A new report from the President’s Council of Advisors on Science and Technology (PCAST) looks at technologies and policies that can add to our ability to live independent and connected lives as we get older. Georgia Tech faculty and research informed the report titled “Independence, Technology, and Connection in Older Age.”

According to the U.S. Census Bureau, in 2014, a record-high 15 percent of the total U.S. population was over the age of 65 – more than 46 million Americans. PCAST focused on three primary challenges common with aging: social connectivity and emotional health, cognitive ability, and physical ability. The council made recommendations intended to advance the use of technologies available now or in the short term that have great potential for improving people’s lives, including technology that compensates for mobility loss. The report mentioned home assistance robotics research from Charlie Kemp, associate professor in the Georgia Tech Wallace H. Coulter Department of Biomedical Engineering. From the report:

“A system currently under design includes a home-assistance robot designed to be safe and gentle enough to brush crumbs from its owner’s face following lunch, coupled with a robotic bed that can move its owner’s body to avoid pressure sores and to better position him to work with the assistance robot, coupled with hi-tech and low-tech prosthetic devices that help its owner use augmented communication tools. These assistive technologies, wheelchair, bed, prosthetic arm and more, are no longer stand-alone technologies but can work in concert together, across a variety of tasks.”

Another recommendation from PCAST is improving product design for older adults. The council wrote, “The Federal Government should encourage product packaging that is useful to senior adults regardless of functional challenges, such as decreased vision, fine motor control,
strength, and dexterity. The Consumer Product Safety Commission (CPSC) should work with AARP, the Arthritis Foundation and other relevant groups including Institute of Packaging Professionals and Association for Packaging and Processing Technologies to solicit design guidelines for senior-friendly product packaging.”

PCAST cited “Food Packaging Design Accessibility Guidelines,” a report developed by Georgia Tech and Arthritis Australia, which outlines the difficulty packaging designers face when developing solutions for older adults. HomeLab Director Brad Fain's ongoing work in this area helped inform the PCAST discussions.

Research from Georgia Tech Psychology Professor Wendy Rogers, Aware Home Director Brian Jones, and CATEA Director Jon Sanford also influenced the report. Writings by Sanford on the importance of "universal design" for age-friendly homes is quoted in the report. Research by Rogers as part of the NIH CREATE center and experimentation in the Aware Home informed ideas extending the home as a point of social connectivity and the importance of sustained social engagement for older adults.

IPaT Executive Director Beth Mynatt was a member of the PCAST working group that wrote report. "Being on the PCAST working group for aging and technology was a tremendous opportunity to connect Georgia Tech expertise with these national efforts," she said. "The knowledge and extended network of our faculty enabled me to inform many of the PCAST deliberations. We have decades of experience here at Georgia Tech and it showed."

Other recommendations from the report include: education and training in online technologies, financial services to protect older adults from fraud and exploitation, and improving regulation to reflect innovation in telehealth. One area that has already stirred the pot around technology and regulation is increasing access to hearing aids and related technologies. Read the full PCAST report here.

PCAST is an advisory group of the nation’s leading scientists and engineers, appointed by the President to augment the science and technology advice available to him from inside the White House and from cabinet departments and other Federal agencies. For more information about PCAST, please visit their website.

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