

Robots learn from each other on 'Wiki for robots'

January 13 2014



Now it's not just people – robots are also connected by internet thanks to RoboEarth. Next week, after four years of research, scientists at Eindhoven University of Technology (TU/e), Philips and four other European universities will present this online platform through which robots can learn new skills from each other worldwide – a kind of 'Wikipedia for robots'. This brings the development of robots that can carry out caring or household tasks a big step closer.

The greying population means there is an urgent future need for robots to take over caring or [household tasks](#). To enable robots to successfully lend a mechanical helping hand, they need to be able to deal flexibly with new situations and conditions. For example you can teach a robot to bring you a cup of coffee in the living room, but if some of the chairs have been moved the robot won't be able to find you any longer. Or it may get confused if you've just bought a different set of coffee cups.

Worldwide sharing

"The problem right now is that robots are often developed specifically for one task", says René van de Molengraft, TU/e researcher and RoboEarth project leader. "Everyday changes that happen all the time in our environment make all the programmed actions unusable. But RoboEarth simply lets robots learn new tasks and situations from each other. All their knowledge and experience are shared worldwide on a central, online database. As well as that, computing and 'thinking' tasks can be carried out by the system's 'cloud engine', so the robot doesn't need to have as much computing or battery power on-board."

Opening a box

It means, for example, that a robot can image a hospital room and upload the resulting map to RoboEarth. Another [robot](#), which doesn't know the room, can use that map on RoboEarth to locate a glass of water immediately, without having to search for it endlessly. In the same way a task like opening a box of pills can be shared on RoboEarth, so other robots can also do it without having to be programmed for that specific type of box.

Provided by Eindhoven University of Technology

Citation: Robots learn from each other on 'Wiki for robots' (2014, January 13) retrieved 20 March 2024 from <https://phys.org/news/2014-01-robots-wiki.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.