

UI Design and Implementation of video Indexing Based on Timeframes

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Abstract- The Indexing of video based on time frame helps to navigate to the particular time frame in any video, The indexing helps to reduce the time of watching the complete video.

I. INTRODUCTION

MULTIMEDIA information indexing and retrieval are required to describe, store, and organize multimedia information and to assist people in finding multimedia resources conveniently and quickly. Dynamic video is an important form of multimedia information. Videos have the following characteristics:

1) Much richer content than individual images; 2) Huge amount of raw data; and 3) Very little prior structure. These characteristics Make the indexing and retrieval of videos quite difficult. In the past, video databases have been relatively small, and Indexing and retrieval have been based on keywords annotated Manually. More recently, these databases have become much Larger and content-based indexing and retrieval are required, based on the automatic analysis of videos with the minimum of human participation.

This Application is Developed using the web technologies earlier the videos are need to watch completely and also don't get what is the content in the video earlier so this was the one of the problem was facing by the user so that and another one major problem is that user wants to seek it manually and also it takes times to do if the video is real time it takes time to buffer the video then it's more consuming task this problem can be solved by the concept we had developed is video indexing based on time frames, the titles and sub titles extracted from the video it helps to know the what is the content in the video and it helps to seek to time frame by clicking on the titles or sub titles so this concept helps to reduce the time of watching the complete video and we using fast buffering technique to buffer the video in the server more faster it can use any video on demand services.

II. VIDEO STRUCTURE ANALYSIS

Generally, videos are structured according to a descending hierarchy of video clips, scenes, shots, and frames. Video structure analysis aims at segmenting a video into a number of structural elements that have semantic contents, including shot boundary detection, key frame extraction, and scene segmentation.

A. Shot Boundary Detection

A shot is a consecutive sequence of frames captured by a camera action that takes place between start and stop operations, which mark the shot boundaries [10]. There are strong content correlations between frames in a shot. Therefore, shots are considered to be the fundamental units to organize the contents of video sequences and the primitives for higher level semantic annotation and retrieval tasks. Generally, shot boundaries are classified as cut in which the transition between successive shots is abrupt and gradual transitions which include dissolve, fade in, fade out, wipe, etc., stretching over a number of frames. Cut detection is easier than gradual transition detection. A4 paper size. If you are using US letter-sized paper, please close this file and download the file "MSW_USltr_format".

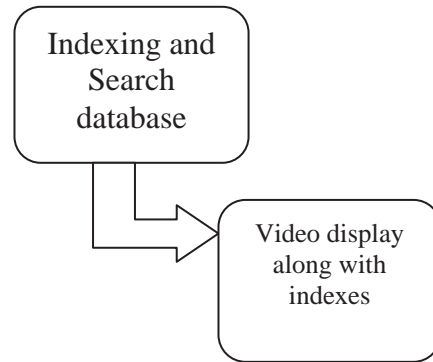


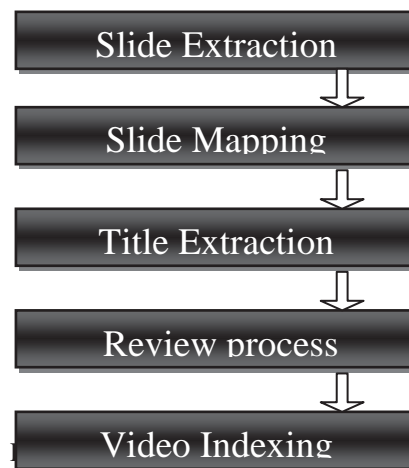
Figure1. Workflow for video indexing

The set of videos can have some of actions and audio combination in that the user facing difficulties to know the video contents the video index helps in this situation to know what is there in videos and the user looking for the same concept to get implemented the concept can use in YouTube and more multimedia concepts.

B. Video indexing

Video indexing is the process of identifying important segments inside a video and allowing users to navigate to the relevant segment of their choice.

We need to identify slides in videos future extract text from identified slides than need to build a table of contents for the video and display it beside the video using a simple widget, users are able to get a quick over view of the video, just by looking at the widget, They can view the whole video or can click on relevant topics to see specific segments within the long video the extracted slides also provide for a set of relevant keywords, which is very useful for search optimization.



Advantages

- Video indexing improves existing contents and ads metadata.
- Video is made searchable for student to search for relevant topic.
- Students can use videos effectively to review lectures for exam preparation and finding topics during projects or examinations.
- Relevant slide and slide title extraction automated process increase scalability.
- Content inside the slide is retrieved.

III. GENERAL BACKGROUND

For the purpose of video classification, features are drawn from three modalities: text, audio, and visual. Regardless of which of these are used, there are some common approaches to classification. While most of the research on video classification has the intent of classifying an entire video, some authors have focused on classifying segments of video such as identifying violent or scary scenes in a movie or distinguishing between different news segments within an entire news broadcast .

Most of the video classification experiments attempt to classify video into one of several broad categories, such as movie genre, but some authors have chosen to focus their efforts on more narrow tasks, such as identifying specific types of sports video among all video . Entertainment video, such as movies or sports, is the most popular domain for classification, but some classification efforts have focused on informational abstract. Abbreviations such as IEEE, SI, MKS, CGS, sc, dc, and rms do not have to be defined. Do not use abbreviations in the title or heads unless they are unavoidable.

Many of the approaches incorporate cinematic principles or concepts from film theory. For example, horror movies tend to have low light levels while comedies are often well-lit. Motion might be a useful feature for identifying action movies, sports, or music videos; low amounts of motion are often present in drama. The way video segments transition from one to the next can affect mood. Cinematic principles apply to audio as well. The application works as efficiently for user specification on video click on single button seek to time frame.

IV. WORKING PROCEDURE

The application works fine for all type of video formats, the web application contains divisions in the application it can use more efficient for learning or watching specified video session in the video at the particular time frame in the division of web application can easily play video in one division and another division buttons or links of topics to seek.

V. CONCLUSION

The Application UI design and implementation of the video indexing based on timeframes is an web based application helps the user in which they prior know the content in the video and user can watch specified part of a video and takes less time to watch the complete video and user understandable Design and experience.

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