Abstract

In recent years, the analysis of human affective behavior has been a point of attraction for many researchers. Such automatic analysis is useful in various fields such as psychology, computer science, linguistics, neuroscience etc. Such affective computing is responsible for developing standard systems and devices, useful for recognition and interpretation of various human faces and gestures. The emotions are categories as anger, disgust, fear, happiness, sadness and surprise. Such emotion recognition system involves three main steps: face detection, feature extraction and facial expression classification. Hence, there is a need for standard approaches that solve the problem of machines understanding the human affect behavior. This survey paper presents some recent approaches that recognize the human affective behavior, with their advantages and limitations. This paper also presents some basic classifiers such as SVM, ANN, KNN and HMM, used for emotion classification and audiovisual databases with their emotion categories. Based on the survey, an affect recognition system has been proposed that adopts a cognitive semi-supervised approach.
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Index Terms

Computer Science Information Sciences
Keywords

Affective computing, facial emotions, classification, image processing, machine learning.