Robots in the Home: Will Older Adults Roll Out the Welcome Mat?

Robots have the potential to help older adults with daily activities that can become more challenging with age. But are people willing to use and accept the new technology? A study by the Georgia Institute of Technology indicates the answer is yes, unless the tasks involve personal care or social activities.

After showing adults (ages 65 to 93 years) a video of a robot's capabilities, researchers interviewed them about their willingness for assistance with 48 common household tasks. Participants generally preferred robotic help over human help for chores such as cleaning the kitchen, doing laundry and taking out the trash. But when it came to help getting dressed, eating and bathing, the adults tended to say they would prefer human assistance over robot assistance. They also preferred human help for social activities, such as calling family and friends or entertaining guests.

Georgia Tech's Cory-Ann Smarr will present the results this week at the Human Factors Ergonomics Society Annual Meeting [1] in Boston.

"There are many misconceptions about older adults having negative attitudes toward robots," said Smarr, a School of Psychology graduate teaching assistant. "The people we interviewed were very enthusiastic and optimistic about robots in their daily lives. They were also very particular in their preferences, something that can assist researchers as they determine what to design and introduce in the home."

Smarr and Psychology Professor Wendy Rogers, the principal investigator on the project, also noticed that preferences varied across tasks, such as medication. For instance, adults said they are willing to use a robot for reminders to take medicine, but they are more comfortable if a person helps them decide which medication to take.

"It seems that older people are less likely to trust a robot with decision-making tasks than with monitoring or physical assistance," said Rogers. "Researchers should be careful not to generalize preferences when designing assistive robots."

The older adults in the study were all healthy and independent, and nearly 75 percent said they used everyday technologies such as cell phones and appliances. Many said they don't need immediate assistance. The research team is planning future studies for adults who currently need help with everyday tasks.

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Georgia Institute of Technology [2]

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