High-tech gadgets monitor seniors' safety at home

WASHINGTON — It could mean no more having to check up on Mom or Dad every morning: Motion sensors on the wall and a monitor under the mattress one day might automatically alert you to early signs of trouble well before an elderly loved one gets sick or suffers a fall.

Research is growing with high-tech gadgets that promise new safety nets for seniors determined to live on their own for as long as possible.

"It's insurance in case something should happen," is how Bob Harrison, 85, describes the unobtrusive monitors being tested in his apartment at the TigerPlace retirement community in Columbia, Mo.

Living at home — specialists call it aging in place — is what most people want for their later years. Americans 40 and older are just as worried about losing their independence later in life as they are about losing their memory, according to a recent survey by the Associated Press-NORC Center for Public Affairs Research.

Common-sense interventions like grab bars in bathrooms and taping down rugs to prevent tripping can make homes safer as seniors deal with chronic illnesses. Technology is the next frontier, and a far cry from those emergency-call buttons seniors sometimes wear to summon help.

Already, some companies are offering monitoring packages that place motion sensors on the front door, a favorite chair, even the refrigerator, and then send an alert to a family member if there's too little activity over a certain period of time. Other gadgets can make pill bottles buzz when it's time for a dose and text a caregiver if it's not taken, or promise to switch off a stove burner that's left on too long.

Researchers at the University of Missouri aim to go further: Their experiments show that certain automatic monitoring can spot changes — such as restlessness in bed or a drop in daytime activity — that occur 10 days to two weeks before a fall or a trip to the doctor or hospital.

“We were blown away that we could actually detect this,” said nursing professor Marilyn Rantz, an aging-in-place specialist who is leading the research. She compares it to “a vital sign of my physical function.”
Why would the gadgets work? That monitor under the mattress can measure pulse and respiratory patterns to see if heart failure is worsening before someone realizes he or she is becoming short of breath. More nighttime bathroom trips can indicate a brewing urinary tract infection.

A change in gait, such as starting to take shorter or slower steps, can signal increased risk for a fall. Basic motion sensors can’t detect that. So Rantz’s team adapted the Microsoft Kinect 3-D camera, developed for video games, to measure subtle changes in walking. (Yes, it can distinguish visitors.)

The researchers installed the sensor package in apartments at the university-affiliated TigerPlace community and in a Cedar Falls, Iowa, senior complex. On-site nurses received automatic emails about significant changes in residents’ activity. One study found that after a year, residents who agreed to be monitored were functioning better than an unmonitored control group, presumably because nurses intervened sooner at signs of trouble, Rantz said.

The bigger question is whether simply alerting a loved one, not a nurse, might also help. Now, with a new grant from the National Institutes of Health, Rantz will begin expanding the research to see how this monitoring works in different senior housing — and this time, participants can decide if they’d like a family member or friend to get those alerts, in addition to a nurse.

Rantz says embedding sensors in the home is important because too many older adults forget or don’t want to wear those older emergency-call buttons — including Rantz’s own mother, who lay helpless on her floor for eight hours after tripping and badly breaking a shoulder. Rantz said her mother never fully recovered, and six months later died.

“When we started this team, I said we are not going to make anybody wear anything or push any buttons, because my mother refused and I don’t think she’s any different than a lot of other people in this world,” Rantz said.

Monitoring raises important privacy questions, about just what is tracked and who has access to it, cautioned Jeff Makowka of AARP.

To work, the high-tech approach has to be “less about, ‘We’re watching you, Grandma,’ but ‘Hey, Grandma, how come you didn’t make coffee this morning?’” he said.

Sensor prices are another hurdle, although Makowka said they’re dropping. Various kinds already on the market can run from about $70 to several hundred, plus monthly service plans.
Confidential MU chancellor search follows UM System's history, national trend

By Claire Boston
July 10, 2013 | 4:50 p.m. CDT

COLUMBIA — Chancellor Brady Deaton's departure gives the University of Missouri System the opportunity to conduct its first full-fledged chancellor search in more than a decade.

In recent history, the MU chancellorship changed hands after limited searching. The UM System Board of Curators ousted Charles Kiesler in 1996 and appointed Richard Wallace as interim chancellor. Wallace landed the chancellor position after a 30-day internal search. Upon Wallace's retirement announcement in 2004, then-UM System President Elson Floyd considered merging the president and chancellor positions.

Floyd ultimately decided not to go through with the merge and bypassed hiring an executive search committee to help select a new chancellor. Instead, he hired Deaton, who was serving as interim chancellor at the time. The search for Deaton's replacement will be different. Although the UM System will move aggressively to complete the search before Deaton steps down Nov. 15, it intends to follow a national searching trend by keeping candidate names confidential. The UM System has conducted confidential searches before. The curators and a search committee selected current UM System President Tim Wolfe, along with Gary Forsee and Elson Floyd before him, after limited public input.

A national movement

Confidential searches allow students, faculty and staff to voice their opinions at public forums, but most of the selection process — winnowing the pool of possible candidates, selecting a handful to be interviewed and ultimately picking one for the job — will take place behind closed doors, with the help of a chancellor search committee, Wolfe and an executive search firm.
A "closed search," by contrast, would not include public input, said Jan Greenwood, a search consultant with Greenwood/Asher and Associates. The Florida firm assisted the UM System in its 2011 presidential search and Missouri University of Science and Technology in its 2004 chancellor search. Confidential searches have been popular at public universities since 1992, Greenwood said.

Rex Campbell, a professor emeritus of rural sociology who has seen five chancellors and eight UM System presidents during his career at MU, said the process of selecting a new leader for a large research university such as MU can be a challenge. It often involves coaxing high-level administrators out of their positions at other schools. He said that given the sensitive nature of the hiring process, he understands why MU has opted for confidential searches.

"Normally, you're looking for a person who's not in the market," Campbell said, reflecting a broadly held view. "It may take a little persuasion for them to become a candidate. If you release a name, it could harm a person's career."

In addition to MU, several other Association of American Universities institutions, including Pennsylvania State University and University of Michigan, are searching for presidents. Penn State and Michigan each elected to conduct confidential searches.

Increasing turnover

Barry Toiv, vice president for public affairs at the Association of American Universities, said that although the AAU doesn't keep specific statistics on searches, more AAU members have been seeking leaders in recent years.

"We don't think it is coincidental," Toiv said. "Universities and their leaders are under a microscope." Toiv said shrinking resource pools and the tough economic climate have made governing public universities a greater challenge than ever before. But many AAU universities still attract a pool of strong executive candidates from inside and outside higher education, he said. The AAU takes no position on how its member universities should conduct searches. Toiv noted that private universities have long opted for closed searches but said public colleges and universities are often attracted to them because promises of confidentiality can entice more candidates to enter the search pool. Greenwood recalled one confidential search in which her clients interviewed 17 qualified applicants, all of whom were university presidents. In a similar open search, none of the applicants who reached the interview stage were presidents at comparable universities.
"Confidential searches typically draw the most seasoned candidates in terms of track record," Greenwood said, noting that the trend held true in not only higher education but also business and government sectors. "When you have a public search, you often lose that tier of candidates."

**Pros and cons**

Kenneth Bunting, executive director of the National Freedom of Information Coalition at the Missouri School of Journalism, said he finds confidential searches problematic. He said that although he understands releasing names of candidates could put their positions at other universities in jeopardy, he thinks many universities should choose to release the names of a handful of finalists for the public's consideration.

"Shutting down the whole thing says you don't trust the public and you don't value the public's input enough to make them part of the process," Bunting said. Missouri open records laws allow — but do not require — records and meetings involving the hiring and promoting of government officials to be closed. Bunting called the UM System's decision to keep the search confidential disappointing.

"Doing it in the open is not only better policy because it's better for the greater public good, but it also gives rise to confidence in the system," Bunting said. Greenwood said the stakes are high for university officials who wish to go public about their candidacy for positions at other institutions. She said jobs, major donations and, in the case of public universities, public funding can be on the line.

"People prefer to be employed rather than unemployed," Greenwood said. Although Greenwood said confidential searches can yield candidates from equally complex universities, it is also "critically important" that universities that select leaders confidentially have strong transition teams in place.

"It takes extra effort to make sure there is a smooth transition with a confidential search," Greenwood said. During two stints as chairman of MU's Department of Rural Sociology, Campbell hired professors, a process he called markedly different from searching for higher-level positions. The stakes were lower, so Campbell's professor searches were open. Most candidates were unemployed or seeking a new job.

"It's a sensitive thing, and oftentimes it requires some persuasion," Campbell said about searching for a chancellor.
Small fire starts at MU power plant

Wednesday, July 10, 2013 at 2:00 pm

Columbia fire crews responded to a small fire at the University of Missouri Power Plant on Wednesday morning.

At 7:06 a.m., crews were dispatched to the power plant, 417 S. Fifth St., for a reported fire in the ash collection silo, according to a news release from Columbia Fire Department. Firefighters arrived five minutes later and found a small fire had occurred in the silo but had burned out after airflow was shut down.

Assistant Fire Marshal Jim Pasley determined the fire was caused by a hot ember that had made its way into the ash collection, the news release said. The only damage from the fire, which was contained to the silo, was to ash collection bags, and no one was injured.
No injuries in small fire at MU Power Plant

By Isabel Casal-Nazario
July 10, 2013 | 11:50 a.m. CDT

COLUMBIA — A small fire occurred in the west ash collection silo of the MU Power Plant on Wednesday morning, according to a Columbia Fire Department news release.

Members of the Columbia Fire Department arrived five minutes after being dispatched at 7:06 a.m., and found the fire had burned out due to lack of airflow. The airflow within the silo had been shut down by Power Plant employees.

The fire resulted from a hot ember that came into contact with the ash collection silo and caused the paper filters inside the silo to catch on fire, according to the release. No injuries were reported.

Supervising editor is Hannah Wiese.
The Tribune's View

Student athletes

Or athlete-students?

By Henry J. Waters III

Wednesday, July 10, 2013 at 2:00 pm

An excellent report Sunday by Steve Walentik explained the ongoing tension between sports and academic prowess at NCAA colleges and universities. In this tug of war, the University of Missouri performs well above average but is under continual pressure.

The tension is well known. Schools, particularly those in elite conferences expected to vie for national titles, look for superior athletes and then pray they have found that unique individual who can also keep up with the crowd in the classroom. Because athletes of superior ability naturally look forward to careers in sports rather than behind a bank teller's window, their attention and time in college are used mostly in pursuit of athletics. Many think their future lies in the physical rather than mental areas of endeavor.

But NCAA institutions were founded and designed for academic pursuit, not overachieving on the field or court. Over time, the relative emphasis on sports has pushed schools to host Top Ten teams. If at the same time they can squeak through minimal NCAA academic requirements, they are happy and the athletic association can tout their academic accomplishment.

This unhappy skewing is not primarily the fault of the institutions. We sports fans drive the equation. We don't care whether our favorite wide receiver has a B or D average in class. We want him to jump higher and run faster than his defender. Only when game day is a memory do we occasionally indulge in judgmental analysis of NCAA academic policies and practices.

As Walentik pointed out, the higher up the athletic and economic scale, the more likely schools are to face challenges and, at the same time, to enjoy the resources to meet them. Historically black colleges and universities have the most trouble. Their athletes often are among the best but their students among the worst academically. Walentik listed a long roster of programs at these institutions currently under suspension by the NCAA.
For some time I have pondered this equation. At times when my attention is tweaked, as when a
good report like Walentik’s comes along, I wonder about the wisdom of trying too hard to
maintain the student-athlete myth.

By this I do not mean to denigrate the proposition that athletes in college also should become
good students. But today’s incentives universally push in the other direction. One wonders
whether athletes should be held to lower grade point standards so long as they diligently appear
in classrooms and do assignments.

Missouri does a good job confounding this trend, but can it be maintained in the future?
Ironically, our move to the Southeastern Conference indicates trouble.

When MU joined last year, it immediately ranked high academically, largely because average
academic achievement among athletes is lower in the SEC than in most other big-time
conferences. Coincidentally, the SEC ranks higher in athletic achievement. Surely, there is a
connection.

When a team is in the hunt for a national championship, don’t tell me there is no incentive —
spoken or not, even consciously felt or not — to make sure the Heisman Trophy contender is not
flunked out during his run for the gold.

Ironically, the more likely a team or school is to have one or more of these physical phenoms, the
more likely it is to be under the gun to work the academic system.

One indicator is the growing use of “general studies” as a major for athletes. Observers of the
academic scene correctly ask whether these vaguely named courses of study are designed to
provide demanding education or easy passage for those whose talents lie elsewhere.

I’m proud of the University of Missouri for the academic record its athletes and tutors amass in
the face of a system naturally built to make it impossible to produce student-athletes in the strict
sense of the phrase.

**HJW III**

Reach down and lift others up. It’s the best exercise you can get.

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redistributed.

Posted in The Tribunes View on Wednesday, July 10, 2013 2:00 pm.
JEFFERSON CITY — Missouri Gov. Jay Nixon has signed seven bills dealing with the military and veterans.

Nixon was promoting four of the measures Wednesday during events in Springfield and Cape Girardeau.

One of the bills could help veterans qualify for lower in-state tuition rates at Missouri’s public colleges and universities immediately after they leave the military.

Veterans with an honorable or general discharge will be required to "demonstrate presence and declare residency" to receive in-state tuition. Students currently must live in Missouri for 12 consecutive months, obtain a Missouri driver's license and earn at least $2,000 during a 12-month period.

Other newly signed measures are designed to help the state treasurer identify the owners of military medals that are unclaimed property and deal with voting by those overseas and in the military.
WASHINGTON — The defeat of a student loan bill in the Senate on Wednesday clears the way for fresh negotiations to restore lower rates, but lawmakers are racing the clock before millions of students return to campus next month to find borrowing terms twice as high as when school let out.

Republicans and a few Democrats blocked a White House-backed proposal that would have restored 3.4 percent interest rates on subsidized Stafford loans for one more year. The failed stopgap measure was designed to give lawmakers time to take up comprehensive college affordability legislation and dodge 6.8 percent interest rates on new loans.

Without congressional action in the coming weeks, the increase could mean an extra $2,600 for an average student returning to campus this fall, according to Congress' Joint Economic Committee.

"Let's just extend this for one year. I don't think that's too much to ask," said Democratic Sen. Tom Harkin of Iowa, chairman of the Senate Health, Education, Labor and Pensions Committee.

It proved too much for a bipartisan group of lawmakers, led by Sen. Joe Manchin, D-W.Va. They favored a compromise now and joined with Republicans in using a procedural roadblock to stop the one-year patch.

"This plan merely kicks the can down the road for 12 more months," said Sen. Richard Burr, R-N.C., who worked with Manchin and Sen. Angus King, I-Maine, on a deal that linked interest rates to financial markets. "We're going to vote on a 3.4 percent extension, kicking the can down the road and not finding a solution,"
The Senate vote was 51-49, nine votes short of the 60 votes needed to move forward.

The Republican-favored plan that Manchin helped to write was not considered for a vote in the Democratic-controlled Senate.

Without serious negotiations between the parties and without an agreement within a fractured Democratic caucus, students would face higher costs when they begin repaying their loans after graduation. Lawmakers pledged to return to negotiations to avert that, and aides were gauging what was possible given the narrow window before Congress breaks again for the August recess.

"Today our nation's students once again wait in vain for relief," said Sen. Tom Udall, D-N.M. "They expected more of us and I share their disappointment."

"Today, we failed. And our nation's students pay the cost of that failure," he added after the vote.

The failure to win a one-year approval, combined with little interest in such a deal in the Republican-led House, meant that unless Congress tries again, students could be borrowing money for fall courses at a rate leaders in both parties called unacceptably high.

Officials said Wednesday's vote would not be the final word on student loans and that it would nudge members from both parties back to the negotiating table. Even those who favored an extension said they were not inflexible.

Harkin, for instance, said he was not wedded to 3.4 percent interest rates forever and was open to a different approach, as long as profits from student lending weren't used as a way to pay down the nation's deficit.

A Harkin ally said compromise is possible if Republicans are willing to yield as well.

"I will continue to work hard to reverse this senseless rate hike," said Sen. Jack Reed, D-R.I., who helped push extension measures. "Ultimately, we'll need a bipartisan solution, but first Congress will have to do its homework. Republicans will have to come to the table and agree to address the bigger picture of college affordability in a meaningful and comprehensive way."

The administration said the vote would not inevitably consign students to higher rates.

"I wish we would have got this done before July 1 but I remain very optimistic that we're going to get to a better place for students," Education Secretary Arne Duncan said.
"We're going to get it done sooner than later," he told reporters at a department event about summer reading.

Interest rates on student loans doubled to 6.8 percent July 1 because Congress didn't act. After Wednesday's vote, the political sparring continued.

"Today's vote is just another example of how out of touch Republicans in Congress are with the struggles of everyday American families," said Sen. Patty Murray, D-Wash.


"Right now, millions of students trying to prepare for college and apply for financial aid are facing higher interest rates — all because a cadre of Senate Democrats is completely unwilling to compromise," said Kline, R-Minn.

The rate increase does not affect many students right away. Loan documents generally are signed just before students return to campus, and few students returned to school over the July Fourth holiday. Existing loans were not affected, either. During last year's presidential campaign, lawmakers from both parties voted to keep interest rates on subsidized Stafford loans at 3.4 percent. Yet this year, without a presidential election looming, the issue seemed to fizzle and the July 1 deadline passed without action.

"It's like 'Groundhog Day,' trying to fix this problem again," said Sen. Kelly Ayotte, R-N.H.

The White House and most Democratic senators favored keeping the rates at 3.4 percent for now and including an overhaul of federal student loans in the Higher Education Act rewrite lawmakers expect to take up this fall. The House has passed legislation that links interest rates to financial markets. House Republicans were opposed to a one-year extension, meaning the Senate vote might not have fared well with them.

"Republicans acted to protect students from higher interest rates and make college more affordable, yet Senate Democratic leaders let student loan interest rates double without passing any legislation to address the issue," House Speaker John Boehner, R-Ohio, said after the vote. The leader of one young adult advocacy group was more direct in his criticism.

"The White House and Congress seem to be competing with each other over who can screw over students worse," said Evan Feinberg, president of the nonpartisan Generation Opportunity. "And Senate Democrats are clearly winning."
Why is Venus the hottest planet when Mercury is closer to the Sun?

By JENNIFER HENDERSON and DEANNA LANKFORD of MU's Office of Science Outreach

Wednesday, July 10, 2013 at 2:00 pm

Question submitted by Jenifer Smith's fifth-grade class at Russell Elementary.

Angela Speck, an astronomy and physics professor at the University of Missouri, explains: "Unlike Venus, Mercury does not have an atmosphere, and it's the atmosphere that makes Venus so hot." An atmosphere "makes Venus like a greenhouse."

The high temperatures on Venus turn liquids into gases, creating a thick atmosphere that holds in the heat. Speck notes, "Because Mercury is very small, it does not have a strong gravitational pull, and because molecules of gases are constantly moving, the molecules can achieve escape velocity and move away from Mercury."

On Venus, a runaway greenhouse effect occurred when surface water evaporated and entered the atmosphere. Speck describes an example of the greenhouse effect: "In the summer, the light passes through your car windows and heats the seats. The seats then heat the interior of the car with infrared energy. However, infrared energy cannot pass through car windows, and the inside of the car heats up." This also happens on Earth. Our atmosphere contains carbon dioxide, water, and methane, all of which hold in heat from the sun. This greenhouse effect explains why Venus is the hottest planet even though it is not as close to the sun as Mercury.

There are important differences between Venus and our planet. All of the carbon dioxide on Venus is located in the atmosphere; on Earth, plants are able to absorb and store carbon dioxide. However, Speck notes, "We should take what has happened on Venus as a warning and take greater care to reduce global warming on Earth."

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