Multimedia information extraction: advances in video, audio, and imagery analysis for search, data mining, surveillance, and authoring

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Abstrak

The advent of increasingly large consumer collections of audio (e.g., iTunes), imagery (e.g., Flickr), and video (e.g., YouTube) is driving a need not only for multimedia retrieval but also information extraction from and across media. Furthermore, industrial and government collections fuel requirements for stock media access, media preservation, broadcast news retrieval, identity management, and video surveillance. While significant advances have been made in language processing for information extraction from unstructured multilingual text and extraction of objects from imagery and video, these advances have been explored in largely independent research communities who have addressed extracting information from single media (e.g., text, imagery, audio). And yet users need to search for concepts across individual media, author multimedia artifacts, and perform multimedia analysis in many domains.This collection is intended to serve several purposes, including reporting the current state of the art, stimulating novel research, and encouraging cross-fertilization of distinct research disciplines. The collection and integration of a common base of intellectual material will provide an invaluable service from which to teach a future generation of cross disciplinary media scientists and engineers.