Creating Map-based Storyboards for Browsing Tour Videos

Watching a long unedited video is usually a boring experience. We examine a particular subset of videos, tour videos, in which the video is captured by walking about with a running camera with the goal of conveying the essence of some place. We present a system that makes the process of sharing and watching a long tour video easier, less boring, and more informative.

Problem:
People capture videos

But no one watches them!!

System Overview:

Tour Videos:
- Home video
- Walking around
- For example:
  - Vacation: Disney, Las Vegas, etc
  - Online Tour: Paul Allen Center Tour, Cruise Tour

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Authoring Tool:

Automatic Preprocessing
Author of the video specifies video path and interesting shots
Web-based viewing tool

Author of the video picks interesting shots and places them on the map to specify the location where the shot is taken. Arrows connecting consecutive shots will automatically appear.

Viewing Tool:

Automatic analysis of the video for salient shots
Author of the video specifies video path and interesting shots
Web-based viewing tool

Viewers of the video can get an overview of the video and interactively access the video from the map, path, location controller and thumbnails.

Different viewing modes to fit different needs.

User Study to evaluate the viewing tool (n=13):

Tasks: Watch 2 videos (38 and 10 minutes) using the viewing tool for 5 minutes each and give feedback.

Feedback:
• “[the interface was] easy to understand and use”
• “provides enough method to effectively watch videos in a short period of time”
• “I would love to have this. I have 8 hours of video from Japan that I would like to distribute to my friends in this manner.”

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