

The world's first artificial intelligence-based clinic symbolizes a transition to a more agile service model.

China's "Synyi AI" technology startup is presenting a concrete model for the future of healthcare by launching the world's first artificial intelligence (AI) based medical institution operating in real clinical conditions in Saudi Arabia. Aygun Ahmadova, who currently leads the Digital Trade Hub at the Center for Analysis of Economic Reforms and Communication, stated that the AI clinic represents the beginning of a new era in the application of technology in the healthcare sector.

The AI system called "Dr. Hua," implemented in the clinic, analyzes patients' initial symptoms, diagnoses around 30 different diseases, and prepares an appropriate treatment plan. The main goal of the project is not to completely replace the human factor, but rather to enhance the efficiency of healthcare services, improve the accuracy of decisions, and make access to medical resources more flexible and accessible by combining the knowledge and experience of medical staff with the computing power and analytical capabilities of artificial intelligence. This model both reduces the workload of doctors and makes it possible to provide patients with more prompt and personalized medical services. The integration of the artificial intelligence system into the clinic is carried out using the 'AI-first, doctor-verification' model. "Here, the AI makes the initial decision, but the final responsibility stays with the doctor," said Aygun Ahmadova. This approach is based on the synergy between humans and machines in healthcare and aims to maintain a balance between the scientific accuracy of clinical decisions and ethical responsibility.

According to the "Future of Jobs Report 2025," AI and technology-assisted initial diagnostic systems are recognized as one of the main drivers of transformation in the healthcare sector. The report states that technological changes will create a net increase of 78 million jobs by 2030, which is a leading indicator of profound structural changes related to the role of AI in healthcare. The decision support system implemented in the Saudi model aligns with these global trends.

Currently, the "Dr. Hua" system is in the initial testing phase and has proven to operate with high accuracy. According to the company's internal tests, the diagnostic error rate of this system was below 0.3%. If this accuracy is maintained in real clinical settings, it could fundamentally change the structure of healthcare systems.

The clinic currently can serve approximately 200 patients daily. Patients physically visit the hospital and register using a tablet during the admission process. The system collects key information from the patient such as age, gender, height, weight, medical history, and symptoms. Based on this data, the symptoms are compared with similar disease models, diagnoses are determined with probability percentages, and a personalized treatment plan is prepared.

If the treatment plan provided by the system matches the medical staff's experience, the doctor approves the plan. Otherwise, the doctor can change the diagnosis or prescribe an alternative treatment. This stage is based on the "human-in-the-loop" (automation with human supervision) principle. That is, AI makes the decision, but applying it and the final responsibility remain with the doctor.

The proposed diagnosis and treatment plan are provided to the patient in printed or electronic format. If additional examinations or laboratory tests are needed, the system directs the patient accordingly. Based on the system and clinical condition assessment, the patient may be invited for an in-person consultation with the doctor.

Aygun Ahmadova stated that the technology applied here not only symbolizes the digitalization of healthcare but also the transition to a personalized and more flexible service model. Through this program, Saudi Arabia aims both to develop a digital healthcare ecosystem within the country and to lead the innovation value chain in the healthcare sector by attracting international technology partners. The "Sandbox" model has shown that when an appropriate legal and institutional framework exists, innovative technologies can deliver practical results not only technically but also ethically and regulatorily.

This initiative, a successful example of technological applications on a global scale, can also serve as a valuable practical reference point for selecting priority sectors and implementing "sandbox" approaches outlined in the "Artificial Intelligence Strategy of the Republic of Azerbaijan for 2025–2028." Aygun Ahmadova added that Saudi Arabia's "sandbox" experience is not only a technological innovation but also an important example of how institutional adaptation, legal flexibility, and an AI-based citizen-centered service model can be established.