

# Intelligent Medical Robots Empower Doctors and Patients



**Qiong Ouyang**

Today, I want to share with you how intelligent medical robots can empower doctors and patients, improve diagnostic accuracy and enhance medical capabilities.

After two years of rapid development, artificial intelligence has changed the way we interact with machines. Conversational interaction with robots is becoming the next outlet, and chatbots will also become an important tool for this revolution. In recent years, with the rapid development of artificial intelligence and machine learning, chatbots are infiltrating into various fields.

According to Gartner's 2020 technology maturity curve, chatbot penetration has grown from 5–20% in 2019 to 50% in 2020, becoming one of the major business communication tools. As it further lands and achieves more results, the popularity of chatbots will continue to grow in the future.

As an enterprise with advanced AI/big data technology and professional medical technology, it has been committed to helping doctors and patients build an intelligent medical robot. By analyzing the online communication information between doctors and patients and exploring the unmet treatment needs of patients, the robot can truly realize the patient-centered drug promotion model, and drive accurate patient management.

At present, the biggest challenge of intelligent medical robots is how to achieve the efficient production of medical content. We use data to restore the logical structure and create a digitalization in the structure of medical content, so as to improve the accuracy and output efficiency of medical content.

Now let me introduce this intelligent medical robot for you, please. This robot can help users find the medical information that they want through multi-library and

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This article is based on Ouyang Qiong's comments at Peking University Global Health and Development Forum 2021.

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cross-library retrieval. And also, cutting-edge information for users via this robot can be updated in real time through its automated retrieval. In addition, Intelligent medical cloud's efficient PICOS<sup>1</sup> retrieval strategy can help users use tags to quickly retrieve content. What's more, it's useful for the generation of new medical evidence through multi-dimensional medical content mining.

At present, there are more than 4 million doctors in China who need to continue to learn. And medicines play an important role in knowledge support and medical inquiry services. In the past, pharmaceutical companies needed to set up and operate call center. But now pharmaceutical companies only need to use developed medical robots to achieve medical information transmission at lower costs and higher efficiency.

After three years of exploration, we have partnered with more than 50 of the world's leading pharmaceutical companies to help them improve the efficiency of content preparation and medical inquiries.

Dr. Eye is our collaborative project with Novartis, a new generation of intelligent medical question-and-answer robots that focus on anti-VEGF therapy<sup>2</sup> and related fields of fundus oculi disease. By empowering real-time professional medical responses through dialogue, Dr. Eye can provide more than 10,000 registered healthcare professionals with 24\*7 services.

We believe that our intelligent medical robot can truly empower doctors and patients. It can not only provide better care for patients, but also improve diagnostic accuracy and treatment effect and ultimately improve the accessibility of medications.

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<sup>1</sup> PICOS principles: P refers to a specific population or clinical problem. I refers to an intervention or exposure factor. C represents a control measure or another intervention that can be used for comparison. O represents outcome, which is the treatment effect of the intervention. S represents the study design protocol.

<sup>2</sup> Anti-vascular endothelial growth factor (VEGF) therapy has been unanimously recommended as the mainstream treatment for neo-vascular fundus disease by authoritative guidelines at home and abroad.