



Facial Emotion Detection in Massive Open Online Courses

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Abstract. Recently, the Massive Open Online Course (MOOC) has appeared as a new emerging method of online teaching with the advantages of low cost and unlimited participation as well as open access via the web. However, the use of facial emotion detection in MOOCs is still unexplored and challenging. In this paper, we propose a new innovative approach for facial emotion detection in MOOCs, which provides an adaptive learning content based on students' emotional states and their profiles. Our approach is based on three principles: (i) modeling the learner using the MOOC (ii) using of pedagogical agents during the learning activities (iii) capturing and interpreting the facial emotion of the students. The proposed approach was implemented and tested in a case study on the MOOC.

Keywords: MOOC · Massive Open Online Course · E-learning
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Facial expression · Emotional awareness