Searching and Finding in Large Video Collections

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1 Bio

Marcel Worring received the MSc degree (honors) and PhD degree, both in computer science, from the Vrije Universiteit, Amsterdam, The Netherlands, in 1988 and the University of Amsterdam in 1993, respectively. He is currently an associate professor at the University of Amsterdam. His interests are in multimedia search and systems. He is leading the MediaMill team which has been succesful in the last years in the TRECVID benchmark. Methods are applied to visual search in broadcast archives as well as in the field of Forensic Intelligence . He has published over 100 scientific papers and serves on the program committee of several international conferences. He is the chair of the IAPR TC12 on Multimedia and Visual Information Systems, associate editor of the IEEE Transactions on Multimedia and of Pattern Analysis and Applications journal, general chair of the 2007 ACM International Conference on Image and Video Retrieval in Amsterdam and co-organizer of the first and second VideOlympics.

2 Abstract

Finding information in a large video collection is a daunting task. To help the user in their quest, we start off by analyzing the content of the collection at three levels. Automatically computed semantic indexes describe the visual content of individual shots. Dissimilarity spaces describe the relations between different shots. Various content based threads through the set of shots describe the collection as a whole. These additional metadata and structures added to the data provide the basis for a number of innovative interactive video browsers each geared towards different steps in the video search process. In this talk we will highlight the underlying methodologies, show how we have analyzed the characteristics of the tools based on simulated users and show their evaluation in the context of the TRECVID interactive search benchmark.