Project Proposal

PROJECT IDEA

We would like to go with something that's very similar to Sample Project 1, but with recent movie trailers instead of news broadcasts, the idea being that movie trailers tend to be video clips with similar length to the news segments in Sample Project 1 and contain some mix of people and real-world situations. Specifically, these are our modified ideas for the tasks:

1. Detect number of shots in the trailer

2. Annotate shot boundaries in the video.

3. Detect logo of film companies involved in the trailer

4. Detect faces in the video

5. Perform face tracking by associating detection in previous frame with face in current frame

6. Train a classifier that can predict whether a face is female or male

7. Visualize Results

8. Since there was a bonus in Sample Project 1, we had some ideas that don't involve clowns, including detecting the ethnicity or age of actors based on their face, or detecting product placement in the trailer based on recognizing common logos.

TEAM

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PLAN

We will start by downloading trailers and set of male and female faces with gender labels, and any other libraries we might need for video processing and using classifiers.

We should start the next part by reading some papers on shot boundary detection like this one: http://www-nlpir.nist.gov/projects/tvpubs/tvpapers03/ramonlull.paper.pdf and implement something similar. Same thing for detecting and tracking faces, because neither of us are too familiar with using neural nets.

If we get everything done we'll attempt to expand on the basics with some of our ideas in #8 above.