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Post-industrial civilisational transition: Origins, peculiarities, and prospects

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Preface

Our epoch is inseparably connected with revolutionary technological, social, and political changes that herald a transition to a new post-industrial civilisation. This civilisational transition is the third in the history of humankind. It has several peculiarities that are not completely clear and thus requires scientific description and analysis. The present-day post-industrial transition presents profound possibilities for the development of humankind while generating new challenges. It is therefore important to identify these difficulties and try to predict strategies to overcome them. Another pertinent problem concerns interaction between the civilisation of a planet as a whole, whose development is accelerating due to the universalisation of post-industrial transition, and local civilisations. The way this interaction exists today, its prospects in the future, and the question of whether local civilisations will be preserved are of considerable scientific interest.

The aforementioned issues comprise the topic of this report. The prognostic framework of this report is limited to the next 15–20 years, as the end of this period will be characterised by a technological revolution that may change the biological basics of human existence. Such a revolution could spur the formation of a radically new civilisation on our planet, the contours of which are not yet visible. According to the well-known British physicist Stephen Hawking, "computers will overtake people … over the next 100 years", and the "development of full artificial intelligence could spell the end of the human race" (Waugh, 2018).

Introduction

Terms and definitions

Any research requires clear definition of terms. This work is based on terms like 'civilisation' and 'civilisational transition'. The scientific literature has defined civilisation in several ways. To justify our approach to the objectives of this research, the concept of civilisation will not be used as in the widespread paradigm of scientific literature, under which civilisation is defined by culture, is limited to it, and is in fact analogous to it. This concept of civilisation was formulated most precisely by French historian Fernand Braudel, who defined civilisation as "a cultural area, … a collection of cultural characteristics and phenomena" (1980, pp. 177, 202).

In our opinion, the concepts of civilisation and culture are distinct in content and functionality. Given the objectives of this work, the most operational approach is the 'technological determinism' of American sociologist Leslie White (1949), who believed civilisation to be determined by three components: 1) technological (i.e., the development of machines and, more precisely, technologies), which thus defines 2) the political and social component (i.e., social organisation) and 3) the ideological and value-based component (i.e., philosophy). One may logically conclude that the concept of civilisation is therefore based on two grounds: one reflects the "level [and] degree of social development" (Prokhorov, 2004), and the other reflects social organisation on a wide scale, namely the "method of settling fundamental conflicts of human existence: between the secular and sacral sphere of existence, human and nature, individual and society, traditional and innovative sides of culture" (Shemyakin, 1996, p.28). Thus, in our understanding, civilisation is a concept that encompasses the stage of development of human societies and the positioning of humans in the surrounding world, characteristic of different societies and their groups; we consider the statement that "civilisation is constituted by its main notions, values

and institutions" to be true (Khoros and Rashkovsky, 2005, p. 12). We also agree with authors who posit that such positioning is formed under the influence of religions, both global and local ones, as well as archaic beliefs inherited from prehistoric times.

Following the definition of Russian lawyer–scientist Sergey Alekseyev, by 'culture' we refer to an "objectified expression and accumulator of human creativity, material and spiritual wealth of humankind, social values accumulated by the society" (2000, pp. 19–20). In other words, culture is an accumulator that concentrates spiritual heritage and values generated by different civilisations.

The transition from one technical and technological stage of development to another determines the essence of civilisational transition. Two such transitions have occurred throughout the history of humankind. The first was the transition from prehistoric barbarianism to more complex agrarian societies where the appearance of the state became a peculiar feature of social organisation. The second took place during the transition from agrarian to industrial societies. Today, we are witnesses to and participants in the third transition, from industrial to post-industrial societies. In this context, it would be appropriate to quote American futurologist Alvin Toffler (2004):

> "Until now, the human race has undergone two great waves of change, each one largely obliterating earlier … civilisations and replacing them with ways of life inconceivable to those who came before. The First Wave of changes, the agricultural revolution, took thousands of years to play out. The Second Wave, the rise of industrial civilisation, took a mere 300 years. Today, history is even more accelerative, and it is likely that the Third Wave will sweep across history and complete itself in a few decades. … Much in this emerging civilisation contradicts the old traditional industrial civilisation. It is, at one and the same time, highly technological and anti-industrial" (p. 230).

In connection with the above statement, we consider the idea that the transition of society to a higher degree of technical and technological development engenders profound changes in its social organisation along with influencing the spiritual life of the society and the conception of the world of the individuals who comprise it. However, this connection is of a complex and non-linear nature. Each civilisation contains a core, referring to a central system of values and institutions that is characterised by stability and less prone to external influences (Khoros and Rashkovsky, 2005). In contrast, the periphery of a civilisation is represented by evolving values and institutions, capable of perceiving strange influences. It is through this periphery that civilisations predominantly influence each other and interact.

The interaction of civilisations is vertical (between more and less-developed societies) and horizontal (between those at approximately the same stage of development, as is characteristic of agricultural societies). In vertical interaction, an agricultural civilisation may, for example, take institutions and political order from an industrial society while preserving its own system of values and social relations to a certain degree. For instance, independent India – surely a civilisation of its own – quite easily assimilated the Westminster political system of its former metropole, the United Kingdom, in the first decades of its existence. At the same time, the caste structure of Indian society, and the norms and customs dictated by the main religions of the country, still played an important role in its social life. However, these core institutions and norms began to dwindle with time and lose their importance, influenced by universalisation processes and civilisations that had achieved a higher technical and technological level of development.

As a result of mutual horizontal influences of civilisations, borderline civilisations can appear. The earliest example of such a civilisation is the Hellenic civilisation, which synthesised Ancient Greek and Ancient Eastern (Egyptian, Eastern Mediterranean, and Mesopotamian) civilisations. In the present-day world, borderline civilisations include

the Indo-Chinese, formed between the end of the first millennium and the start of the second millennium AD.

Development of civilisation on the planet

At the agricultural stage of development, civilisations are local. World history has demonstrated that some civilisations existed in total isolation from the rest of the world (e.g., the Mayan and Aztec civilisations in Central America and the Incas in South America). Such an absence of horizontal interaction over a long period deprived these civilisations of opportunities to receive and use the latest knowledge and technologies, ultimately resulting in stymied development, including vulnerability and defencelessness upon invasion by conquerors with stronger technical and technological potential.

Collisions between civilisations during the agricultural stage of human development often led to the decay of civilisations that had suffered military defeat. Such phenomena were widespread in the ancient world and less frequent in the Middle Ages (see again the Aztec and Incan civilisations that perished under attack by Spanish conquerors). In this context, it would also be appropriate to mention a key idea from an outstanding British historian of the 20th century, Arnold Toynbee: If a civilisation cannot respond to external and internal challenges, then it dies. According to Toynbee, if the "action of the Challenge-and-Response explains the unpredictable genesis and development of civilisations that cannot be explained in another way, it also explains their crisis and collapse" (2011, p. 20).

World civilisation formed only under the conditions of humankind's transition to the industrial stage of development. This statement itself suggests that some general world civilisation has formed by now. Its formation is inseparably connected with the processes of globalisation and the appearance of a global world that has come to fruition through the acceptance of capitalism as the world economic system. The world's civilisation had begun to form by the start of the 20th century, when the world was divided among the colonial

empires of the new time, led by key capitalist countries and based on their economic, technological, and military dominance over other parts of the world. Industrial revolutions in Western European countries and the US contributed to the formation of a unified world market, and predetermined industrial states' striving for domination over the remaining agricultural societies and countries of the world. Political systems that emerged in the West – based on principles of delimitated power, adherence to human rights, equality of citizens before the law, and the achievements of the natural sciences and education – rendered these social models attractive, at least for the elites of colonial countries.

Because capitalism initially formed in European and North American countries (the West) and expanded from these regions to others, the general civilisation was created under a determining influences of values, institutions, and social practices from the West which are inherently intertwined with capitalism. As Hichem Djait, Tunisian historian and thinker, poetically put it, "The West was happy to adequately express modernity, and it was because it became related to it, or, to put it better, engendered it, that its thought and language harmoniously combine in the harmony of spirit and history" (Djait, 1974, p. 91).

These characteristics arose from the geographical origin of this civilisation, as well as the absence of competitive, non-Western models of capitalism at that time; hence, this civilisation was originally Western-centric. It is not by chance that the governments and leaders of some countries in the non-Western world that tried to overcome socioeconomic and cultural underdevelopment had to use reforms whose instruments and guidelines for development included institutions, social and managerial practices, economic achievements, experience of the secularisation of social life, and mass consciousness acquired from Western civilisation. At the start of the 20th century, these aspects were clearly seen in reforms carried out by Mustafa Kemal Atatürk in Turkey and in the transformations attempted by the Kuomintang party in China.

With the start of worldwide civilisational formation, only one centre of capitalism had emerged beyond Western civilisation that started expansion to the outer world: Japan. But even this country managed to enter the capitalist core of worldwide civilisation thanks to the reforms of Meiji Era, the content of which was determined by an attempt to reproduce and use the experience of leading Western countries. The outstanding state and political figure of India in the 20th century, Jawaharlal Nehru, thought his country also met the prerequisites for emergence of an industrial capitalist society, but development in this direction was interrupted by British colonisation (Nehru, 1981).

Worldwide civilisation possessed a 'penetrating' nature from the start; it neither destroyed nor absorbed the local civilisations of the non-Western world, even though it exerted considerable influence on them. As a result of interactions between world civilisation and local civilisations, which has been connected with globalisation processes in the literature (Zheleznyakov, 2008), countries and regions of the non-Western world began to combine globalist universalism with the specifics of local civilisation. The global-to-local ratio varied across regions, with globalist influence touching Sub-Saharan African countries least of all. No Western values or Western institutions were there to stay, and no modern nation-states were formed. At the same time, local institutions and values have adapted poorly to the cultural, economic, and political challenges of the 20th and 21st centuries. In contrast, as noted above, Indian civilisation successfully assimilated Western institutions, preserving its own civilisational core and partly adjusting its values and institutes to modern reality. The same can be said of the new industrial countries and regions of Pacific Asia (South Korea, Taiwan, Singapore, Hong Kong, and Thailand), which made considerable leaps in development in the latter third of the 20th century. As for Arab regions and large portions of the Muslim world, universalist projects mostly failed, and attempts at civilisational synthesis (e.g., 'Arab Socialism') turned out to be short-lived. Some have suggested that this outcome is due to the poor susceptibility of Islamic civilisation to the system of norms, values, and

institutions upheld by the West. The Islamic world has expressed great interest in leveraging Western achievements in the economy, science, and technologies, but these regions would also like to fence themselves off from the experiences of Western countries in terms of social and political organisation. Only some Muslim countries have managed to reproduce democratic political systems, and even then with certain limitations (e.g., Turkey, Malaysia, and Indonesia).

In the 20th century, following the victorious Bolshevik revolution in Russia in 1917, an alternative attempt was made to create a worldwide civilisation based on communist ideology that rejected the market-based capitalist economic system and the social inequality engendered by it. This effort meant unification of institutions, values, and social practices to achieve social equality and build a world community of 'working classes'. In the end, up to one-third of humankind found itself involved in the realisation of this communist project. In other words, after World War One, the world's civilisation was divided into two parts. The second – the new one – had a clear tendency for expansion by the second half of the 20th century. This attempt to implement the Communist project could not compete with the capitalist-based globalist project promoted by the West; instead, it collapsed. Therefore, in the 1990s, the previous model of building a worldwide civilisation, rooted in capitalism as the global economic and socio-political system, was restored with major differences, which will be addressed in subsequent chapters.

Section 1: Post-industrial civilisational transition: Institutional aspects

Technical and technological basics of post-industrial civilisational transition

The process of post-industrial transition was conditioned by deep technological shifts and, according to most specialists, began in the 1950s–1960s due to the gradual unfolding of the 'computer revolution'. "It resulted in the appearance of small and cheap machines for data processing, including personal computers … and allowed companies and people to do things that were impossible before, from the use of electronic exchanges and simple and cheap telephone communication all over the world to computer management of machine tools that could cut metal very quickly and precisely" (Marsh, 2015, pp. 368–369). This period is usually connected with the 'third industrial revolution' (the 'second industrial revolution' being marked by the mass use of electricity).

Post-industrial transition was not completed at this technological stage; it has continued throughout the 'fourth industrial revolution' that began around the turn of the 21st century, accompanied by technological breakthroughs in numerous directions, including the mass application of robotics, the creation of artificial intelligence, new biotechnologies, new kinds of energy, and improved computer technology leading to further personalisation (Schwab, 2017). But even approval of the new post-industrial civilisation has not led completely to its automatic 'catching up with' the level of societies at lower stages of development, nor has this civilisation unified the global social space in the short term. At present, "the population of 17% of the world's territory is awaiting the second industrial revolution, as about 1.3 billion of people still have no access to electricity. About a half of the population of the planet, or 4 billion people, are awaiting the third industrial revolution, as the majority of them are living in developing countries where there is no internet access" (Ibid, p. 17).

The phenomenon that forms the radically new basis of post-industrial development in a broad sense was predicted in 1980 by Toffler in *The Third Wave: The Classic Study of Tomorrow.* To him, the Third Wave captured the birth of a new civilisation, in the course of which revolutionary changes would touch upon the technosphere, infosphere, and the social and power spheres (Toffler, 2004). Tectonic changes in the technosphere generated by the Third Wave are connected with revolutionary changes in energetics and the development of technologies. The post-industrial development of energetics has been accompanied by quantitative and structural changes, occurring as new needs change and appear – needs "not only for a certain amount of energy, but also for the energy generated in as various forms as possible, in different (and changing) places, in different [times] of day, night and year, and for particular purposes" (Toffler, 2004, p. 230).

The epoch of dominance of non-renewable energy sources such as coal, oil, and gas is drawing slowly but steadily to a close. The predominant tendency of engineering development is the diversification of energy sources and the synthesis of intensely improving and newly created technologies (i.e., in the production and transportation of energy resources and energy as well as energy conservation). As Toffler noted, "The majority of energy reserves will be provided at the expense of renewable, not depletable, sources of energy. The energy basis of the Third Wave will not depend on fuel sources concentrated in several places, but it will use a whole range of sources of energy scattered in different places. Dependence on highly centralized technologies will decrease, and energy production will be both centralized and de-centralized" (2004, p. 233). At the same time, present-day states are striving for maximum independence from particular suppliers, namely fossil and non-renewable energy resources. This trend has conditioned the formation of a global market of energy resources, different energy and production technologies, and accompanying cross-border transportation and energy-saving consumption.

The formation of a new technosphere based on the synthetic development of post-industrial society's technologies – along with the creation of new power engineering technologies and materials, the use of open space and ocean depths, and biotechnologies including gene-based technologies – is based on the revolution of information and communication technologies (ICTs). The roles and meanings of ICTs in post-industrial civilisational development, along with the realisation of an information revolution and the formation of a new type of society that many researchers have defined as informational (Castells, 2000; Martin, 1988; Masuda, 1990; Moiseyev, 1995; Webster, 2004), is hard to overestimate.

The key result of the revolution in the ICT sphere is quality change in the infosphere and its decentralisation and demassification (Toffler, 2004) along with transformation into an information and communication environment with a network infrastructure based on the application of the latest information and telecommunication networks and systems. This environment adds "a radically new communication level to the social system" (Toffler, 2004, p. 288) and becomes the 'nervous system' of present-day society where each individual is potentially endowed with new technological possibilities and called to perform the function of a 'neuron' that generates and transmits information and communication impulses required for vital activity.

Further development of computer technologies, especially 4D, will enable the initiation of intense production to satisfy individual consumer needs. The economy of the post-industrial society will be based on 'non-mass' production. Researchers and experts have provided different evaluations of the post-industrial transition's duration. According to Nathan Rosenberg, American economic historian, "the effect caused by the generation of computers will be fully shown in the remote future" (as cited in Marsh, 2015, p. 370). Other forecasts are more particular and not connected with such remote prospects. Russian economist Sergey Tsirel says the effect of current modern technologies' development in

the social domain will not last long; it should be exhausted within 1–1.5 generations, followed by a radically new breakthrough in the technological revolution connected with intervention in human genetics and attempts to improve human nature (Tsirel, 2017). But, as noted before, such a development would mean movement to a new civilisation that has nothing in common with the previous history of humankind.

Ideological, political, and legal prerequisites for post-industrial transition

The consolidation of worldwide civilisation in post-industrial transition would be impossible without the relevant ideological and political-legal prerequisites. In this context, the paradigm of the 'end of history', formulated in 1989 by American political scientist Francis Fukuyama is significant (Fukuyama, 1990).[1] Later, Fukuyama developed the main points of this supposition (Fukuyama, 2004); he hypothesised that the historical defeat of the communist project by liberal democracy may be followed by the "end point of ideological evolution of humankind" and a "final form of government in human society", thus noting the 'end of history'. He continued, "Although some modern countries may fail in the attempt to achieve stable liberal democracy, and others may return to other, more primitive forms of government, like theocracy or military dictatorship, but the ideal of liberal democracy cannot be improved" (Fukuyama, 2004, p. 7).

It seems that the end of history should be seen as an ideal prospect of post-industrial development, consisting of a considerable but not absolute universalisation of political and state orders that embody basic liberal values and principles of democracy in regulating social life. In other words, liberal democracy is seen as the optimal political and legal form of existence of a post-industrial civilisation whose economic basis is global capitalism. At the same time, given that "liberalism and democracy, even although they are tightly

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[1] The question mark at the end of Fukuyama's original title testified to the hypothetical nature of his theory; it was not an assumed reality.

connected with each other, are separate notions" (Fukuyama, 2004, p. 85), we may single out two components in the 'end of history' phenomenon: a value-based component and an institution-based component.

The value-based component of this phenomenon relies on the fact that the basic social value of liberalism – human rights and freedoms – became not only the formally accepted value of the modern world but also integrated into the life of many present-day states in various ways. The institution of human rights and freedoms, as an institution of international law that constitutes the values and legal basis of the world order formed in post-industrial transition, began to be created only after World War Two, when the world community had made great sacrifices to the Moloch of totalitarian ideologies and came to understand the need to look for a basis (first of all, a legal basis) of peaceful co-existence for different states and peoples.

A list of the main human rights and freedoms was established with the Universal Declaration of Human Rights, approved and proclaimed by Resolution 217A(III) of the General Assembly of the United Nations (UN) dated 10 December 1948. When this resolution was voted for, only eight of the 58 countries which were then UN members abstained, but none voted against. This document forms the fundamental basis of the institution of human rights and freedoms, but legally it is of an advisory nature.

The institution of human rights and freedoms became binding only 18 years after proclamation of the Universal Declaration of Human Rights, in the International Covenants on Civil and Political Rights and the International Covenant on Economic, Social, and Cultural Rights. Both these covenants, being binding for member states, were adopted by Resolution 2200A(XXI) of the UN General Assembly, dated 16 December 1966, and took effect nine years later, on 23 March and 3 January 1976, respectively. Notably, not a single state of the 122 UN members in 1966 voted against these covenants. The covenants have

since been ratified and joined by 169 and 166 states respectively, out of 193 sovereign UN member states (United Nations Treaty Collection, n.d.).

In this way, the individual and his/her rights and freedoms have come to be seen as basic social values, at least in the formal legal sense, according to the overwhelming majority (over 85%) of sovereign UN member states. Thus, "the priority of humanity in general, without characteristics and differences" (Ortega y Gasset, 2003, p. 26) found its place in the world's political practice after decades of testing through totalitarianism and war. At the same time, according to the non-governmental American organisation, Freedom House, in 2016 only 86 sovereign states (45%) – where about 39% of the world's population lives – may be considered free; that is, states where political rights and civil freedoms are duly adhered to (Puddington and Roylance, 2017).

It is important to point out here that recognition of individual rights and freedoms as the value and legal basis of the forming world order initiated a process representing de-ideologisation, or elimination of ideological influence on mass political consciousness and social processes (Pogoreliy, Filippov, and Fesenko, 2010). This starting point also marked the onset of a "post-ideological epoch" (Zinoviev, 2003, p. 178), or, as seems more accurate, the epoch of the "bankruptcy of classical political ideologies" (Khalapsis, 2010, p. 60).

This process has garnered theoretical interpretation in political science via theses regarding the 'end of ideology'. As noted by Russian political scientist Aleksander Soloviev, "in 1950-1960s Raymond Aron, Edward Shils, and a little later Daniel Bell and Seymour Lipset put the question about the 'end of ideology' … [which] was mainly connected with criticism of totalitarianism and especially Stalinism as the form of power organization under which ideology turned from the governance factor into the principal basis of the whole political domination system …" (Soloviev, 2007, p. 348). It is evident that the thesis about the 'end of ideologies' was a cornerstone of Fukuyama's assumption of the 'end of the ideological evolution of humanity'.

The institutional component of the 'end of history' phenomenon consists in the fact that the dominant form of political and state order organisation has been the modern polyarchic democracy based on freedom of choice. The approach to present-day representative democracy as polyarchic democracy in the sense of the 'power of many' was proposed by political scientist Robert Dahl (2000), whereas Spanish philosopher Ortega y Gasset (2003) presented a social justification for this approach by framing social structure as an aggregate of governed masses and governing elites that take and lose power as a result of democratic elections.

Two facts warrant consideration here: first of all, democracy is constantly evolving along with civilisational development; and second, there are no absolutely identical democratic practices realised in each and every country with their national and historical specifics and peculiarities. Yet democracy, defined by American political scientist Adam Przeworski (2000) as the "system of ordered indefiniteness or organized uncertainty" (p. 31), is characterised by political and state orders that are universal in the sense of being common for all national models; these features are the essential difference between democracy and other forms of ordered organisation.[2]

Democracy started winning a dominant position in the world from the collapse of right-wing authoritarian regimes in southern Europe, first in Portugal and Spain. Then, in the 1980s, a series of transitions to democracy occurred in Latin America and Southeast Asia. In February 1990, the apartheid regime began to be dismantled in South Africa, resulting in the world's liberal democracies increasing from 30 in 1975 to 61 in 1990 (Fukuyama, 2004). The onset of democracy was conditioned by the collapse of left-wing post-totalitarian regimes in the 1990s, first communist regimes in the USSR and countries

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[2] For more information on the political and state orders of modern democracy, see pp. 82–87 in Nisnevich, Y. A. (2017). *Politics and corruption: Corruption as the factor of the world political process.* Moscow: Urait.

in Eastern Europe. In 1974, at least 68% of all countries could be correctly called authoritarian; by the end of 1995, however, nearly 75% of countries had accepted elections as the norm and afforded their citizens some formal guarantees of political and civil rights (Held, McGrew, Goldblatt, and Perraton, 2004).

The fact that democracy, as a form of political and state order organisation, began to occupy worldwide dominance from the end of the 20th century has been confirmed by Freedom House's study *Freedom in the World*, conducted annually since 1989. Findings have pointed to the division of states into two clusters: non-democratic countries and electoral democracies. Electoral democracies are determined by the availability of a competitive multi-party system and universal rights to suffrage, regular holding of free and fair elections by secret ballot, openness of election campaigns, and access to mass media for all parties (Freedom House, 2016). Thus, an electoral democracy is a state where the minimum political order required for representative democracy, which includes free, fair, and competitive elections, is realised.

The changing dynamics around the number of electoral democracies among UN member states according to Freedom House (2018) are illustrated in Fig. 1.
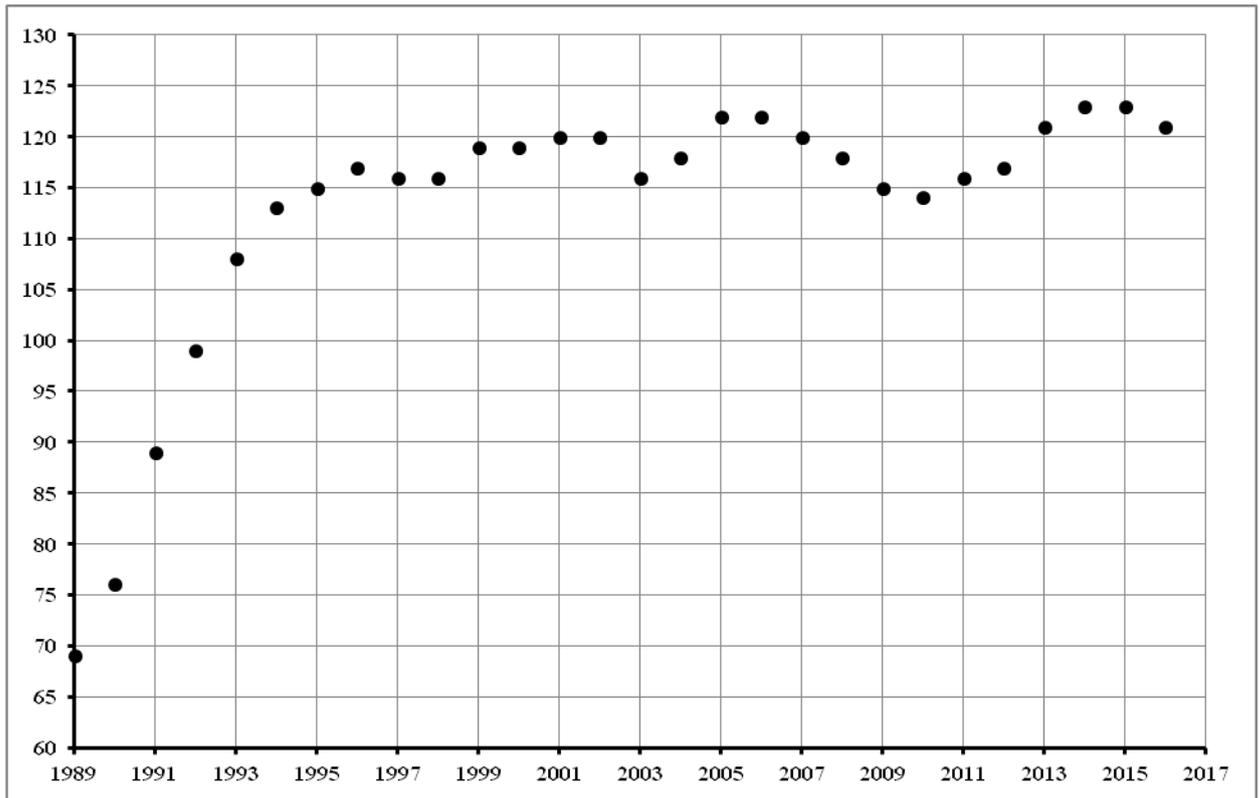
Figure 1: Number of electoral democracies.

Figure 1 indicates that the number of electoral democracies has almost doubled since 1989, although the distribution of democracies in the world seems to oscillate, in line with Fukuyama's ideas. As of 2016, 121 UN members (63%) were electoral democracies.

The tendency for change in the world's political landscape in the last quarter of the 20th century as a result of the collapse of dictatorships and authoritarian regimes was taken too optimistically as a global tendency towards democratisation and the replacement of authoritarian regimes with democratic ones. However, political practice has not confirmed the straightforwardness of this tendency, which, thanks to American political scientist Samuel Huntington, became widely known as the Third Wave of democratisation (Huntington, 2003) and even engendered a new area of academic study around the 'theory of democratic transition'. In reality, the place of collapsed authoritarian regimes was taken by democratic and other regimes, which differed from harsh authoritarian ones but were still

not democratic. Such regimes created a new problem area in the world political process, posing new challenges for the formation of world order.

The following fact is of principal importance: analysis of the constitutions of contemporary states has revealed that 184 UN member states (95%) establish the basis for their constitutional legislation by maintaining political and state order in various forms, along with the mandatory institution of general elections as the fundamental mechanism of public authority formation and legitimisation (Nisnevich, 2018). At the same time, in states that are not electoral democracies, general elections and other accompanying democratic political orders are of an imitative nature, if they exist at all. This imitative use of democracy, according to Fukuyama (2004), happens "due to the opinion, which gains ground, that the only legitimate source of power in the modern world is democracy" and, as a result, even "the most hardline dictators consider themselves obliged to receive at least some hint of democratic legitimacy by making elections" (pp. 56–57).

In the process of post-industrial transition, the expansion of real democracy has therefore been accompanied by radically new, different processes of democracy imitation by authoritarian regimes.

Recent achievements in economic and social development in countries of authoritarian capitalism, specifically China and Singapore, have caused many analysts to doubt that liberal democracy is the best and only option for a political form of post-industrial transition. This position warrants discussion, especially because the experiences of China and Singapore may be attractive for many developing countries. However, we should also consider that several other East Asian countries, like in China and Singapore where the religious and political doctrine of Confucianism underpins social life, have transitioned successfully to liberal democracy; see, for other examples, Japan, South Korea, and Taiwan.

Globalisation as an integral characteristic and condition of post-industrial transition

At the end of the 20th century, the formation of the new technological basis of post-industrial development engendered a radically new phenomenon, never seen by human civilisation before, called 'globalisation'. The term first appeared as a neutral characteristic (and economic term) of the processes connected with the global consequences of the technological revolution. A definition of globalisation corresponding to this approach was suggested in 2000 by an American specialist in international relations, Charles Doran, who described this phenomenon as the "interaction of information technology and world economy. This process may be characterized in terms of intensity, depth, volume and cost of international operations in information, financial, commercial, trade and administrative spheres on a world scale. A sharp expansion in the scale of these operations in the last decade and their increasing level make up the most measurable globalization process indicators" (Fukuyama, 2004, p. 184).

At first, globalisation, as written by American political scientist Zbigniew Brzeziński (2006), "reflected the new reality of the growing global interdependence, moved mainly by new communication technologies, when national borders, while remaining demarcation lines on the map, are no longer a real obstacle for free trade and capital movement", but "as soon as globalization started to be promoted as a key to understanding the changes taking place in our time, as a vector which determines their direction …, globalization has become a fashionable ideology of [the] post-ideological epoch" (pp. 186, 188).

Three different schools have emerged around doctrine-based interpretations of globalisation, whose representatives may be called hyper-globalists, sceptics, and transformists; however, none of these is aligned with a traditional ideology or traditional

idea.[3] If we consider globalisation not in the context of doctrine-based discussion but as the natural result of the Third Wave phenomenon – the social and technological revolution – then it becomes evident that globalisation expresses qualitative changes in the economic, political, and social post-industrial world order. Today, globalisation expresses the "process of expansion, deepening and acceleration of world cooperation that involves all aspects of the present-day social life, from cultural to criminal, from financial to spiritual", and the "globalization concept implies, first and foremost, overcoming the spatial borders by social, political and economic activity, so that the events, decisions and actions that are made or taken in one part of the world may be important for individuals and communities in remote areas of the globe" (Held, McGrew, Goldblatt, and Perraton, 2004, p. 3, 19). As a result of globalisation, the world – as a collection of nation-states whose activity was based on absolute priority given to national sovereignty, and international relations being based on absolute priority given to national interests – is being transformed into another world order.

The institutional corridor of post-industrial civilisational development

The state served, and is serving, the minimum institutional locality of civilisation. In the early stages of the development of humankind, localised civilisations coincided with particular state formations. The first known civilisation, the Sumerian, was localised in 12 city-states with a multitude of smaller settlements in South Mesopotamia that initially had a common centre and then, beginning in approximately the third millennium BC, were united under one tsar (Encyclopaedia Britannica, 2018). In the same way, the civilisations of ancient Egypt, ancient Greece, India, China, and elsewhere were localised as part of relevant state formations. The Inca civilisation in South America had an empire that collapsed after being

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[3] For more details on different doctrine-based views of globalisation, refer to Held, D., McGrew, A., Goldblatt, L., & Perraton, J. (2004). *Global transformations: Politics, economics and culture.* Moscow: Praxis Publishing House.

invaded by Spanish conquistadors at the start of the 16th century. Japan was brought to Western attention in the middle of the 16th century, when Portuguese sailors reached it. Prior to these encounters, 'civilisational isolationism' was due to the absence of transport and other means of communication between states and peoples.

Little by little, along with historical development, civilisations that were still spatially divided started to encompass more and more neighbouring territories and states, initially geographically. Only the industrial civilisation, which began to form in Europe in the second half of the 18th century, acquired world scale while preserving separate states as pre-industrial civilisational localities. The determining influence on changes in the civilisational development process was produced by phenomena such as globalisation and the post-industrial social and technological revolution.

The globalisation phenomenon, brought about by radically new transportation technologies and ICTs, sparked change in the spatial nature of the civilisational development process. At the post-industrial stage, this process differs drastically from previous stages and has been characterised by the fact that "the world turned into the global, internally mutually related system from the state of 'isolated civilisations' or just an international community of states" (Held, McGrew, Goldblatt, and Perraton, 2004). A separate state can no longer be sustainably developed as an isolated civilisational locality even when it strives by all means to preserve its national and historical specifics; the development of each stage is tightly connected with the development of the whole multitude of all post-industrial civilisations as a world totality.

The formation of the new technological basis of civilisation as a result of the social and technological revolution led to considerable acceleration of the historical realisation of the political, social, economic, and informational processes that transformed all relations in society. The progressing dynamics of post-industrial transformations were not integrated into the static model of civilisational transition as a stage-by-stage transition of each state;

gradually, most of them entered a new level or stage of social development. Put simply, post-industrial transition is a dynamic process forming an institutional corridor of civilisational development.

In the process of transition, this spatial corridor has integrated paths of development of separate states that coincide in the main trends of post-industrial civilisational development to form a single flow. However, these paths are not absolutely identical, given differences in country-specific connections and the institutional structure of social fields, norms, political and cultural stereotypes, basic technologies around competition and power, and methods of political support for social integration (Nisnevich, 2002).

The differences in static (step-by-step) and dynamic models of civilisational development are depicted schematically in Fig. 2.
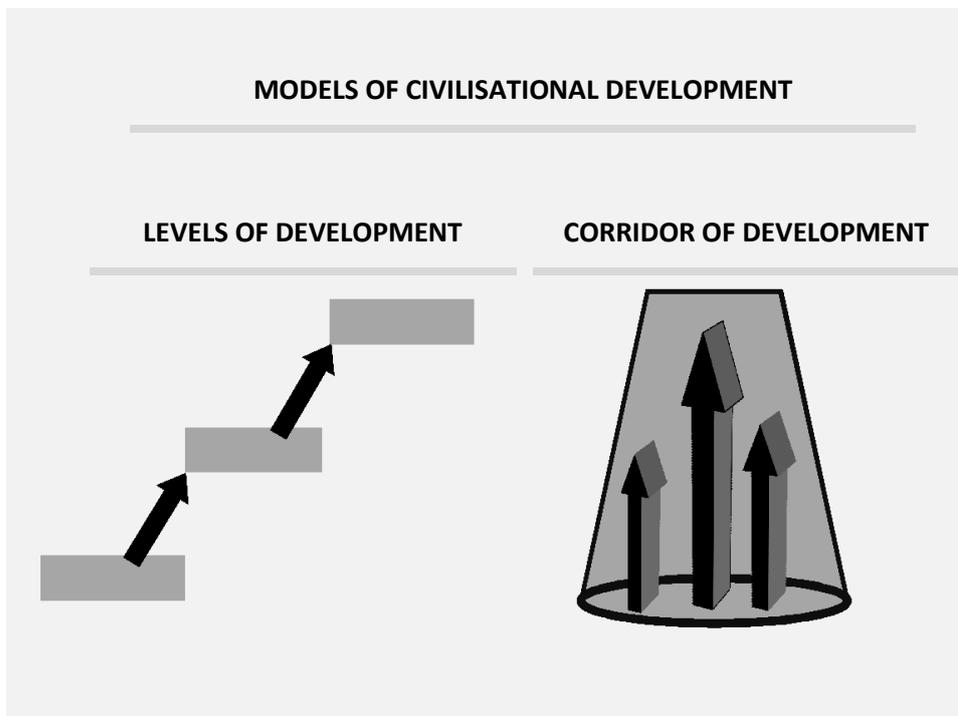

MODELS OF CIVILISATIONAL DEVELOPMENT

LEVELS OF DEVELOPMENT   **CORRIDOR OF DEVELOPMENT**

Figure 2: Differences in civilisational development models.

The path of state development lies in a specified corridor and conforms to the path of post-industrial civilisational transition if it is inside the borderline conditions bound into one whole, comprising a flexible envelope limiting the corridor of civilisational development and serving as its components. The corridor envelope seems flexible, as its contents may be transformed in the process of transition, thus requiring corresponding adaptation of state paths. The envelope's components initially defined the constitutional consequences of the political and technological phenomena of the 20th century, which conditioned the post-industrial civilisational transition itself.

An important consequence of the 'end of history' phenomenon was a change in the state institution concept. The main principle behind the real policy of many countries, or in their constitutional statements, was a rejection of a statist attitude to the state institution as the highest result and aim of public development, and the re-orientation of its mission to serving humans and society – not through omnipresent state paternalism, but rather by changing the essence of public power and, as a result, the aims and methods of the management of state affairs.

On a conceptual level, the present-day democratic state is framed as a political association of people based on a public contract, by force of which people transfer part of their freedom and power to the state.[4] In a contract-based state, only citizens are the source of power and carriers of sovereignty; they determine the degree and limits of state participation in the regulation of social relations, the competence and powers of public authority in such regulation, and they provide the required rights and obligations to its authorities. Based on this conceptualisation, the state institution launched its transformation in post-industrial development into the institution of governance, limited by legal norms in

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[4] For more information on the idea of the public contract, see Locke, J. (1988). Two treatises of government. In J. Locke, *Works in three volumes: Vol. 3* (pp. 135–406). Moscow: Mysl; and Rousseau, J. J. (1998). *The contrat social. Treatises.* Moscow: CANON-Press Publishing House, Kuchkovo Pole.

power and action to ensure the needs and interests of its citizens, provide them state services, and create comfortable and safe conditions for an untroubled life. At the same time, in the process of post-industrial transformation, the state institution has remained focused on two related model forms of the democratic state: the legal state and the social state.

The essence of the constitutional state was conceived in the ancient era to resist arbitrary rule and the possibility of power usurpation, and its theoretical concepts and political practices were constantly improved (and continue to be improved) over the course of human civilisational development. They may be defined as follows: in a constitutional state, the universal (i.e., community) regulator of social relations, focused on stabilisation of the whole social space without singling out any individual or group priorities, is the law, which is neutral and tolerant of different worldviews and concepts – except, of course, for those that instigate racial, nationalist, religious, or social discord and hostility. At the same time, the law produces a determining influence on independent spheres of social life like politics which, along with the law, is also the universal (in the sense of community) regulator of social relations, especially competitive relations and interactions between individuals and groups in terms of conquering, holding, and using public power. The law also imposes limitations on the methods and techniques of political competition.

The main obligation of the constitutional state reflects its main social value: the protection of the rights and freedoms of humans and citizens, which are inalienable. These rights and freedoms are acknowledged and guaranteed in accordance with the generally recognised principles and norms of international laws and international agreements that make up a central part of the state legal system and are predominantly applied to national law, naturally excluding the constitution. In this context, the legal environment of a state becomes a constituent part of the world's legal space.

In a constitutional state, the system-forming order in social regulations, along with political and state governance, is the democratic state order. This implies the supremacy of law – but only legal law, considering the principle known in juridical science that right does not equal law (Nersesyants, 1983). The essential condition of this order is the equality of all, not only before the law but also before the court, which "should occupy a central position in the system of law enforcement" (Zolotukhin, 2001, p. 62) – more precisely, in the constitutional state of law enforcement authorities.

In a constitutional state, the court functions as the main arbiter in the final resolution of any political, economic, or social disputes, discrepancies, or conflicts. Only the availability of public governance that is truly independent of all other branches and authorities, economic actors, particular citizens, and their different associations with the judicial system may lead to the supremacy of legal law and other political and state orders of modern democracy. Figuratively speaking, "the court that is independent and free of mercenary interests and political sympathies should guarantee lawfulness and justice, [playing] the same role for the state which is played by consciousness in humans" (Zolotukhin, 2001, p. 25).

The model form of a constitutional state defines, first of all, the value and legal component of the envelope of the civilisational development corridor, within which the paths of state development correspond to the path of post-industrial transition and the avenues through which states join it. The value and legal components may be defined as a system of principles of functioning for humans, societies, and states based on recognition and observation in accordance with the norms and principles of international laws, holding human rights and freedoms as the supreme social value and the priority of law as the universal (i.e., community) regulator of the whole complex of relations in the society and state.

The model form of the constitutional state also includes several democratic state orders, such as the accountability of public authority, the supremacy of the law, and the independence of the judicial system which, together with the set of political orders of the present-day polyarchic democracy, express the political and governing component of the envelope of the civilisational development corridor. The political and governing component may be defined as the democratic political system, which on the basis of bona fide and transparent political competition, contributes to the free and equal development of citizens and their free choice regarding state and social development along with the formation and activities of public authority called to provide for citizens' interests and needs and to create comfortable and safe conditions for an untroubled life.

The concept of the 'social state' was proposed in the middle of the 19th century by German lawyer and economist Lorenz von Stein. In the most general sense, the social state may be defined as the organisation of state orders that emphasises provision and protection of social rights, being one of the main groups of human rights. Important stages in the realisation of the social state in the 20th century included the New Deal by US President Franklin Roosevelt (1933) and the so-called Beveridge plan. Under the name, the 'Report on Social Insurance and Allied Services', this was prepared by the British parliamentary commission led by William Beveridge (1942). This plan was used in the activities of the post-war governments of Belgium, Denmark, and the Netherlands and was applied in the creation of Sweden's present-day social welfare system (Goncharov, 2000). The social state was first recorded as a constitutional principle in the Constitution of Germany in 1949, where Article 20 established that the "Federal Republic of Germany is a democratic and *social* federal state" (Constitutions of Foreign States, 2001, p. 134).

However, practical realisation of the social state remains a complicated task. In the post-war period, the primary concept aimed at resolution of this task was the welfare state, a system under which the state assumes responsibility for the wellbeing of its citizens,

ensuring payment of pensions, free medical aid, and other kinds of social support (Underhill et al., 2001). However, the 1980s brought about the crises of the welfare state, which led to its dismantling, first of all in countries like Australia, New Zealand, and the US (Manning and Parison, 2003). The crisis of this social state model was conditioned by the fact that "in such a state, priority is given to state regulation during resolution of social problems, and to state provision of services, which leads to [a] progressive increase in state expenses and the number of administrative staff members, as a result of which the state is becoming more and more expensive, cumbersome and, at the same time, less and less efficient" (Nisnevich, 2012, p. 161).

The practical sense of a social state under conditions of post-industrial development involves the state ensuring equal opportunities for the self-realisation of each individual and guaranteeing conditions for the practical realisation of social rights by each individual, at least at a minimally sufficient level. In a social state, each citizen is guaranteed the minimum necessary conditions for a decent existence and a sufficient level of social security as protection from natural, technological, social, and economic changes and disasters as well as participation in the management of state and social affairs regardless of his or her material position and social status.

The cultivation of a favourable environment for humans' self-realisation and creative development while increasing people's level of social welfare is the joint task of state and society. In a social state, this problem is solved by the unification of efforts and resources of state power, social charity, volunteer and other organisations, and the non-governmental economic sector on the basis of their partnership and mutually beneficial cooperation. The need for direct and active participation in forming a stable social environment, pragmatically and voluntarily realised by private companies and entrepreneurs, has engendered a new post-industrial social and economic paradigm that is realised in different ways in different states in accordance with their national characteristics and existing social

and economic orders. The model form of a social state, seamlessly connected in social and legal aspects with the legal state, is the factor that determines, along with the competitive market economy, the social and economic components of the envelope of the civilisational development corridor.

Subsequent chapters will demonstrate that, in the epoch of post-industrial development, a social state performs an additional task that it appeared to have mastered in the 1950–1970s: restricting the growth of social inequality and possibly reducing it. This task will likely be resolved under radically new social and economic conditions and in societies with a radically different social structure.

The peculiarities of the institutional corridor of Chinese post-industrial transition require particular consideration. Many analysts tended to assume that the development of the market economy in this country would inevitably result in a rapid transformation of its state. However, this has not happened: Market reforms continue to deepen, and the state and political systems of the country, of which the monopolistic power of the Communist Party is the stem, remain unchanged. Even US political circles now say that an attempt to "remake China [in] an American fashion", with the help of market reforms and the provision of better living standards for the population, has failed (Campbell and Ratner, 2018). We presume that the political system in China will remain indefinitely for several reasons. Over its long history, China has positioned itself as a self-sufficient state, treating any outside influences with suspicion and caution. When the Taiping movement rebelled against the ruling Qin dynasty in the middle of the 19th century, attempts followed to meaningfully integrate China into the general process of world civilisation. Later, the propagation and assertion of communist ideology in the country was also conditioned by the striving of many of its intellectuals to build avenues for entry into worldwide civilisation. But China, even when turning into an economic superpower at the start of the 21st century, expressed no interest

in parting completely with its unique path. In this sense, the formulation of a communist party goal is symptomatic: 'building socialism with Chinese characteristics'.

Within the Chinese historical and political tradition that is still preserved in the country, it is the state – not individual freedoms – that occupies the highest position in the hierarchy of values. In the official ideology of the Communist Party, moderate values of socialism are based on the 'from top to bottom' principle: from state to society and then to the people. This dominant position is occupied by the rich and powerful state, not the freedom of the individual (Lomanov, 2015). The state itself is not subject to institutional changes or 'improvement', in accordance with Confucian tradition. In other words, its role in society and its internal structure does not change, and it 'improves' throughout the course of history by eliminating corruption and passing new tasks. Confucian traditions and state-centric values surely exist in other Pacific Asian states; in China, however, they are closely connected with the idea of the self-sufficiency of Chinese civilisation, which seems to explain the peculiarities of the institutional corridor for post-industrial transition in the country, at least for the near future.

Returning to the social and economic components of the civilisational transition corridor, we should consider globalisation, as a result of which "goods, capital, people, knowledge, communication and weapons, just as crimes, pollutants, fashion and beliefs, quickly cross territorial borders" (Held, McGrew, Goldblatt, and Perraton, 2004, p. 58). The process of globalisation is not only about the formation of an open global economic market based on an international division of labour, but also social processes that develop a cross-border nature.

Social and economic components may be defined based on compliance with the social and economic rights and interests of citizens, private property rights, economic competition in an open world market of goods and services, and internationalisation of economic relations and social processes. Another component of the flexible envelope of

the civilisational development corridor, namely information and communication, was determined by the institutional consequences of the Third Wave phenomenon, which sociologist Manuel Castells (2000) has interpreted as an information and technological revolution. While determining the genesis of the post-industrial world, he noted, "The information and technological revolution stimulated the appearance of informationalism as the material basis of the new society. With informationalism, manufacturing goods, exercising power and the creation of cultural codes, became dependent [on] the technological possibilities of the society with information technology as the core of these possibilities. Especially important was its role in the development of electronic networks as a dynamic, self-expanding form of human activity organization" (Castells, 2000, pp. 492–493).

The intense shift in human activity to a radically new information and communication environment, whose global network infrastructure is becoming the prevailing form of self-organisation, requires an adequate response from politics. Expansion of activity based on free exchange of information and mass communications, including cross-border communications should also provoke political action. This response is one more model on which the state institution focuses the post-industrial transformation: the electronic state.

The essence of the electronic state is as follows. First, the entire system of power in the state and its institutions is considered a single organisation, sensitive and responsive to public interests, intended above all to provide state services to citizens and private sectors of the economy. Second, the activity of the whole system of power should be open and transparent for citizens, and authorities at all levels should be available to each citizen at any time and any place. Third, to improve the quality and efficiency of state functioning, the activity of the system of power is transferred to the present-day information and communication environment. The key ontological property of the electronic state is the possibility of interactive, real-time communication between each citizen and state power.

The system and internal organisation ensure such communication in a form and time convenient for the citizen.

The strategic aim of the electronic state is to resolve all state management problems from the position of rights protection and in the interests of citizens, to entice citizens to participate in state management and governance, and to realise electronic democracy. Its practical task concerns the transformation of internal and external relations in the state management system by using ICTs and a network info-communication infrastructure to optimise the provision of state services to citizens and private economic sectors, to expand citizens' interactions with authorities of all levels, and to attract their participation in the activities of those in power. Based on the essential qualities, strategic goals, and practical tasks of the electronic state, this should be considered the new organisation and technological building of the state management system based on implementation of the latest ICTs, networks, and systems, as well as a primarily post-industrial philosophy of state affairs management (Nisnevich, 2012).

The information and communication factor may be defined as the information and communication environment, where the network info-communication infrastructure is used to ensure freedom of mass exchange of information and mass communications, including cross-border communications, and realise state governance for the purposes of protecting the rights and interests of citizens, their engagement in state governance and administration, and the realisation of electronic democracy. The flexible envelope of post-industrial civilisational development and its components are presented in Fig. 3.
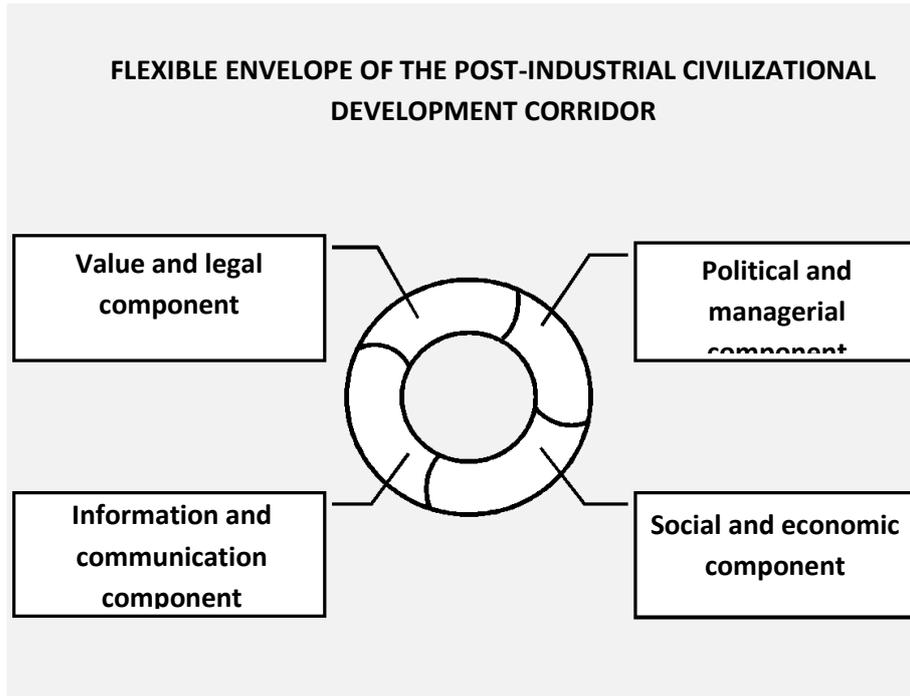
FLEXIBLE ENVELOPE OF THE POST-INDUSTRIAL CIVILIZATIONAL DEVELOPMENT CORRIDOR

Value and legal component

Political and managerial component

Information and communication component

Social and economic component

Figure 3: Components of the flexible envelope of post-industrial civilisational development.

The paths of post-industrial transition in democratic states form a single flow in the civilisational development corridor, where different states move at different speeds. The advanced group in this flow includes states with skills in realising the mechanisms and procedures of all components that determine the corridor of civilisational development. The rear guard of the flow contains states whose considerable post-industrial transition slowdown has been first determined by the poor quality of political and state order in their modern polyarchic democracy, except for the minimum required order: free, fair, and competitive elections. In such states, the governing regime relies on 'feckless pluralism', which American political scientist Thomas Carothers, who coined this term, characterised as follows:

> "In the countries where political life is marked by the syndrome of feckless pluralism, there is usually some political freedom, elections are held regularly, and political

groups that really differ from each other are changed in power. Despite these positive signs, democracy remains superficial and problematic. The political elites of all the main parties or groups are seen by mass consciousness as corrupted, inefficient and selfish, deeply indifferent to the fate of the country. While replacing each other in power, they only gamble on its problems without really solving any of them" (Carothers, 2003).

Examples of electoral democracies with a ruling feckless pluralism regime include Albania, Indonesia, Mexico, Moldova, and Paraguay.

The development paths of states with different types of ruling authoritarian regimes are beyond the corridor of post-industrial civilisational development due to their non-conformity in practical realisation of the value-legal and political and governing components of the envelope that limits this corridor.[5] Most authoritarian regimes understand the need to integrate the post-industrial civilisational trend but strive to preserve their power at the same time. Therefore, such regimes with certain limitations, conditioned by political factors, realise post-industrial innovations mainly in the economic sphere and partially in the information and communication arena, the latter of which tends to include innovations conditioned by the necessity to implement modern technologies in economic processes and in the leisure and entertainment sphere.

Classical authoritarian regimes such as the communist regime in China, the absolute monarchy in Saudi Arabia, and thepost-colonial dictatorship in Gabon still aim to carefully protect the ideological, political, and governance orders they have established from any considerable transformation. By contrast, present-day neo-authoritarian regimes like those in Armenia, Nicaragua, and Mozambique actively imitate the value-legal, political, and

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[5] On the typology of present-day authoritarian regimes, see Nisnevich, Y. A. (2017). Modern authoritarianism and corruption. *World Economy and International Relations, 61*(1), 108–120.

governance orders that conform to post-industrial transition in order to position themselves in the global community.[6]

Authoritarian regimes similar to those currently ruling in Iran and Venezuela, and especially the world's last totalitarian regime in DPRK, have proclaimed preservation of the national (traditional, religious, and political) and 'civilisational locality' to be the main political goal in order to keep power in their hands and mobilise the population to support them, namely by opposing theit regime to post-industrial civilisational transition; that is, they focus on self-isolation, dooming their countries to the fate of a 'drying marsh'.

It may be assumed that the paths of development of states with ruling regimes of all authoritarian types, being unable to integrate themselves into the corridor of post-industrial civilisational development, will sooner or later reach a bifurcation point where either a radical change in the ruling political regime will take place in some way and the country will embark on a path towards post-industrial transition, or these states will cease to exist in their present-day form. This assumption may be based, as noted earlier, on a change in the technological paradigm of development in the broad sense of the word. That is indeed what is happening in post-industrial transition, requiring a shift in the quality of the methods and mechanisms of political and state governance and, as Toffler contended, a new democratic and humanistic civilisation "requires new, simple, efficient and democratic governments" (2004, p. 34).

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[6] In Armenia, following the 2018 April Revolution, there appeared a possibility of transformation: the neo-authoritarian regime's replacement with democracy.

Origins of post-industrial world order

The need for the formation of a new world order under conditions of post-industrial civilisational transition was inspired by the following circumstances. First, the number of independent states has increased considerably following World War Two. In 1945, the UN was established by 51 countries; by 2011, the number of sovereign state members had grown to the current number, 193, a nearly four-fold increase. The dynamics of this expansion of UN member states are displayed in Fig. 4.

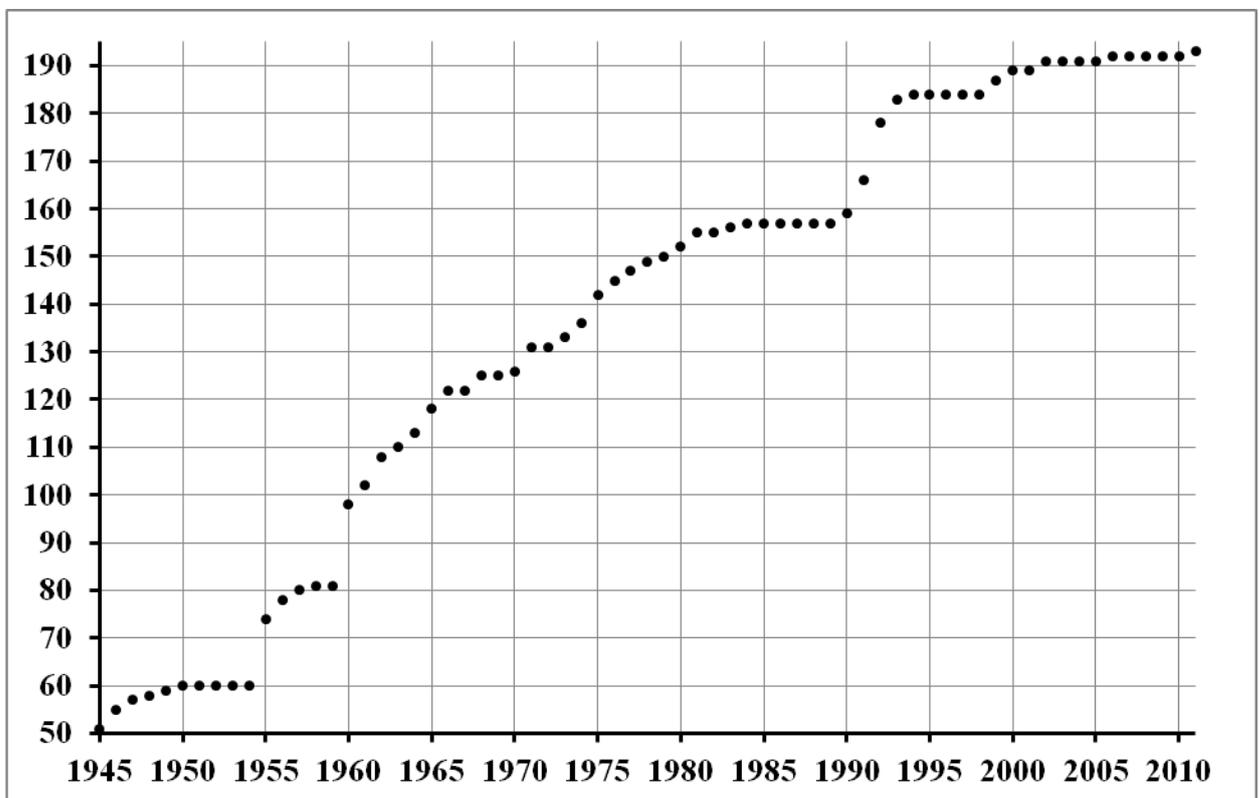*Figure 4: Number of UN member states.*

Two periods of large increases in the number of independent states occurred, firstly from the mid-1950s to the end of the 1960s due to the collapse of colonial systems, followed by another jump from the end of the 1980s to the mid-1990s due to the collapse of the world socialist system. The collapse of the USSR in 1991 and the dissolution of the Council for

Mutual Economic Assistance (1949–1991) and the Warsaw Treaty Organization (1955–1991) marked the end of the Yalta-Potsdam system of international relations, formed after World War Two, which determined the bipolar world order that existed from 1945 to 1991.

The need to form the new world order has been conditioned by radical changes in the nature of civilisational development in the course of post-industrial transition, which determines multidirectional transformations of the state institution connected with influences on this institution from within and without. As Toffler wrote, "as the Third Wave is rolling over the world, the key political unit of the Second Wave era, the nation-state, cracks under pressure from top and from bottom. Some powers strive to move the political power from the level of the nation-state to the level of international regions and groups. Other powers are trying to raise it to the level of international agencies and organizations" (2004, p. 500).

The technological factor is the determining influence on transformations of the state institution as "transport, means of communication and energy reserves limit the size of the territory which may be efficiently governed by a single political structure" (Toffler, 2004, p. 149). Revolutionary changes in power engineering and technologies in the process of post-industrial development can also lift territorial limitations to a considerable degree. Decentralisation is the key systemic tendency as internal transformation of the state institution; only decentralisation of the public authority and political governance may serve as an adequate response to the decentralisation and demassification of society, an accrual of social diversity, and simultaneous segmentation and decentralisation of the economy. Power centralisation no longer works, as harshly centralised power cannot adequately and efficiently respond to the growing volume and diversity of private, group, and local interests. According to Toffler, "political and bureaucratic structures, formed during the Second Wave, cannot provide a differentiated approach to each region or city, to each religious, racial, social, ethnic or sexual group. Conditions undergo divergence, and people that make

decisions continue to be unaware of the relatively quickly changing local needs" (2004, p. 509).

Political decentralisation of public power is facilitated by its distribution between the centre, regions, and local administrative and territorial formations when delimiting subjects of jurisdiction, powers, and responsibility on the basis of the subsidiarity principle. This 'federalisation' of power is not only seen in federal states today; this stable trend has also been observed in democratic unitary states. Such a tendency is first of all conditioned by the glocalisation process. According to English sociologist Roland Robertson, glocalisation denotes the connection between globalisation and localisation processes in the economic, political, and cultural spheres, especially the combination of global and local factors in the development of territories (Robertson, 1994).

As Castells pointed out, power is transformed under the influence of social processes and collisions, and the main changes are connected with the "crisis of the national state as a sovereign unity and the accompanying crisis of the form of political democracy formed in the course of the past two centuries." He further assumed that "globalization of capital, the process of increase in the number of parties represented in institutions of power, and also decentralization of powers and their transition to regional and local governments create a new geometry of power, probably engendering a new form of the state, the network state" (Castells, 2000, p. 501).

Transformations of the state institution under external pressure are predetermined by, as Huntington stated, "the state powers to a considerable degree [having] lost the possibility to control the cash flow to and from their country, and they are facing more and more difficulties in controlling the flow of ideas, technologies, goods and people. In short, the state borders have become as transparent as possible. All these changes [have] led to many people becoming the witnesses of gradual liquidation of the solid state, the 'billiard ball' recognised as the norm from the times of the Peace of Westphalia of 1648,

and the appearance of complicated, various and multi-level international order which is very similar to [a] medieval one" (2005, p. 37). The nation-state, whose borders appeared as a result of permanent wars for territories and resources, has thus lost its dominant importance as the political unit of the world order.

Following on from globalisation, the world as a totality of nation-states whose activity was based on absolute priority given to national sovereignty, and the basis of international relations being the absolute priority given to national interests, is being transformed into another world order. In such a post-industrial world order, the nation-state is losing part of its sovereignty, and the absolute priority of national interests and goals is being replaced by the convergence of national and world interests and goals. "Today practically all the national states gradually intertwined with the functional parts of the larger model of global transformations and global flows. International structures and relations encompassed practically all the spheres of human activity" (Held, McGrew, Goldblatt, and Perraton, 2004, p. 58).

We have observed the 'internationalisation' of the state institution following on from the fact that nation-states are 'pierced' and have become a constituent part of world spaces like the world market for goods, products, and services; cross-border information and communication spaces; and the international legal space. International political institutions and structures are being created that possess enforcement powers and can act across state borders regardless of distance: "Almost in any sphere of social activity, from economic to cultural, we may observe considerable institutionalization of international relations and structures, that is, activity and relations that cross the territorial borders of national states. New transnational organization forms appeared in the process of unification of people and coordination of resources, information and centres of social power, regardless of national borders for political, cultural, economic, technological or social purposes" (Held, McGrew, Goldblatt, and Perraton, 2004, p. 68).

It looks like transnational and international organisational forms, united into a mutually connected, centralised, *and* distributed infrastructure, will become the most important institutional support for the newly emerging post-industrial world order. This hypothesis is based on the fact that the end of World War Two led to a sharp increase in the number and expansion of the subject focus of international interstate (intergovernmental) organisations (IIOs).

Before the end of World War Two and the establishment of the UN in October 1945, 21 international interstate organisations were created and are still active. The oldest of these organisations is the Central Commission for the Navigation of the Rhine, established in 1815, whose members now include Belgium, Germany, the Netherlands, France, and Switzerland (Central Commission for the Navigation of the Rhine, n.d.). Another unique international organisation is the Inter-Parliamentary Union, established in 1899, which focuses on "global parliamentary dialogue and work in the interests of peace and communication between people and [the] reliable establishment of representative democracy"; its members now include the parliaments of 173 states (Inter-Parliamentary Union, 2017).

We should also note the League of Nations, established after the end of World War One in January 1920 and based on the Treaty of Versailles that was signed at the Paris Peace Conference in 1919–1920, which centred on disarmament, the prevention of wars via collective security principles, conflict resolution via negotiation, and global improvements in living conditions (Encyclopaedia Britannica, 2018). This organisation ceased operations in the mid-1930s before the start of World War Two but was only legally dissolved in April 1946.

The growth in the total number of IIOs since 1945, according to information from ConsultantPlus (2018), is depicted in Fig. 5.
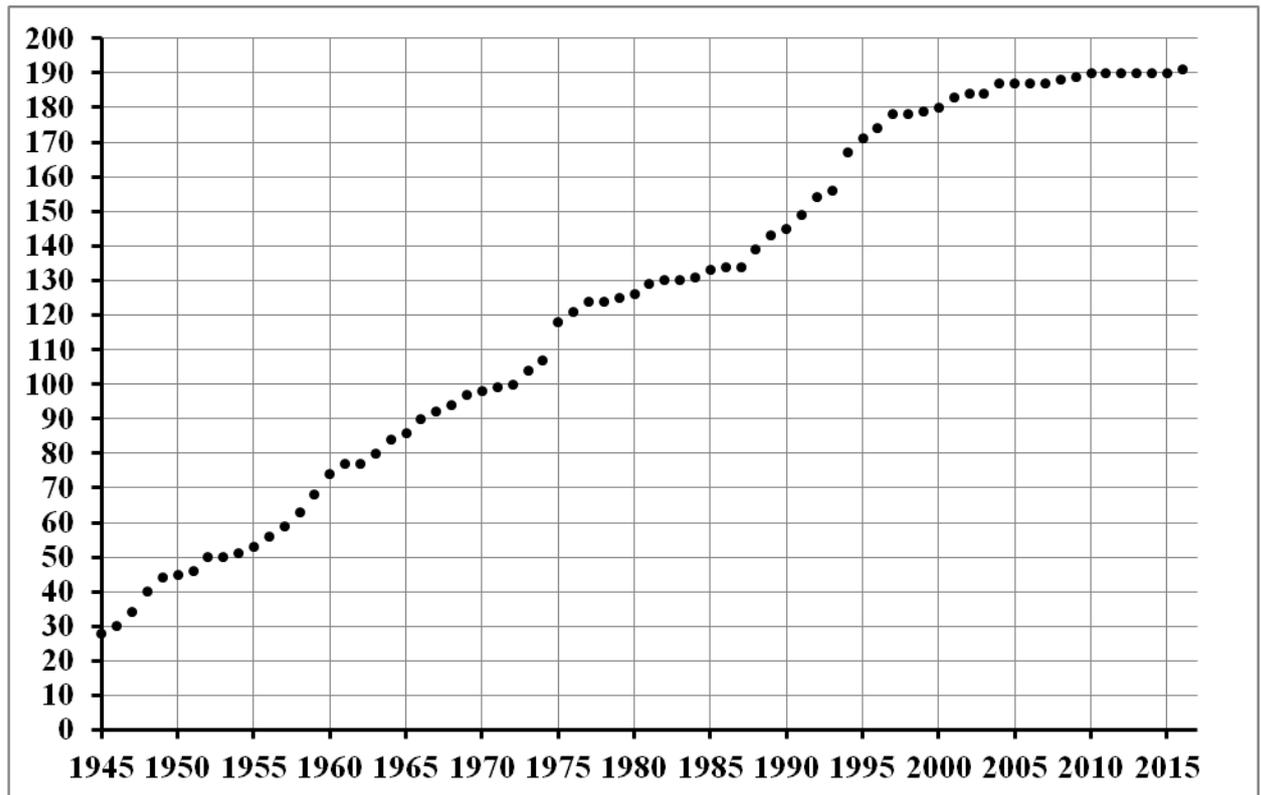
Figure 5: Total number of IIOs.

Figure 5 shows the increase in the total number of IIOs. The first wave, which started in 1945, began to dwindle gradually by the start of the 1980s, and the second wave began in the latter half of the 1980s and had faded by the start of the 21st century. From 1945 until now, the number of IIOs increased from 28 to 191 organisations (i.e., by nearly seven times).

Among all IIOs, most have been established by organisations focusing on interstate interactions in the economic, financial, trade, educational, and scientific spheres. However, from the viewpoint of the emerging post-industrial world order, political IIOs established for the purposes of political interstate cooperation have drawn considerable interest, including with regard to questions of joint defence and collective security as well as regulation of international relations on an array of problems. The dynamics of the increase in the number of political IIOs since 1945 are shown in Fig. 6.
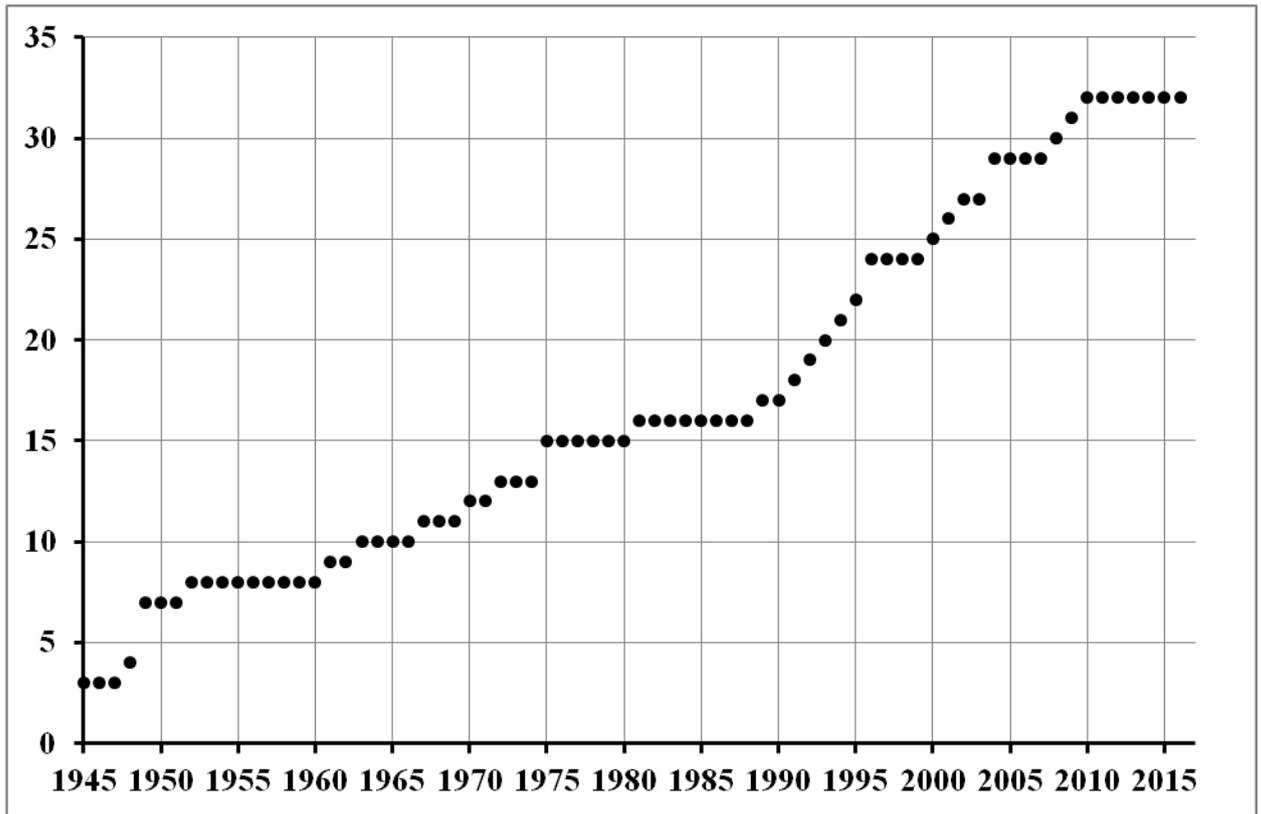
Figure 6: Number of political IIOs.

Figure 6 indicates the wave-like nature of the increase in political IIOs. The first wave began in 1945 and started to dwindle by the mid-1970s; the second wave started at the end of the 1990s and began fading in the 2010s. The second wave may have been influenced by the collapse of the world socialist system and the end of the bipolar world order. From 1945 to the present, the number of political IIOs has increased from three to 32 organisations (i.e., more than tenfold), and the growth rate in the number of political IIOs during the second wave rose significantly compared to the first.

The network of current political IIOs encompasses nearly all states and continents (Oceania is involved to a lesser degree), as confirmed by the data in Table 1.

Table 1: Network of present-day political IIOs.

No.	Organisation	Year of estab-lishment	Number of participants	Geography
1	United Nations Organization (UN)	1945	193	Global
2	Inter-Parliamentary Union	1889	173	Global
3	Nonaligned Movement	1961	120	Global
4	Organization of Islamic Cooperation	1972	57	Asia, Africa, Europe
5	Organization for Security and Cooperation in Europe (OSCE)	1975	57	Europe, North America, Central Asia
6	African Union	1963	55	Africa
7	International Organization of French-Speaking Countries	1970	54	Europe, North and South America, Asia
8	Commonwealth of Nations	1949	52	Europe, North and South America, Africa, Asia, Oceania
9	Council of Europe	1949	47	Europe
10	Union for the Mediterranean	2008	43	Europe, North and Western Africa, Middle East
11	Organization of American States	1948	34	North and South America
12	The Community of Latin American and Caribbean States	2010	33	North and South America
13	North Atlantic Treaty Organization (NATO)	1949	29	Europe, North America, Turkey
14	Council of the European Union	1975	28	Europe
15	European Union (EU)	1993	28	Europe
16	Association of Caribbean States	1994	24	North and Central America
17	League of Arab States	1945	22	Middle East, Arab Peninsula, North and East Africa
18	Central European Initiative	1989	18	Central Europe
19	Union of South American Nations	2004	12	Argentina, Bolivia, Brazil, Venezuela, Guyana, Columbia,

				Paraguay, Peru, Surinam, Uruguay, Chile, Ecuador
20	Council of the Baltic Sea States	1992	11	Germany, Denmark, Iceland, Latvia, Lithuania, Norway, Poland, Russia, Finland, Sweden, Estonia
21	Bolivarian Alliance for the Peoples of Our America	2004	11	Bolivia, Venezuela, Cuba, Ecuador, Nicaragua, Dominica, Antigua and Barbuda, Saint Vincent and the Grenadines, Saint Lucia, Grenada and Saint Kitts, Nevis
22	Association of South East Asian Nations	1967	10	Southeast Asia
23	Commonwealth of Independent States (CIS)	1991	10	Azerbaijan, Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan
24	Interparliamentary Assembly of Member Nations of the Commonwealth of Independent States	1995	9	Azerbaijan, Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Ukraine
25	Community of Portuguese-Speaking Countries	1996	9	Angola, Brazil, Timor-Leste, Guinea-Bissau, Cape Verde, Mozambique, Portugal, São Tomé and Príncipe, Equatorial Guinea
26	Arctic Council	1996	8	Denmark, Iceland, Canada, Norway, Russia, United States, Finland, Sweden
27	Shanghai Cooperation Organization (SCO)	2001	8	India, Kazakhstan, Kyrgyzstan, China, Pakistan, Russia, Tajikistan, Uzbekistan
28	The Gulf Cooperation Council	1981	6	Bahrain, Qatar, Kuwait, United Arab Emirates, Oman, Saudi Arabia

29	Collective Security Treaty Organization (CSTO)	2002	6	Armenia, Belarus, Kazakhstan, Kyrgyzstan, Russia, Tajikistan
30	Nordic Council (Norden)	1952	5	Denmark, Iceland, Norway, Finland, Sweden
31	Turkic Council	2009	4	Azerbaijan, Kazakhstan, Kyrgyzstan, Turkey
32	Union State of Russia and Belarus	2000	2	Belarus, Russia

It may be assumed that the multi-level network of political IIOs, whose centralised and distributed architecture will be improved in the process of civilisational transition, will make up the institutional basis for the post-industrial world order. At the same time, the key problem today is the one associated with the efficiency of present political IIOs, starting with the UN, in terms of the prevention of interstate and local military conflicts and political crises.

A more important role of non-governmental organisations in world politics, as noted by Viktor Kuvaldin, is the deep "mutual penetration of national organisms" (2017, p. 68), leading to fundamental transformation of the structure of the world order which will increase with post-industrial transition. The world order based on strict hierarchical, vertically integrated unions and blocks of states will gradually evolve towards polycentrism. This trend presupposes not so much a replacement of one world leader by many but rather a shift in the entire composition of international relations, which will become more 'horizontal' in nature. Polycentrism will, on one hand, open up wide possibilities for growth and increased influence for different regional associations while contributing to the formation of a network structure of international relations on the other hand, which assumes that the interests of the same states may coincide in some cases, remain 'parallel' in others, or be in a state of conflict elsewhere.

The new global world will be created through the efforts of many actors. Among these are the "leading states, international organizations, largest financial institutes, transnational

corporations, the most influential political forces, [and] global mass media" (Kuvaldin, 2017, p.74). It is hard to disagree with Viktor Kuvaldin's opinion that "[these actors'] active interaction, cooperation and competition create the global world, the megasociety as part of which the global civilisation is developing from now on" (Ibid).

Social consequences of post-industrial transition

Deep technological shifts in the course of post-industrial transition inevitably entail fundamental changes in social life. In the 1960s, without mobile communication or personal computers, Canadian sociologist and philosopher Marshall McLuhan concluded while analysing the effect of television on society that its influence resulted in 'compression' of the world, turning the world into a 'global village' where people felt they belonged to some common entity thanks to television's communication winding around the globe (McLuhan, 1962). In a nutshell, the emergence of electronic media represented an important practical step towards consolidation of worldwide civilisation.

According to Toffler (2004), "the revolution in the infosphere is just as amazing as the one in the technosphere, the energy and technological basis of the society" (p. 298), and revolutionary changes in these spheres entail radical changes in the sociosphere, which acquires a decentralised network that is essentially of a non-mass nature. At the same time, the process of worldwide civilisational consolidation, accompanied by the mutual penetration of East and West, North and South, is naturally not a peaceful process but is instead connected to the appearance of new discrepancies and conflict zones in society, leading to the potential for practical realisation of a level of mass communication: that of interpersonal relations and communications. Each individual, each average person, possesses a practical possibility of partaking in various ways in the life of the whole planet where "temporary and spatial communications are becoming wider and wider" (Toffler, 2004, p. 9).

The non-mass and network nature of the post-industrial socio-sphere stems from the fact that each individual who masters new technologies, first and foremost ICTs, becomes an autonomous and independent link in the system of social communications – an individual source, consumer, and distributor of information and knowledge. At the same time, if an individual achieves a relatively high level of cultural (e.g., legal and political) and civil responsibility, then they become a 'basic link' in the non-mass 'society of knowledge' ("Concept of the 'society of knowledge'…", 2010), which replaces mass 'consumer society'. In this sense, the world is 'levelling' or, as American political writer Thomas Friedman puts it, becoming "flat" (Friedman, 2006, p. 660).

The revolution in the ICT sphere has instrumentally created conditions for the transformation of mass society into what Jose Ortega y Gasset referred to apprehensively as a non-mass civil society, a key condition for the formation of and sources of energy for a means of functioning characterised by free information and communication exchange at interpersonal and intergroup levels. An essential trend in this development is, inevitably, further democratisation, seen as the expansion of individuals' participation in different social processes. The other side of these changes indicate that, as network structures and horizontal connections between individuals and their groups become more complicated, there will be higher demand for society 'without intermediaries', where services (banking, editorial, consumer, etc.) are provided directly. Such connections will contribute to a weakening of public hierarchies and a strengthening of the 'flat world' while leading to a reduced role of the state and its lesser influence on various social and economic processes. In our times, related to the distribution of Bitcoin, ardent disputes have erupted regarding the extent to which cryptocurrencies may undermine the monetary monopoly of the state.

A weakening of the state will also be connected with a processes of transition to renewable sources of energy. At present, the vast power of the state in the economic field is based on the fact that it plays a key role in the regulation of energy transportation and

distribution. However, a transition to more compact forms of energy generation, which is inseparably connected with a mastering of renewable resources, will cause a decentralisation of power, a further development of self-government, and a growing role for municipalities.

There is also a more radical view of the future, in accordance with which the continuing marketisation of technological services will lead to gradual 'compression' of the state and its replacement with hyper-observation and self-observation functions by different social and commercial structures (Attali, 2014). Robotisation and automation will entail liberation of humans from the production process, which will, for the first time in history, sharply expand free time for privileged minorities, as in previous epochs, but also for the majority of the population. However, the use of free time will become a new and complicated problem for societies that emerging out of post-industrial transition.

Present-day transport technologies, whose creation began in the epoch of industrialisation and which were considerably improved in the second half of the 20th century, today ensure quick movement of raw materials, energy, and other material resources and technologies – but most of all people – to other parts of the world. Such technologies, together with the liberalisation of migration policy in states with high levels of social and economic development, have engendered another phenomenon that is of vital importance for post-industrial transition: higher migration mobility.

The essence of this phenomenon is that a considerable portion of the population of many industrially developed countries, including so-called third-world countries, have been granted an opportunity to learn and evaluate reflexively (not through knowledge and information mediated by other people, but directly through their senses) a way of life different from their own. This includes learning about other systems of moral values; other worldviews and faiths; cultures, historical customs, and traditions; and different approaches to the organisation of political and economic activities. Increased migration mobility is conditioned

not just by economic factors but in many ways by the present-day demographic situation, including what Brzeziński noted: "immigration is the economic and political necessity for more thriving countries with ageing populations, and emigration may play the role of a valve for regulation of the rising demographic pressure in more poor and densely populated third-world countries" (2006, p. 214).

According to the UN Department of Economic and Social Affairs, the number of international migrants around the world has risen by 49% since 2000 and currently includes 258 million people, equalling 3.4% of the global population (United Nations, 2017). Approximately 165 million migrants (64%) live in industrially developed countries. The dynamics of the growing number of migrants since 1990 are presented in figure 7.
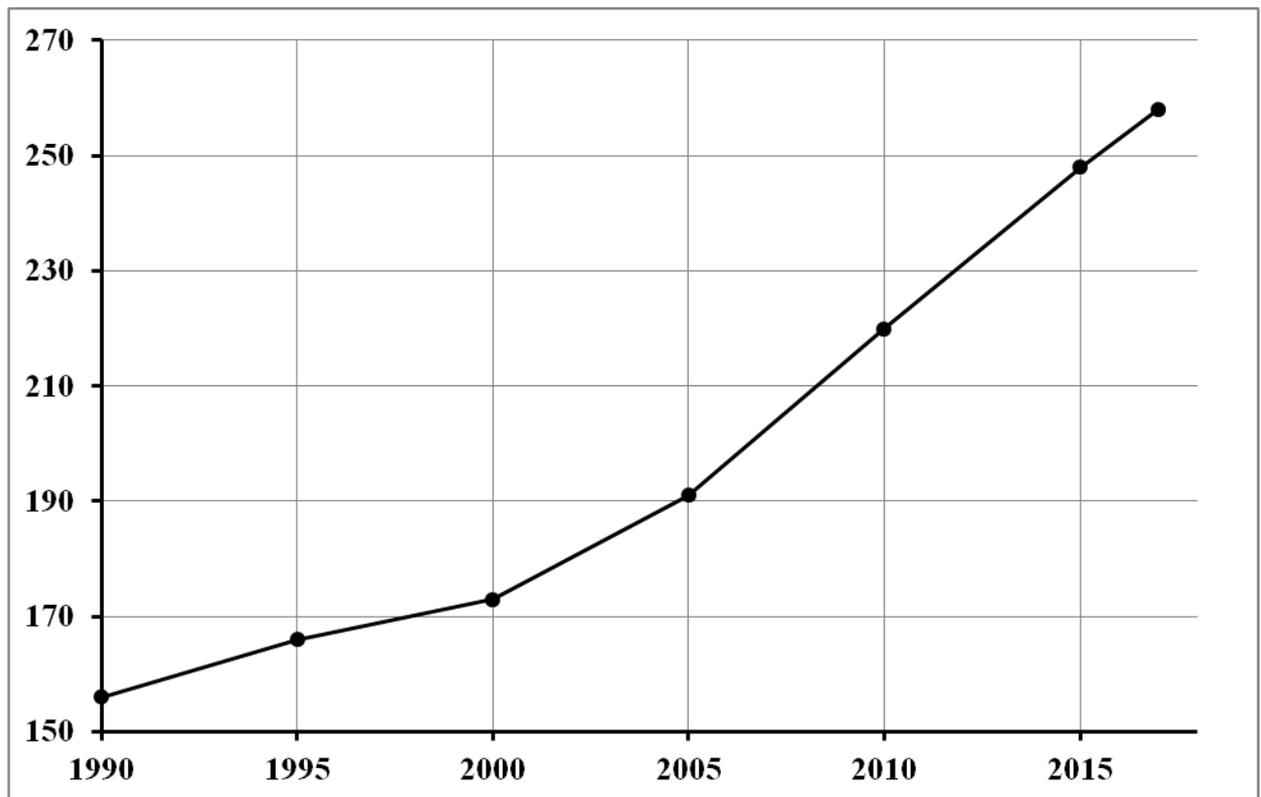

Figure 7: Number of international migrants (millions of people).

In 2017, only 1.2 billion people of a total 7.6 billion lived in affluent countries where the GDP per capita exceeded $12,000. From 1950 to 2015, the urban population in developing countries increased tenfold, by 2.7 billion people. During that same period, 126 million people relocated to countries with higher revenues, and UN forecasts have projected that 184 million people will relocate by the end of the 21st century (Vishnevsky, 2018). Migration will continue, and one of the most pressing challenges is likely to be Muslim migration. One result of increased migration mobility is the appearance of constantly expanding diasporas of representatives of other continents and countries. Ethnic, national, cultural, and religious groups in practically all industrially developed countries are experiencing gradual but complex penetration by representatives of various diasporas, filtering into the political and elite aspects of countries of residence.

Section 2: Challenges and threats of post-industrial civilisational development

The nature of and reasons for new threats and challenges

Each global phenomenon that transforms civilisation opens up not only new possibilities for sustainable development and solutions to global problems but also engenders new challenges and threats to the individual, the society, and the state. One such group of challenges and threats is connected to an increase in social inequality, namely the emergence of new forms and tensions that undermine the stability and sustainability of society as a whole. The second group is connected with survival and ensuring the normal, vital activity of the human individual. The cultural and moral development of the majority of humanity lags behind changes in the technical and technological levels of civilisation. At the start of the 20th century, this phenomenon was precisely described by Ortega y Gasset through the study of the 'mass human' phenomenon. In the epoch of post-industrial transition, when technologies are updated on a nearly annual basis, society is becoming increasingly complicated and varied, with the gap rising sharply. As Toffler justly pointed out, "We still do not have sufficiently developed ethics of tolerance for the variety that non-mass society requires and engenders" (2004, p. 365). As a result, striving to receive the latest goods and services engenders new types of crime along with social parasitism. It also poses the threat of destroying everything that has raised humankind to a qualitatively new social level and expanded its opportunities. In practice, these groups of challenges and threats are closely intertwined; thus, we do not single them out later in the text but consider them as inherently mutually dependent.

In our opinion, the challenges and threats engendered by the radical transformation of the info-communication environment have exerted a decisive influence on the appearance of new discrepancies and problems in post-industrial transition. We will call these challenges and threats info-communication challenges; they are determined by the

ontological properties of the post-industrial info-communication environment (PIIE) with a network infrastructure based on the application of the latest ICTs, networks, and systems. Such ontological properties include the following:

- inclusiveness – the ability of the PIIE to penetrate all spheres of social life and all social spaces, which leads to radical changes in networking;
- spatiality (topology), conditioned by the fact that the PIIE is a physical volume and spatial environment deployed unevenly in social and geographical spaces, creating new types of tension around the borders of social, economic, political and administrative localities; and
- transformation dynamics determined by the constantly increasing intensification of ICT innovations and info-communication systems and networks, which constitute the PIIE's technological infrastructure.

The problem of informational inequality

As a result of the aforementioned ontological properties of the post-industrial info-communication environment (PIIE), the most general challenge to post-industrial development is represented by the process of information stratification, which brings to life the multifaceted problem of digital or information inequality. This problem was the subject of special consideration by the G8 at the Japan summit in 2000, following which the Okinawa Charter was adopted. The charter states that overcoming the electronic and digital gap within and between states should take an important place in national discussions and affirms that each individual should have the possibility of accessing information and communication networks.

On the international level, this problem was considered at the World Summit on the Information Society (WSIS), the first meeting of which was held in Geneva in December 2003, with the second in Tunis in November 2005. The latter summit was attended by delegates from 175 states, including almost 50 heads of state and government and vice

presidents (World Summit on the Information Society, 2015). In the final documents from the World Summit on the Information Society – the Declaration of Principles (World Summit on the Information Society, 2003a) and the Plan of Action of the WSIS (World Summit on the Information Society, 2003b) – the problem of the digital gap was defined as inequality in equipment and quality of ICT use between states with different levels of development. These documents suggested that a growing gap between rich and poor, between technologically advanced countries and very poor countries, has created new sources of instability and current and future conflicts, including those of a global nature. In the global community, this problem is considered a priority given that it represents a meaningful obstacle to building an information society that would be open to everyone and focused on development. WSIS participants considered the formation of international financial mechanisms towards a bridging of the gap in digital technologies as the main means of problem resolution and have assumed relevant obligations accordingly.

Despite such attention to the problem of digital inequality among the global community, this issue has yet to be properly resolved. Documents of the International Telecommunication Union claimed the following pertaining to WSIS decisions: "We recognize and confirm that the problems of bridging the digital gap still have not been resolved, and it requires sustainable investment in ICT services and infrastructure, the creation of potential, assistance in the transfer of know-how, as well as development of technology transfers on mutually agreed conditions" (World Summit on the Information Society, 2014).

At a national level, the problem of information inequality has been defined as an issue of inequality in the possibilities of access to the use of modern ICTs for citizens living in different regions of the state and in different types of residential areas. Circumstances of uneven territorial distribution and implementation of present-day ICTs and info-communication networks and systems have begun to pose a major obstacle to transforming

an industrial-type economy into a new type based on information and knowledge. This roadblock presents a real threat of administrative and territorial inequality and a technological gap in the state info-communication space, which is even more important economically, besides social and political implications. Under the conditions of post-industrial civilisational development, the unity of an open info-communication space is a cornerstone for ensuring state and territorial unity, successful integration into the world community, and information safety at the intrastate and international levels. Therefore, the formation and development of an open info-communication space for the state as a unified and integral space should be considered a strategic priority in state information policy (Nisnevich, 2000).

In social terms, the information inequality problem is conditioned by the fact that considerable advantages are provided to members of societies that have opportunities, knowledge, and skills using current ICTs. It allows them to freely act in the new info-communication environment and actively use the environment to satisfy needs and achieve success. In states that embarked on a path towards post-industrial development, the number of such members of the society, comprising its most active, advanced, and prosperous part, is constantly increasing. Gradually, a society like this becomes dominated by the network logics of social interactions and communications based on individuals' use of network-type info-communication infrastructure. However, even with the growing number of people who have adapted PIIE successfully, the process of information stratification of society and the problem of information inequality are intensifying social issues. The essence is that different social strata and groups receive unequal opportunities in access to information resources and ICTs, networks, and systems, for different – but not only economic – reasons. Such barriers foster social tensions between those who have successfully adapted to PIIE and those with no opportunity to do so.

Cybercrimes and threats to privacy

The intense shift of human activity in different activity for society and state in PIIE, including at the technological basis of the global internet network and mobile communication, has engendered a new kind of crime: cybercrime. New info-communication challenges and threats in private life and mass information protection have also been generated. Cybercrimes, whose main actors are a new type of criminal known as hackers, were initially of a cross-border nature and have become a global problem. Cybercrimes are reflected in the fact that the Council of Europe adopted a Convention on Cybercrime in 2001 in Budapest, whose participants include 56 states, including 13 states that are not members of the Council of Europe (Council of Europe, 2018). The preamble to this convention stated that its participants are "convinced that this Convention is necessary to deter actions aimed against the confidentiality, integrity and availability of computer systems and networks and computer data, and also against abuse of such systems, networks and data, by ensuring *criminal responsibility for such actions."* The Convention recognises the following types of computer crimes as bringing criminal responsibility:

- crimes against confidentiality, integrity, and accessibility of computer data and systems: intended illegal access to a computer system in whole or in part; interception of computer data not intended for public use, performed on purpose via technical means; intended damage, removal, deterioration of quality, or alteration or blocking of computer data; intended creation of illegally serious obstacles to computer system functioning by the input, transfer, destruction, removal, deterioration of quality, or alteration or blocking of computer data; and illegal use of computer devices, programmes, passwords, access codes, or other similar data;
- crimes connected with the use of computer means: faking through the use of computer technologies to engage in intended and illegal entry, alteration, deletion, or blocking of computer data, entailing violation of their authenticity; fraud with the use of computer technologies for illegal acquisition of economic profit for yourself or another person;

- crimes connected with the production, offer, representation, distribution or transfer, acquisition, and possession of child pornography using a computer system; and
- crimes connected with violations of copyright and allied rights with the help of a computer system.

The constantly expanding possibilities of PIIE present considerable challenges in the protection of intellectual property rights, copyright, and related rights.[7] PIIE provides any user with the potential to quickly create and disseminate different content worldwide to an unlimited circle of users, including unauthorised distribution of an author's works and other intellectual products. The need for coordination of international efforts and joint development of efficient measures to prevent and counteract cybercrime follows from the systematic appearance, several times a month, of messages regarding hacked banks, private and state companies, authorities, and governmental institutions, infrastructural objects, and mass media around the world (Gazeto, 2018; RosBusinessConsulting, 2018a). Such attacks, including those connected to the use of malware (e.g., viruses, worms, spyware and adware, or spam), are performed for mercenary purposes, to receive a ransom or material profit in other forms, and for other goals (e.g., political).

In today's global info-communication space, all states are engaged in constant warfare with national and international groups of hackers, devoting considerable financial, material, and human resources to this endeavour. The international coordination of such warfare is complicated by the fact that the states suspect each other of encouraging and using hackers to further their political and economic interests, sometimes on quite sufficient grounds in their opinion. Analysts have begun to point increasingly often to a high probability of cyberwars between states. The threat of this course of events seems considerable as,

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[7] For more information on copyright and related rights, see "Understanding Copyright and Related Rights. WIPO, World Intellectual Property Organization" available via ww.wipo.int/edocs/pubdocs/en/wipo_pub_909_2016.pdf.

unlike ordinary wars and threats of nuclear conflict, the international community has not elaborated on mechanisms for preventing and stopping cyberwars or generally accepted rules of conducting them if they were to begin. Therefore, the consequences of interstate cyberwars may be difficult to predict in terms of scale and material damage as well as harm done to the system of international relations.

PIIE provides numerous possibilities to create multiple and powerful databases along with ease of information distribution from different bases and simple copying, aggregation, and modification. This potential, along with the fact that the number of users across different social networks equates to billions of people (Kemp, 2017), considerably increases info-communication threats to the individual, especially to privacy, and to the state. Many cybercrimes are committed with the goal of obtaining access to personal data, or information about one's private life, to be further used to earn a profit or to damage the target's reputation or cause emotional distress. Many users of social networks publish information about their family and private lives, depending on software and hardware to protect their privacy, combined with exchanging information in closed groups only; however, many individuals do not consider the possibility of 'hacking' protection or even consider the use of such information by other people and different organisations.

Another problem of privacy protection in PIIE is that of the individual's information 'transparency' before the state and its security services: Orwell's 'big brother'. The tracking of citizens by the state is an 'eternal' problem in relations between citizens and the power, which has radically changed in PIIE given that information and communication exchange between people has acquired a mass nature, owing to the availability of myriad ways of concealing information and communication that were difficult to even imagine before. Today, social networks are used by criminal groups, including terrorists, and special services in all countries are trying to access information circulating in such networks in order to deter and prevent criminal activity. The dilemma revolves around the determination of a border

between the need to provide access to special services, and which information ensures the security of the state and society on one hand and the need to protect privacy on the other hand. Naturally, security services are seeking to expand their opportunities, and citizens wish to limit access to information about their personal and family lives as much as possible. Today, all states are looking for a reasonable compromise between these two tendencies. In some states, as a rule (e.g., those with ruling authoritarian regimes), priority shifts towards Big Brother; in others, with ruling democratic regimes, the protection of private life is prioritised.

The discrepancy between easy access to information and the complexity of its understanding: Expanding possibilities for the manipulation of new facets of social inequality

The post-industrial info-communication environment (PIIE) is a technological foundation that has stimulated the creation of a multitude of information sources, which should theoretically allow each individual to receive sufficient information about events and processes taking place and prevent information-based manipulation of public opinion. However, a radically different picture has emerged in practice. Unlike in previous epochs, when the main problem for 'users' was that of searching for and accessing information, there is an excess of information in the post-industrial epoch. As was justly noted by Russian researcher Dmitry Trenin, "the problem of information deficit has been solved to the point of turning into its opposite, the problem of information excess. It is much easier to find out about something than understand what it means" (2015, p. 301). The internet has practically eliminated obstacles to searching for information; as such, many professions connected with information distribution (e.g., journalism or teaching in higher education) have been predicted to disappear with time. Although such forecasts persist even now, the chances of their realisation are slim. Another problem has also appeared in the post-industrial era: the inability of the overwhelming majority of 'users' to critically understand and independently

process received information. This matter has also been strengthened by the fact that our era has witnessed a shift from a culture of words to one of video. Visual information is perceived more readily, and its mastery does not require a developed analytical apparatus.

This change has at least three important consequences for present-day societies. First, it opens up new possibilities for the manipulation of public opinion that were not feasible before. Second, there is an objective request for 'intermediaries' (e.g., journalists and teachers) who can take away, systematise, and propose to society (especially its most 'advanced' groups) high-quality, rationally understood information, which can play an important role in motivating various social actions. These points, considered from the perspective of the distribution and use of information, suggest the need for 'responsible minorities' to be present in today's society. Third, the ability to critically understand diverse information in large volumes is an additional factor that, in our opinion, preserves and strengthens social inequality. Individuals who consume large information flows and manage them in their interests receive real power over those who cannot do so, which creates one more line of social division: the managers and the managed.

The large scale of volume, content, and recipients, along with the high speed at which brief messages are disseminated via PIIE, has created a technological basis to increase the power and efficiency of the manipulation of public opinion through the influence of propaganda on mass consciousness. Alongside traditional methods of propaganda-like information distortion, such as the distribution and provision of unethical and fraudulent information, the defamation and concealment of publicly important information, and classical propaganda techniques described in 1936 by Clyde Miller and Violet Edwards, there are also new technologies with which to introduce propaganda into mass consciousness. Such technologies include 'bot' (robotic) software, special programmes that perform actions automatically and/or using a set schedule via the interfaces of an ordinary user; trolling technologies (e.g., the publication of provocative articles on different internet sites, or posted

messages intended to spark conflict between users accompanied by mutual insults) (Animatika, 2018); and the creation of thematic accounts on social networks 'on an industrial scale' to distribute purposefully prepared information, propagandist posts, and fake news (Gatinsky, 2018).

The increased efficiency of the manipulation of public opinion through the influence of propaganda on mass consciousness is due to most people either not trying or being unable to critically evaluate the large volumes of information circulating in PIIE and not being able to discard untrue or propaganda-like information. However, the scale of manipulation of public opinion has grown to such a point that one is consumed by the problem of protecting users from content-type info-communication threats. Owners and managers of social networks have begun to assist in addressing this issue. The head of Facebook, Mark Zuckerberg, has noted the development of new policy aimed at helping users evaluate the reliability of information sources (RosBusinessConsulting, 2018b).

The difficulty of organising efficient protection from content-type info-communication threats is rooted in their genesis, which lies in presentation and, primarily, in the content of information messages. Yet legal regulation and control over the content of messages present an extremely ambivalent and complicated legal and juridical problem. Nevertheless, it seems that the administrative and criminal responsibility – legally established on the basis of international laws – as determined judicially for distribution and provision of untrue, unethical, or fraudulent information and defamation and concealment of publicly important information can increase the level of information security for the individual, society, and the state. However, revolutionary technological changes in the info-communication environment are not the only threats that pose challenges to post-industrial civilisational development.

Environmental threats

The intense development of industry and transport, even in terms of applying modern resources, energy-saving technologies, and new energy sources, increases the extent of environmental threats following on from the negative influences of man-made activities on the environment. For example, in megalopolises and large cities, environmental conditions are not improving, and in some cases (e.g., Chinese industrial centres), the environment has deteriorated substantially (Vlasova, 2013). Cleaning space debris from the Earth's orbit is also of vital importance (Liou, 2010), as is the acute problem of clearing the world's oceans of non-biodegradable synthetic substances, chemical and military industry products, atmospheric pollution, and climate change (Greenologia, 2018). In light of the importance of climate change, basic documents have been adopted to address this problem: the United Nations Framework Convention on Climate Change (1992); the Kyoto Protocol (1997); and the Paris Agreement (2015), which succeeded the Kyoto Protocol, all remain the subject of scientific disputes and political struggles.

Revolutions in technologies and social inequality

The wide distribution of robotisation in the post-industrial epoch has increased the risk of social inequality in a society where knowledge creators and top managers could become practically independent of the main mass of the population. Then, the people who cannot perform creative work and provide in-demand services to the market will have to rely only on the state and social assistance (Tsirel, 2017). The social structure of this society will harken back to classist times and be characterised by low vertical mobility.

In addition, the world stands on the threshold of revolutionary events in biotechnologies and gene engineering, which may lead to a new social problem of 'vital inequality'. The essence of vital inequality is that not all social strata and groups will be granted equal access to advantages that increase the intellectual and physical potential of

humanity and prolong life. This disparity will result in a social stratification of living standards, likely leading to social splits and conflict. Afforded access to new biotechnologies, the rich will be more physically able to lead healthier and longer lives.

The internal dynamics of human civilisational development for the coming decades will be largely determined by two tendencies: egalitarianism and democracy. This will lead to the destruction of hierarchies and the strengthening of the 'flat' nature of the world on one hand and to increasing levels of hierarchy, the appearance of new classes, and increasing social inequality on the other. In the case of the mass liberation of the workforce from production and the increased duration of life, the problem of free time will be aggravated. Experience has shown that only a small proportion of the population can devote time to creative self-realisation. What about others who are either unable or uninterested in this, especially when their numbers will comprise tens or hundreds of millions of people?

It should be noted here that all challenges and threats to post-industrial civilisational development, engendered by technology-driven social changes, are worldwide; therefore, counteracting such challenges and threats requires coordination of actions across all states and peoples, reflected in the adoption of international conventions and interstate agreements. Changes in the technological foundations of vital activity in society require an adequate response from politics, along with adequate changes in systems of political and state governance. Delays in such changes will result in new political challenges and threats. Delay in transforming political and state orders occurs because, as Toffler wrote, "Political and bureaucratic structures, formed during the Second Wave, cannot provide a differentiated approach to each region or city, to each religious, racial, social, ethnic or sexual group. Conditions undergo divergence, and people that make decisions continue to be unaware of the relatively quickly changing local needs" (2004, p. 509).

In post-industrial transition, we may observe intense qualitative changes in people's vital activity, while the main inert portion of society struggles to catch up with these changes

and experiences discomfort, a loss of stability, and dissatisfaction with its position. Being oriented towards state paternalism, the mass of society, which lags behind, places responsibility for such inequality on the powers that be, which, for their part, do not respond to this situation. The dissatisfaction of the masses is then reflected in politics through different populisms as manifestations of present-day barbarism (Malashenko, Nisnevich, and Ryabov, 2017).

States with a low level of social and economic development have demonstrated increasing left-wing populism. An example is the 'left turn' in Latin America that started at the end of the 1990s (Bukova, 2011), marked first by Hugo Chávez's rise to power in Venezuela in 1998 and later by his successor Nicolás Maduro in 2013. The victory of Alexis Tsipras in parliamentary elections in Greece in 2015 was a sign of the same trend in Europe. The experience of Venezuela indicates that the victory of left-wing populism in countries with an insufficiently stable democracy may, as Thomas Carothers (2003) posited, lead to radical changes in the political system, withdrawal from democracy, and the formation of a dominant power regime.

By contrast, states with a high level of social and economic development have exhibited growth in right-wing populism, such as in European countries and the US. In such nations, which already have stable democratic political systems, right-wing populism may attain certain political success – e.g., Donald Trump's presidential election victory – while remaining unable to radically change the political system itself. However, if a delay in the political reaction to changes in social conditions and the mood of mass voters based on such changes persists, the rise of right-wing populism may acquire a wave-like nature; in this case, resonating conditions may even result in a qualitative erosion of stable political systems. This supposition represents a considerable internal political threat associated with post-industrial civilisational transition.

Migration and the problems of civilisational interaction

Although migration is inseparable from the global world and plays an important role in the development of both the world economy and individual states, it also causes new and serious problems connected with inter-ethnic, inter-confessional, and intercultural interaction. Such problems acquire an especially acute nature in conflict based on civilisational differences. This phenomenon has manifested itself most vividly in developed Western countries where powerful Islamic diasporas have been formed. Hopes for their relatively painless integration through policy shaped by multiculturalism have not been justified. In this sense, we can say that the "match between the cultures of the past and the emerging cultures of the Third Wave" (Toffler, 1986, p. 287) was not destined to be realised. Many Islamic religious communities show no interest in assimilating into Western societies. They therefore have two modes of conduct: one based on ghettoisation, which fosters fundamentalism; and another involving the intention to impose ideas regarding norms and values upon the majority. This model results in the propagation of religious radicalism (Ionin, 2014, pp. 27-32).[8]

This trend has been conditioned by deep social, economic, political, ideological, and religious foundations. In terms of radical Islam, in our opinion it is preferable to use the term 'Islamism', which is more analogous to the phenomenon of 'Islamic radicalism'. But what are the reasons behind rising Islamism? In the 1950s–1970s, Muslim countries faced the question of which path of development to choose. There were not many options: either repeat the Western experience or partially apply the Soviet model, which seemed appealing. In the latter case, some countries were able to count on the support of the USSR. A third option existed too: a national path of development. Many models of the national path were referred to as 'socialism', such as the Algerian, Egyptian, and Iraqi examples.

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[8] More details about these models can be found in Ionin's (2014) *Parade of minorities.*

These models turned out to be ineffective and forced Muslim countries into a deadlock. Inconsistent reforms, military takeovers, dictatorships, corruption, and poverty culminated in frustration and mass dissatisfaction. These consequences thus provoked thoughts of a different, more reliable exit from the deadlock, which has since become increasingly visible in Islam through its social, political, and economic standards, claiming social justice and democratic relations between authorities and the people – this is how the turn towards the Islamic alternative took shape. 'The Muslim religion', as French Islamic studies scholar Maxime Rodinson (1993) wrote, "offers its adherents a social project, a program to be implemented on [Earth]" (p. 30).

The arrival of Islamism to the stage turned this alternative into reality, re-Islamising society and finally building an Islamic state. Since the end of the 1970s, Islamists have become one of the world's most notorious political forces. In the overwhelming majority of Muslim countries, secular opposition is weak, and opportunities for political competition are limited. Under such circumstances, "in the shadow of authoritarian regimes, Islamists turn out to be the most consistent opposition force …" (Filiu, 2012, p. 299).

The spread of Islamism may be marked by a number of milestones over the last 50 years:

The first was the Islamic revolution in Iran, which the West perceived as a deviation from the norm and Iran's temporary retreat from modernisation. Nobody expected the regime to persevere for four decades. The Soviet invasion of Afghanistan was simultaneous to the Iranian Revolution. The Afghan rebellion against the Soviets had features of jihad and helped pave the way for an Islamist ideology in the country. The Afghan mujahideen were not Islamists, but Muslims from Arab countries who came to their aid were. In the early 1980s, Osama bin Laden launched his Islamist career in Afghanistan. In 1996, the country was taken by the Taliban movement, which experts have characterised as representing a new style of fundamentalism (Ahmed, 2001).

Less noticeable was General Muhammad Zia-ul-Haq's rise to power in Pakistan in 1978. He pursued Islamisation from the start of his time in office, as evidenced by his efforts to align criminal law with Sharia standards. In 1993, power in Sudan was seized by general Omar al-Bashir, who Islamised the country, especially the activities of the local state apparatus. Under Bashir, the civil war in the south ended, and Sudan was divided. Religious mottos were used in each conflict, but they were not of an extremist nature. General Bashir's regime could hence be classified as moderately Islamist.

In 1996, Necmettin Erbakan, a pioneer of Turkish political Islam, became prime minister of Turkey. Most experts perceived his coming to power as mere chance; however, Recep Tayyip Erdoğan became prime minister in 2003 and went on to become president in 2014. Erdoğan has never denied that Erbakan was his mentor. In 2006, the Islamic Resistance Movement (Hamas) won elections in the Gaza Strip in Palestine. The Islamist Hezbollah has become a heavily influential force in Lebanon. In 2007 in the North Caucasus, the creation of a Caucasian Emirate was announced, and in Central Asia, Hizb ut-Tahrir (Party of Liberation) and the Islamic Movement of Uzbekistan came into the spotlight in the 1990s.

The 'Arab spring' in 2011 culminated in a triumph for Islamism, which led to the success of Islamists in Libya after overthrowing Muammar Gaddafi in 2011, the formation of powerful Islamic opposition in Syria, former member of the Muslim Brotherhood Mohamed Morsi coming to power in Egypt in 2012 and, finally, the establishment of the 'Islamic State' in 2014.

There are three schools of Islamism. Supporters of the first subscribe to the belief that the Islamisation of society and the state should not be forced – at any rate, the triumph of Islamism will happen sooner or later. "Political Islamists", according to American scholar of Egyptian origin Ibrahim Karawan (2002), "have different assessments of the time dimension as it relates to their strategic choices. They believe that the time already works

for them … [and] have [a] different assessment of the time dimension as it relates to their strategic choices. They believed that time already worked in their favour …" They respect the law, participate actively in political life, and fight for their places in parliament.

The first school represents the moderate wing of Islamism, which has managed to achieve significant success in many Muslim countries without using violence. As legitimate actors in the political field, moderate Islamists can become competitors and partners to secular forces. A silent mutual understanding between them maintains the balance and stability of society and state.

The second school is radical Islamists, who act more boldly, violate laws, and appeal to the 'Muslim street'. They are capable of violence but avoid using weapons. The radicals are not willing to postpone the Islamisation of society and the state. They are in a rush, but at the same time are not ready to take major risks.

The third school is the Islamists whose supporters achieve their goals immediately and are prepared to do anything to achieve them – even by the most extreme, inhumane actions. They are fanatics. They launch rockets at homes, shoot people on beaches and in editors' offices, crush innocent crowds with vans and motorcycles, attack people on the streets with knives, and kill Christians for being Christians.

Extremists are obsessed with the idea of vengeance. They do not take revenge on actual 'offenders' (states or governments), but on each and every individual who, in their opinion, offends Islam through their very existence, culture, or views. "Bad deeds are done by the people who, in committing terrorist attacks, look [kindly] in the eyes of faithful Muslims, as they are doing it for the sake of [the] world's morality" (Juergensmeyer, 2000, p. 7).

A relatively new form of terror has also arrived in the form of individual terrorists, sometimes called 'lone wolves'. They act alone, in pairs or small groups of 3-4 people, and use instruments at hand such as cars or knives. In 2016–2017, a number of such terrorist

attacks took place in Brussels, Nice, Rouen, Paris, London, Stockholm, Berlin, Barcelona, the Finnish city of Turku, Surgut in Russia, and New York. Thanks to 'lone wolves', terrorism now has a casual, everyday character. It is possible that 'amateur terrorists' commit crimes after reading the instructional manifesto 'Knights of Lone Jihad', which the Islamic State distributed in 2017 after a series of military misfortunes in the Middle East, as a sort of call to arms all over the world.

It would be wrong to consider radicals and extremists as equals, as radicals are more oriented towards constructive activity. They arrange state, governmental, and other institutions in their own way but do not 'clean up'. Extremists are their opponents, even rivals. Unlike radicals, extremists – and terrorists even more so – are ruthless destroyers. A radical achieves his goals without disregarding the environment; he does not need additional victims. He is ready to manoeuvre and barter with an opponent. An extremist has no such familiarity with compromise.

It should be noted that religious or civilisational radicalism violates the mechanisms of civilisational interaction and creates a cultural medium through which to develop terrorism and undermine the internal stability of modern societies. The response to growing fundamentalism and Islamic radicalism in Europe is an upsurge in nationalist and national–populist forces that sometimes assume anti-European positions. These factors strengthen anti-globalist, regressive lines of global development, aimed against consolidating worldwide civilisation.

At the start of the 21st century, the spread of radical Islam evoked a response in some African countries (e.g., Nigeria and Uganda) where an uptick in Christian fundamentalism began. This phenomenon is indirectly connected with migration; i.e., the expansion of the influence of radical Islamic organisations, such as Boko Haram, to the south; towards where movements adhering to Christian fundamentalism (e.g., the Lord's Resistance Army in Uganda) openly use terrorist methods of fighting the Muslim population.

In this context, it is important to establish mechanisms of interaction between the emerging worldwide post-industrial civilisation and Islamic diasporas that abide by different norms and values. This is surely of a multi-level nature; in developed countries, an important role is played by the creation of social elevators for representatives of diasporas. However, governmental and religious circles in Islamic countries should also contribute by establishing dialogue. They should reject policies which lead to the ousting of the most impoverished strata of the population. Some argue that Islam as a religion requires reformation to adapt to the conditions of the present-day world.

Problems of separatism and terrorist threats

Another internal political threat of post-industrial civilisational development is the tendency for separatism that threatens the stability of public power and the integrity of the state. Today this tendency encompasses practically the whole world, and it is hard to find a state where no groups are striving to create an independent state. Separatism is provoked by a delay in the decentralisation of public authority which is, on one hand, necessary to improve the quality of state management when networking the structure of society and state institutes, and on the other, it is conditioned by the process of glocalisation as a combination of global and local factors in the development of territories and the problem of identity under conditions of globalisation.

With globalisation, only a fraction of the world's population, thanks to involvement in processes that presuppose the possibility of changing one's place of residence, has been granted cosmopolitan self-identification as 'citizens of the world' or as a 'nation of nomads'. Most people around the world strive for a different identity that is closer to home and more understandable for them. Striving to associate oneself with a particular region or local community, ethnic, social, cultural, or religious group, thanks to specific factors through which the individual feels a sense of belonging to the group, also involves striving to

associate oneself with a certain mode of living and particular historical roots, and with a comfortable and understandable social environment. Insufficient attention to this process on the part of public authority provokes the tendency for separatism, which is not always preceded by economic reasons.

It is important to note that the problem of separatism is also exacerbated by the legal and political misregulation of one of the most complicated and contradictory problems of the political and territorial arrangement of present-day states. The potential realisation of the right of nations to self-determination may be related to withdrawal from an existing state and, if necessary, compliance with the principle of territorial integrity and inviolability of state borders. This contradiction is included in the UN Charter, which includes the principle of equal rights and self-determination of peoples (Article 1) and the principle of the territorial integrity of any state (Article 2).

To achieve its goals, separatism may resort to different methods, from flexible political ones to armed and terrorist actions. Political means can be seen in the 'velvet divorce' of the Czech Republic and Slovakia in 1993 and the current attempt of Catalonia's national forces to legally separate the province from Spain, which has already led to a long-term political crisis in relations between the national government of Spain and the powers in Catalonia. Armed and terrorist actions are united by one factor: attempts to attain secession of separate regions and territories by waging war and terrorist attacks. For example, the continuing struggle of the Kurdistan Workers' Party to separate southeast Kurdish regions from Turkey, or the war of the Liberation Tigers of Tamil Eelam against Sri Lanka to establish an independent Tamil state in the northeast region of Sri Lanka (1983–2009). At the same time, terrorist activities in radical separatist organisations may turn into open armed conflict and civil war, potentially involving neighbouring states to varying degrees, as is the case in Yemen. This development of events may end in separation of the state, as in Sudan in 2011, when the new state of South Sudan was established.

Terrorism is here understood as a means of achieving political goals by ideologically motivated violence. This is the main political threat to post-industrial civilisational transition. Ideological motivation, an integral attribute of terrorist activity, includes different extremist political ideologies, such as radical nationalism and separatism along with diverse forms of religious fanaticism. This threat seems to be shaped by the fact that extremist political forces are willing to use any means, even the cruellest and inhumane methods and mechanisms, to preserve traditional localities in the civilisational arena, preserve them unchanged by history, or approve their radical vision of civilisational development. Terrorist attacks are organised and controlled by large organisations – e.g., Al Qaeda or the Islamic State [ISIS] – as well as by minor groups, both associated with famous organisations and acting independently at their own risk.

Present-day terrorism has two levels of spatial distribution. On the first local (or national) level, terrorist activities are performed by a national extremist organisation in the territory of one state, likely with partial use of neighbouring states' territories. On the second interstate (or international) level, there is a network of interconnected extremist organisations or international extremist organisations that carry out terrorist activities in a large part of the world's political space. Therefore, terrorism on this level is referred to as 'international network terrorism'.

At present, 38 international and national organisations are recognised by the UN as being of a terrorist nature, but there are many more such organisations when we consider those that national jurisdictions acknowledge too (Wikipedia, 2018). For example, the list of terrorist organisations from the U.S. Department of State includes 61 organisations, with 13 more having ceased to exist (U.S. Department of State, n.d.). On the basis of this list, we can evaluate the growth of terrorist organisations in the world in the past 20 years (Fig. 8), a number that has increased threefold.
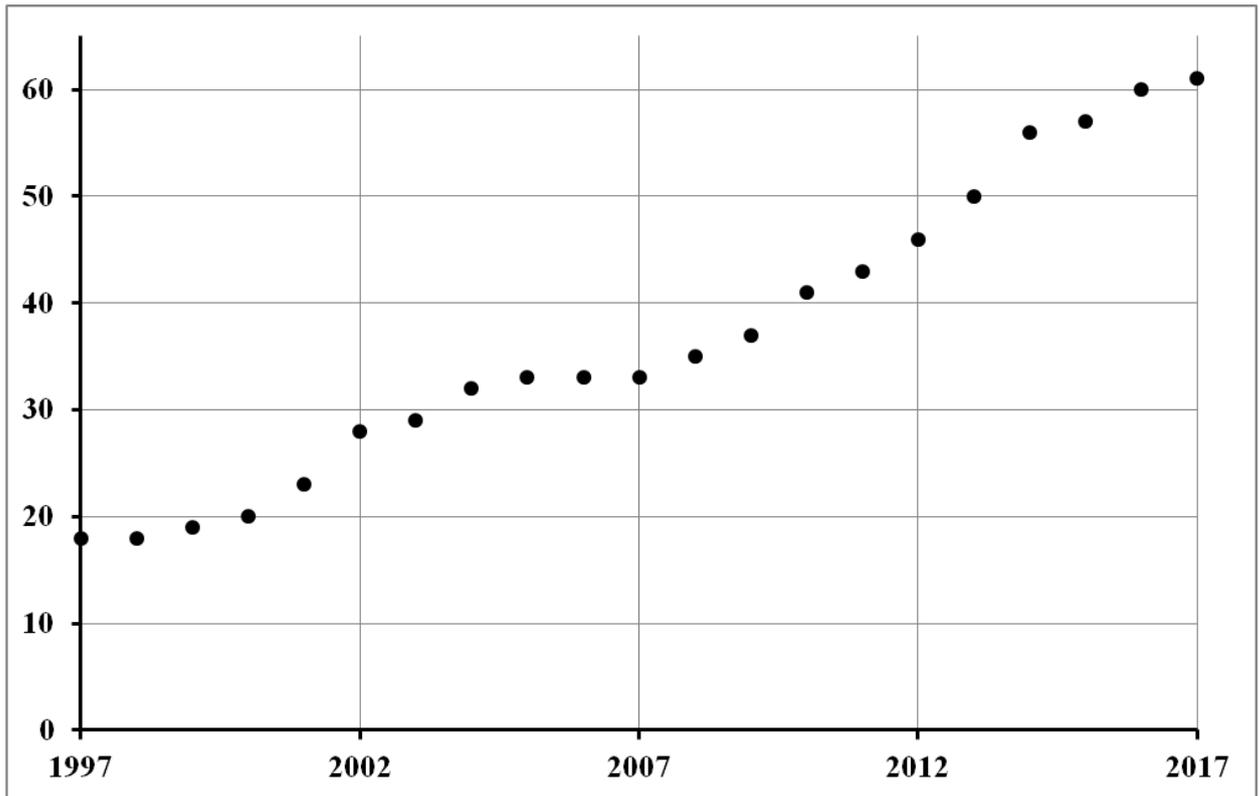
Figure 8: Growth in the number of terrorist organisations.

The most widespread ideological motivation of international and national terrorist activity is Islamist religious fanaticism; for national terrorism, Marxist-Leninist ideology is also a key factor in its striving to impose a radically new approach to social development and its opposition to post-industrial civilisational transition.

The global community's concerns regarding the distribution of terrorism have been reflected in 16 documents focused on fighting terrorism adopted by the UN, beginning with the first one in 1963 (United Nations, n.d.-c), and continuing with documents like the European Convention on the Suppression of Terrorism (1997), the and UN Global Counter-Terrorism Strategy (2006). The UN Security Council systematically imposes sanctions against terrorist organisations and their leaders. The UN uses the concept of violent extremism alongside terrorism; thus, in 2016, the United Nations Development Programme released a document titled Preventing Violent Extremism Through Promoting Inclusive

Development, Tolerance and Respect for Diversity. The authors concluded by discussing the necessity of an integrated and multi-dimensional approach to combat terrorism (United Nations Development Programme, 2016).

To close this section, one more major problem appears in connection with the challenges and threats that arise in the process of civilisational transition: the possibility of successfully overcoming these challenges and threats when capitalism is the economic basis of worldwide civilisation. According to one point of view, capitalism is the only option and must solve the complex but manageable problem of striking a balance between the tendencies of democratisation and marketisation in the contemporary world. Thus, according to Jacques Attali, "market and democracy will gradually strike a planet-wide equilibrium" (2014, p. 258). In our opinion, development based on this scenario is not predetermined; capitalism will be preserved as the basis of post-industrial society only if it can ensure access for non-privileged parts of society to modern benefits, entertainment, and a modern structure of consumption.

Section 3: Will civilisational differences be preserved in post-industrial society?

In the course of post-industrial transition, following on from the communication revolution, the globalisation of finance, the overall distribution of mass culture and unified consumer standards, increasing universalist pressure has been placed on local civilisations. Marsh pointed out that "the difference of the new industrial revolution from the previous four periods will consist in the fact that its effect will spread evenly all over the world, without being concentrated in a limited group of developed or rich countries. … The differences between 'developed' and 'developing' countries will start to be ruined" (2015, pp. 364–365).

The levelling process will inevitably be accompanied by the waning uniqueness of local civilisations and, in the end, their destruction. We can observe such processes in the world right now. The influence of globalisation changes the periphery of local civilisations, and then their core begins to change, although much more slowly. In India, where the political institutions of the Westminster system have been successfully implemented, the preservation of the caste system has evoked increasingly frequent protests from sectors of the population. Even countries that, upon agreeing to technical and technological modernisation, strove to preserve their previous civilisational paradigm without any changes, have been forced to respond to the influence of globalisation. One example of this is Saudi Arabia, which was long one of the strongholds of Muslim civilisation and harshly rejected any attempts to modify traditional Islamic norms and institutions. Now, Saudi Arabia is starting to carefully implement elements of representative power, recognise additional rights for women, and mildly liberalise norms of conduct.

It should be recognised that this perspective, in accordance with which local civilisations will disappear completely in the coming decades under the influence of general unification, will bring the 'end of history' for specific reasons. However, a key phenomenon compels us to look at the prospect of preserving local civilisations in a more ambiguous way:

Developed capitalism ceased to be a monopoly of Western countries at the end of the 20th century and the start of the 21st century. East and Pacific Asia, especially China, have preserved many of their civilisational attributes but still become the second greatest centre of developed capitalism in the world. However, this fact has different interpretations. Understanding connected with the inevitable formation of one universal civilisation brings its supporters to the conclusion that countries in East and Pacific Asia, despite their civilisational particularities, are not the bearers of an alternative model of capitalism; their current authoritarian capitalism (or capitalism with considerable elements of authoritarianism) is still a transitional condition on the way to a model based on democracy and an open market economy. Moreover, even the current 'East Asian' model was only made possible through the participation of the West in the way of investment, technologies, and military and political support. Therefore, this model will inevitably be Westernised in future.

However, from another point of view, the appearance of one more model of developed capitalism points to a tendency of increasing civilisational pluralism in the contemporary world. There is a growing consensus in political and policy circles in the US and other Western countries that the political system of present-day China, based on the monopoly power of the Communist Party, is characterised by considerable stability, such that a deepening of market reforms is not leading to the destruction of the political system as was previously thought possible. Moreover, the mastering of modern computer technologies for the sake of governance by the Communist Party has only contributed to a strengthening of this system (i.e., "digital Leninism", Borokh and Lomanov, 2018, p. 68).

The two current models of developed capitalism, democratic and authoritarian, will likely be supplemented with others in time. This forecast is often interpreted in strictly a political sense as a sign of the emerging polycentric world. Therefore, we should still acknowledge the weight of the arguments put forward by analysts who assume that

the fourth industrial revolution will not lead to the ultimate disappearance of local civilisational peculiarities. A further universalisation of values and institutions will surely occur; however, societies that have different starting possibilities at the initial stage of the fourth industrial revolution will strive to involve the potential of their local civilisations as much as possible in order to adapt to new challenges in their own way. It is still unclear how Arab and Muslim countries will adjust to these conditions, as they have either opposed general civilisational progress until now or treated it selectively, aiming to preserve traditional institutions and values as much as possible while trying to take technological achievements from the developed world.

We may therefore say that in theoretical terms, the prospects of worldwide civilisational development in the next 25–30 years remain debatable.

In the future, when a new stage of the biological revolution renders it possible to influence human development on a genetic level and a sharp increase in life span is realised for the mass of the population, the current worldwide civilisation will inevitably give way to some new reality. The new individual will be a different 'constructed' being who has practically acquired eternal existence. Yet he will still be unable to resolve the questions that define the basis of any civilisation that has ever existed on this planet over many thousands of years: attitudes towards life and death, nature, and society. But it will mark the start of a completely new stage of history.

Conclusion

Post-industrial transition is a multi-level process of the development and consolidation of worldwide civilisation as it is shaped by new technical, technological, social, economic, and cultural foundations. Under its influence, local civilisations that have managed to preserve their originality in present-day conditions will gradually destroy and be integrated into the new civilisational flow. The process of post-industrial civilisational formation occurs in a definite institutional corridor, defined by factors like the constitutional and social state, the growth in the role and influence of supranational institutions and non-state actors in global policymaking, the gradual removal of hierarchy in world order, and the gradual corresponding evolution towards polycentrism. At the same time, it remains unclear whether this corridor will be universal for all countries or if there will be some exceptions due to the civilisational specifics of some states.

The emerging post-industrial society presents new possibilities for the individual as a social subject. Technical and technological developments are occurring at unprecedented rates and the gap between technological developments and humanity's sense of mastery over global culture remains. The formation of a post-industrial civilisation is accompanied by new challenges and threats, including new forms of social inequality, the strengthening of which seem highly probable. Threats including deterioration in the quality of the environment and the spread of international terrorism may acquire new proportions. The lack of efficient instruments to regulate migration and mechanisms of integrating separate religious and civilisational diasporas in post-industrial civilisation are other serious challenges to the development of a post-industrial civilisation. New possibilities of manipulating information and public opinion create obstacles to the development of humanity and may provoke conflicts between social groups and even between states.

It seems like by the time it takes for post-industrial civilisation to acquire some established or settled form, perhaps by the middle of the current century, a biological

revolution could even have begun to change humanity's biological constitution. This could also mark the origins of a new civilisation, the foundational principles of which are not even visible now. It remains unclear whether local civilisations will have finally 'dissolved' by that point, being absorbed by worldwide civilisation, or remain small remnants of the past.

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