

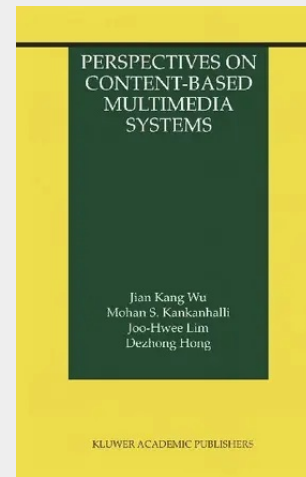
Perspectives on Content-Based Multimedia Systems

Multimedia data comprising of images, audio and video is becoming increasingly common. The decreasing costs of consumer electronic devices such as digital cameras and digital camcorders, along with the ease of transportation facilitated by the Internet, has lead to a phenomenal rise in the amount of multimedia data generated and distributed. Given that this trend of increased use of multimedia data is likely to accelerate, there is an urgent need for providing a clear means of capturing, storing, indexing, retrieving, analyzing and summarizing such data.

Content-based access to multimedia data is of primary importance since it is the natural way by which human beings interact with such information. To facilitate the content-based access of multimedia information, the first step is to derive feature measures from these data so that a feature space representation of the data content can be formed. This can subsequently allow for mapping the feature space to the symbol space (semantics) either automatically or through human intervention. Thus, signal to symbol mapping, useful for any practical system, can be successfully achieved.

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