Audio-Video based Classification using SVM and AANN

Abstract

This paper presents a method to classify audio-video data into one of five classes: advertisement, cartoon, news, movie and songs. Automatic audio-video classification is very useful to audio-video indexing, content based audio-video retrieval. Mel frequency cepstral coefficients are used to characterize the audio data. The color histogram features extracted from the images in the video clips are used as visual features. The experiments on different genres illustrate the results of classification are significant and effective. Experimental results of audio classification and video classification are combined using weighted sum rule for audio-video based classification. The method SVM and AANN classifies the audio-video clips with an accuracy of 95.54%., and 92.94%.

References


Index Terms

Computer Science

Algorithms
Keywords
Mel Frequency Cepstral Coefficients  Color Histogram  Auto Associative Neural Network  Audio Segmentation  Video Segmentation  Audio Classification  Video Classification  Audio-video Classification  Weighted Sum Rule