

## Emotion Oriented Students' Opined Topic Detection for Course Reviews in Massive Open Online Course

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**Abstract :** Massive Open education has become increasingly popular among worldwide learners. An increasing number of course reviews are being generated in Massive Open Online Course (MOOC) platform, which offers an interactive feedback channel for learners to express opinions and feelings in learning. These reviews typically contain subjective emotion and topic information towards the courses. However, it is time-consuming to artificially detect these opinions. In this paper, we propose an emotion-oriented topic detection model to automatically detect the students' opined aspects in course reviews. The known overall emotion orientation and emotional words in each review are used to guide the joint probabilistic modeling of emotion and aspects in reviews. Through the experiment on real-life review data, it is verified that the distribution of course-emotion-aspect can be calculated to capture the most significant opined topics in each course unit. This proposed technique helps in conducting intelligent learning analytics for teachers to improve pedagogies and for developers to promote user experiences.

**Keywords :** Massive Open Online Course (MOOC), course reviews, topic model, emotion recognition, topical aspects

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