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Digital Ukraine – the idea of modernizing the state

The digitization process in Ukraine gained momentum only after Volodymyr Zelensky and his entourage took power in 2019. It was then assumed that the "digitalization" of the state would help bridge the civilizational gap between Ukraine and the West and accelerate the modernization of the economy and public institutions. Within a few years, significant success was achieved. Digitization is also expected to be one of the fundamental pillars of the post-war reconstruction and modernization of Ukraine, serving as the foundation of an innovative economy. However, considering the ongoing war and its consequences, this assumption is now in question.

From declarations to actions. In the first decade of the 21st century, Ukraine adopted its first legal acts regarding the development of an information society and the computerization of the state. In practice, however, little action was taken. The change was brought about by the events of 2014: Ukraine's pro-Western course, the annexation of Crimea by Russia, and their consequences.

At that time, numerous voices appeared, emphasizing the need to modernize the state, intensify activities in the field of cybersecurity, and develop digital technologies as important factors for economic integration with the West. This was also the result of the ongoing generational and mental shift and the growing sense of identification with Ukraine, especially among those born in the independent Ukrainian state.

In 2015, the national development strategy "Ukraine – 2020" was adopted, followed a year later by the "Digital Agenda of Ukraine," which aimed to organize the process of digital transformation as a factor in the development of the state and society. In 2018, the Coordination Council for the Development of the Digital Economy and Society was established and the "Concept of the Development of the Digital Economy and Society for 2018-2020" was adopted. Digital transformation tasks were also included in the "State Regional Development Strategy for 2021-2027," adopted in 2020, and digital development programs were also developed at the level of individual regions.

However, it was only Volodymyr Zelensky, during his campaign before the 2019 presidential election, who clearly focused on digitalization as a lever for Ukraine's modernization and development, making it one of the main goals of his presidency. The "digital leap" was intended to eliminate the economic and civilizational distance separating Ukraine from the West, and thus facilitate integration with Western structures. This opinion was shared by Zelensky's entourage, consisting largely of young people who appreciated modern technologies.

They recognized that the country had too many bureaucratic and archaic administrative procedures at the systemic level, often dating back to the Soviet era. Such a situation obviously promoted corruption and slowed down the modernization of the state and the development of an innovative economy and civil society, placing Ukraine – which aspired to integrate with the Western world among the peripheral countries in terms of technology, economics, and society. As a result, one of the most important demands of Zelensky's election campaign was the maximum "digitalization" of Ukraine. The "State in a Smartphone" program was intended to serve this purpose –transferring most administrative and public services to the digital sphere.

Speeding up the process. The Ministry of Digital Transformation, which was established in 2019 on the basis of the State Agency for Digital Administration (established in 2015), is responsible for the digitization of the state. Since the beginning, it has been headed by Mykhailo Fedorov, born in 1991; when he took office, he became the youngest minister in the history of Ukraine. He also serves as Deputy Prime Minister for innovation and development of education, science and technology. Unlike many prominent representatives of the Ukrainian

political elite, Fedorov is not seen as controversial and is not associated with corruption scandals. He is appreciated for his energy in action and for keeping his promises, ranking very high in public trust in politicians, second only to Zelensky. A sociologist and manager by education, he was an entrepreneur in the advertising and marketing industry. His political career is associated with Zelensky; as part of his presidential election campaign, Fedorov very effectively managed online activities. He later became the president's adviser on digital issues, and in the summer of 2019, he headed the ministry. He set the goal of digitizing all the most important public services by 2024.

The systemic digitization of public services began with the launch of the unified public services portal Diia (short for "State and Me" Ukrainian: *Держава і я*) in April 2020. Diia is an e-service consisting of a portal, a mobile application, a digital educational platform, and a business platform. Since the launch of the Diia portal, 165 electronic public services have been implemented by the end of 2023, including: digital passport, registration of civil status certificates, formalities related to a child's birth, pensions, business activities, medical services, driving licenses, or real estate registration. A qualified electronic signature and many solutions supporting democratization (e-petitions, participatory budget, etc.) were implemented, which simultaneously improved the process of state decentralization. At the beginning of 2024, the number of registered users of Diia exceeded 20 million people (representing the vast majority of the adult citizens of Ukraine).

Multidimensionality. The digitization of the state is not limited to the sphere of public services. It also holds strategic importance in the context of integration with the structures of the European Union. In 2020, the implementation of the "road map" for Ukraine's integration with the EU Digital Single Market began. The goal is not only to deepen integration with the EU, but also to increase the efficiency and competitiveness of the Ukrainian economy, increase exports, and improve the quality of life of society. The position of Chief Digital Technology Officer – an individual responsible for the conversion from analog to digital activities – was introduced in state institutions in 2020. Furthermore, appreciating the growing importance of artificial intelligence, the "Concept for the development of artificial intelligence in Ukraine for a period of 10 years" was adopted in 2020 as well.

The high technology sector is also very important from the point of view of the Ukrainian economy. Before February 2022, the export of IT services amounted to almost 10% of the total export of Ukrainian services, and it was estimated that by 2025, the revenues from this sector would reach USD 16.5 billion (which in total would provide employment for 2 million people), and its share in GDP would increase from 5% to 10%. Ukraine ranks second among the countries of Central and Eastern Europe in terms of the number of IT specialists, second only to Poland, and this number is constantly growing (in 2023, it exceeded 300,000 people).

Russia's invasion in 2022 did not stop Ukraine's digitization process, although it did slow it down in the civilian sector. Security issues have become particularly important, which is reflected in the development of new technologies. The Diia platform has acquired new functions, such as warnings about air alarms, purchasing war bonds, and the ability to inform about sighted Russian troops, suspicious behaviour, etc.. Moreover, thanks to the cooperation of the Security Service of Ukraine and private entities, an application for identity verification, TyHto ("You who?"), was created. It is worth noting that previous experience is being used innovatively, as exemplified by the Diia.pl application, intended for Ukrainian citizens residing in Poland and operating as part of the Polish digital platform mObywatel ("mCitizen").

Conclusions. Many plans and promises regarding reforms were not implemented by Zelensky's team (which is a source of growing disappointment in Ukraine), and many were halted by the Russian invasion. However, the digitization of the state, which is crucial from the point of view of modernization, civilization development, and overcoming the Soviet legacy, has largely proven to be a success. Paradoxically, the COVID-19 pandemic, followed by the Russian invasion, led to the acceleration of the digitization process, enabling the functioning of state institutions and giving a significant impetus to deepen innovation. The traditionally high level of distrust among Ukrainians towards public institutions and the state has been significantly reduced in this case; the progress of the digitization process is assessed positively.

From a broader perspective, the future of the country will be related to digitization, the development of artificial intelligence, and innovative technologies in the economy, public services, and defense. The post-war reconstruction of Ukraine is also expected to be based on this. Additionally, digitization is intended to contribute to integration with Western structures and strengthen defense against Russian aggression (including current and potential future threats in both militarily and cyberspace domains, as well as the information sphere).

However, it is not known to what extent these plans will be possible to implement. Ukraine is in a challenging situation: the war continues and it is difficult to expect its quick and beneficial end for Ukraine. The country is devastated and exhausted by the conflict, in poor financial condition, and experiencing deteriorating public morale. The end of the war will bring new problems: the need to face the reconstruction of the country's material infrastructure and a demographic collapse. In a pessimistic scenario, Ukraine may not only fail to become a technological leader and integrate civilizationally with the West, but it may also struggle to return to the pre-2022 state of affairs.