

INTRODUCTION

- There are a vast amount of video clips uploaded onto video sharing website after an event happens.
- Problems are:
 - a) The massive amounts of data contain massive amounts of duplicates.
 - b) Some of the video clips are non-informative.
 - c) Excessive amount of data limits users' ability to acquire knowledge.

AIM

We propose an approach to:

- a) better organize data by eliminating non-informative video clips
- b) summarize relevant video clips into one representative video, which is made up of key shots extracted from video dataset and are ordered in a logical manner.

METHODOLOGY

- Scale-invariant feature transform (SIFT) descriptors are used to represent the images' visual information and tags, title and content in the description box of each video file are extracted and used to represent the video clips' textual information.
- Java is the major language used in this project along with C++, C#, JSP, Javascript and C.

EXPERIMENT & EVALUATION

Dataset: 1000 video clips about Japan earthquake retrieved from YouTube.com.

Observation 1: Data pruning result

Video clips with misleading title and thumbnail are assigned to low marks, thus will not be presented to audience. Duplicate frames are successfully detected.

Observation 2: Improved ability to extract sub-topics

Under the restriction that each feature cluster can only be grouped to one video shots cluster, the video shots are well separated into multiple sub-groups.

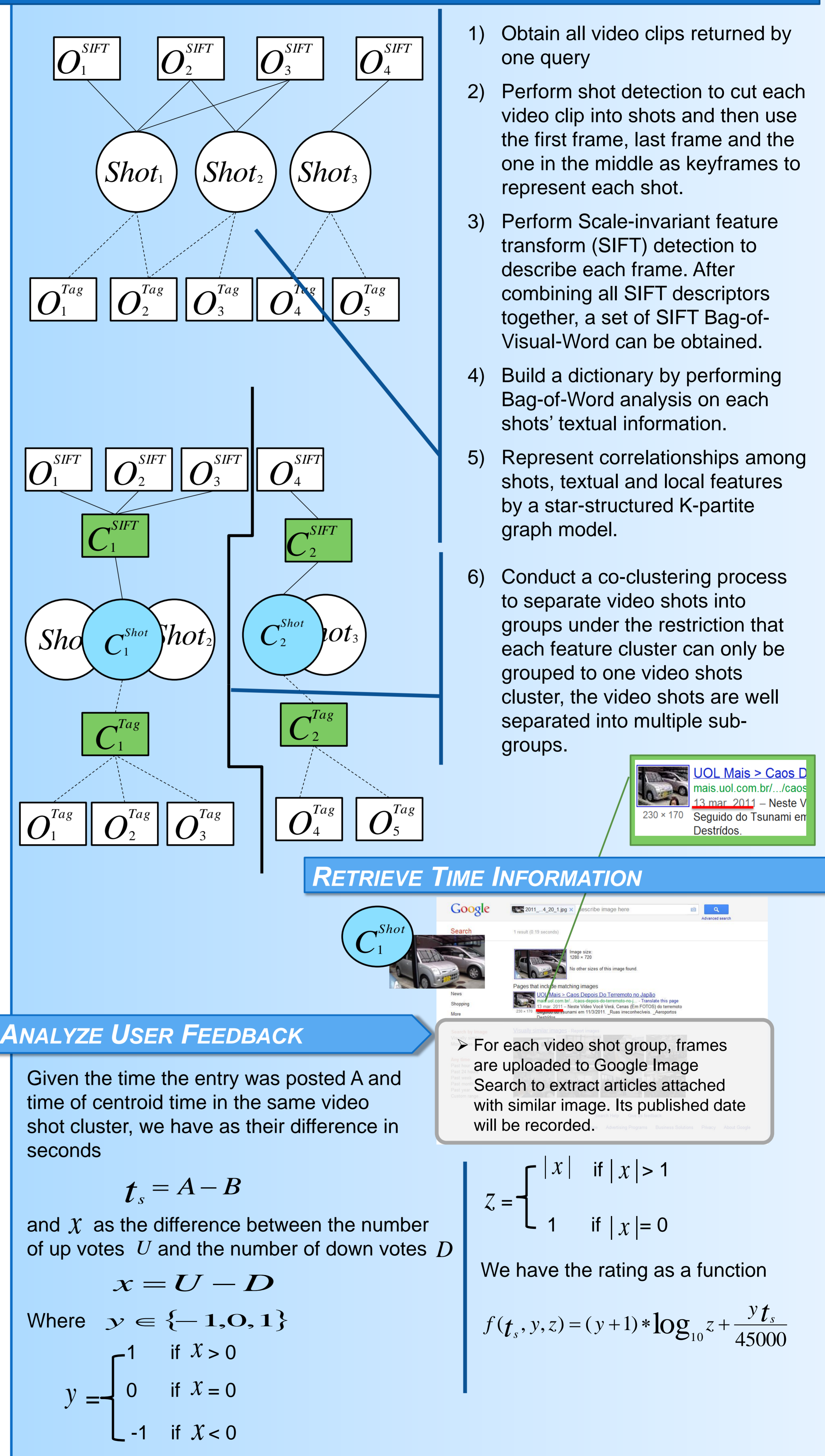
Observation 3: The representative video shots, which are included in the summarized video clip, are organized in a logical manner.

CONCLUSION

We proposed a flexible data pruning approach incorporating a K-partite model, to

- Obtain high quality video shots by re-ranking shots
- Achieve a video summarization, which covers majority aspects of the event.

FRAMEWORK



FUTURE WORK

- Reduce the time complexity.
- Place the key video shots in a timely manner.