

November 25, 2004

Waving Hello, From a Distance

By MICHEL MARRIOTT

WHEN Melody Wilt, a new grandmother, made the 10-hour drive from her home near Reading, Pa., to her daughter's house in Chapin, S.C., for Thanksgiving, she took along more than a 20-pound smoked turkey.

She went bearing a U.S.B. Web camera, sophisticated teleconferencing software and an Internet-inspired vision that will allow her to continue visiting even after she returns home. "I want him to be able to see me, to hear my voice," she said of her 3-week-old grandson, Joseph Sinclair Lewis. "I want to be able to read stories to him and share some of his firsts."

Mrs. Wilt, a manager at a regional educational services agency, said videoconferencing technology had gotten so good, so affordable and so easy to install and use that she is comfortable using it to open a two-way video window between her and her grandson when she is unable to visit in person.

"It's great timing that this technology has gotten to this point," Mrs. Wilt, 52, said shortly before making the drive south with her husband, Arthur. "It seems like the perfect way for me to see all the many changes he is going to go through."

There are no definitive numbers on how many people use Web-based videoconferencing. But there is anecdotal evidence that face-to-face electronic communication is gaining a foothold beyond the executive suite, and that the typical home users are no longer the stereotypical geeks straining to see each other over crude Webcams connected by sluggish modems.

"It was in a novelty phase," John Carey, a professor of communications and media management at the Fordham University Graduate School of Business Administration, said of the first wave of Webcam use. "It was mostly techies and exhibitionists, people who show themselves, and pornography and all of that."

Today's consumers have more options. A high-end system can cost as much as a flat-screen plasma television. Some modestly priced units, including the Packet8 VideoPhone, plug into an electrical outlet and use the Internet.

Long a mainstay of science fiction, the concept of being able to see and speak with someone over a vast distance, or even a short one, languished for decades in laboratories and tangles of technological choke points. Chief among them was adequate bandwidth, said Robert C. Hagerty, chief executive of Polycom, the market leader in videoconferencing, which makes the \$149 PVX system that Mrs. Wilt has in Pennsylvania and is installing for her grandson in South Carolina.

"You need a good connection," he said, acknowledging that broadband adoption in North America is rapidly increasing. He noted that today's typical high-speed connection is capable of carrying, in both directions, at least the 128 kilobits of data per second that "rich media" requires. In other words, that is the baseline for television-quality color images that sync reasonably well with equally clear audio.

Additionally, Mr. Hagerty said, significant improvements in videoconferencing software, like the new H.264 video compression standard, are helping to make the technology more efficient and accessible.

"We talk with our hands; we show our body language," he said. "We lose all those things in a phone call."

With improved videoconferencing, he added, "we get them all back."

Professor Carey said consumers' desire for videoconferencing had been partly stoked by the popularity of instant text messaging, which has been adding video capabilities. Even blogs, he said, are including video.

"What didn't work three years ago now works reasonably well," he said.

Professor Carey also noted that early tests of videophones found that many people, particularly women, were put off by the prospect of being seen by callers before they were prepared to be seen. "A lot of people were concerned that they'd get a videophone call and they'd be in a bathrobe or their underwear."

Those concerns have been eased by technology, he said. Most modern systems give users the option of transmitting their images.

In Eagan, Minn., a suburb of St. Paul, Greg Scott, the unofficial information technician for the Eagan Hills Alliance Church, is setting up high-speed videoconferencing to help local families electronically visit loved ones stationed in Iraq.

Mr. Scott, a member of the church and operator of an information technology company in the area, said he conducted a fairly successful test of the system a month ago using limited bandwidth. But his expectations rose recently when a local telecommunications company donated a T1 connection for the project.

"This is going to let lots of soldiers in Iraq with families here talk face-to-face," Mr. Scott said.

Bryan Martin, the chief executive of 8x8 in Santa Clara, Calif., the maker of the Packet8 videophones, said it was not surprising that face-voice communication had a powerful hold on people. The box in which its phones are sold is covered with almost a dozen words that mean hello in various languages. More telling, perhaps, is the invitation printed on the box to "speak in color."

The Packet8 phone has a five-inch liquid-crystal display so callers can look at each other as they chat. Mr. Martin said he did not have to look any farther than his own home to observe the warmth that screen-to-screen communication can create. He also said he had ample in-house proof that the system was extremely easy to use.

"We're finding that my 4-year-old son knows how to use the videophone," he said. "Even his grandmother knows how to use the videophone, which is impressive. This is not just for early adopters, geeks and techno folks like myself."

Convinced that almost anyone who can use a telephone can use his videophones, Mr. Martin said he planned to set up call centers in the coming weeks, including at hospitals where children can talk to (and see) hired "Santas at the North Pole."

Christopher Swann, 34, an investment analyst from Atlanta, said his 1-year-old son got a kick out of the phones. Mr. Swann's biggest complaint about the Packet8 phones is that they are not compatible with other Web-based videoconferencing systems. "It would be great if everyone in the family had one," he said.

He also noted that costs were not limited to the hardware. He said he spends about \$60 a month for his broadband

service, a requirement to use the Packet8 phones, and less than \$40 a month for the phone's service, which includes unlimited videoconferencing and Voice Over Internet Protocol, or VoIP.

"It's little more than a gadget right now," Mr. Swann said of his pair of videophones. Because of the firewall protecting his company's computer system, he cannot use one in his main office as he had intended, he said, "but it is a very cool gadget."

Packet8 phones also do not use the new H.264 video encoding and decoding scheme, which provides high-quality, 30-frames-a-second images with half the bandwidth requirements. In some ways, Mr. Hagerty of Polycom said, the new codec may mean to video what the MP3 compression format has meant to audio.

The Packet8 videophones use the older H.263 compression, Mr. Martin said, but they are likely to be upgraded to the new standard next year. Images using the older compression are more prone to breaking up. Nonetheless, Mr. Swann said, his videophones' images are "better than I expected."

Once equipped, the next step -- as in the early days of the telephone -- is to find those similarly equipped. Jason Katz, founder and chief executive of PalTalk, a site that fosters online video messaging, said innovation and falling telecommunications costs allowed him to offer his basic service free. This lets users who install his software to speak to up to six people at a time (they appear as still images). For \$40 a year, users can broadcast video images as well as see them, for two-way video conversations.

In the last six years, Mr. Katz said, there have been 30 million downloads of the free PalTalk software. Today, he said, there are some three million users on his system speaking to and seeing friends and family members. Some are even meeting new friends, as is the case with Dennis Ludwig, a "40-something" communications technician in Dayton, Ohio, who has been using the service for four years.

"It's almost like being in a room with someone," said Mr. Ludwig, who routinely juggles six video windows at a time on his computer screen. Friendships he has made on PalTalk are so genuine, he said, that he thinks of many of the people he knows only over the Internet as his extended family.

"My mom had open heart surgery three weeks ago," Mr. Ludwig said. "People in my room from nine different countries are praying for her."

What It Takes

The Virtual Visit Becomes Easier and Saves People the Drive

THE options for home videoconferencing equipment range from the economical to the high end.

Ken Fontaine chose the high end. For the last year and a half, he has been able to look in on a corner of Connecticut where he once ran a family-operated packaging company and where his children and grandchildren now live. He does this from a condominium in Boca Raton, Fla., where he lives in retirement.

When he is in Florida and wants to see his two sons, daughter and five grandchildren, he arranges a virtual visit over an \$8,000 system called CallerVision. (A system is required on each end.)

He picks up what looks like a television remote control, and with a click his family sits before him in stunning clarity and color.

"You don't experience that sense of absence," said Mr. Fontaine, 64. "It is certainly a marked improvement to be able to communicate visually as well as verbally."

Mr. Fontaine's system, whose cameras can be controlled by remote, has been primarily used by corporations, said M. Walter Levine, chairman of High Speed Video (highspeedvideo.us), which makes CallerVision. And yes, he said, the system and its service fee (\$2,200 a month for unlimited use) are expensive. But, he points out, so were the first cellphones.

"The costs will come down," he said, sitting in front of a CallerVision screen and robotic camera in his Manhattan office. Until they do, here are some less expensive systems:

POLYCOM V500 -- \$2,000 for set-top box (polycom.com) that includes video camera and microphone. Plugs into a standard television set and high-speed Internet connection.

POLYCOM PVX -- \$149 software (polycom.com) requires at least a 1.6-gigahertz processor, Windows 2000 or later, a U.S.B. Webcam (with microphone) and a high-speed Internet connection.

PACKET8 VIDEOPHONE -- An Internet-based phone with video screen (with rebate, \$300 for a single unit and \$500 for two) from 8x8 (packet8.net). Requires high-speed Internet access; unlimited video and audio calling in North America is available for \$30 a month.

PALTALK -- A free software download (www.paltalk.com) for multiscreen real-time audio and text messaging with video broadcasting. A \$40 annual fee lets users receive as well as send video images. Michel Marriott