Séminaire Alan Armstrong

Jeudi 07 Juillet 2016 à 14h00

Campus Jussieu, 4 place Jussieu, Paris

Salle de réunion H20, ISIR

The Active Hands Platform: An automated guidance system for supporting individuals with cognitive impairments during ADL performance

Abstract:

Many individuals with cognitive disorders have difficulty performing daily tasks at home. The Active Hands platform provides an innovative technology that supports a person at home enabling them to successfully complete these daily tasks. Using data from a Microsoft Kinect camera and sensors placed on objects the platform silently monitors the user's actions while they complete a daily task at home, such as preparing a cup of tea. When a mistake by the user is detected support is provided through video and audio messages designed to help the user correct the mistake and stay on track during the task. This support fosters independence at home, allowing users to successfully complete daily tasks that they previously had difficulty with. The flexibility of the platform is unique, adapting to each user's ability and only providing support when needed. This provides the user with a safe home-based environment to learn, develop and complete daily tasks.

Short bio:

Dr. Armstrong completed his bachelors in Sport Science and Health at Dublin City University (DCU) in 2010. Following this he completed a PhD in experimental psychology at DCU in September 2014. His PhD work focused on perception and action by exploring how humans coordinate specific movements with stimuli from the environment, namely visual and auditory stimuli. Dr. Armstrong began working at the department of Human Movement Science at the Technical University of Munich in December 2014. During 2015 he worked on the CogWatch project which focused on providing a technology based solution for cognitive rehabilitation with stroke patients

designed to support these patients during activites of daily living. Since January 2016 Dr. Armstrong has been working on the Active Hands project at TUM, which is a continuation of CogWatch with the aim of further developing the CogWatch prototype in order to produce a product that will be sold in the market.