

# MOODY: A WEB-BASED MUSIC MOOD CLASSIFICATION AND RECOMMENDATION SYSTEM

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## ABSTRACT

Research in music psychology has disclosed that the affective aspects of music are important in defining “being musically similar” [1]. Moody<sup>1</sup> is a Web-based system that classifies and recommends songs according to the mood they express.

Moody classifies songs into five major mood categories (passionate, cheerful, bittersweet, silly/quirky and aggressive) [3], and builds a mood profile for each song. When a user searches a song, Moody recommends songs with similar mood profiles to the searched song. The first version of Moody uses a SVM (SMO) classifier [4] built on spectral features extracted from the audio files of the songs [2]. Currently, two new Naive Bayes classifiers built on text features are added into Moody, including song lyrics and Web tags. The three classifiers will be combined to give the final classification results.

Figure 1 shows a snapshot of the Moody interface. Besides song recommendation, Moody also helps users classify their own music in real time when users upload mp3 files<sup>2</sup> (Figure 2). Thus it can grow automatically and quickly by adding user uploaded songs. Another nice feature of Moody is to allow users to change songs’ mood labels (Figure 1). By aggregating users’ feedbacks, Moody can continuously improve its classification accuracy.

## REFERENCES

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Figure 1. Moody interface for search and recommendation

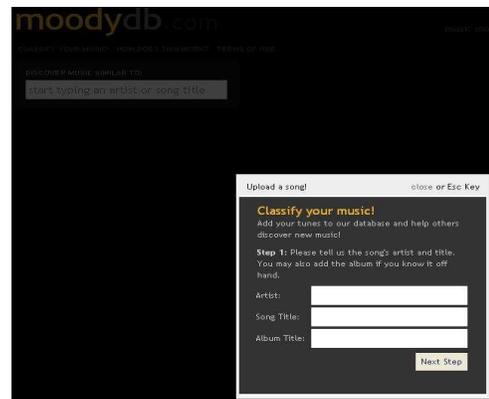


Figure 2. Moody interface for classifying a user's song

<sup>1</sup>Accessible at: [www.moodydb.com](http://www.moodydb.com)

<sup>2</sup>After processing, the mp3 files are discarded for IP protection.