

## DIGITAL TECHNOLOGIES IN THE AGRICULTURAL SPHERE AS INSTRUMENTS FOR SOCIAL REHABILITATION OF PEOPLE WITH DISABILITIES IN UKRAINE

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*Abstract:* considered problems of people with disabilities in Ukraine in the context of their rehabilitation, adaptation and involvement in the agrarian sphere of the national economy of Ukraine on the basis of new technologies

**Key words:** new technologies, innovative development, agrarian sphere. people with disabilities. postwar development

The modern world is experiencing fundamental transformations caused by military conflicts, digitalization, globalization, and the introduction of innovations into all spheres of human activity. These changes create unique opportunities for the development of an inclusive society, in particular for the integration of people with disabilities, who make up more than 15% of the world's population, according to the World Health Organization. 80% of disabled people in Ukraine are people of working age. In Ukraine, more than 2.8 million people have the status of a disabled person. This is 6.1% of the total population. Unfortunately, the number of disabled people in our country is growing every year. Almost 80% of disabled people in Ukraine are people of working age. In addition, according to experts, now one in ten people in the world has one or more functional disorders that cause disability. 35% of people aged 60 have persistent functional disorders that prevent them from performing normal social functions. At the age of 70, this figure increases to 50%, and by the age of 80, 100% of people have disabilities. Disability as a social phenomenon is inherent in every state.

Meanwhile, the European Union notes that there are considerable problems with people with disabilities in Ukraine. For example, the European Commissioner for Human Rights Thomas Hammarberg has repeatedly stated that the rights of people with disabilities are being violated in Ukraine. People with disabilities remain one of the most vulnerable groups in society, and this problem has been exacerbated in the socio-economic context since the war in Ukraine began. In low- and middle-income countries, people with disabilities often face limited access to education, employment, and financial services, and in Ukraine this problem is becoming larger and more acute with the need for psychological rehabilitation and additional measures to restore young soldiers and their families. The World Bank estimates the losses from underutilization of the potential of people with disabilities at trillions of dollars each year.[4] In developed countries such as Canada, Israel and Australia, effective integration models are actively being implemented: for example, the Digital Horizons Program provides access to distance learning for people with disabilities, allowing them to obtain professions in the IT and fintech sectors. (Canada); The Smart Farming Project involves people with physical disabilities in working in agri-tech companies through process automation. (Israel); The AgriTech for All Program uses robotic farming systems that allow people with disabilities to participate in agricultural production. (Australia) These examples emphasize that the correct use of technology can not only solve social problems, preserve and increase human capital, but also stimulate economic growth.

In 2006, the UN General Assembly adopted the Convention on the Rights of Persons with Disabilities, which sets out the basic principles for ensuring the rights of persons with disabilities in various areas of their lives. More than 180 states (including Ukraine) that have ratified the Convention are obliged to take measures to create conditions for the full participation of persons with disabilities in all aspects of life, as well as to promote the maximum realization of their physical, mental, social and professional abilities. The Convention contains articles on ensuring individual mobility of persons with disabilities, freedom of expression of their views and beliefs, access to information, privacy, respect, education, health and rehabilitation. Within the framework of this Convention, Ukraine, in particular, has undertaken obligations to observe the universal human rights of citizens of this group. According to Article 9 of this document, the state must take appropriate measures to provide them with unhindered access to the

physical environment, transport, information and communication, since the participation of people with disabilities in socially significant processes is impossible without proper access to necessary social facilities. In 2019, the UN Secretary-General called on countries to implement a strategy within the framework of fulfilling the tasks of social integration of people with disabilities for the next decade. In Ukraine, the problem of integration of people with disabilities has several dimensions. According to the State Statistics Service, more than 2.7 million people have the status of disabled people, and this figure is increasing due to the consequences of the war [3]. The main challenges today include:

1. Social isolation of persons with disabilities. Low accessibility of public infrastructure hinders participation in public life.
2. Economic vulnerability and social insecurity. The employment rate among persons with disabilities is only about 21%, while in the EU this figure reaches 58%.
3. Lack of adaptation to modern technologies. In rural areas, about 40% of households do not have access to high-speed Internet.

Despite these challenges, Ukraine has significant potential for involving, rehabilitating and promoting the full life of persons with disabilities and their family members in active life in various sectors of the national economy, in particular in the agricultural sector. The agricultural sector, which generates more than 10% of GDP, can become a base for creating new jobs and rehabilitation programs. For example, pilot projects of automated greenhouses that do not require physical labor are already being implemented in Vinnitsa region. [2] The agricultural sector remains one of the most promising areas for the integration of people with disabilities through technologies that minimize physical effort.

Practical implementation is possible through the integration and transfer of international programs, such as the Precision Agriculture Toolkit technology, which allows people with visual impairments to work on farms thanks to adapted data analysis tools (USA), the use of robotic systems in farming, which involves people with limited mobility, the Green Hand program, which unites farmers and people with disabilities to work together on organic production (Netherlands), etc.

Of course, the agricultural environment urgently needs specific practical steps on this path:

1. Training and retraining. Introduction of courses for working with agricultural technologies, such as controlling drones or robots. Today, Ukrainian agricultural drones are considered one of the most effective in the world not only in the field of agribusiness, but also in military affairs.
2. Subsidies for inclusive enterprises. Providing financial grants to farmers who create jobs for people with disabilities. State programs should be more accessible, socialized and understandable.
3. Digitalization of agriculture. Connecting rural communities to high-speed Internet and providing access to online education platforms.

Fintech tools that open new horizons for the financial and social integration of people with disabilities should be the drivers of change. In Ukraine, Monobank and Portmone platforms have already become important players in the financial services sector, but they can expand their influence by creating specialized services for people with disabilities. The examples of global fintech leaders are also inspiring: mobile banking M-Pesa allows even in the poorest regions to provide financial accessibility for people with physical disabilities, and crowdfunding platforms allow people with disabilities to raise funds to start their own businesses.

In this context, it is very important to draw the attention of society and specialists to

1. Inclusive financial services. Development of mobile applications adapted to the needs of people with disabilities.
2. Educational initiatives. Launch of online programs on financial literacy and entrepreneurship.
3. Integration with the agricultural sector. Use of fintech platforms to finance inclusive agricultural projects.

Therefore, the social rehabilitation of people with disabilities is not only a moral obligation, but also a strategic asset for the country's economy. Ukraine has a unique chance to create an innovative model of integration through digitalization, the development of fintech and the transformation of the agricultural sector. Using global experience and its own potential, it is possible to ensure inclusion, which will become the basis for the country's sustainable development. Ukraine has a unique opportunity to create a new model of an inclusive society, where digital technologies, fintech and the agricultural sector will become the main catalysts for change.

The integration of people with disabilities into the country's economic and social system is not only a moral obligation, but also a strategic step towards building a competitive agrarian economy of the future, which should include:

1. Investment in digital infrastructure. Ensure access to broadband Internet in all regions.

2. Launch national inclusive programs. Create programs for retraining people with disabilities in the fields of IT, agrotechnology and finance.

3. International cooperation. Ukraine should actively participate in global projects, attracting best practices and experience.

4. Support for startups. Provide grant support for young entrepreneurs implementing inclusive technologies, which should be supported and encouraged at the state level. As of 2021, the AgTech sector of Ukraine had approximately 70 startups working in various areas: land bank management, precision agriculture, the use of drones and other innovative solutions. In recent years, the number of startups has likely increased, reflecting the dynamic development of the industry even in difficult war conditions. Support ecosystem: The Ukrainian AgTech ecosystem is supported by business accelerators and venture capital funds that facilitate the implementation of innovations. Priority in the development of innovations: AgTech is one of the key industries within the framework of the Global Innovation Vision of Ukraine 2030 [1].

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