

Case study

Dr. Erin Partridge: Sprout by HP offers new possibilities



Accessibility and simplicity enhances communications for elders with dementia

Industry

Healthcare

Objective

Investigate communication needs and experiences of elders to help support patient-directed elder care

Approach

Integrate Sprout by HP into elder care programs to enhance effective forms of communication and sense of community through individual and group art projects

IT matters

- Sprout by HP helps present an approach to support elders with intuitive, accessible technology for expression and communication
- Integration of technology applications for dementia with Sprout can help elders with limited verbal communication ability
- Elder participants are able to intuitively interact with the Sprout's flat touch mat surface and create images with minimal initial assistance

Business matters

- Provide accessibility for minimally verbal and nonverbal elders to communicate, interact and participate in their own care and community
- Enhance engagement in the elder care communities through art-based projects helps create a positive experience and enriched quality of life
- Create new art-based keepsake activities for positive family participation and community experience



“Use of the Sprout by HP with elders helps forge a connection between older adults and new technology. It also expands communication and the sense of community by providing elders with the ability to share experiences in art and words.”

– Erin Partridge, PhD, ATR-BC

Researcher, Author “Amplified Voices: Art Based Inquiry into Elder Communication,” 2016
Art Therapist with Elder Care Alliance, California

A growing elder population and increased diagnosis of Alzheimer’s provides new challenges in elder care life-satisfaction among elders. Integrating Sprout by HP technology into her research and thesis, “Amplified Voices: Art Based Inquiry into Elder Communication,” 2016, Dr. Erin Partridge, leverages technology to gain input from minimally verbal and nonverbal elders through art-based projects. Integration of technology applications for elder communities, including elders with dementia, using Sprout by HP can help elders with standard and limited means communicate more effectively, enhance positive quality of life experiences and ultimately help support patient-directed elder care.

The American population over age 65 is growing and projected to reach 20% of the population by 2030. Diagnosis of Alzheimer's now impacts more than five million Americans and is increasing. The over age 85 group is of greatest concern as the most frail, least able to adapt, and experiencing the most decrease in life-satisfaction. The White House Conference on Aging discussions highlight the importance of creating opportunities for older adults to stay connected.

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—Dr. Erin Partridge, Researcher, Author

A thorough review of the communication needs and experiences of elders can help support patient-directed elder care, explains Erin Partridge, PhD, ATR-BC. Dr. Partridge recently concluded doctoral research and a written thesis in her work with a non-profit organization operating four elder care communities in California. In order to address the evolving needs of the older adult population, Dr. Partridge worked to expand the spectrum of communication for participants involved.

“The overall focus of my research process and thesis is to help amplify the voices of the elders,” she says. “We incorporated Sprout by HP technology into the processes to obtain participation and input from minimally verbal and nonverbal elders, a group seldom able to communicate and effectively provide input.”

Partridge integrated the Sprout to provide elders with easy-to-use computer images to initiate dialog and communicate in non-verbal ways through markings generated with the simple touch of a finger on Sprout's touch mat. Individual and group art-based projects provided significant engagement in the elder care setting.

The Sprout by HP provides opportunities for elders to create images that could express their ideas, help them communicate, and nonverbally respond to questions with through

art and drawing. Dr. Partridge explains that the Sprout is a PC designed to work with intuitive imaging and touch technologies, paired with software that helps makes tasks more tactile and interactive.

“Use of the Sprout by HP with elders helps forge a connection between older adults and new technology,” she says. “It also encourages input by providing elders, including elders with dementia, with an accessible means to share experiences and ideas in art and words.”

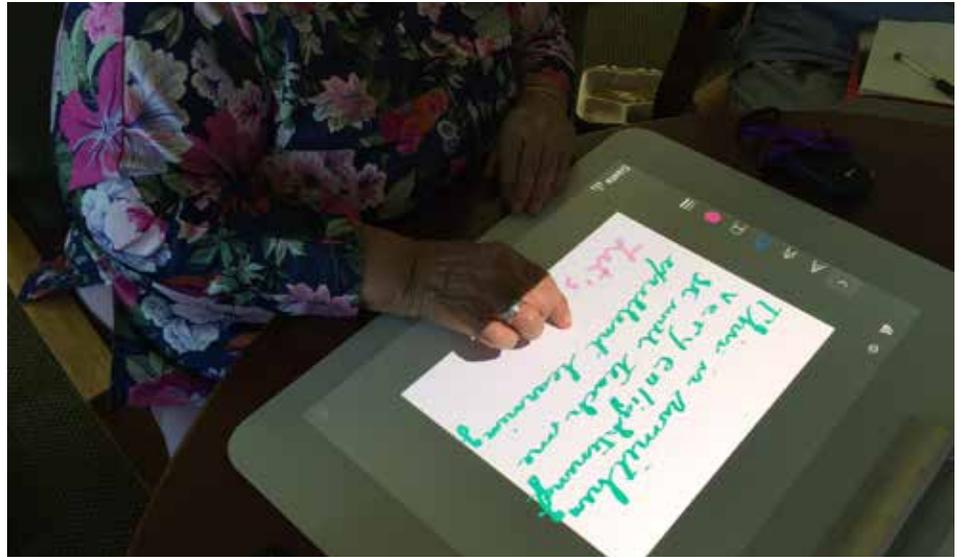
Elders were asked to work at the Sprout and pose a jointed human figure. This simple outline of a human body was used so participants could use a figure to represent themselves and another figure to represent someone they communicate with. Participants made additional marks with a simple finger movement on the touch mat to add observations or comments. A strong majority—85%—depicted two figures facing each other and 11% depicted the figures facing the same direction. The participants described posture, whether upright, bent over or seated.

Expression through color

“Many participants put a lot of thought into the color choice,” Dr. Partridge says. “Some described the feeling they wanted to represent and then selecting a color accordingly. A memory care resident described the reasoning for choosing blue. “Bright blue—we've all got the blues.” In this case, the color illustrated emotion and life satisfaction.

The ability to provide visual responses helped participants communicate emotions and concerns. One man visually described his biggest fear, explains Dr. Partridge. “He feared falling and needing a higher level of care,” she says. “He had a previous experience falling on the sidewalk and called out for help. He knew falling was a big warning sign and now he feared another fall that could require him to go to a care center.”

Participants envisioned a variety of potential for using technology. Some expressed that technology could assist with age-related limitations to verbal communications. And many elders thought technology has the potential to increase access to family and friends. Through art-based communication and art projects, participants also recognized technology as a new and exciting tool for



new projects, family projects and more. Even the simple process of searching the Internet for information using touch was extremely appealing.

Simplicity

Simplicity was an emergent theme in elder feedback to Dr. Partridge. One participant drew one line, connecting her figure to her sister. "Nothing is very complicated, I know that. It comes from my heart. Like if I'm saying it and it is going to her? I would draw it from my mouth to her heart," she responded.

With regard to technology, the theme of simplicity applied as well. Several participants described a need to simplify technology to empower elders to use new tools; an adult volunteer suggested making it as "seamless and intuitive as possible" for elders to use new technology.

From the beginning, elders demonstrated a high level of enthusiasm for the process of providing their input through technology tools. Assisted living residents were lined up to participate the first day of Dr. Partridge's study and input sessions with elders. Some even called the front desk to ask how to be part of it.

Art to illustrate strengths, express concerns

The research yielded rich responses from the senior communities, Dr. Partridge explains. "The elders used the art to illustrate their strengths as well as express concerns and

voice their needs. The technology helped remove barriers," she says. One participant commented, "What is interesting about this process is you learn more about yourself that you ever thought you would." Elders were able to self-evaluate and self-reflect, Dr. Partridge notes.

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The study included a group mural project, which evolved for the elder group to work together, one participant explained. The mural engaged elders in creative problem-solving and negotiation and gave them an experience of creating something larger than most of them had ever done before.

After a very short demonstration, individuals were able to interact with the Sprout using the HP touch mat to create images. The sensitivity of the touch mat, the familiar flat on the desk or table position, and the immediacy of working with their fingers gave participants an experience similar to drawing on paper, but without the difficulty of gripping, applying pressure and drawing or writing by hand. The touch mat allows elders to create expressively like finger painting, she notes.



Creativity and technology are areas of interest for researchers studying brain health and cognitive decline.

One of the exploratory questions to the elders was about how technology can benefit the field of art therapy. Some art therapists dismiss the use of technology as too far removed from the tactile and sensory experiences of art making. The Sprout addresses some of these concerns, because the system is more closely aligned with direct manipulation of materials. “Participants in this study were able to interact with a new piece of technology, the Sprout by HP, without much assistance or intervention,” Dr. Partridge says.

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Including the Sprout in the process provided greater access to qualitative information from the elders, Dr. Partridge comments. “Many elders are willing and able to participate, communicate and share ideas given

accessibility tools to ease the process,” she says. “As the elder population increases, we can no longer let their voices fade.”

“Input from the elders helped generate new ideas for future art projects and activities,” Dr. Partridge explains. “Visiting family and friends can engage in an activity together and at the same time, create new memories and keepsakes from the positive experience.”

Art therapists have an ability to facilitate opportunities for all elders to participate in conversation. Art activities at elder communities can help enhance the daily sense of friendship and create new experiences that encourage and confirm a positive quality of life experience.

A staff participant explains it best, “We can learn a lot from elders just from listening. The stories they tell, the advice they give, everything they say—it always comes from the heart.”

Dr. Partridge summarizes, “To learn anything from elders, we must slow down, listen and allow the voice of the elders to communicate. And today, that ‘voice’ may be heard in newly expressive ways.”

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hp.com/go/sprout

HP provided Sprout by HP for this study.

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