

ARTIFICIAL DEVELOPMENT APPROACH TO PRESENCE TECHNOLOGIES



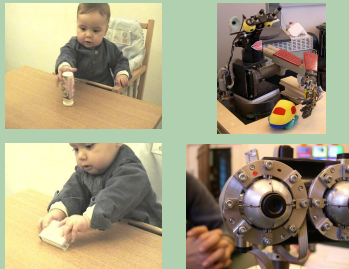
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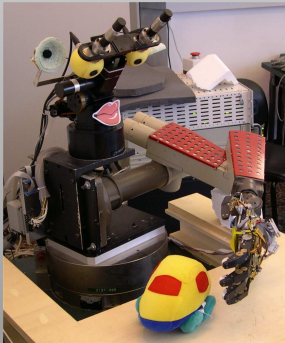
The sense of presence arises from the perception of the relationship between our body and the environment and originates from our senses as well as from our past experiences. ADAPT studies how the perception of the self in the environment emerges during the early stages of human development. In particular, ADAPT investigates the process of building a coherent representation of visual, auditory, and haptic sensations



A twofold strategy is pursued:

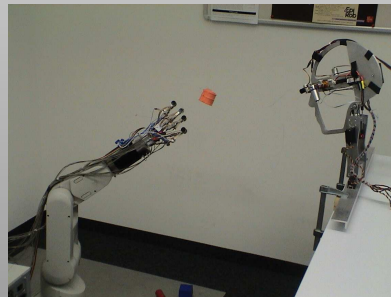
- 1 We aim at implementing an artificial instance of the developmental process that leads to the coherent multisensory representations
- 2 We investigate when and how the developing brain starts to produce the unique experience-based repertoire of intentional percepts and actions

Modeling of affordances Robot grasping



University of Genoa

Influence of morphology in developing representation



University of Zurich

Studying the development of manual control in infants



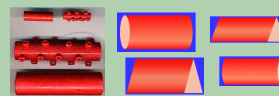
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A theory of intentionality founded in developmental psychology: to properly address the question on what representations are made of

Studying the development of early manual abilities in newborns and the appearance of the understanding of affordances

Modeling the development of affordances in robotic systems and the influence of motoric information into the construction of representations

1



2



3

