



How Information Technology is Changing the Lives of Seniors

Once again, Alice Jones, 79, can't find her eyeglasses. In the early stages of dementia, losing her glasses is just one of many daily frustrations she faces – and that her daughter feels anxious about. “I am concerned she is going to forget to lock the door or leave the stove on,” says daughter Pat. “She wants to continue to live at home, but with her forgetfulness – what if something happens? How long would it be before we knew she needed help?” Almost instantly, say experts, once home monitoring systems currently under development become available to the public in the next few years.

Universities and private corporations around the country are racing to develop a wide variety of technological innovations to help aging adults live for as long as possible in their own homes – where the vast majority of older Americans prefer to live out their lives. Technologically savvy baby boomers are projected to double the size of the 65+ population by the year 2030, and high-tech companies are beginning to take notice of this enormous potential in the senior market. Companies such as Intel, General Electric and Honeywell expect their products to be on the market in the near future, with basic systems starting at about \$300.

Major universities are likewise blazing new trails. At the University of Virginia's Medical Automation Research Center (MARC) a model “smart house” monitors a resident's daily life through a system of small unobtrusive sensors placed throughout the house. Sensors on the refrigerator, faucets, and stoves, for example, indicate whether someone is preparing meals. Sensors elsewhere in the house can detect falls, sleep patterns, and other activities of daily living. A central computer within the home synthesizes the data collected and sends it via the Internet to a central monitoring center that can alert caregivers or designated others when potential problems are detected.

During the course of the day, caregivers and elders themselves can check their progress using a password protected Web site, which provides graphics and reports of their daily activities.

At the Center for Future Health, at the University of Rochester, New York, researchers are also busy developing systems to assist people to age in place. For example, the “Object Location Project” helps those with memory problems locate commonly misplaced household items such as car keys, eyeglasses, and the telephone. When an object is misplaced, one simply touches the corresponding icon on a monitor screen that pinpoints where the item was last seen. Other systems under development include a special mirror equipped with cameras and scanning technology to monitor changes in the skin, such as moles, and a “smart bandage” that can detect harmful bacteria.

Despite some concerns raised about privacy and the confidentiality of health information, experts believe that older adults will be willing to trade some privacy for increased safety and security.

To learn more about how technology is being developed to meet the needs of older adults, contact the Center for Aging Services Technologies online at <http://www.agingtech.org> or by phone at 202-508-9463.

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