Developing long-term relations with robots

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Scientists at Queen Mary, University of London are leading an international project which is set to advance the relationship between robots and humans, as part of new European project called LIREC - Living with Robots and Interactive Companions.

LIREC aims to create a new generation of interactive, emotionally intelligent, companion technology, that is capable of long-term engagement with humans – in both a virtual (graphical) world, and in the real-world (as robots). The project will also be the first in the world to examine how we react to a familiar companion entity when it swaps from a robot body into a virtual form, for example on a computer screen.

The Queen Mary team are leading a consortium of nine other internationally leading European partners, who intend to develop and study a variety of robots and other autonomous interactive companions during the four-year project.

Professor Peter McOwan, from Queen Mary's Department of Computer Science, explained: "We're interested in how people can develop a long-term relationship with artificial creatures, in everyday settings. You may not be able to find a robot that can help you do the dishes anytime soon, but we're hoping to explore how such friendly future technology could be developed, and start to predict what the intelligent machines of tomorrow might look like, and how we should treat them."

LIREC will first look at existing technology to study people's

perceptions of robots. This includes entertainment robots like Pleo, which is an interactive toy dinosaur available commercially; and GlowBots - small wheeled robots that communicate with each other and users through colourful patterns of light.

Other robots will include 'iCat: the Affective Chess Player' – a robotic game buddy whose behaviour and expressions are influenced by the state of play; as well as the child-sized minimally expressive humanoid 'KASPAR', and 'peoplebots', which are enhanced by humanoid features.

LIREC will also look for inspiration in creating synthetic companions from studies of the way that humans and pet dogs bond and interact.

The £6.5m grant involves partners from seven countries and will run for four and a half years. The project kicks off on 17/18 April when the research partners convene for the first time.

Source: Queen Mary, University of London