³⁹ *Społeczeństwo informacyjne w Polsce w 2020 r.*, Główny Urząd Statystyczny, Urząd Statystyczny w Szczecinie, Warszawa, Szczecin 2020, <https://stat.gov.pl/obszary-tematyczne/nauka-i-technika-spoleczenstwo-informacyjne/spoleczenstwo-informacyjne>, access 10.06.2021.

⁴⁰ *Ibidem*, p. 26.

a challenge to a state in the context of data protection. Unfortunately, there is the gap between those who are to benefit from the digital age and those who are not. The term of 'digital divide' refers to this phenomenon. People without access to the internet and other information and communication technologies are less able to obtain digital information or participate in deliberative democratic system. Therefore, since the 1990s, some intergovernmental summit meetings and other international activities have been conducted in order to close the digital divide. According to the Digital Agenda (one of the seven pillars of the Europe 2020 strategy proposed by the European Commission), universal access to digital products is perceived as a priority for the promotion of economic and social development of a country. It also constitutes a basis for reducing digital exclusion⁴¹.

Information and communication technologies have revolutionized the modern world. They influenced the economy, the human functioning in society, and the way people work. In 2020, during the COVID-19 pandemic, the use of digital technologies played an important part in many aspects of life. It facilitated the flow of information about the current pandemic situation, and it made it possible for the state and local authorities as well as business to react immediately in order to take key decisions on economy and health care in the extraordinary situation.

Although the hypothetical predictions are usually not free from the subjective interpretation and the attempts of scientific interpretation of political, economic, and social events in a holistic way might be risky, we need such types of diagnoses because they allow us to anticipate the events and to shape the reality. The representatives of futurological thought – Alvin Toffler, Samuel S. Huntington, and Francis Fukuyama have been looking for the leading factor that makes stronger the intercultural integration. For Fukuyama such a factor is an agreement in the sphere of ideological foundations based on the values of democracy, liberal market economy, and human rights. Huntington questions the proposal of Fukuyama. He assumes that each of the world's civilization is a highly complex and multi-level system. In this system, the key role plays

⁴¹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions A Digital Agenda for Europe. Digital Agenda for Europe, 19.05.2010, <https://ec.europa.eu/digital-single-market/en/europe-2020-strategy>, access 10.06.2021.

religious factors, which in turn arise from the overall social, psychological, linguistic, and historical conditions.

The attention of Toffler focuses on the impact of modern technology on communication, family, education, production, consumption, environment, and politics. Transformations that take place in these areas bring a new quality of civilization of 'the third wave'. Determinants of that civilization will be the higher degree of social differentiation, destandarization of needs, services, and products. The withdrawal from standard political and administrative structures will have place. The most important factor that revolutionizes the current model of the world is creation of the most fluent asset—the knowledge. In this context, access to information is presented as a new source of power and wealth. The revolutionary feature of knowledge is also the fact that thanks to the electronic infrastructure, even weak or poor culture can enrich its knowledge. What happens to a society if changes occur too fast? The term of 'the future shock' refers to that problem. It results in social confusion and disruption of the ordinary decision-making process. Accelerating techno-social changes may cause widespread disorientation, alienation, or psychological stress of individuals.

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