Abstract

A video copy detection system that is based on content fingerprinting can be used for video indexing and copyright applications. Most of the video copy detection algorithms proposed so far focus mostly on coping with signal distortions introduced by different encoding parameters; however, these algorithms do not cope well with display format conversions. They may rely on a fingerprint extraction algorithm followed by a fast approximate search algorithm. The fingerprint extraction algorithm extracts compact content-based signatures [11]-[14] from special images constructed from the video. Each such image represents a short segment of the video and contains temporal as well as spatial information [7], [8], [10] about the video segment. These images are denoted by temporally informative representative images [1]. To find whether a query video is copied from a video in a video database, the fingerprints of all the videos in the database are extracted and stored in advance. The search algorithm searches the stored fingerprints to find close enough matches for the fingerprints of the query video. The content based fingerprint extraction process does not work to get a better level search. Further in an enhancement of this concept of fingerprints this system handles the TIRI-DCT and DWT features to detect the copyright information. This paper proposes a novel sequence matching
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technique to detect copies of a video clip. If a video copy detection technique is to be effective, it needs to be robust to the many digitization and encoding processes that give rise to several distortions, including changes in brightness, color, frame format, as well as different blocky artifacts. It also handles a new nonmetric distance measure to find the similarity between the query and a database video fingerprint and it is proposed to achieve accurate duplicate detection. Then the performance of the TIRI DCT and the co-efficient is compared. The proposed method has been extensively tested and the results show that the proposed scheme is effective in detecting copies which has been subjected to wide range of modifications.

References

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