Emotion Recognition based on Heart Rate and Skin Conductance

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Résumé en anglais:
Information on a customer’s emotional states concerning a product or an advertisement is a very important aspect of marketing research. Most studies aimed at identifying emotions through speech or facial expressions. However, these two vary greatly with people's talking habits, which cause the data lacking continuous availability. Furthermore, bio-signal data is also required in order to fully assess a user’s emotional state in some cases. We focused on recognising the six basic primary emotions proposed by Ekman using biofeedback sensors, which measure heart rate and skin conductance. Participants were shown a series of 12 video-based stimuli that have been validated by a subjective rating protocol. Experiment results showed that the collected signals allow us to identify user's emotional state with a good ratio. In addition, a partial correlation between objective and subjective data has been observed.

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