A smart approach: tech design
that keeps older end users in mind

By **Amy Andonian**

Seventy-four year old Doris prides herself on keeping in touch with her teenage granddaughter across the country through texting, but some days, when her fingers are too stiff with arthritis to type, Doris says she feels sad and disconnected. She was thrilled when Tyler, a young Stanford entrepreneur, showed her a new app he was working on for older adults that would use voice recognition to turn anything Doris said into text. Tyler appreciated Doris' comments on how he might make the app easier to use. And Doris was soon able to use the app to communicate more often with her granddaughter.

Doris and Tyler were brought together through the Avenidas Generations Lab in Palo Alto, Calif., and they both came away from the experience feeling like they had gained something valuable.

Intergenerational Exchange Bridges Digital Age Divide
This kind of intergenerational exchange about technology products reflects a new trend: one where older adults, who are typically thought of as late adopters of technology, are beginning to find that their opinions are valuable and sought after by tech inventors. When personal computers first appeared, young people were the earliest and most enthusiastic adopters, and young people have continued to be leaders in their use. Older adults also have learned to use computers, but generally at a slower pace. The result has been a persistent and age-based "digital divide."

To reduce this gap, programs, often led by older adult volunteers, have been developed that are specifically designed to introduce older adults to computers and the Internet. One of the early pioneers in offering this kind of program has been Avenidas, a nonprofit social services agency that runs a senior center in Palo Alto, Calif., offering health and wellness services, lifelong learning and leisure activities, and transportation assistance and social services. Avenidas serves an increasingly diverse community, with an average age of 73.

Avenidas has housed a volunteer-run Computer Learning Center for the past 25 years, and now hosts the Generations Lab. Avenidas noticed that the demand for "traditional" computer training had begun to fall off among older adults, while interest in workshops or tutorials on the use of apps for smart phones or tablets had dramatically increased. Ironically, just as older adults have begun to catch up in computer use, they are lagging behind in adopting newer technologies that are ever more central to the lives of most Americans, threatening to open a new digital divide.

According to the Pew Research Center (April 2014; *goo.gl/n0738Q*), just 59 percent of adults ages 65 and older go online, compared to 86 percent of all adults. The Pew study also found that older adults are less likely than younger people to use a cell phone (77 percent to 91 percent) or have broadband access (47 percent to 70 percent).

Few Apps Designed with Elders in Mind

Older adults are late adopters because they often lack access to information about or support for adopting these technologies, and few applications are designed with their needs in mind. Hence, Pew concluded, a disproportionate number of older adults remain "largely disconnected from the world of digital tools and services."

Avenidas launched its Generations Lab to reduce this digital divide by introducing older adults in Silicon Valley to the wide range of newer digital technologies—smart phones, tablets, wearables, e-readers, robots and even 3D printers (that can create prosthetic limbs)—to help them live healthier, richer, more independent lives.

Even though older adults can be late adopters, they are among those who stand to benefit the most from technologies that can provide easier access to vital services, enhance social connections, promote health through apps that track vital signs and diet and support independent living with technologies such as smart-home monitors.

The Generations Lab, staffed by employees and volunteers, will help older adults learn about these new technologies, and will act as a catalyst to accelerate development of innovative tech applications targeting the needs of older adults. The Lab is designed to enable older adults to explore new technologies through talks and demos that increase awareness of new options; engage with tech through workshops and one-on-one training to acquire new skills; and help shape new products by participating in focus groups or pilot testing. The Lab is intended to be a place that celebrates, promotes and advances creativity and entrepreneurship across the life span.

New Product Ideas Flow In

A number of tech firms, ranging from small start-ups to established companies, have already tapped into the experience of Avenidas members for feedback on new product ideas. When asked why they value working with the Generations Lab, one such tech company, Panasonic, said that they "appreciate the ability to get in-depth engagement and input from highly educated and eloquent older adults that is difficult to obtain elsewhere." They added, "This market is absolutely exploding—it's a superpower."

The Lab staff surveyed Avenidas clients about their reasons for participating in the Generations Lab, and heard, "exposure and access to services and products that solve our health and mobility problems"; "giving back to the community by providing input to tech companies who might use our feedback to design something useful for our age group"; and "being intellectually stimulated by engaging with professionals who want to hear our opinions."

The growth potential for this new field of "gerontechnology" is seemingly infinite. The program will continue to evolve apace with technologies, and by working together, entrepreneurs, innovators and older adults will be in a position to transform the experience of aging. ■

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