



Séminaire ISIR
Mardi 4 décembre 2018 à
10H00

Arzu Güneysu

Campus Jussieu, 4 place Jussieu, Paris
Salle H20

Gamified Therapy with Tangible Robots

Abstract : Rehabilitation aims to ameliorate deficits in motor control via intensive practice with the affected limb. However, traditional rehabilitation tasks may frustrate the patient due to their repetitive nature and may result in lack of motivation and poor rehabilitation. We aim to gamify this process with a tangible robotic platform named Cellulo. In order to determine the design rationales according to the needs of patients and therapists, we started to follow an iterative participatory design process, including test and design sessions with the stroke, brachial plexus, and cerebral palsy patients, as well as children with developmental coordination disorder and therapists in different therapy centers. Our current activities focus on gamifying rehabilitation for motor learning, attention and visio-motor coordination.

Short bio : Arzu Güneysu Ozgur is a PhD candidate in the Computer Human Interaction in Learning and Instruction Group (CHILI) at EPFL, Switzerland. She holds an M.Sc. degree in Computer Engineering from Bogazici University where she studied on socially assistive robots for exercise coaching and brain computer interfaces. She is currently working on tangible robots mediated gamified rehabilitation for stroke patients and children with developmental coordination disorder. Her current research focuses include the effect of gamification on motor performance of healthy elderly and stroke patients and the effect of using haptic-enabled robot activities on learning letter writing dynamics.