Abstract

The information retrieval processes are playing essential role in the computer based database exploration or finding the essential contents from the databases. Now in these days a number of search techniques and retrieval models are exist by using which the users can find the data. According to the different data formats the information retrieval processes are also varying therefore different data format based retrieval process are works in different manner. In this presented work the content based video retrieval model is presented. In the content based video retrieval model the work is initiated from the segmentation of the videos into the set of frames. The segmentation of video is performed using the FFmpeg media library that works on the basis of two parameters first the video clip and second the time slot duration by which the frames are extracted. After segmentation to enable the text based query the text annotation concept is used and the individual frames of video is tagged with the user defined text. On the other hand to enable the query by example the low level features of individual frames are also computed. To compute the low level descriptors shape, color and texture analysis is performed. Thus the canny edge detection, local binary pattern and the color movement analysis
techniques are used. Finally for classifying the relevant videos according to the user query the KNN classifier is implemented. That classifier accepts the user text query or the example query for classifying the similar video objects from the database. The implementation of the presented methodology is performed using JAVA technology. Additionally for finding the performance precision, recall, and f-measures are computed, according to the computed values the example based techniques provides more accurate outcomes as compared to text based query. In addition of that the resource consumption of the proposed technique is also computed in terms of time and space, according to the results the example based query processing consumes additional resources as compared to text based methods. Thus the proposed work is accomplished with the satisfactory performance.

References

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**Index Terms**

Computer Science

Information Sciences

**Keywords**

Information Retrieval, Video Data Analysis, Search Relevancy, Improvement of Methods