Tech for the elderly is a growing area, but founders should think more about whether their gadget will be used

Some of these seem like wishful thinking

By Angela Chen | @chengela | Jan 10, 2018, 12:14pm EST

Health gadgets aren’t just for the young. The elderly population is a growing business opportunity, and the category of “aging tech” now includes everything from smart hearing aids to connected toolkits for relatives with dementia. It’s an important area with plenty of problems to solve, but some of the biggest problems with caretaking are social, and the highest-tech gadget won’t do a thing if your grandmother refuses to use it.

$800 Hip’Air airbag belt for fall prevention | Photo: Hip’Air
Everyone grows old, but Americans are growing older more quickly. The number of Americans over 65 will double by 2060, according to a 2016 report by the Population Research Bureau, and the elderly are living longer, too. According to the Society of Actuaries, if a woman on a pension plan lives past 65, she will, on average, live to be 87.6 years; for men, that number is 85.6 years. “There are already risk managers and insurance people telling people out there to plan to live to 95,” says Laurie Orlov, the founder of Aging in Place Technology Watch. There is a place for technology here, though perhaps some of these companies haven’t thought through their concepts quite enough.

Take fall prevention gadgets, for example. Falls can be extremely dangerous and are, according to the Centers for Disease Control and Prevention, the number one cause of injuries and deaths from injury for elderly Americans. Preventing falls truly could save lives, but some companies are taking the problem far too literally. There’s Hip’Air, the $800 airbag belt that supposedly reduces impact by 90 percent (though we don’t have good data to know for sure). Not only is it far too expensive, the elderly hate wearing underwear-style hip protectors as it is, and they will certainly not want to wear a bulky belt that can look ridiculous.

If you can’t prevent the fall itself, what about notifying the caregiver? That’s the idea behind company E-VONE. The company makes smart shoes in 26 styles, and all of them have sensors in the soles that will notify someone when you fall. (The shoe will vibrate, too, so you’ll know that someone has been told.) For 30 euros a month (the company is launching in France), you can rent the shoes, access to the notification service, and get a new pair of shoes each year. To E-VONE’S credit, there is a decent array of fashions, and the company is looking into integrating the technology into slippers since many people do not wear shoes indoors.
But an easier, and cheaper, solution already exists in the form of one-time-purchase medical alert bracelets and necklaces. Crucially, it’s a lot easier to wear a bracelet every day than it is to wear the same pair of shoes daily. What if you are going to a dressy event, or going hiking? Medical alerts aren’t perfect, of course — you can forget to put them on — but they are still a better solution for this problem.

The Aladin smart lamp also promises to notify loved ones when there’s a fall. This wall-mounted lamp uses motion sensors to light up if someone needs the light, and then can sense (and notify) when someone has fallen. Though the obvious problem is that someone could easily fall out of the range of the lamp, this type of passive detection still seems more useful than being forced to wear the same shoes day in and day out.

Lili Smart describes its products as “toolkit” for the elderly, especially those with cognitive disabilities such as dementia. For 30 euros a month, its kit has three components: an app where caregivers communicate with each other and with healthcare professionals who have partnered with the company, a very simple watch that vibrates and shows a picture of a pill as a reminder, and a set of motion sensors. You can stick the sensors, for example, on someone’s pill organizer to make sure they’re taking their medication, or on the fridge to make sure they’re still opening it three times a day. It’ll send this information to the app and give you a heads-up if
there are big changes in behavior. Being proactive about behavior change is smart, and the simple design of the watch is a good idea.

But the usefulness still seems limited. LiliSmart’s founders say that you can mix and match the three parts as needed, but about half of people don’t use the watch. Some stop understanding the pill image as their dementia worsens. Some simply don’t like it. With the watch out, you have the app and the sensors, but that seems far less compelling, especially for monitoring medication. (Studies have shown that various “smart” approaches to making people take their pills often don’t work.)

One of the biggest challenges of helping the aging is that the elderly resist the solutions. Oftentimes, people don’t want to take their pills or deny that their memory is going. So many of these devices seem to rely on the ability of caregivers to coerce their elderly relative or patient into using this solution. But if someone doesn’t want to wear your shoe or your belt or your watch, it’s hard to make them.

Fundamentally, much of this technology seems to be designed with caretakers in mind, more than the elderly themselves. Most founders are likely people taking care of their parents, but I’d like to see more products designed by those who are both elderly and tech-savvy. As we’ve learned from terrible women’s products designed by men, oftentimes people have no idea what others actually want. And even if you are designing a product for others, it’s important to think more about their perspective and their pride. Caregiving is hard already. For aging tech to work, we can’t hoist a
technological solution on the elderly and hope caregivers will be able to make sure their relatives comply.

So when it comes to aging tech, what does seem helpful?

Last summer, it became legal to sell hearing aids over the counter, so expect to see more and better hearing aids. About 48 million Americans have some degree of hearing loss, but only about 20 percent of people who need them wear hearing aids. There is a wide variety of reasons for this, but, traditionally, hearing aids have been both badly designed and stigmatized.

Wearing them makes people feel old and sick (just as wearing an airbag hip belt might make people feel old), and nobody likes that. Now, we’re seeing sleek, stylish hearing aids from Eargo and smart hearing aids — which can communicate with smoke alarms and doorbells — from the likes of Oticon and ReSound. The key here is that smart hearing aids and stylish ones make the tech cool, and that’s one big thing that might encourage people who need them to use them.

One improvement that Orlov calls a “game-changer” is something that isn’t specifically designed for the elderly at all. It’s voice assistants like Amazon’s Alexa or Google Assistant. Take the Echo Show, for example. Amazon’s marketing around this “Alexa speaker with a screen” was focused around family, with photos of grandparents and their kids. “The disruptive technology for 2018 will be technology that enables you to speak to other technology, because older adults don’t have time to type, swipe, pinch, zoom, or otherwise tap on a personal device,” says Orlov. It turns out that the same thing that makes life easier for the lazy and young could be very helpful for the elderly, too.

Aging tech as a category is likely to grow, but if it’s to be successful, founders need to think carefully not only about why people use technology, but why they won’t.

Correction 11:30 AM PST 1/12/17: A previous version of this article used outdated numbers from the Society of Actuaries.