

Workshop I (WS1)

Date: Tuesday, 04 October 2016 09:00 - 12:30

Location: Transform, L13 Connexis North Tower, Fusionopolis

Title: Enrobotment or Toy Robots in the Developing Brain

Organizers: Dr. I Giannopulu, Prof. T Watanabe

Abstract:

Based on the internalised “object” and using cognitive, clinical, neuro functional and engineering arguments, this workshop analyses the concept of “enrobotment”. Playing with objects/toys (including the imperceptible part, i.e., the shadow) implies that the objects/toys are part of the external environment, i.e., the “other”. The enrobotment signifies that object’s internalisation not only reflects the impact of the environment on child’s development but it also reverberates the echo of child’s representations. An intermediate object (including its shadow) is conceived in mind by the child him/herself. Having a high emotional value and forming an implicit/explicit autobiographical continuum in memory, it ensures the cohesion between the “self” and “other”, it authorises subjectification. The correlated representations allow the invention of ideas and concepts; motor and verbal actions including their intention prosper. Intention attribution to objects/toys constitutes a precursor of self-consciousness, as this intention, a specific anticipation, helps children to understand what it signifies to have a perspective. Recognizing what it implies to be a “self” is a parcel of envisioning mental states of “other”. At the antipode, autism can be considered as an antithesis of selfconsciousness. Children with autism cannot mirror the triadic relationship of “object-self-other”.

Speakers:

WS1-1: User Generated Agent: Designable Book Recommendation Robot by Children

Dr. Hirota Osawa, Tsukuba University

WS1-2: Cognitive Development of Mind-Reading and Behavior-Reading

Dr. Kazunori Terada, Gifu University

WS1-3: Stepwise Experience Design of Tactile Interaction in Children’s Enrobotment

Dr. Tomoko Yonezawa, Kansai University

WS1-4: Dynamics of Prediction Error Minimization For The Emergence of Turn-taking

Dr. Konstantinos Theofilis, Osaka University

WS1-5: Emotional Empathy in Children aged 6 Years old via a Toy Robot: a Comparative Study

Dr. Irimi Giannopulu, UPMC University

Program Committee members:

Dr. Valérie Montreynaud, CMP, France

Prof. Tomio Watanabe, Okayama University, Japan

Prof. Kevin Grimes, Karolinska Institute, Sweden

Dr. Irimi Giannopulu, UPMC, France

Prof. Hannes Bleuler, Ecole Polytechnique

Fédérale de Lausanne, Switzerland