Roamer Too: a new educational robot as an emotional pedagogical companion

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Short presentation

In times of constant integration of technologies in every day life, teachers have to be aware of new trends to motivate students, keep them interested and achieve significant learning. This implies to choose between different technologies the ones that better fits a particular domain of knowledge or age group.

One of those approaches is robotics. They have been increasingly introduced into the classroom as a new learning strategy. They provide an interesting and engaging way to address traditional subjects in an innovative manner. There have been a number of robots used as a learning tool and the results are quite impressive, students get better at problem solving insight, they are more motivated to work in groups and they start to better understand abstract concepts.

This poster presents the research under progress on LIREC project with a new educational robot, Roamer Too, and the migration of a pedagogical virtual companion into Roamer Too. LIREC (LIving with Robots and intEractive Companions - supported by the EU FP7-ICT-2007 project - LIREC: 105554) is focused on how humans can establish long-term relationships with robots and virtual companions and the implications this may have on its design, construction and usability. Within the project, a virtual companion was conceived, Little Mozart, whose goal is to establish a meaningful interaction with children on how to compose and improve their knowledge of melodic composition and basics of musical language.

One of the goals is to investigate if Roamer Too can become an extension of our virtual companion and establish a long-term relationship with children, and even how we could improve Roamer Too introducing behaviors with affective feedback. Migrating Little Mozart to Roamer Too sets a few challenges; the most obvious are the embodiment itself and the emotional behavior.

Joining the great learning experience that Roamer Too already provides with the possibility to engage the child in a more meaningful relationship, we expect to end up with a more complete educational robot.

Keywords

Roamer too; learning; interaction; emotion; companion; migration