

Detailed Work Plan

My visit at KTH aims at developing a system in which audio-visual feedback is provided to users who are free to move in the space. The feedback depends on the body movements they perform.

In particular, the goal of the short exchange consists of integrating two different software platforms: EyesWeb (the one I'm working with in my research activities) for multimodal analysis of multiple streams of data, and pDM, a software developed at KTH, and that allows to render music performance with different emotional characterizations by manipulating acoustic parameters such as sound level, tempo, and articulation.

The main idea is to find a mapping between human full-body movement cues extracted with EyesWeb and acoustic cues used in pDM for expressive performance rendering. Further, visual feedback will be designed to respond to a specific expressive motor behaviour of the user, by using appropriately colours changing depending on the detected emotions. Visual feedback using colours will be based on the results of previous studies by Roberto Bresin.

The short exchange finally aims to develop a demonstration to be shown during a scientific exhibition that will be held in the framework of the science festival "Festival della Scienza" at Casa Paganini, Genova, Italy, in October 2006. In this occasion evaluation and testing experiments will be conducted with groups of subjects visiting the exhibition.