Telepresence robots let employees 'beam' into work

The Associated Press

PALO ALTO, Calif. (AP) — Engineer Dallas Goecker attends meetings, jokes with colleagues and roams the office building just like other employees at his company in Silicon Valley.

But Goecker isn't in California. He's more than 2,300 miles away, working at home in Seymour, Indiana.

It's all made possible by the Beam — a mobile video-conferencing machine that he can drive around the Palo Alto offices and workshops of Suitable Technologies. The 5-foot-tall device, topped with a large video screen, gives him a physical presence that makes him and his colleagues feel like he's actually there.

"This gives you that casual interaction that you're used to at work," Goecker said, speaking on a Beam. "I'm sitting in my desk area with everybody else. I'm part of their conversations and their socializing."

Suitable Technologies, which makes the Beam, is now one of more than a dozen companies that sell so-called telepresence robots. These remote-controlled machines are equipped with video cameras, speakers, microphones and wheels that

allow users to see, hear, talk and "walk" in faraway locations.

More and more employees are working remotely, thanks to computers, smartphones, email, instant messaging and video-conferencing. But those technologies are no substitute for actually being in the office, where casual face-to-face conversations allow for easy collaboration and camaraderie.

Telepresence-robot makers are trying to bridge that gap with wheeled machines — controlled over wireless Internet connections — that give remote workers a physical presence in the workplace.

These robotic stand-ins are still a long way from going mainstream, with only a small number of organizations starting to use them. The machines can be expensive, difficult to navigate or even get stuck if they venture into areas with poor Internet connectivity. Stairs can be lethal, and non-techies might find them too strange to use regularly.

"There are still a lot of questions, but I think the potential is really great," said Pamela Hinds, co-director of Stanford University's Center on Work, Technology, & Organization. "I don't think face-to-face is going away, but the question is, how much face-to-face can be replaced by this technology?"

Technology watchers say these machines — sometimes called remote presence devices — could be used for many purposes. They could let managers inspect overseas factories, salespeople greet store customers, family members check on elderly relatives or art lovers tour foreign museums.

Some physicians are already seeing patients in remote hospitals with the RP-VITA robot co-developed by Santa-Barbara, Calif.,-based InTouch Health and iRobot, the Bedford, Mass.,-based maker of the Roomba vacuum.

The global market for telepresence robots is projected to reach $13 billion by 2017, said Philip Solis, research director for emerging technologies at ABI Research.

The robots have attracted the attention of Russian venture capitalist Dimitry Grishin, who runs a $25 million fund that invests in early-stage robotics companies.

"It's difficult to predict how big it will be, but I definitely see a lot of opportunity," Grishin said. "Eventually it can be in each home and each office."

His Grishin Robotics fund recently invested $250,000 in a startup called Double Robotics. The Sunnyvale, Calif.,-company started selling a Segway-like device called the Double that holds an Apple iPad, which has a built-in video-conferencing system called FaceTime. The Double can be controlled remotely from an iPad or iPhone.

So far, Double Robotics has sold more than 800 units that cost $1,999 each, said co-founder Mark DeVidts.

The Beam got its start as a side project at Willow Garage, a robotics company in

Menlo Park where Goecker worked as an engineer.

A few years ago, he moved back to his native Indiana to raise his family, but he found it difficult to collaborate with engineering colleagues using existing video-conferencing systems.

"I was struggling with really being part of the team," Goecker said. "They were doing all sorts of wonderful things with robotics. It was hard for me to participate."

So Goecker and his colleagues created their own telepresence robot. The result: the Beam and a new company to develop and market it.

At $16,000 each, the Beam isn't cheap. But Suitable Technologies says it was designed with features that make "pilots" and "locals" feel the remote worker is physically in the room: powerful speakers, highly sensitive microphones and robust wireless connectivity.

The company began shipping Beams last month, mostly to tech companies with widely dispersed engineering teams, officials said.

"Being there in person is really complicated — commuting there, flying there, all the different ways people have to get there. Beam allows you to be there without all that hassle," said CEO Scott Hassan, beaming in from his office at Willow Garage in nearby Menlo Park.

Not surprisingly, Suitable Technologies has fully embraced the Beam as a workplace tool. On any given day, up to half of its 25 employees "beam" into work, with employees on Beams sitting next to their flesh-and-blood colleagues and even joining them for lunch in the cafeteria.

Software engineer Josh Faust beams in daily from Hawaii, where he moved to surf, and plans to spend the winter hitting the slopes in Lake Tahoe. He can't play pingpong or eat the free, catered lunches in Palo Alto, but he otherwise feels like he's part of the team.

"I'm trying to figure out where exactly I want to live. This allows me to do that without any of the instability of trying to find a different job," Faust said, speaking on a Beam from Kaanapali, Hawaii. "It's pretty amazing."

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