

عنوان مقاله:

Video Abstraction in H.264/AVC Compressed Domain

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خلاصه مقاله:

Video abstraction allows searching, browsing and evaluating videos only by accessing the useful contents. Most of the studies are using pixel domain, which requires the decoding process and needs more time and process consuming than compressed domain video abstraction. In this paper, we present a new video abstraction method in H.264/AVC compressed domain, AVAIF. The method is based on the normalized histogram of extracted I-frame prediction modes in H.264 standard. The frames' similarity is calculated by intersecting their I-frame prediction modes' histogram. Moreover, fuzzy c-means clustering is employed to categorize similar frames and extract key frames. The results show that the proposed method achieves on average 85% accuracy and 22% error rate in compressed domain video abstraction, which is higher than the other tested methods in the pixel domain. Moreover, on average, it generates video key frames that are closer to human summaries and it shows robustness to coding parameters

کلمات کلیدی:

Video Abstraction, Clustering, Prediction modes' Histogram, Compressed Video, Keyframe Extraction

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