

Think Technologically, Act Globally

by Michele Hayunga

The transition to a more technology-savvy future is an international phenomenon. The European Union is developing a technology framework to encourage interoperability across devices. European and Australian providers are adopting technologies similar to those in use in the U.S. Here is a snapshot of a few technology initiatives underway around the world.

A U.K. retirement housing provider equips apartments with sensors that monitor whether residents have rolled out of bed or forgotten to turn on the heat. In Norway, patients with chronic obstructive pulmonary disease take part in “TV meetings” and use a remote control to enter health information into an electronic diary. An Australian provider is using wireless communication technologies to streamline functions ranging from service delivery to accounting and facility maintenance.

For aging-services providers, positioning for the future means keeping one eye on the horizon—both in the United States and abroad. To ensure AAHSA members are engaged in and apprised of technology advances, the International Association of Homes and Services for the Ageing (IAHSA) is helping AAHSA’s Center for Aging Services Technologies (CAST) extend its global reach. They have partnered to launch action networks in Europe and Australia to encourage information sharing and link providers, companies and universities.

European Collaboration

European countries have long understood the value of collaboration—a tradition that serves them well when it comes to implementing technology. As the global population ages, a growing number of companies are developing “smart” products aimed at the senior market. However, for older adults and caregivers to get the most value from these advances, the individual products must be able to work together.

Enter M*POWER, a consortium funded by the European Union, to develop basic technology or “middleware” that will accomplish this goal. The result will be a

technology framework that companies can build from to create new products and services able to “talk” to one another.

“The middleware will make it easier and cheaper for small and medium-sized companies to develop applications for the elderly and disabled,” explains Espen H. Aspnes, former IAHSA chair and senior advisor for SINTEF, a large, independent research organization in Norway, which is coordinating the project. He believes this will speed the deployment of services that support everyday living and aging in place, and he hopes to use the results in the Norwegian national network InnoMed, which runs a number of need-driven innovation projects in elderly care.

Trials of the M*POWER framework recently began in care settings in Norway and Poland. It is being used to integrate biosensors and patient questionnaires, as well as video-conferencing, phone and chat capabilities. The trials also include a patient medical plan with information from various care providers, which can be shared among them as needed. The M*POWER project is expected to be complete in early 2009.

M*POWER is only one example of the eldercare technology initiatives moving forward under the European Union. Another one of its projects, known as COGKNOW, is developing a cognitive aid to help people with early dementia navigate safely through their day.

The first generation COGKNOW DayNavigator uses a mobile device, a stationary touch screen and strategically placed home sensors (see p. 12). Users receive messages to remind them about daily activities previously scheduled by their caregivers, or alert them if a door is left unlocked. Picture dialing helps the person stay in contact with family and



Ech, Inc.

Tablet computers with wireless Internet connections help ECH's service coordinators upload and download client data and reports, order new services and schedule appointments on site.

friends, and the user can easily control television and radio. The system has already been tested by end users in the Netherlands, Northern Ireland and Sweden.

"We held different user workshops where people with dementia and their carers were interviewed in order to understand their needs," says Project Coordinator Ricardo Castellot Lou from Telefónica I+D, a subsidiary of Spain's largest telecommunications provider. "Afterward, there was a technologic study in order to determine what's feasible to develop, and then the prototype was tested with real users."

A second generation COGKNOW DayNavigator is in the works, and researchers are developing several new features. For example, if a person with dementia forgets how to get home, the mobile device will be able to guide the user with GPS. Incoming calls will include a photograph of the person calling, and there will be videoconferencing capability with an emergency contact. Finally, sensors in the home will detect how the person is performing certain activities and

provide related video prompts.

Automation in Australia

While many of these "smart home" and sensor technologies are still in development, other innovations are already being used by providers. Take ECH Inc., a major Australian provider of independent living, residential care, and services to older people in the community, based in Adelaide, South Australia. Over the past few years it has implemented information technology solutions to increase efficiency and improve services to its clients.

ECH's service coordinators now use wireless internet-connected tablet computers when visiting clients in its retirement housing or the greater community. This allows them to upload data directly into the client information system and download and review recent reports and notes. They can also arrange additional services or reschedule staff while sitting in a client's home.

"Our service coordinators can update and have access to the most current information with respect to clients and our own staff availability," explains Chief

Executive Rob Hankins. "This is especially helpful when one of them is on call and covering their colleagues' workload after hours."

Technology is also helping ECH manage its 1,670 retirement units spread across 96 locations. "We've provided our maintenance staff with robust hand-held PDAs that enable them to receive or book jobs while out on the road, and to order spare parts when necessary," Hankins says. "This technology allows our people to respond to service calls much more quickly."

To better serve employees, ECH automated its annual leave request and approval system. An employee can now check his or her available leave online and submit a leave request electronically, then the supervisor receives an e-mail request that includes information about the employee's entitlements. If the leave request is not approved within three working days, it automatically escalates to the next level of management.

ECH greatly enhanced its business efficiency with the implementation of an electronic invoice processing system.



The COGNOW DayNavigator uses a mobile device, in conjunction with home sensors and a stationary touch screen, to help people with mild dementia. The technology is targeted at seniors showing early signs of Alzheimer's disease because the slow progression of the disease will allow them to use the DayNavigator technology over a long term, and because evaluation and development of the technology is better done over a longer time as well.

Invoices are scanned, matched to purchase orders, and automatically dispatched to the appropriate level of management for payment approval. In addition, since 2005, ECH has used an electronic document filing and management system to save physical space and make it easier for staff to retrieve and share documents. Other initiatives include an active intranet for employees and Internet kiosks for residents.

Over the next few months, ECH will launch telephone-mounted video conferencing between a medical practitioner's consulting room and its Martin residential care centre. "The clarity of the screen images means that the medical practitioner will be able to undertake virtual face-to-face consultations with residents, and review dressings and wound healing," Hankins says. He hopes to eventually introduce video conferencing in all seven ECH residential care centers.

To learn more about cutting-edge providers and technology advances, visit the Center for Aging Services Technologies (CAST) at www.agingtech.org. Stay tuned for further coverage of international innovations in FutureAge. 

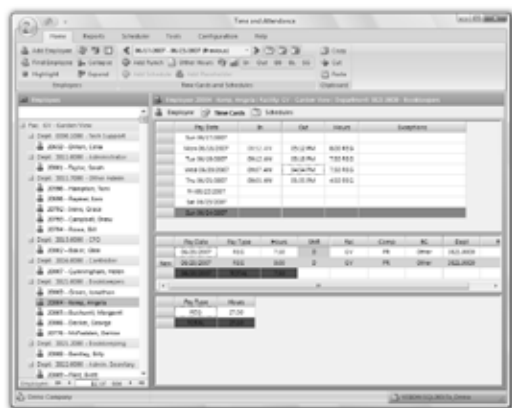
Michele Hayunga is a writer who lives in Eldersburg, Md.



Time and Attendance for Healthcare

Reduce payroll costs by controlling budgeted labor

Timekeeping, Scheduling and Accruals software designed for the unique requirements of the multi-shift, 7 day a week, healthcare industry



- Maintain Union, DOH and DOL compliancy
- Interface with your existing payroll system
- Automatic updates
- Leasing options available
- Extended support hours, including holidays
- Microsoft .Net technology
- SQL Server database
- HandPunch biometric time clock

SBV Software Group Inc.
2 Kile Court, Airmont, NY 10952
888-5-SBV SBV (888-572-8728)
www.sbvsoftware.com

Resources

Center for Aging Services Technologies (CAST)
www.agingtech.org

International Association of Homes and Services for the Ageing (IAHSA)
www.iahsa.net

Aragon Senior Housing
Telecare Service
www.aragon-housing.co.uk/Telecare/index.html

The COGNOW Project
www.cogknow.eu

ECH, Adelaide, South Australia
www.ech.asn.au

InnoMed
www.innomed.no

M*POWER
www.mpower-project.eu

Norwegian Centre for Telemedicine
www.telemed.no