

# **“My job is to educate your minds” - Dr. Prakash**

What's next? Check out new paper from Prakash

Restrictive vs Nonrestrictive Clustering?

- Accuracy would depend on more defined clusters.
  - Few things to focus on - Few Clusters - More Accurate
  - More things to focus on - More Clusters - Less Accurate
- How to test this hypothesis? - Separate videos based on the number of things to focus on into 3 categories (Many, Few, inconsistent). Then, find a way to determine accuracy and use it to prove hypotheses.

Prakash's New Method based on political science

- What is the most effective number of clusters?
- Find hot spots, then determine best approach
- Do not give equal importance to each “tile”
- Tiles from the center (more popular) get more “points” - point values then determine the method of clustering.

Think about what clustering approaches would be the best in different scenarios, not only the one we are implementing.

- There is no best algorithm for every video.
- When given a new video, what would we do?
- How would we measure algorithms to determine which one is the best?
- We would have to create our own metric and justify its usefulness.
- Think about some way to determine the density or span of clusters

Reminder to think about developing Hypotheses and ways to prove hypotheses

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Post-Meeting Discussion

Let's not worry about prediction methods! Focus more on clustering quality and measurability

Week 7 - Complete Visualization, Tune Parameters?

Week 8 - discuss how to determine quality of our algorithm and best way to implement

Potential Hypothesis

What kind of video would work best with our clustering algorithm? Dense, Scattered, or Inconsistent

What parameter values best suit different video types?

### Measurability

In order to compare our clustering algorithm to other clustering algorithms we would have to create new clustering algorithms

In order to determine the area saved, we would also need to have a predictive model, so this would not be a reasonable measurement.

### Current Code

Function only needs to worry about color and positions

Not all videos have the same number of frames, but shouldn't be a problem

We need to have documentation in order to keep us all on the same page.