Challenges in Understanding Students' Affect in the Classroom by Using a Facial Wearable Device

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Facial expressions are useful for measuring affective states but can also be a communication tool. These are usually linked to emotional states of a person, and are among the most salient cues for automatic emotion recognition. They are an indispensable social communication tool, and therefore, they can also be fabricated to face complex situations in social interaction. We consider that automatic measurement of human affect should make inferences on the nature of facial expressions, not just describe movements. We have been studying about human perception and biosignal-based identification of posed and spontaneous smiles. Results showed that automatic detection using electromyography had 94% accuracy, while human video coders had worse agreement on inferential labels. The study suggests that automatic identification of inferential labels would be beneficial for affective assessments.

In this talk, a wearable device for reading facial expression is introduced, and potential applications to education in classroom and special education for children with neurodevelopmental disorder are discussed.

Reference:

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