

умовах цифрової економіки. Результати дослідження можуть бути використані як керівниками аутсорсингових компаній, так і науковцями для подальших досліджень у цій галузі.

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#### ARTIFICIAL INTELLIGENCE – CHALLENGES FOR THE FUTURE

*A brief introduction.* Artificial intelligence technology has become a challenge and at the same time a potential for economic development, which leads to transformations in society at the national and global levels and manifests itself in various aspects. The scientific problem of applying artificial intelligence is no longer completely new, but it continues to be organically supplemented by new scientific research, which leads to the expansion of the limits of the capabilities of artificial intelligence. The purpose of these scientific theses is to study the complex structure of the problem of artificial intelligence due to the presence of advanced technologies that are constantly developing and changing. The main modern scientific concepts and consequences of the AI problem are investigated, which provide the most up-to-date information regarding the prospects for the existence of artificial intelligence. As a result of the systematic analysis of phenomena and processes, the problem of the interaction of innovations and artificial intelligence in different time frames is revealed.

*Statement of the problem:* Ensuring the fairness of the development and introduction of artificial intelligence in society is both an ethical problem (a moral problem) and a problem of society's survival. Deepening the integration of AI technologies into society will give rise to the confrontation of different layers of society, the possibility of monopolization of power by technocrats and a dictatorial form of government at the global level. In addition, there are negative side effects of AI implementation transparency related to financial issues.

When analyzing the problem of AI implementation, it is extremely important to take into account macroeconomic risks in order to reduce the potential burden on the financial and economic system of the country, to achieve an increase in the system's resistance to structural shifts, in particular, an increase in the unemployment rate after the appearance of "extra people" after the introduction of AI. The neural revolution has already taken place - corporations are replacing humans with neural networks, resulting in millions of layoffs. In developed countries, the financial and public service sectors, as well as IT services, may be particularly affected. "Almost 40 percent of the world's employed population is exposed to risks related to AI" [Georgieva].

There may also be potential threats of unfair use of artificial intelligence for beneficial purposes, including image synthesis, voice spoofing, and other malicious activities. To reduce such risks, it is

necessary to fundamentally establish new institutional rules and standards for leveling the use of artificial intelligence for the disintegration of society.

*The main part of the study:* [M. Suleiman] notes "the presence of systemic structural transformations in society caused by the growing use of artificial intelligence. Despite a significant reduction in production costs and an increase in labor productivity, there is a problem of an increase in the unemployment rate without the prospect of a quick recovery of employment, along with the deformation of the labor market, not only among "white-collar" workers, but in the future also among low-paid professions. In addition, tensions in the labor market cause negative demographic transformations."

The positive impact of innovations and their modern implementation through artificial intelligence on the world economy due to the growth of capital productivity and production efficiency remains an indisputable fact. Technology is objectified work, which allows to increase labor productivity, which is equivalent to improving the standard of living of a larger number of people.

Production is constantly changing under the influence of the acceleration of information transmission, which is changing society. At this stage of economic development, AI is replacing printed products and the Internet as a repository of information. AI is monopolizing the information supply.

Scientific studies demonstrate a "constant relationship between innovation and economic growth per capita" [Maradana], whose study was conducted on the basis of a number of European countries over a period of 25 years. At the same time, the need for human emotions as a means of interaction and existence is constantly decreasing as the quantitative and qualitative component of innovations increases. Economic growth through the active introduction of artificial intelligence leads to a slowdown in economic development, which indicates a threatening factor for a number of countries, which indicates the impossibility of achieving sustainable development. Such a connection indicates the need to strengthen the role of scientific research that evaluates technological achievements from the point of view of the harmonious development of society.

In addition, [Pradhan] points to the "ambiguity, the duality of the impact of innovation [and AI] on economic sustainability." Innovative development is characterized by its unpredictability, chaos, which increases non-rhythmic economic fluctuations, leads to economic recession and decline, as well as wars. One of the main problems of modern times in various spheres of life is the aggressive capture of all spheres of human existence by virtual space.

In addition, human control over virtual space is becoming more and more possible. AI creates a simulacrum of economic development that is actually a distorted copy of reality. There is a degradation of the person as such, as the "virtual AI assistant" actually gradually turns the latter into a lower-ranking "AI" counterpart. The alternative to such a threatening trend is reality as such, the restoration of one's own human worldview and its subjectivity, a return to the fundamentals of understanding existence. As the focus of economics continues to shift from the human economy (meaning collective responsibility) to the consumer economy, understanding such challenges becomes increasingly important.

The existential challenge for humanity has already been posed: virtual space and artificial intelligence are increasingly getting out of human control, as the speed of their development is becoming too dangerous. The issue of the balanced development of technology and security remains open, as the secular closed world concentrates on the immanent. Scientific and technological progress brings both good and destruction. After all, it is only one of the ways of organizing people's life, and not the goal and even more so the meaning of human existence. If "techno" absorbs "art", it begins to consider man and society as a whole also as a mechanism, as an object of manipulation. There are object-object relations with the surrounding world, including with a person who is tried to be identified with a rational person, homo economicus, etc. and at the same time pushed out of the production system.

In addition, [Arkolakis et.al.] examines whether globalization can affect innovation in different countries and the economy as a whole. Deglobalization and the emergence of new global economic players, such as China, are changing production models that were used even at the beginning of the 21st century. Automated production increases its efficiency with the help of AI. The process of creating a new global specialization of production is taking place, as part of which there will be a gradation into advanced countries with advanced AI and countries with traditional AI. Despite growing fears about AI

displacing human labor from the production process, such specialization allows solving the problem and combining economic growth with a certain level of social justice.

The inquiry into the influence of artificial intelligence on the global economy, the evolution of international economic relations, and the resolution of disputes between nations is a relatively recent development. It is clear that artificial intelligence technologies are advancing and will continue to progress in alignment with the growth of digital platforms. At the same time, there is an observable trend towards the establishment of digital platforms that exhibit transnational, interregional, and interstate features. As a result, these platforms are beginning to function as quasi-actors in international politics, alongside traditional nation-states. Digital platforms, enhanced by artificial intelligence, are proving to be highly effective in shaping the preferences, views, and occasionally the beliefs of populations across different countries. Consequently, changes in public opinion and perspectives can influence the policies of individual nations and their international relations. Furthermore, as various recommendation systems for facilitating international negotiations develop, it is essential to examine how artificial intelligence will function within that framework.

The concept of the development of artificial intelligence in Ukraine [Government of Ukraine Decree], approved by the order of the Government of Ukraine dated December 2, 2020, No. 1556, defines the purpose, principles and tasks of the development of artificial intelligence technologies in Ukraine as one of the priority directions in the field of scientific and technological research.

*Practical implementation of research.* The effective application of the results of this research involves taking into account the findings to optimize the research results to create artificial intelligence solutions that solve certain challenges or problems that arise in different sectors. For example, implementing artificial intelligence algorithms to optimize business operations, improve customer experience or improve decision-making processes.

#### *Conclusions:*

1. Technological globalization has led to a significant change in society's perceptions of the existing and future financial and economic model of society's development. Advanced technological achievements are unable to solve the key economic problems of humanity: economic development, unemployment, poverty, social inequality. Despite the emergence of increasingly sophisticated tools for assessing technological risks with the help of artificial intelligence, the problem will only deepen.

2. AI has mixed effects on economic sustainability. The productivity of machine labor is increasing while human labor is falling. The hedonism of human nature to minimize labor costs leads to the gradual loss of human subjectivity in competition with artificial intelligence.

3. There is a process of creating a new global specialization, based on the possibilities of using artificial intelligence, which continues to evolve. Innovative revitalization of developing countries with the help of artificial intelligence is possible only at the expense of ever deeper entanglement in the cycle of debt.

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## **ВПЛИВ ІННОВАЦІЙНИХ ТЕХНОЛОГІЙ НА ПРОЦЕСИ КРЕДИТУВАННЯ**

Кредитна сфера в економіці України станом на 2024 рік проходить складний адаптаційний період в умовах економічної нестабільності та стикається з різними викликами у вигляді повномасштабної війни, зростання інфляції та високих інвестиційних ризиків [1].

Проте, попри складнощі, серед українського населення спостерігається зростання попиту на кредити. Процентна ставка за останній рік стрімко знизилася, що суттєво розширило доступність кредитування та підвищило його привабливість [2, 4, 6]. Внаслідок того, що банки знизили вартість кредитів, а також збільшився рівень схвалення заявок на споживчі кредити, попит на споживчі кредити помітно зріс [5].

Основним джерелом кредитування як для фізичних осіб, так і для бізнесу стабільно залишається банківський сектор. Проте помітно зростає популярність парабанків – небанківських фінансових установ. Споживачів приваблює доступність послуг та спрощена процедура видачі кредитів, в той час як ця сфера кредитування все ж асоціюється з більшим рівнем ризику та меншою прозорістю. Попитом користується сфера мікрофінансування у вигляді надання короткострокових кредитів під високі відсотки, що закриває нагальні фінансові потреби населення. Також, через потребу в модернізації основних фондів підприємств, зростає ринок лізингових та факторних інститутів.

І хоча зростання рівня та доступності кредитування однозначно визнано важливою ціллю для України, її досягнення суттєво ускладнене зовнішніми та внутрішніми перешкодами. Так, наприклад, внаслідок повномасштабного воєнного вторгнення різко зросла економічна нестабільність та страх непередбачуваності майбутнього для позичальників. Воно спричинило різкий зріст інфляційних процесів та підвищення процентної ставки, а також руйнування фінансової інфраструктури та відокремленість фінансових ринків. Це знизило ефективність кредитної політики та обмежило доступ до кредитних ресурсів [3]. Через високу вартість капіталу та невизначеність в економіці, банки та небанківські інституції обмежують надання довгострокових кредитів, що створює бар'єри для інвестицій у великі проекти та модернізацію виробничих потужностей. Окрім цього, війна вплинула на стрімке збільшення частки непрацюючих прострочених кредитів (NPL) до 38% [7].

Обмеженість у доступі до фінансової освіти та низький рівень фінансової грамотності є одними з найбільш шкідливих факторів у розвитку процесу кредитування в Україні. Економічні стереотипи про неефективність й не вигідність кредитів, про «іпотечну пастку» та завищені нераціональні позикові ставки, які українське суспільство несе в собі ще з часів радянського союзу, є критичним чинником у прийнятті фінансових рішень великої частки населення. Особливо це стосується споживчих кредитів, коли навіть за умов необхідності додаткових грошей індивід обирає пошук шляхів неофіційних, здебільшого безвідсоткових позичок, замість того, щоб звернутися по кредит до фінансової установи.

Задля покращення стану кредитної сфери в Україні найбільш ефективним методом безумовно стане залучення інновацій. Інноваційні технології, такі як FinTech, сучасні кредитні платформи, інноваційні освітні ресурси тощо, мають потенціал трансформувати кредитні процеси на фінансовому ринку України у нову прибуткову систему.