

Professor Kerstin Dautenhahn

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Just Child's Play? – Applications of Robot Assisted Play in Autism Therapy**Biography**

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Keynote Speaker

Friday, June 15, 2007

Jan de Raad (JdR) room 1-3

My talk will address research in child-robot interactions in the particular context of autism therapy. As part of the Aurora project (<http://www.aurora-project.com/>), we have been using since 1997 different robot designs, ranging from mobile platforms to humanoids, in order to encourage children with autism to play. I will argue that play is an important part of every child's life, and has at least three key aspects:

- a) enjoyment, which in itself can contribute to the quality of life of children with special needs,
- b) learning, where children learn in a constructive manner through play, ranging from object manipulation to pretend and imaginative play, and, last but not least
- c) social interaction and communication whereby robots can take the role of mediators helping a child to make contact to other children or adults.

The role of the robot as a social mediator between the child and other people has been one particular focus of recent work in the Aurora project and also plays a key element in the European project IROMECE. My talk will discuss different types of children's play and how this may be addressed in scenarios involving children and robots. I will survey our research in the Aurora project with children with autism and emphasize how the robot may encourage social interaction skills, imitation and joint attention in children with autism. The talk will highlight achievements, challenges and limitations of the work that need to be addressed in future work.

Prof. Dr. Kerstin Dautenhahn is Research Professor in the School of Computer Science at University of Hertfordshire in U.K. where she coordinates the Adaptive Systems Research Group. She received her Ph.D. degree from the Biological Cybernetics Department of the University of Bielefeld, Bielefeld, Germany, in 1993. She has published more than 100 research articles on social robotics, robot learning, human-robot interaction and assistive technology. Prof. Dautenhahn has edited several books and frequently organizes international conferences. For example, she hosted the AISB'05 convention with the general theme of "Social Intelligence and Interaction in Animals, Robots and Agents", and was general Chair of IEEE RO-MAN 2006 with the general theme of "Getting to Know Socially Intelligent Robots". She will be a general chair of the ACM/IEEE conference HRI'08. She is involved in several European projects on developmental robotics, robot companions, educational virtual environments, and assistive technology. Prof. Dautenhahn is Editor in Chief of the journal *Interaction Studies: Social Behaviour and Communication in Biological and Artificial Systems*.