Vocal control

Voice-command devices can help household tasks go a little smoother for people with MS.

Michael Ogg, who was diagnosed with multiple sclerosis in 1997, has automated his entire home in West Windsor, New Jersey. Now quadriplegic, Ogg controls the heat, air conditioning and lights using a combination of voice-control technology and his iPad.

Michael Ogg has automated his home with voice-control technology, enabling him to

control features like lighting and air conditioning from his iPad. Photo courtesy of Michael Ogg

"I control my wheelchair using a joystick beneath my chin, and I can do all my home automation controls via my iPad," says Ogg, who lives alone. "But there are situations when it is very good to have voice controls as well, such as when I don't have the iPad connected, or am in bed. Then voice control is very important, and it adds an additional safety feature because I can call for help as well."

SIRI, Apple's "digital personal assistant," which responds to questions and commands on an iPhone or iPad, is probably the most familiar voice-control technology. But SIRI (an acronym for Speech Interpretation and Recognition Interface) is only one of many devices designed to help make life a little easier. The growing number of voice-recognition devices and software known as "adaptive technology" can help maintain independence, boost productivity—and provide some fun as well.

Using voice-recognition technology, someone who has difficulty using his or her hands or walking can simply say, "Turn on all the lights," "Hail me a taxi," "Play Tom Petty on Spotify," or "Stream 'Mad Men' on Netflix," and it will be done. With computer software such as Dragon NaturallySpeaking (a voice-recognition program), a person can write and send a text or email, post to Facebook, even write a book—just by using his or her voice.

Amazon, Google and Microsoft are competing to develop and expand such "smart" technology. And people with disabilities are learning how to set up and adapt the new technology to their own unique needs.

Make a phone call, edit a book
Jerry Mabry of Temecula, California, was a radio broadcaster for 25 years before being diagnosed with MS. "In 1999, I walked. In 2009, I used a power wheelchair and a walker. By 2012, I was quadriplegic," Mabry says. "I still use a power wheelchair, but now I navigate it with my chin."

Mabry uses Dragon NaturallySpeaking to control his computer, and Google Assistant and Samsung's S Voice to control his smartphone. "I read books on my computer with Kindle software for PC," he adds. "Dragon NaturallySpeaking gives me complete control. I turn pages, I can check the meaning of unfamiliar words or change font size, and more."

Prices vary. The basic version of Dragon NaturallySpeaking costs around $99. In systems for the home that control things like temperature and lights, Amazon's Echo Dot 2 currently is the front-runner in this rapidly evolving market.

The Dot 2, a smaller, less expensive version of the original Echo Dot, is both a listening

device and speaker about the size of a stack of hockey pucks. Paired with Alexa, Amazon's version of SIRI, the Dot 2 sells for around $50. Google Home, which pairs with Google Assistant (for around $129), and Microsoft's Cortana, available as part of Windows 10, offer their own versions of personal digital assistants.

These systems also can:

- Create to-do lists.
- Set alarms.
- Stream podcasts.
- Play audiobooks.
- Give real-time information on weather and traffic.

Help setting up systems

Setting up devices to control lights and thermostats or call a programmed list of phone numbers for help in an emergency might be intimidating for somebody who's not familiar or comfortable with technology.

"It can be something of a challenge," says Ogg, who was an experimental physicist before he retired in 2004. "Echo or any of the other voice-recognition devices can only communicate with things that they have been set up to work with. I've had to write my own code and purchase numerous interfacing apps and devices that can, say, enable my Echo to tell me what temperature the thermostat says.

"Because of the MS, I have difficulty maintaining a steady body temperature, so it is important to be able to control my home's temperature. The most annoying thing is having to hire an electrician to install some of these devices. Smart light switches and bulbs, for instance, can cost $30 to $40 each, but the electrician costs quite a bit more than that."

Steve Spohn predicts that smart devices will become more common and less expensive in the near future.
Photo courtesy of Steve Spohn

Daunting as learning to set up the technology might sound, "if you're someone who has a profound disability, you're going to learn and teach yourself to do these things," says Steve Spohn, who uses a wheelchair due to spinal muscular atrophy. Spohn is COO and a member of the board of AbleGamers, a nonprofit charity providing resources and technology that enables people with severe disabilities to fully participate in online gaming communities.

"[Getting and setting up smart technology systems] can be expensive," Spohn says. However, competition among producers of adaptive technology is quickly bringing prices down and expanding what it can do. "In the next five to 10 years, smart cities and smart devices are going to be ubiquitous and much easier to set up and use," he says.

In the meantime, you could hire a tech expert. And don't be afraid to ask tech-savvy friends and family to help. Or try reaching out to your local community—perhaps a nearby school can recommend a student interested in volunteering to help people with disabilities set up tech systems.

Manufacturers for all these systems also post setup instructions and troubleshooting videos online. Mabry plans to create an online video to show others with disabilities how to use voice-recognition technology and navigate the set-up. Ogg says he is working on a similar online project.

And be patient. "New things that will be helpful are being developed all the time," Spohn says. "Stay educated, awake and keep up with what's coming out, and make your caregivers and loved ones aware of them as well."

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View more information on [how to integrate technology into your home](#).