Now you're talking: human-like robot may one day care for dementia patients

With her brown hair, soft skin and expressive face, Nao is a new brand of human-like robot that could one day, scientists hope, be used as a personal assistant or care provider for the elderly.

The 1.7-metre tall Nao was created in the likeness of its maker, Rethink Robotics, a walking professor and director of Singapore's Nanyang Technological University's Institute of Media Innovation who has spent three decades researching into virtual humans.

Nao's software allows the robot to express a range of emotions and recall a previous conversation. Nao is not commercially available, but Thamhan said robots could one day be used as companions for people living with dementia.

"If you leave these people alone they will be going down very quickly. So those people need to always be in interaction," Thamhan said, adding Nao might provide conversation, tell a story or play a simple game.

Thamhan and his team are also working on emotion robots that can play with children.

The project is still in the early development stage and no prototype is available yet.

The robot would be able to respond to questions, display emotions and recognize people. Aside from being a social companion, the robot could supplement unattended children and inform a parent or nurse if something went wrong, Thamhan said.

There are plans to program the robot to speak different languages so that it can serve as an educational tool for children, he said.

"It might have been born but they are actually young. This robot will be an active boy which interacts with the user," said Thamhan. "It will be able to remember what the child likes."

(Editing by Nick Macfie)