

Paging Dr. RP-6

InTouch Health's futuristic technology enhancing interaction with patients

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How does someone get from Santa Barbara to London in a matter of minutes? The answer is easy with the help of a robot from Goleta-based InTouch Health.

InTouch Health Chairman Yulun Wang was essentially in two places at the same time last week using a robot called the RP-6. From a conference room in Goleta, he controlled a robot in London that allowed him to be one of the guests at a private awards ceremony.

Just like any of the other guests in London, Dr. Wang was able to walk the hallways, trade witty comments and salivate over the goodies on the buffet table. He even applauded when the honors were bestowed.

The robot's presence in London on Tuesday marked InTouch Health's entrance into the European health industry. Two London hospitals are testing the RP-6 units to help bridge London's shortage of doctors and its expanding number of patients.

"In the United Kingdom, the problem is that there are a huge number of doctors retiring and not enough younger doctors to take their place," Dr. Wang said. "Also, the U.K.'s aging population is growing far faster than in the United States."

Last week's award ceremony honored Sir Ara Darzi, head of surgery, anaesthetics and intensive care medicine at the Imperial College of London.

"Sir Ara Darzi has the perspective that our technology can bridge the gap in the physical presence of doctors," Dr. Wang explained.

InTouch Health's remote-presence robots are not meant to replace a doctor's direct contact with patients, but rather to enhance interaction, he said.

"The reality is that medical tests have become so good that doctors can get much more information from tests than through touch," said Dr. Wang. "The robot allows doctors to spend more time with patients, greatly enhancing the quality of care they receive."

In addition to two hospitals in London, the RP-6 units are being tested at about a dozen hospitals and nursing homes across the United States, including the UCLA Medical Center in Los Angeles, Mission Hospital in Orange County, UC Davis Medical Center and Johns Hopkins University in Baltimore.

Surgeons at the hospitals are using the RP-6 to help them make their patient rounds. Given a doctor's typically tight schedule and the distances between areas in a hospital, the robots allow doctors to make



InTouch Health Chairman Yulun Wang's face appears on the monitor of an RP-6 robot, which he controls from his desk. The robots are helping doctors essentially to be in two places at the same time through remote contact with their patients.
-RAFAEL MALDONADO / NEWS-PRESS

more efficient use of their time. This way, they can check on patients more often and can quickly address some problems without having to be in the room.

Standing at 5 feet 6 inches tall and weighing 220 pounds, the robot looks like a large vacuum cleaner. Its “head” is a flat-screen computer monitor that projects the face of its operator. A wireless broadband connection equipped with a microphone and speakers, plus a live, two-way video feed, allow the robot’s operator to communicate with others. Infrared sensors around the robot prevent collisions and ease navigation.

The RP-6 units sell for about \$120,000 each, but most accounts are leasing the units for \$4,000 a month.

Last year, when InTouch Health debuted an earlier version of its robot, called the Companion, it was targeting its use in assisted-living facilities for the elderly.

There are still robots being used in long-term care, but that has taken a back seat to the “rounding robots” in hospitals, said Dr. Wang.

“We’re not actively driving that market now,” he said, “but there is a huge opportunity for robots in long-term care.”

Assisted-living facilities are slower to adopt new technology, unlike hospitals, which are used to spending large sums of money to invest in the latest equipment, Dr. Wang added.

InTouch Health isn’t just looking at Europe; it’s also focusing on the U.S. health market.

“We see big opportunities in Europe because of socialized medicine,” Dr. Wang said. “Opportunities exist where ever there is a need for more efficiency. Canada is also a strong potential market for us.”

For now, the acceptance of the robots has allowed InTouch Health to double its staff to 30 people. The company estimates sales of about \$1 million for 2004.

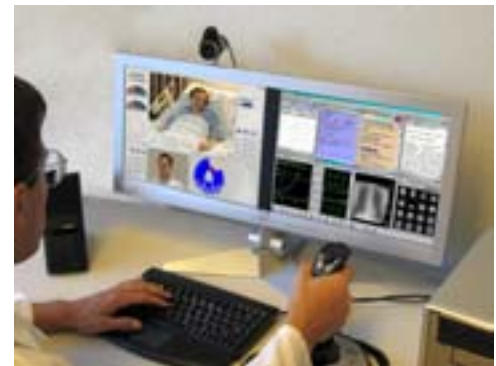
Dr. Wang has great hopes for remote-presence robot technology. His 20-year plan envisions robots replacing the burden of frequent flying for business.

“I travel a lot for work because I have to meet people in person. I don’t want to do that, but I have to,” he said. “I think remote technology can evolve to adequately substitute for a person. It can make the business world much more effective. I definitely see applications beyond medicine.”

For those who express skepticism that machinery will bring people into closer contact, Dr. Wang pointed to the phone.

“People had the same doubts about the telephone,” he said. “But the negative predictions turned out not to be true, because the telephone has helped people stay in closer contact.”

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A physician logs into the clinical information system to review test results. - INTOUCH HEALTH PHOTO



Two physicians consult with each other via an RP-6 robot. - INTOUCH HEALTH PHOTO