Title and author of the paper

Classification of songs into 'day' and 'night' pop songs based on musical instrumentation
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Summary of the paper

This article aims to classify pop songs into two categories: 'day' and 'night'. The author first extracts the timbral, spectral, perceptual, and rhythmic features of the input songs, and then applies principle components analysis to select interesting features. After that, the picked features are fed into a SVM model to do classification. The testing result is not so promising at this point, but further work will be done in the future.

Good things about the paper

The idea of this paper is novel and attractive. Little research was about the classification of songs according to the time of the day it represents. But listeners and composers would really take this feature into consideration when listening or creating a song. It is a great point for bettering the music recommendation system. Besides this, the inspiration and methodology of this paper are clearly illustrated.

Major comments

There are concerns about the topic itself. It is a novel idea that few people have researched before, which could mean it is not interesting or difficult for some reason. Firstly, there is no clear definition of the 'day' and 'night' songs in this paper. That is to say, the author did not describe what characters a 'day' or 'night' song should have. For example, are 'night' songs slower than 'day' songs? Here comes the problem, some working people may think the 'night' songs should be good for sleep, but for party animals, they may think loud electric music is for the night. I think this may be the reason why the existing recommendation systems did not use 'time' as a classification standard because different people do very different things in the same period of a day. Using music scenes seems more robust to this problem.

Besides, as the author said in the conclusion part, the standard of the classification is very objective. This problem can be diminished by having many different people labeling the training dataset, as well as an in-depth analysis of the existing features to find out which ones contribute more to the classification results. If data is limited, the expertise of this topic and fine hand-crafted features are vital in enhancing the performance. But there is no such analysis of feature importance in this article. I suggest the author analyze the feature change before and after the PCA, visualize the trained SVM model, and analyze which features contribute most to the classification and which are not, and find out why. This may help to do further improvements to the model.

Minor comments

1. There are some grammar mistakes in the title. Maybe change the 'pop song' into 'categories', and check if the 'classification of A into B' is a correct structure. And delete the full stop at the end.
2. The case of the first letters of 'day' and 'night' is not consistent. Some places use lower case while others use capitalized.
3. In table 2, there is no illustration of which side of the table represent ground truth labels and which side is predicted outcomes.
4. Maybe it is a more common practice not to split the abstract part into two.