Data on emotional learning and human-machine interaction.

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ABSTRACT

This talk reports on two investigations on children's recognition of emotional facial expressions and assessment of Voice User Interfaces, respectively.
The first investigation is an experimental study conducted on 4 groups of children (two groups of 3 years and two groups of 5 year old). The experiment aimed to test children's ability to decode emotional expressions as a function of the age, the complexity of the stimuli and emotional category. The results suggest a learning of prototypical emotional facial expressions according to the age and the complexity of the stimulus. As expected, children from the group of 5 years are more accurate than those from the group of 3 years old. In addition not all the emotion categories are recognized with the same accuracy suggesting that some are more complex to be learned that other. Happiness is the most accurately recognized, while surprise is the least.
The second investigation reports on trials evaluating Voice Controlled Assistive Care and Communication Services for the Home (the vAssist project) system prototype with Italian users. vAssist is an European Project aiming to provide specific voice controlled home care and communication services for elderly. An important vAssist objective is to build a multilingual Voice User Interface (VUI) in three different languages: Italian, French and German. Lab trials were foreseen in these three different countries to assess the vAssist VUI prototype on realistic user expectations and requirements. The assessment was made letting 43 Italian elderly interact with the VUI prototype in 4-5 defined scenarios, exploiting a Wizard-of-Oz (WoZ) paradigm and administering to them three questionnaires aimed to measure their perception of the system's usability, learnability and intuitiveness. Qualitative and quantitative scores suggest that VUIs are very powerful communication interfaces and are greatly appreciated because of the simplification they provide in the elder everyday use of technological products, such as mobile phones, tablets, and computers.