

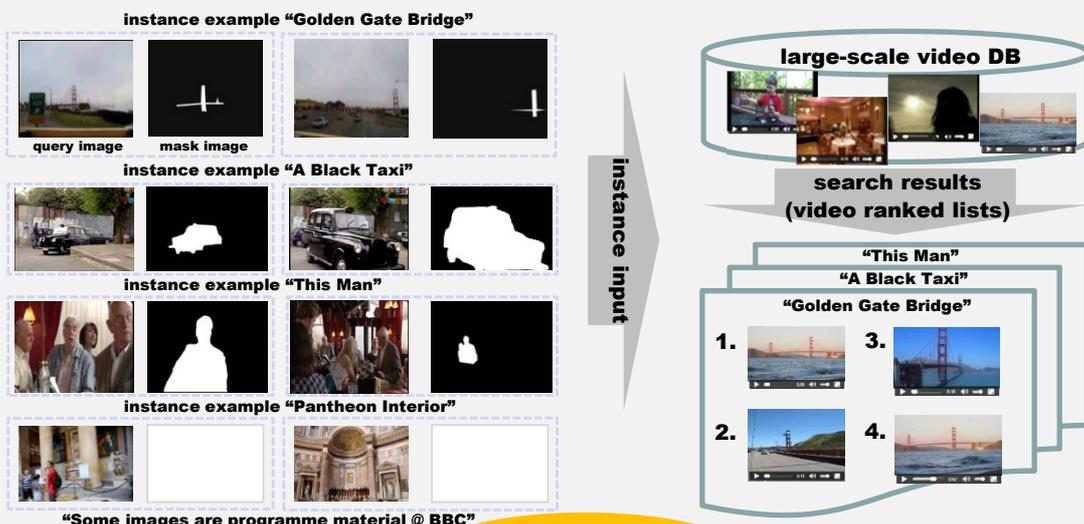
Retrieving video immediately with camera shots

~ Instance search for specific objects in movies ~

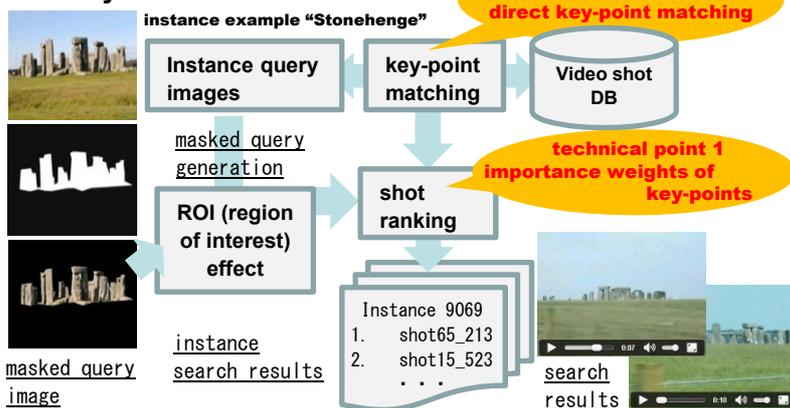
Abstract

We present content-based video retrieval method using image/movie queries that show a specific person/object/place. This type of searching is called "instance search" and it has been actively discussed in the TREC Video Retrieval Evaluation (TRECVID) community since 2010. Our approach is based on a probabilistic information retrieval model, and it generates search results using bags of local visual features extracted from image queries and videos in a database without metadata. These features correspond to key-points and by using our novel key-point weighting method at the stage of the direct matching of key-points, our instance search results currently record the world's highest level in search accuracy at the TRECVID2013 instance search task. This research contributes to work on robust and smart media search technology that enables responding to the complex search intentions of today's users.

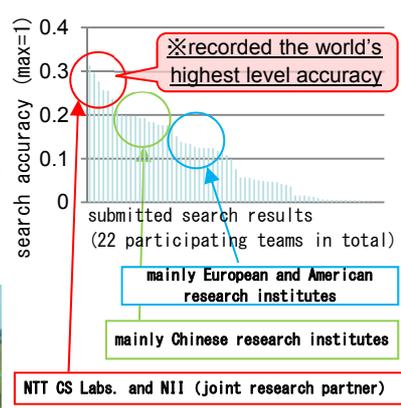
Instance Search : "A system is required to search for videos without metadata in which the specific person/object/place appears and to output the result ranked list."



Search System Overview



TRECVID2013 Task Results



Related work

[1] M. Murata, H. Nagano, K. Kashino, S. Satoh, "NTT Communication Science Laboratories and National Institute of informatics at TRECVID2013: instance search task," In *Proc. TRECVID2013 Workshop*, 2013.

[2] M. Murata, H. Nagano, K. Kashino, S. Satoh "Instance search with exponential BM25," in *IEICE Technical Report*, PRMU2013-111, pp. 189-194, 2014.

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