Affective state classification using Bayesian classifier  

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Abstract

This paper elaborates the basic structure of a machine learning system in classifying affective state. There are several techniques in classifying the states depending on the type of input-output dataset. A proper selection of techniques is crucial in determining the success rate of the system prediction. The paper proposes a machine learning technique in classifying affective states of human subjects by using Bayesian Network (BN). A structured experimental setup is designed to induce the affective states of the subjects by using a set of audiovisual stimulants. The affective states under study are happy, sad, and nervous. Preliminary results demonstrate the ability of the BN to predict human affective state with 86% accuracy. © 2014 IEEE.

Author keywords

Affective state  Bayesian network  Emotion detection  Machine learning system

Indexed keywords

Artificial intelligence  Bayesian networks  Classification (of information)  Intelligent systems  Affective state  Basic structure  Bayesian classifier  Emotion detection  Human subjects  Input-output  Machine learning techniques  System prediction  Learning systems


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