

Name	Shin'ichi Satoh, Professor	Location	NII	Research field	Multimedia content analysis and retrieval
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We address content analysis techniques for multimedia such as images and videos, and their applications such as multimedia retrieval and mining. We especially put emphasis on the analysis of visual information, and seek for a computer algorithm which can “see” and “understand” objects and scenes. Students who are eager to study deep technologies of multimedia content analysis, and who are interested in applications such as multimedia retrieval are highly welcomed.

Lab URL: <http://www.satoh-lab.nii.ac.jp/>

Image and Video Semantic Analysis

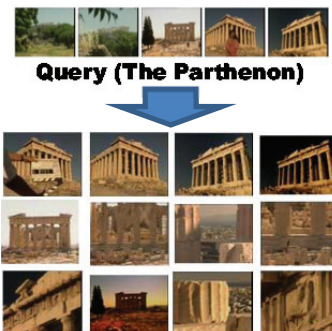
We address auto-annotation technologies which learn visual concepts from thousands of images or hundreds hours of videos. Effective visual features for classification, machine learning issues, scalable methods for large-scale image and video for large-scale concept vocabularies, and deep consideration of visual concepts will be studied.



Results of auto-annotation

Instance Search

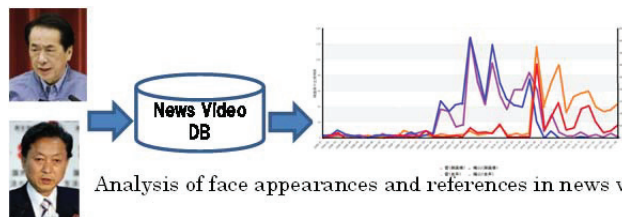
We study the instance search technologies which retrieve all appearance of “instances,” e.g., specific buildings, persons, or merchandise in large-scale image/video archives by given example images. Robust matching techniques invariant to object poses and extremely fast retrieval techniques are sought for.



Instance search from video archive

Multimedia Mining

Application of multimedia content analysis to billions of images and thousands hours of videos enables discovery of latent knowledge which cannot be observed directly. We address multimedia mining and knowledge discovery using large-scale multimedia archives.

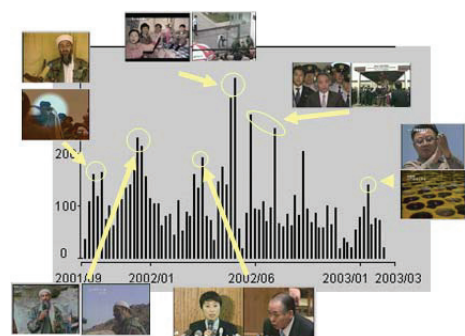


Analysis of face appearances and references in news video



Fast detection and identification of commercial films

and their occurrence pattern analysis



Recurrence pattern of important shots

in news videos