Paper Reading & Discussion

Robust Saliency-Driven Quality Adaptation for Mobile 360-Degree Video Streaming

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Questions & Comments

1. In this paper, the authors used uniform high-quality tiles. In practice, there might be regions of the video that may be given a higher quality than others to optimize performance. The authors argue that highly quality regions could affect user gaze, so how user gaze data be continuously collected while mitigating this bias?
2. Comprehensive experiment comparison to previous SotA solutions.
3. Paper is written articulately and the charts/diagrams are appropriately annotated and labelled.
4. The algorithms can be inferred cheaply enough on the cloud, so client overhead is minimized.
5. The saliency-aware allocation method devised by the authors is a computationally effective approximation of the exhaustive search method (faster by a factor of 87).
6. There would be little to no gain of using a salient-aware model such as this on a salient-even video. For example, consider a peaceful video with very little action or motion where all regions of the video have a similar saliency. The model would be unlikely to accurately predict which region a given user might look at, given that the probability is almost evenly distributed amongst every region / tile.