



ASSISTIVE TECHNOLOGY

The Power of Speech is Eliminating Obstacles

Availability, ease-of-use contributing to assistive technology

Editor's note:
Robin E. Springer is a consultant and expert in assistive technology. This column contains her observations, from an end user's point of view, about the value of speech technology.

Each of us has dreams, but sometimes fall back on excuses when those dreams are not achieved.

My dream was to be a successful writer. I lost that dream, however, when I lost much of the ability to use my hands.

Or so I thought.

In researching options to allow me to work again I was introduced to speech recognition software, which made it possible for me to write with my voice instead of with my hands. The software required users to pause between words but it was sophisticated enough to allow people with disabilities to work.

The technology propelled me right back into the workplace in my "field of dreams," and I was so excited about speech's potential that I started a company to consult and sell it. That was in 1995, and at that time at least 90 percent of my clients were people with disabilities.

The software was complex, and for many, hardware requirements made the products cost-prohibitive. In 1995, a 90Mhz Pentium computer was considered state-of-the art. RAM was selling for over \$50 per megabyte and the software required 32MB of RAM. The sound card had to be dedicated to the speech software — if a user wanted to use the card for anything other than speech, two sound cards were necessary. Seven- and eight-hour installations were common. But the software

worked, and when used properly, it worked well. Today, the price and complexity of the products have decreased significantly.

The technology has progressed immensely since that time. I use speech recognition technology every day, although now I use it in ways that were not available in the 1990s.

When I am in my office I use speech technology to dictate letters and phone notes. I use speech commands to access my phone, as do some of my clients. All one needs to say is, "Pick up the phone," "Dial home," etc., and the computer will implement the commands. Quadriplegics can now compete in the workplace with their able-bodied counterparts in careers that previously were not available to them.

Like many people, I need to increase my productivity whenever possible. Speech recognition affords me this luxury. I sometimes spend as many as five hours in my car on a given day. This used to be non-productive time — I could listen to music or try to learn a foreign language, but I was not able to work. Now when I am in my car my productivity is virtually uninterrupted.

With the proliferation of cell phones it now is easier to communicate while out of the office. But speech, of course, is not a tool just to command a phone. I use a handheld recorder to dictate notes from conversations on the cell phone. I dictate letters that need to be sent to

clients or prospects. I input into the recorder random notes I have about something I need to discuss with my office staff, ideas for upcoming events or even the book I've been meaning to write. When I get back to the office or if I am using my laptop, I download the dictation files into my computer and the speech is converted into text.

The ramifications of this technology are mind-boggling. An attorney can dictate letters or briefs in the hallway of the courthouse during recess and give the speech files to a secretary, who then downloads them into the computer instead of transcribing them. Now, all the secretary needs to do is proof and polish — no more transcription. While increasing office productivity, the attorney has not changed the process in which she/he dictates.

Writers now can be fully creative. With speech recognition, they can write words and sentences and paragraphs at a time, instead of hunting and pecking on a keyboard to input letters at a time.

People can even use speech recognition software to call home and turn on the Jacuzzi, so when they get home they will not have to wait for the water to heat up.

Speech technology continues to progress. Some day soon we may be using speech to cook the dinner and vacuum the house, leaving us more time to devote to fulfilling our dreams.

This document was generated by voice on a speech-recognition computer system available from Computer Talk. The results speak for themselves.