

# Robots to help children to form relationships

**A project which is using robots to help children with developmental or cognitive impairments to interact more effectively has just started at the University of Hertfordshire.**

Professor Kerstin Dautenhahn, Dr. Ben Robins and Dr. Ester Ferrari at the University's School of Computer Science are partners in the European Sixth Framework funded, €3.22 million Interactive Robotic Social Mediators as Companions (IROMEC) project which is investigating the use of robotic toys to enable children with disabilities to develop social skills.

Dr. Robins, the team member responsible for the work with robots and special needs children, has carried out extensive research into the types of robots which could help children with autism and other learning difficulties to interact most effectively.

He is now taking KASPAR (Kinesics and Synchronisation in Personal Assistant Robotics), a robot developed at the University of Hertfordshire which resembles a little boy into schools in the Hertfordshire region to carry out a series of trials to assess progress.

“During our earlier work on the AuRoRA (Autonomous mobile Robot as a Remedial tool for Autistic children), we used very plain robots which were received well, and a more elaborate doll with few movement abilities that could encourage imitation and turn-taking behaviour during playful interactions. This previous research led to us using KASPAR, a child-sized humanoid robot, with minimum facial expressions, which can move its arms and legs and allows the child to interact with it,” said Dr. Robins.

Over the next three years, IROMEC will investigate how robotic toys can become social mediators encouraging children with disabilities to discover a range of play skills, from solitary to social and cooperative play and provide opportunities for other children and carers/teachers or parents to “join” in.

“The idea is that the robot will be a mediator for human contact,” said Dr. Robins. “We are seeing already that through interacting with the robot, children who would not normally mix are becoming interested in getting involved with other children and humans in general and we believe that this work could pave the way for having robots in the classroom and in homes to facilitate this interaction.”

Source: University of Hertfordshire

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