



AZERBAIJAN NEEDS TO DEVELOP DIGITAL SKILLS FOR A DIGITAL FUTURE (PHILOSOPHICAL ANALYSIS)

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Change is the law of life. And those who look only to the past or the present are certain to miss the future.

John Kennedy

Abstract. The article discusses the concept of “digital generation” and gives the history of the emergence of this concept. The author attempts to meaningfully consider the features of the representatives of the “digital generation”. The innovative educational environment is described as well as the prospects for developing digital technologies are characterized. At the same time, high attention in this research paper was paid to the importance of the digital generation’s role in the reconstruction of Karabakh.

Keywords: Azerbaijan, digital generation, digital immigrants, digitalization, digital technologies, information technologies.

The relevance of addressing this topic is explained by the fact that over the past 250 years, there have been four industrial revolutions. It all started with the advent of the steam engine and railroads. At the end of the 19th century, electricity spread and the conveyor began to be used more. In the second half of the 20th century, the computer, various means of mobile communication, the Internet and social networks became the most important factors in human life and professional activity. And today, we live in the era of the fourth industrial revolution, where radical changes in the world of technology are taking place at a high speed. Digital technologies (DT) are actively changing our lives and abilities. In fact, augmented reality is being created with the ability to interact with the physical world. DTs play one of the most important roles in the life of society, since in the era of the development of the digital environment, a new generation is born, the phenomenon of which is studied all over the world by philosophers, futurologists, sociologists, etc. Equivalent concepts of the new generation can be the digital generation, Google generation, network generation, generation of digital natives, generation Z, generation Y, smart crowds, omega, etc. All these phrases are used today to refer to young people who have been socialized in the context of the widespread use of DTs in everyday life and professional activities. It is typical that today in the information society, almost all life is digitalized, including such areas as science, education, art, economics, etc. The world around us has radically changed under the influence of widespread DT, which have become necessary and important means of communication, without which the functioning of society is considered impossible, since advanced technologies are the best alternative of all that is opening up to humanity today. There are fewer and fewer people who are unfamiliar with web services, smartphones, e-mail, information resources, etc. Informatization and digitalization of life contribute to the formation of educational platforms that provide easy access to numerous Internet resources.

The concept of "digital generation" was studied in the works of many foreign



researchers. It was first coined by Marc Prensky to refer to members of the generation born between 1984 and 2000. “The American writer Marc Prensky in 2001 published an article «Digital Natives, Digital Immigrants»” in which he distinguished two types of users: digital immigrants and the digital generation. “The digital generation is those who grew up in the world of computers, mobile phones and video games. They search the Internet every day, send emails and SMS. They get information quickly, work better with graphics than with text, and hypertext is more familiar to them than usual text. They strive to solve many problems at the same time, need frequent encouragement, prefer “fun games” to serious work, cope better with joint projects than with individual tasks. Digital immigrants (DIs) are the older generation, those who feel uncomfortable and sometimes even insecure in the digital world. They can’t perform the simplest actions, such as reading an email from a computer or making corrections in an electronic document. They prefer to learn slowly, step by step, individually and seriously, to master special knowledge to achieve results” [5, p. 14]. What do DIs need to do? According to the American philosopher E. Toffler, “the illiterate of the 21st century will not be those who cannot read and write, but those who can't learn, unlearn, and relearn”. “So if digital immigrant educators really want to reach digital natives – i.e. all their students - they will have to change. It is high time for them to stop their grousing, and as the Nike motto of the digital native generation says, “Just do it!” They will succeed in the long run – and their successes will come that much sooner if their administrators support them” [7, web]. The author of the study believes that it is the task of each of us to acquire knowledge, learn how to apply it in life and become an educated person in one form or another. Of course, DIs should try to acquire new skills in order to integrate into the new digital reality of life. However, the idea that DIs know little about the digital world, do not have the necessary level of computer literacy for online learning is also incorrect. First, many of them are actually quite advanced. Secondly, most of them quickly master the necessary skills in the presence of detailed instructions. This is one side of the coin, but there are some thoughtless nuances. Everyone knows that DTs help us open new horizons of improvement in all industries. However, sometimes older generation put a barrier to the younger generation in the possession of digitalization skills.

Children are forbidden to use computers and other gadgets and are forced to live "usual" children's lives and play "usual" games, and technology can only be used in certain cases. The problem is that the parent imposes its own view on the child born in the new generation and in need of other skills of self-survival. The younger generation is the people of the future, unable to communicate and compete with their peers using advanced technologies, and risks facing adverse consequences. A computer, a phone, and a tablet are the realities of our life, and they cannot be abandoned, otherwise, a grown-up child will lag far behind their peers, his/her skills will be much lower, and he/she will simply lag behind the time. Surely, a balance is necessary, however, avoiding technological change is not a method that suits a generation striving forward in a world overflowing with advanced technology. This generation is very adaptable and certainly their life and decisions are completely dependent on the technological environment around them. They didn't grow up with video cassettes, cassette players, black-and-white tube televisions, radios, and so on. Therefore, even their vocabulary



and language is different. They decide on their own how to write a CV for admission to a university abroad, become a green card holder, what phone, clothes and video games to buy, etc. It is clearly seen that the generational improvement in the world of progressive technologies, as well as in the field of autonomous decision-making, is important for future personal life. For instance, in many developed countries, you can fail in finding a job in your specialty if you do not use the capabilities of LinkedIn or another social network. In their world, changes are continuous, and their acceleration is a sign of movement for a better life. “Keeping kids out of technology is no longer an option. They are caught up in this digital flow from infancy” [3, p. 239]. In many years, or maybe in a few years, technologies will become so tiny, omnipotent and integrated that we will no longer see them as a combination of devices, mice and keyboards, as we do now. Technologies will be inside us, on us, in our clothes, in our homes, cars, so everywhere, in every manifestation they will be millions of times more powerful than the most powerful of today's computers. It should be noted that representatives of the digital generations (GG) demonstrate digital literacy when they are able not only to evaluate their technological skills, but also analyze how they use these skills to solve various communication, research, and creative tasks. New communication technologies have an impact on the processes of socialization, the formation of systems of social interaction, on the ways of perceiving and processing incoming information, while affecting both the intellectual and emotional side of the individual. “In today’s education and in the world, the advance of technology enables us to create a new human-machine symbiosis that improves how we do almost everything. We need to all join the quest for digital wisdom in our practice and in our lives as well” [8, web].

A modern philosopher M. Manikovskaya considers digitalization as “one of the checks for the ontological rootedness of morality and ethics in society” and points to “an increase in the distance between evidence (digital reality) and adequate speculation” [4, p. 36]. Based on numerous studies, the American sociologist H. Rheingold argues that “In ten years of observations and interviews, the main places of the population of the Earth will be flooded with microcircuits capable of communicating with each other. People equipped with such devices will form “smart crowds”, and their communication will acquire forms and possibilities never seen before” [2, p. 206]. From this position, it is important to emphasize that each country is on its own path of digital development, trying to adapt and meet modern requirements. Sometimes it seems that modern man is overly dependent on technology. The importance of digitalization was first recognized during the COVID-19 pandemic, when suddenly no one could move from one place to another anymore, which accelerated the use of digital platforms, primarily in the field of education. During the pandemic, the transition of employees to remote work using ICTs has reached an unprecedented scale and stimulated a change in consumer behavior, as well as the duration of the pandemic has launched a long-term process of introducing new types of ICT goods and services. DTs helped overcome the difficulties related to the pandemic. The Internet has allowed people not only to survive the quarantine but also to continue to lead a completely familiar life - to work, live, communicate and even go to online concerts without moving away from society. “Quarantine as one of the forms of combating the pandemic showed another, multi-channel connection between ethics,



culture, law and artificial intelligence” [6, p. 7]. Not only in other countries but also in Azerbaijan, during the pandemic, DTs were also used to control the spread of coronavirus, to identify patients who violated the isolation regime, etc. The pandemic has already accelerated the digitalization of many industries, creating the most important thing needed for people to adopt new technologies. The main thing became obvious to people: there are much more advantages to the introduction of digital platforms than disadvantages. The future world is interesting and promising, and technological progress is becoming a creator of a huge mass of new specialties. The author of the present research is positive and optimistic about her assumptions and conclusions: considering the potential dangers posed by advanced technologies, artificial intelligence, the Internet of things, the intersection of the digital economy and the rest of the analog world, she emphasizes the advantages of this development. Such global shifts often offer the richest opportunities for society. They lead to the transformation of the social structure. It is pretty clear that a return to the past is impossible. What is surprising is the stubborn unwillingness of some people to recognize ongoing technological changes and new trends. However, it is not difficult to realize that the real world does not stand still. The more high-tech innovations, the greater our inventive potential and the sooner more advanced technologies appear. “Yes, it is true that people are constantly adapting to technological innovations. But it is also true that in the next two or three decades more changes will fall upon humanity than in the last thousand years. We will get acquainted with machine intelligence, at least not inferior to humans. We will switch to self-driving cars and see how the first people land on Mars. And most importantly, finally, technology that ensures the sustainable maintenance of human life in conditions of energy abundance and freedom of creativity will be created” [1, p. 13].

It is important to note that Azerbaijan has sufficient potential to become an advanced IT state with the prospect of a gradual entry into the European platform. Azerbaijan has already taken significant steps towards building a digital society: teaching digital skills in schools, transitioning to e-government, creating and modernizing the necessary IT infrastructure, etc. The Minister of Education Emin Amrullaev, in one of his interviews, spoke about the main tasks of digitalization in the education system. “Most of the traditional subjects in the modern education system have lost their relevance, subjects requiring digital knowledge and skills have come to the fore, and computer science, in turn, will be included in the entrance exams” [9, web]. Due to the fact that digital sectors are the fastest growing, the current national strategy of Azerbaijan “Strategies for the socio-economic development of the Republic of Azerbaijan for 2022-2026”, approved by President Ilham Aliyev, most of all focuses on digital technologies. Azerbaijan is building smart cities/villages on ancestral lands liberated from the Armenian occupation. It should be indicated that after the great victory in the Patriotic War, Azerbaijan faces the most important task of restoring Karabakh. President Ilham Aliyev noted in one of his speeches that the liberated lands should be restored using the concept of “smart city” and “smart village”. The liberated lands should be areas of high-tech development. First of all, it is necessary to prepare the primary digital infrastructure, to create a base that will allow developing the liberated lands precisely in the direction of high technologies. The favorable



geographical location of the country and natural resources, human potential, as well as the state programs, decrees and orders adopted in recent years by the President, create all the opportunities for it. In an interview with the “Bakinsky Rabochiy” correspondent, the director of the Institute of Philosophy and Sociology professor Ilham Mammadzada noted that “Smart Village is undoubtedly a product of artificial intelligence, which means digital and automated activity, adequate to human activity. Any country where scientific and technological progress is developing is moving forward. Scientific and technological achievements have become a crucial part of our lives, and this has become known as the information society when the boundaries between people, robots and technologies are reduced to a minimum. That is the reason why we need to develop and analyze society with the help of artificial intelligence” [6, p. 7]. “Smart cities are able to offer people an alternative, better and safer reality, which means that they are needed - and urgently - not only for a more complete physical and intellectual self-realization of a person but also for maintaining the viability of our planet” [1, p. 445]. The concept of a smart city/village is based on the use of modern information technologies and communications to comprehensively improve the levels of health protection, security, education and employment of the population, to create additional opportunities for recreation and sustainable well-being of citizens. A smart city/village simplifies the management of internal urban processes and makes the life of residents more comfortable and safer.

The author of the work believes that first of all smart people as the young digital generation is needed for the use of the concept of a smart city/village in the restoration of Karabakh. Today's youth has already completely transformed their way of thinking under the influence of digital trends, it is the bearer of huge intellectual potential, it adapts very well, thinks very quickly and is not at all inclined to resist technological changes. Of course, first of all, it is necessary to create communal and road infrastructure, and work opportunities to return the internally displaced people to the liberated territories. The region needs such young people who have the above skills and knowledge, who help its productive restoration and who will live and work in Karabakh for its benefit. This generation is very different from the previous ones, primarily in terms of information richness, the ability to get any information and have their own point of view. Of course, today the younger generation is showing interest in working in new areas, formed precisely under the influence of new technologies, and is thinking about self-realization in sectors with broad digital opportunities. The Internet and the wide range of digital communication options available through the Internet are among the basic needs of today's “digital youth” who are accustomed to “living” online. These high digital technologies will play an important role in the developing Karabakh.

The digital lifestyle is natural and typical for the digital generation. The positive characteristics include: in terms of cognitive development - the constant desire for novelty and self-improvement, creativity, the ability to synthesize different types of thinking, non-linearity, the ability to parallel processing of different information flows (multitasking), the propensity to use different sources of information, high speed of information processing and decision-making; special abilities for creativity, such as perception, enhanced imagery of thinking, imagination, desire for fantasy, looseness,



sharp memory, as well as an exponent of new knowledge that it brings to production and other areas of public life, etc. In terms of social development - the desire for self-expression, preference for the “horizontal” (partnership) type of relationship to the “vertical” (hierarchical), and openness to intercultural communication.

The actual conditions and needs show that the liberated lands need to be prepared for the digital industry in order to build there an agricultural or tourist zone using modern methods. It is undeniable that digital youth quickly grabs and masters innovative technologies in various fields of activity (material and spiritual transformation of the world), behavior (adaptation to the environment) and communication (subject-subject communications). Therefore, all these areas can't develop without young people, and young people will not take part in it without the implementation of modern technologies in the region. At the same time, the absence of a young population in Karabakh can make it vulnerable in terms of self-defense. “If we do not apply high technologies in the development of the region in the conditions of intensive digitalization and do not involve digital youth, then we may face delays in developing Karabakh. It means that, first of all, it is necessary to think about the digital development of the region, the use of advanced digital technologies and the availability of broadband Internet, in order to further enhance all other sectors of the economy using the latest technologies and a digitalized economy” [10, web]. From this point of view, it was the representatives of the young generation who fulfilled the main mission of the Patriotic War, having won the Great Victory under the leadership of the Supreme Commander-in-Chief Ilham Aliyev, and showed unprecedented heroism, courage, love for the Motherland, the state and the flag. At the same time, history teaches us that any battle between the past and the future inevitably ends with the triumphant march of new technologies, because advanced technologies always change lives for the better. According to the American writer William Gibson, “the future is already here – it's just not very evenly distributed”.

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