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# DESTRUCTIVE CONSEQUENCES OF DIGITALIZATION. THEIR IMPACT ON THE WORKER'S MENTAL HEALTH

The article highlights that digitalization presents both new opportunities and serious threats to society. It examines the negative consequences of digitalization across political, social, and technological areas. The experiences of Europe in addressing the adverse effects of digitalization are analyzed. The article identifies methods that could be applied in Ukraine.

Keywords: digitalization, worker, mental health, negative consequences.

## **The Problem Formulation**

Today, the digital economy is growing much faster than the traditional economy. For example, the ICT sector accounts for almost 5% of the EU economy and a quarter of all its business spending. ICT investment accounts for half of all productivity growth in Europe.

At the same time, digitalization of the economy is happening unevenly in different countries. According to the principle of receptivity to digitalization, three groups of countries that form the global potential of the digital economy are distinguished:

1. The first group is the leading countries in digitisation (USA, France, Germany, Austria, Japan). They form its core and demonstrate significant growth potential in the field of digital technologies;

2. The second group is European countries with high indicators of digitalization of the economy (Belgium, Denmark, Estonia, Finland, Ireland, Luxembourg, the Netherlands, Norway, and Sweden). They are rapidly approaching the group of leading countries in the field of digital technologies;

3. The third group is countries that rely on their large domestic markets for economic growth (Brazil, Australia, Canada, India) and have relatively high digitisation rates, but not higher than those of digital technology leaders.

At the same time, many countries lag in the digitalization of the economy, which negatively affects their development prospects.

However, the rapid development of digitalization is becoming a source not only of new opportunities but also serious threats to society [1-5]. The 2021 UNCTAD Digital Economy Report states that the digital revolution is changing our lives and societies at unprecedented speed and scale, creating enormous opportunities and challenges. New technologies can contribute to sustainable development goals. However, obtaining good results is not guaranteed.

The Organization for Economic Cooperation and Development report states that digital technologies can be disruptive, with future negative impacts on productivity, employment and well-being. They can exacerbate disparities in access and use, leading to the digital divide and growing inequality. Under conditions where almost 45% of the world's welfare belongs to 1% of the population, inequality has reached enormous value. This problem is becoming urgent.

The UN also recognises digitalization as one of the main threats to humanity. The World Bank notes that digital technologies are spreading, but digital dividends are not meeting expectations. As stated in the statistics data, firstly, almost 60% of the world's population is still deprived of access to the Internet and cannot participate in the processes of the digital economy, and, secondly, separate benefits of digital technologies are negated by concomitant risks.

Therefore, the objective trends and regularities of the development of the modern economy give rise to actions that, on the one hand, enable benefitting from the digital transformation of society, on the other hand, create limitations for further growth.

As well as the advantages of digitalization, the adverse effects of digitalization need to be studied.

## **Literature Review**

Among the negative consequences of digitalization, the essential place belongs to the worker mental health problem [6-10]. The incidence of mental health problems around the world has always been an acute social problem. Digitisation, despite its advantages, has not alleviated the problem. Moreover, in some cases, it even made it more difficult. Therefore, the worker mental health problem remains relevant even today. Let's consider a few facts that confirm this: 1. Workers face excessive workloads, low levels of safety control, and a sense of insecurity. This problem is especially acute for freelancers;

2. According to experts' estimates, in 2023, about 10% of adults of working age will have mental disorders;

3. Around the world, companies lose more than 10 billion weekdays every year due to anxiety disorders and depression among workers.

In addition, assessments by the European Occupational Health Network suggest that:

1. A quarter of EU citizens face mental health problems during their lifetime, and approximately 10% have prolonged health problems related to the occurrence of mental and emotional disorders due to work.

2. Every fourth worker believes that work hurts mental health.

3. Workers feel overwhelmed by a perfectionist tendency, striving to achieve impossible standards, due to which they experience anxiety, depression, eating disorders, and even suicidal thoughts.

4. Well-being has become a commercial goal. Accordingly, workers increasingly expect support from employers. It has become part of the growing expectations of a sustainable and socially responsible business, which are not always justified.

Specified aspects conditioned that mental health problems are a strategic priority for companies to enhance working conditions [11-18].

When working in a digital environment, the worker's mental health issues are most often concerned with the work content, the work timetable, career opportunities and workplace factors.

At the same time, a separate problem is that around half of the world's labour force is in the informal economy. Therefore, workers do not have a legitimate defence. Moreover, workers often have irregular working time and are denied the right to social welfare. It has a severe impact on workers' mental health. In addition, the working environment can exacerbate broader problems that adversely influence worker's health, including discrimination and inequality [15-18].

### Aim

Determine the negative digitisation consequences. Assess their impact on the workers' mental health.

### **Discussion of Results**

Let's consider and analyse the negative consequences of digitalization in the political, social and information spheres. This analysis will help determine ways to improve the workers' mental health while working in a digital environment (Fig. 1).

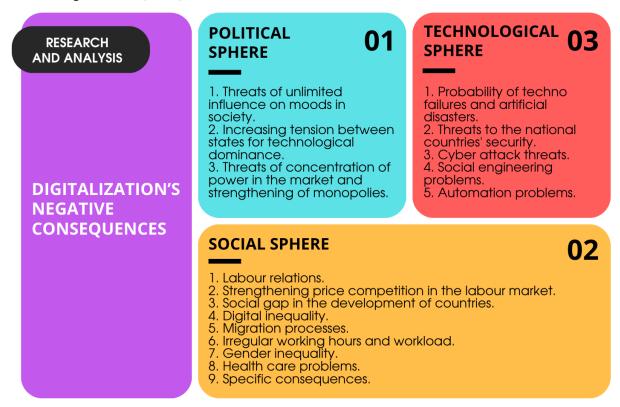


Fig. 1. Digitalization's negative consequences

Negative consequences of digitalization in the political sphere [19-21]:

1. Digital technologies are widely used to manipulate the moods and opinions of the population,

due to which threats of unlimited influence on moods in society can take place. It, in turn, leads to a negative impact on the worker's mental health.

2. Struggle for technological dominance. An example of increasing tension between states for technological dominance is the strained interaction between the United States and China. The consequence is increased demands on employees and deterioration of their psychological state.

3. Threats of power concentration in the market and strengthening of monopolies due to greater access to leading technologies. It can restrict workers' rights and worsen mental health.

Negative consequences of digitalization in the social sphere [20, 21]:

1. Social contradictions in case of mass dismissal of workers, decrease in social security, and strengthening of social inequality, including the existing digital inequality. All these are manifestations of the negative consequences of the deterioration of labour relations. Moreover, lowering the staff qualifications in the conditions of their transformation into an appendage of digitalised production leads to the displacement of low- and medium-qualified workers. As a result, deterioration of the workers' mental health due to the threat of job loss.

2. Increasing price competition in the labour market. It leads to the oppression of workers. On the one hand, workers from the periphery with the same level of qualification as workers from the centre benefit from price competition because they are willing to work for lower wages. On the other hand, ICT allows workers from even poorer areas (for instance, from different countries) to enter the market, which increases the negative feelings of workers due to the possibility of losing their jobs.

3. Underestimating the social level of certain countries' economic development leads to increased development inequality. Thus, digitalization is not homogeneous in the world. It has led to strengthening social tension in some countries.

4. Digitisation increases polarisation in society due to digital inequality, which leads to inequality in access to social, economic, educational, cultural and other opportunities. Digital disparity will lead to a decrease in people's quality of life, which will increase their psychological discomfort.

5. The activation of migration processes, especially among workers in the technological industry, also leads to a decrease in the quality of life of people and a deterioration of mental health.

6. The boundaries blurring between work and private life due to the spread of opportunities to work from home leads to irregular working hours and workload. A workload increase due to the need for constant improvement of qualifications to obtain a job depresses the workers' mental health. 7. Strengthening gender inequality in labour issues and society as a whole, primarily due to genderasymmetric reduction of employment in connection with digitalization.

8. Shifting public attention towards digital transformations and growing profit instead of focusing on health-preserving technologies and efficient use of natural resources. Due to this, the problem of the workers' mental health becomes secondary.

9. Digitisation is the reason for the development of digital autism. An information-rich environment and a person's loss of social skills cause the inability to think critically and a clip thinking development.

Negative consequences of digitalization in the technological sphere [22-25]:

1. Digitisation leads to an increase in technological failures and disasters. It is conditioned that people rely more on technology and trust it to perform critically essential tasks.

2. Threats to the national security of countries, first of all, to its cyber and military-industrial security due to the increased probability of criminal interventions because of the use of new digital technologies. Awareness of this fact increases the workers' mental discomfort. Moreover, modern history already has examples of such attacks.

3. Cyber attacks threaten the economy and business entities. Today, cyberattacks are one of the main dangers that threaten humanity, and cybercrime has increased tenfold in recent years. Companies' dependence on technology to support remote work is constantly increasing, so the number of cyber attacks is also continuously growing. Moreover, with the introduction of hybrid work, it has become clear that the probability of cyber attacks will increase significantly in the coming years. Such cases of cyber attacks can lead to significant financial losses and a severe blow to the reputation of companies. In addition, there may be legal consequences.

4. Threats of information and digital manipulation and fraudulent operations in the non-production sphere due to the wide use of social networks. Social engineering techniques range from email phishing attacks to malicious use of social media. The most common type of social engineering attack is phishing, where users are tricked into providing sensitive information such as usernames and passwords, bank account information, social security numbers, and credit card information. It causes a sense of danger in people.

5. Problems of automation. Automation can hurt business processes. For example, some automation solutions may unknowingly introduce software incompatibilities or add redundant operational complexity that provokes the employee to develop constant stress at work. AI-based automation tools can also create risks that are often difficult to predict in the long term due to the constantly changing nature of the technology itself. The implementation of automation can lead to work disruptions, increased complexity and increased vulnerability to cyber threats, which, accordingly, does not contribute to improving the workers' mental health.

The workers' mental health in digitalization: EU experience [19, 20 23, 26]. Today, the ability to respond to the workers' well-being and mental health in the digital environment has become an integral part of the brand and culture of companies, influencing their social responsibility. The return on investment in mental health programs is significant. According to the results of the British company Unilever, for every 1 euro spent on initiatives related to the mental well-being of employees, it receives a profit of 10 euros.

Ignoring employee mental health issues poses a significant risk to the company. According to statistics, each case of mental ill health results in the loss of an average of 30.9 working days and approximately one-fifth of all sick leave is due to mental illness. In addition, research on worker mental health issues shows that:

1. Deterioration of a worker's mental health due to stress can lead to low productivity and cause accidents.

2. Even minor levels of depression lead to significant losses in productivity.

3. The employer can incur additional costs in finding and training workers If a loss of highly qualified workers due to poor mental health happens.

4. The absence of a worker due to mental problems can also lead to increased workload and risk of stress for other members of the workforce.

5. In addition to the problem of absenteeism, companies in recent years have to fight presenteeism - low productivity due to poor mental well-being during work (the worker is at the workplace, but he is ineffective). In conditions of digitisation, it is easier for workers to simulate activities. Therefore, the problem of presenteeism is only growing.

Today, many European companies are developing various measures to solve the problem of the worker's mental well-being. Such measures include:

1. Fair hiring and promotion policy.

2. Raising awareness of mental health problems among workers.

3. Training managers on detecting early signs of mental disorders among workers and how to respond correctly.

4. Development of policies and procedures on how managers can effectively work with occupational health and safety experts.

5. The use of "reasonable adjustments" in working conditions to help workers adapt to the problems associated with poor mental health. For example, temporary or permanent use of flexible working hours, reduction of worker productivity targets, regular work breaks, etc. However, the biggest challenge facing companies seeking to implement these policies is creating a culture where workers feel safe enough to disclose their concerns early for these measures to be effective. Of course, like any culture change initiative, this requires the active participation of the company's management and appropriate measures, combined with the guarantee of confidentiality for workers.

In addition, this policy also needs to be integrated into existing HR strategies to ensure that the company does not inadvertently dismiss highly qualified workers who develop symptoms of temporary or prolonged mental health problems.

The workers' mental health issues under digitalization conditions: the experience of Ukraine [23-26]. Today, Ukraine occupies one of the first places in terms of the number of workers' mental health issues in Europe. In Ukraine, up to 80% of workers with mental problems have never sought help from specialists.

Scientists noted that almost every person experiences essential mental problems at least once or twice in his life, for the solution of which he needs qualified help. Factors leading to the deterioration of the workers' mental health in Ukraine are chronic fatigue, fear of losing a job, fear of health, labour conflicts, fear of running out of money, etc.

Unfortunately, today in Ukraine, the mental health problem and the provision of quality psychological services to workers have no efficient solutions, and as a result, millions of people suffer. Social institutions, designed to regulate and solve such problems, lag behind the realities of life and do not cope with their tasks, especially in mental well-being. The lack of a coherent and functioning state and social system for ensuring the person's mental health is costly to both the person and society. An increase in the number of inadequate choices of professions, low labour productivity, and growth in social apathy happen due to workers' mental problems. All this determines the feasibility and necessity of using achievements of psychology. In particular, the psychological practice that helps in the prevention and correction of the workers' mental health has a significant potential for prevention and improvement of mental health.

Because of the significant influence of the workers' mental health on productivity and work safety, Ukraine should use the policies of supporting and preserving the workers' mental health tested in European companies.

### Conclusions

Thus, digitalization is an objective in which society will develop in the coming years. It manifests itself in fundamental transformations that find expression in the deep penetration of digitalization into different branches of society. At the same time, the digital influence on the further society's progress is ambiguous and controversial, as evidenced by the number of threats it carries. Therefore, a cautious and prudent approach to digital tools applications in different aspects of society is necessary to receive advantages from digital development. It demands considering the features of the digitalization processes taking place in certain societies, as well as the responsible cooperation of states in the dissemination of digitalization and control over these processes.

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# ДЕСТРУКТИВНІ НАСЛІДКИ ЦИФРОВІЗАЦІЇ. ЇХ ВПЛИВ НА ПСИХІЧНЕ ЗДОРОВ'Я ПРАЦІВНИКА

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Сьогодні цифровізація дає суспільству величезні перспективи розвитку, однак, з іншого боку, вона породжує значну кількість загроз для суспільства. Цей факт визнають і відомі міжнародні організації, і науковці. У соціальних, економічних і політичних звітах щодо впливу цифровізації на розвиток суспільства за останні кілька років наголошено, що цифровізація приводить до формування нового типу суспільства – цифрового суспільства. Це відкриває для суспільства як нові можливості, так і створює складно прогнозовані проблеми. Наприклад, цифрові технології, з одного боку, сприяють впровадженню у життя концепції сталого розвитку суспільства, проте оборотною стороною є те, що це не завжди має позитивні результати для суспільства. Таким чином, цифровізація створює умови, за яких суспільство стрімко розвивається і знаходить максимально ефективні рішення багатьох проблем, але паралельно виникають проблеми і загрози, з якими суспільство раніше не стикалось і для яких рішення поки що немає. Так само, як і переваги цифровізації, негативні наслідки цифровізації потребують вивчення.

Одним з найбільших деструктивних наслідків цифровізації є проблема психічного здоров'я працівника. Поширеність проблем психічного здоров'я у суспільстві завжди була гострою соціальною проблемою. Проте цифровізація, не дивлячись на її переваги, не полегшила її. Більше того, в деяких випадках навіть ускладнила. Отже, проблема психічного здоров'я працівника залишається актуальною і сьогодні. На сьогодні психічне здоров'я працівника є стратегічним пріоритетом роботи компаній щодо покращення умов праці.

Дослідження й аналіз негативних проявів цифровізації дозволив поділити їх на три групи: негативні наслідки у політичній сфері, негативні наслідки у соціальній сфері, негативні наслідки у технологічній сфері. Цей аналіз допоміг визначити шляхи поліпшення психічного здоров'я працівників під час роботи у цифровому середовищі. У роботі визначено, що під час роботи у цифровому середовищі ризики для психічного здоров'я працівника найчастіше пов'язані зі змістом роботи, графіком роботи, специфікою робочого місця і можливостями кар'єрного розвитку.

Також у роботі проаналізовано досвід європейських країн у подоланні негативних наслідків цифровізації і покращенні психічного здоров'я працівників. На підставі цього визначені методи і способи покращення психічного здоров'я працівників, які можна адаптувати для українського суспільства.

Ключові слова: цифровізація, працівник, психічне здоров'я, негативні наслідки.