



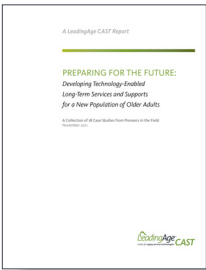
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How a commitment to testing emerging technologies keeps one organization ahead of the curve

The fifteenth in a series of case studies from the Preparing for the Future Report

- Having served as a beta tester for Dakim BrainFitness software, Front Porch has installed more Dakim software systems than any other aging services provider and provides it at no cost to residents
- Thanks to staff and residents who are eager to provide feedback, the Center for Technology Innovation seeks to test emerging technologies
- Recently awarded a grant to test medication adherence through texting and a second grant to partner with UC Davis and California Telehealth Network to build a model eHealth community

The Organization

Founded in 1999, [Front Porch](http://FrontPorch.org) is one of the largest not-for-profit providers of retirement living communities, affordable housing and skilled nursing centers in Southern California. Front Porch active adult and full service retirement communities offer a full range of options from independent living to continuing care, along with specialized programs like memory support. With innovative communities and programs that meet the changing needs of people as they age, Front Porch communities represent a leading-edge approach to wellness in aging. Front Porch is comprised of 10 full-service retirement communities in California and three adult living communities: one in Louisiana, one in Florida and one in Nuevo Vallarta, Mexico. Of these, seven are continuing care retirement communities (CCRC). More than 20 affordable housing communities are managed by Front Porch’s affiliate, CARING Housing Ministries.

The Front Porch [Center for Technology Innovation and Wellbeing](http://CenterforTechnologyInnovationandWellbeing.org) (CTIW) is a center of excellence within the Front Porch family of companies that strives to harness technology solutions that support and enhance wellbeing in older adults. The center works collaboratively with Front Porch residents and staff—as well as researchers, academic institutions and other care providers—to identify the needs of older adults that can be met with the help of technology solutions. Based on these findings, the CTIW works with business partners to identify existing technology solutions or develop new solutions that can then be applied to the living environments of older adults.

Technology-enabled Models and Services

Dakim BrainFitness: One of Front Porch’s first technology-related ventures was its ongoing collaboration with Dakim Inc., the developer of a brain fitness software program designed to engage the minds of aging adults as a way to prevent or delay the onset of dementia. Front Porch was an original investor in Dakim, served as a beta tester for the original Dakim computer program, and was the first aging services organization to deploy the program in its communities. Today, Front Port has installed more Dakim software systems than any aging services provider nationwide.

Center for Technology Innovation and Wellbeing

(CTIW): Through its relationship with Dakim, Front Porch recognized that it could play an important role in testing and adopting early-stage technology. It also discovered that the organization's residents and staff members were eager and able to provide valuable insights on how technology solutions could best serve older consumers. To facilitate this engagement by Front Porch, its staff and residents, the organization launched the CTIW, a 501(C)(3) founded on the belief that technology innovation plays a vital role in enhancing each individual's ability to "live life my way." The center keeps abreast of the latest technology innovations in the field of aging services, seeks opportunities to conduct pilots of those technology solutions, evaluates the results, and then facilitates the diffusion and rapid adoption of the solutions both throughout the Front Porch family and industry-wide.

The CTIW has recently been awarded two grants for large-scale pilots to be conducted over the next two years. "Minding our Meds: Demonstrating Senior Medication Adherence with Cell Phone Texting Reminders" is a one-year project supported by a grant from the SCAN Foundation, the Public Health Institute and the Center for Technology and Aging. The second grant is a Broadband Adoption Model eHealth Communities Award from University of California Davis and the California Telehealth Network. CTIW will use this grant to build a model eHealth community for Aging focused on helping California communities become best-practice examples in the use and integration of technology to improve health and health care for local residents. This two-year project will incorporate the use of distance learning on health topics through video conferencing, telehealth consultations, remote patient monitoring, and mobile computer labs devoted to increasing resident access to online health resources and improving overall digital literacy.

Walnut Village: Walnut Village, an Anaheim-based community that Front Porch recently redeveloped, has become a model for how technology can be integrated into living environments for older people. The community features the latest "smart home" technologies, including a high-speed wireless communications infrastructure that supports the layering of multiple technologies to accommodate the changing needs of residents who are aging-in-place.

Enterprise-wide Wifi: Front Porch is in the process of deploying 802.11n wifi clouds at every retirement living campus. This wifi access supports both business users and residents. For example, the new access will allow business users to utilize wireless devices including phones, laptops, tablets and other point of service/care devices. Residents will

have access to the Internet both in the home and throughout the community, in most cases both indoors and out.

Implementation Approaches

Front Porch created one technology platform at Walnut Village that brings into every home and apartment a variety of sensor-enabled solutions. The sensor-laden system allows staff to conduct state-mandated, daily resident checks by monitoring the level of activity in each apartment. It also serves as a security system that alerts staff when movement is detected in the apartments of residents who are away from home. In addition, the integrated platform includes a personal emergency response system component that can be activated from anywhere in the community, bed monitors and fall detectors that are deployed in assisted living, and a wandering alert system for residents receiving memory support and nurse call for the skilled nursing facility.

Multi-layered and fully integrated technology is a hallmark of Walnut Village. For example, a pendant issued to every resident provides keyless access to any door in the community and also will allow residents to carry out point-of-sale transactions in the dining room, bistro or store. Best of all, most of the community's technology goes unnoticed by residents. For example, sensors deployed throughout the community are smaller than the common doorbell and blend easily into the background.

Challenges

Integration: Integrated technology may be the hallmark of Walnut Village, but that integration was not easily achieved. Front Porch staff had to work very hard to create one technology platform that would carry out a variety of sensor-enabled functions. The organization recognizes that vendors are starting to get the message that aging services providers don't want to use five separate computer systems to run five distinct technology solutions. Front Porch is cautiously optimistic that it will eventually become easier for providers to purchase one technology platform that will support a variety of interchangeable technology solution modules.

System overload: While today's aging services providers may encounter challenges when trying to engage residents and clients with new technology, the time is fast approaching when the same providers may find that their technology systems are inadequate to meet growing demand. Front Porch has already experienced this system overload. Heavy Internet use among residents caused the LUMA active adult living community in Nuevo Vallarta, Mexico to exceed its Internet bandwidth capacity within a month after opening.

Business Case

The return on Front Porch's technology investment comes from using each of its technology platforms in multiple ways. For example, Front Porch's commitment to install wireless technology in each of its communities, a project that will be completed in 2012, will enhance resident services at the organization's retirement communities. But, equally important, the wireless upgrade will also help make the organization's business operations more efficient by facilitating long-distance communication between Front Porch communities and the organization's headquarters.

The Dakim BrainFitness touch screen computer systems are available in all Front Porch communities at no cost to residents. The organization believes that the presence of these units in community common areas is an important service to residents and may drive the decision of some prospective residents to move to a Front Porch community.

Keys to Success

Two technology teams: The structure of Front Porch's information technology (IT) department has helped the organization keep its eye on current challenges while charting a course toward the future. The technology division is divided into two distinct teams. An "emerging technologies" team identifies and explores strategic technology solutions that the organization might adopt as it strives to meet the needs of residents or make its business operations more efficient. An "operations team" works to keep all the organization's current technology running smoothly. That team trains Front Porch staff on new technology and solves problems associated with technology deployment. The organization's chief information officer is certain that if her organization had only one team to address emerging technologies and operations, the demanding nature of operations would keep team members from finding the time to think strategically.

Advice for Others

Define your needs. Don't depend on vendors to tell you what technology you should adopt. Instead, take a proactive approach to identifying specific organizational needs that technology might help you solve. Start your first technology

project by identifying just one need. Then search out technology vendors that will help you meet that need. If your first technology initiative isn't perceived as filling a specific need, it will not be successful, you will be discouraged, and that early failure may impact your ability to implement future technology initiatives.

Make technology fun. Front Porch does its best to make resident-centered technologies as entertaining and unobtrusive as possible. For example, the organization has fielded 10 teams in the National Senior League, which sponsors tournaments using the Nintendo Wii entertainment system. Front Porch promotes Wii bowling as a way to help seniors become more comfortable with technology. The organization knew it had succeeded in reaching this goal when it noticed that residents were taking the Wii technology for granted and focusing, instead, on the social interaction that the technology facilitated. In a similar fashion, Front Porch was attracted to the Dakim BrainFitness software because of its ability to entertain residents while putting them through the paces of rigorous cognitive exercises. The Dakim program must be used consistently in order to yield benefits, and its entertaining features keep residents engaged over time.

Be flexible on training. Training is the key to success in any technology initiative. However, organizations need to recognize that one training approach may not work with every type of technology or every group of users. Trainers need to take a careful look at the technology and should then experiment with different ways to get users comfortable with that technology. If one method doesn't work, try another. Make sure staff is well-versed and completely comfortable with any technology that residents will be using. If staff members don't understand and feel comfortable with the new technology, residents are unlikely to accept it.

Welcome pushback. Don't view pushback from staff or residents as a reason to stop a technology deployment. Instead, look at negative feedback as a healthy sign that people are listening, are trying the technology and are invested in making it work. Pushback gives you an opportunity to work through issues, raise questions with vendors, answer questions and help people feel more comfortable with the technology solution you are trying to deploy. ■

LeadingAge Center for Aging Services Technologies:

The LeadingAge Center for Aging Services Technologies (CAST) is focused on development, evaluation and adoption of emerging technologies that will transform the aging experience. As an international coalition of more than 400 technology companies, aging-services organizations, businesses, research universities and government representatives, CAST works under the auspices of LeadingAge, an association of 5,400 not-for-profit organizations dedicated to expanding the world of possibilities for aging. For more information, please visit LeadingAge.org/CAST

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