

ensure the healthy and orderly development of artificial intelligence technology. At the same time, it is also necessary to strengthen the supervision and management of relevant institutions, and ensure the safety and stable operation of artificial intelligence technology. In this regard, China can learn from the experience of other countries, gradually improve its relevant policies and mechanisms.

In conclusion, China needs to strengthen the basic research and talent cultivation in the field of artificial intelligence, improve its independent innovation capabilities, strengthen international cooperation, promote the international standardization of artificial intelligence technology, focus on the application scenarios of artificial intelligence technology, actively promote the landing and application in various fields, and improve relevant policies and measures in the post-pandemic era. We believe that through these measures, China can achieve greater achievements in the field of artificial intelligence, and inject new impetus into economic and social development. In the post-pandemic era, the application prospects of artificial intelligence technology are very broad, but at the same time, it also faces various challenges and risks. China needs to strengthen research and application of artificial intelligence technology, actively promote the development of artificial intelligence technology, and make important contributions to the progress and development of human society.

### **References**

1. Lee K. C. (2018). *Artificial intelligence and economic growth in China. China Economic Journal*, 11(3), 239-257.
2. Wang Y., Wang H., He J., & Zhang J. (2018). *Artificial intelligence in China: A review of recent advancements, applications, and regulations. IEEE Access*, 6, 71614-71624.
3. Zhang C., Xu Y., Zhou Y., & Zhang B. (2020). *A survey on the application of artificial intelligence in the medical field. Healthcare Technology Letters*, 7(1), 1-7.

**Чжан Пін**

*студент Західноукраїнського  
національного університету*

## **DEVELOPMENT OF THE SMART HEALTH AND WELLNESS INDUSTRY IN CHINA**

The epidemic created considerable pressure on China's health care system, but the country found a way to stop it. China was the first to take the brunt of the disease and is already starting to recover. However, a few months ago, the situation there was

difficult. The world media was full of headlines about the catastrophe that had befallen the country.

Then, to improve the efficiency of medical facilities, mobile operators together with telecommunications equipment manufacturer Huawei quickly built a special 5G network for hospitals treating COVID-19.

Project participants sought to investigate how 5G and applications created on its basis can help in the treatment and prevention of the epidemic, contribute to the digital transformation of the health care system. In mid-March, Huawei and the Deloitte China consulting company presented the findings of the study.

In China, COVID-19 broke out in January 2020. After the first confirmed case, the virus quickly spread across the country, reaching a daily average of 1,500 new cases. At the peak of the outbreak, more than 3,000 cases were confirmed daily, and on March 16, a total of 81,100 cases were registered.

Since mid-February, the spread of the outbreak in China has been contained, but the virus is currently spreading outside the country.

The Chinese government was tasked with monitoring the spread of the virus and supporting those responsible for controlling the outbreak. Given the country's large territory, large mobile population, and difficult resource situation, effective communication and data sharing was essential for screening infected individuals and controlling the outbreak.

The pandemic revealed a different level of need for data sharing depending on the type of patient and the technological solution involved in the fight against the epidemic. Deloitte China specialists created a special table for visualization.

The Chinese decided to use 5G technology in the fight against the pandemic, because it was able to create a high-quality and powerful telecommunications network in hospitals in a matter of days. That is, 5G allowed doctors to buy time.

Deploying a new or additional fiber optic network in hospitals would take much longer. In addition, 4G technology is ineffective in fighting the epidemic. 5G surpasses 4G in terms of speed, latency, number of connection points and range.

Deloitte China experts identified three main scenarios for fighting the epidemic.

### ***1. Observation of the public***

During outbreak monitoring, the main steps involve identifying carriers of the virus who interact with other people, prescribing quarantine for patients suspected of having the virus, providing immediate medical care, and determining people's travel history to identify potential infections.

Collecting data on health status, such as body temperature, and on people's movements is also important to control the spread of the virus. However, 4G networks cannot support large volumes of high-resolution images and dynamic input signals for tracking the movement of individuals. 5G copes with these requirements better.

Since the outbreak of COVID-19, 5G+ thermal imaging systems for temperature tracking have been widely used in China.

- *Chinese manufacturers have accelerated the production of ambulances*

Some Smart ambulances are equipped with communication and diagnostic systems that play a unique role. In addition to transporting patients safely, they provide emergency care remotely and collect and transmit data to hospitals so they can develop treatment plans.

- *"Smart" ambulance in China*

Equipping ambulances with 5G technology will transform the emergency response model. All work, from the organization of treatment to the collection of data, takes place in real time. The data is digitized, increasing the efficiency and effectiveness of treatment.

## **2. Treatment**

During the treatment of patients, hospitals need to establish communication among themselves, organize a quick analysis of research results and their distribution among other hospitals and research institutions.

4G can meet basic data needs, but there is a need for more sophisticated networks with faster connections and higher bandwidth. The reason is the rapid growth of data volumes and the demand for remote treatment using high-resolution video communication.

Since the start of the coronavirus outbreak, remote consultations using 5G have undergone clinical trials in several locations. In Wuhan's Union Hospital, the 5G platform conducts daily meetings with patients treated in other medical complexes. The technology allows you to contact specialists from leading medical institutions in Beijing.

## **3. Remote medical care**

Specialists of "Deloitte China" concluded that 5G networks are able to expand opportunities for providing medical consultations in the community and even in individual households, ensuring interaction between patients and doctors.

"For people who are in quarantine, an application for medical care is always a problematic task. 5G networks can connect communities and households to hospitals so that patients can receive consultations from medical staff and advance treatment through teleconferencing and image sharing," say the authors of the study.

In addition, the low latency of 5G data transmission allows for remote surgical operations, reducing the risk of infection of healthcare workers on trips and more efficient use of resources.

5G Multi-Edge Computing (MEC) can become a powerful data processing tool for cloud healthcare services. Remote medical care can take a variety of forms: counseling, scanning, operations, and monitoring.

In the near future, smart solutions in the field of medicine may be widely used thanks to the introduction of 5G networks.

### References:

1. Niu K. *Relying on the information network of the community to explore the feasibility of the community pension model. High-Tech Commercialization. 2003; : 58-60.*
2. The Ministry of Industry and Information Technology. *The action plan for the development of smart health and eldercare industry. Digital policy documentation number 2021-154 China: MIIT, MCA, NHC, 2021.*
3. Wan LJ Wang L Liu ZB. *Status quo of smart pension platforms at home and abroad. Chin J Gerontol. 2020; 40: 1087-1091.*
4. Wang XH Xiang YH. *Practice and reflection on the development of smart elderly care. Soc Sci Guangxi. 2019; 35: 81-88.*
5. Kong L Woods O. *Smart eldercare in Singapore: negotiating agency and apathy at the margins. J Aging Stud. 2018; 47: 1-9.*
6. An N Xu Y Gao Q Zhu W Wu A Chen HL. *Automatically labeling aging scenario with a machine learning approach. in: Gao Q Zhou J International conference on human aspects of IT for the aged population. editors. Springer, Cham 2022.*
7. Shanghai Civil Affairs Bureau. *The second requirements list of Smart Eldercare application scenarios in Shanghai. 2022. <https://mzj.sh.gov.cn/2021bsmz/20210629/6a32755904584d21a7c665a8b86e8ae3.html>*
8. Jia L Du Y Chu L et al. *Prevalence, risk factors, and management of dementia and mild cognitive impairment in adults aged 60 years or older in China: a cross-sectional study. Lancet Public Health. 2020; 5: e661-e671.*
9. Baltes BB Dickson MW. *Using life-span models in industrial-organizational psychology: the theory of selective optimization with compensation. Appl Dev Sci. 2001; 5: 51-62.*
10. Meng X D'arcy C. *Education and dementia in the context of the cognitive reserve hypothesis: a systematic review with meta-analyses and qualitative analyses. PLoS One. 2012; 7: e38268.*
11. Merilampi S Koivisto A Sirkka A et al. *The cognitive mobile games for older adults-a Chinese user experience study. in: 2017 IEEE 5th international conference on serious games and applications for health (SeGAH). 2017: 1-6.*
12. Chen H.L. Wu X.W. *Responses to gerontechnology from a social work perspective. Soc Work. 2019; : 99-108.*
13. Lee C. *Adoption of smart technology among older adults: challenges and issues. Public Policy Aging Rep. 2014; 24: 14-17.*

**Денис КРАВЧУК**

*аспірант Західноукраїнського  
національного університету*

## **ПОСИЛЕННЯ РОЛІ КОНЦЕПТУ СТІЙКИХ ІНВЕСТИЦІЙ У ВОЄННИЙ ПЕРІОД: ВИКЛИКИ ДЛЯ УКРАЇНИ**

Варто зазначити, що у 2023 році ініціативи сталого розвитку можуть бути випробувані стійкою інфляцією та економічною невизначеністю. Оскільки нові стандарти розкриття інформації про сталий розвиток набувають чинності в усьому світі, зацікавленим сторонам доведеться боротися зі складністю та потенційними труднощами щодо узгодження цих ініціатив. Зростаючий ризик судових процесів, пов'язаних із екологічними, соціальними та управлінськими проблемами, включно з розкриттям інформації про сталий розвиток, стане ще одним викликом для компаній та інвесторів.

Зміна клімату та пов'язані з нею теми, такі як дефіцит води та втрата біорізноманіття, ймовірно, будуть домінувати в дискусіях зацікавлених сторін, а довгострокові кліматичні цілі можуть бути переоцінені для вирішення найближчих термінових завдань.

Довговічність практик сталого працевлаштування, запроваджених останніми роками у відповідь на значні зміни в очікуваннях робочої сили, буде піддаватися ризикам рецесії на багатьох ринках. Тим часом нові норми щодо прав людини запровадять додаткові вимоги до управління ланцюгом поставок компаній.

У 2023 році ми вважаємо, що триваючі геополітичні потрясіння, постійна інфляція, загрозлива рецесія та погіршення фізичних наслідків зміни клімату створять нові суперечності між управлінням короткостроковими ризиками та досягненням значного прогресу в довгострокових цілях сталого розвитку.

Наприклад, довгострокові цілі енергетичного переходу будуть зважені разом із найближчими міркуваннями, такими як доступність енергії та безпека. Прогресивні практики працевлаштування, запроваджені після COVID-19, будуть випробувані скороченням витрат, пов'язаним з економічною невизначеністю. Ця динаміка «поштовх-і-тягни» може стати відмінною рисою обговорень і рішень щодо сталого розвитку протягом 2023 року.

У 2022 році Європейська консультативна група з фінансової звітності (EFRAG), Комісія з цінних паперів і бірж США (SEC) і новостворена Рада з