CROWDSOURCED VIDEO CLASSIFICATION

Website for accumulating a trusted set of labeled clips.

DETERMINING EMOTION

• The goal of the website is to associate an emotion label with each video.
• As more votes are cast on each video, a clear pattern emerges. Each user might have their own biases, but when many people vote, a majority can decide with certainty which label is the proper one to associate with the video.
• Once enough votes are cast, extra data becomes unnecessary. Our client requested that the maximum number of votes per video be 5.
• Figure 1 shows a bar graph of three videos in our sample that have reached the magic number. As is apparent, Video 1 may be clearly associated with Sadness, and Video 3 may be clearly associated with Disgust. Video 2 is tied, so Neutral would be selected.

MAXIMIZING LABELED VIDEOS

• Consider this: ten people each watch and classify five videos. It is better to have ten videos with five votes each than fifty videos with one vote each, since more contributors on any single video makes the selection more certain. How do we do this?
• Figure 2 shows a decision tree for whether or not we consider a video to show to a user. Note that videos that have been seen by the user or have enough votes to be certain about their classification (“fully labeled”) are not considered.
• Within these constraints, partially labeled videos are prioritized over unseen videos.
• In this way, new users will make partially labeled videos more certain before starting the labeling of otherwise unseen videos.