

Digital Media Creation:

Understanding drivers of user engagement with
TED Talks

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March 16, 2018

Digital Content Creation

- Digital storytelling is thriving: video projected to claim 80% of web traffic by 2019
- Video content goes viral: video content is highly shared by users
- Online videos are the most popular medium: $\frac{1}{3}$ of time spent online is watching videos

Online video increases marketing ROI: click-throughs, viewership, and ultimately \$\$

What are the video features that lead to high user engagement?

Use Case - Educational Content

Data:

- Video meta-data
- Talk transcript
- Video views



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Can I predict popular content?

What content features keep users engaged?



Attracting Views

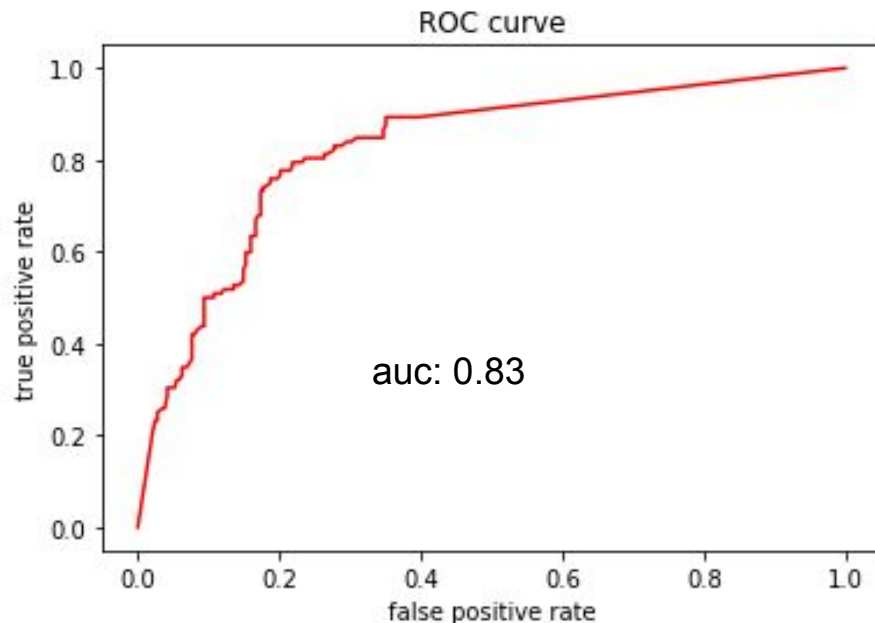
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- Feature engineer related videos score → average of popularity of related videos

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True neg	244	44
True pos	48	64
	Pred neg	Pred pos

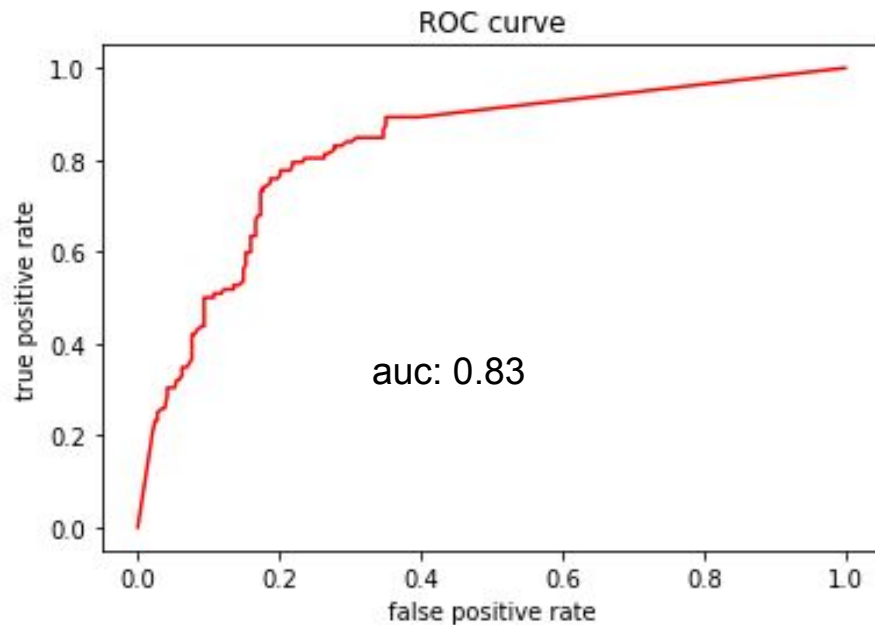


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Optimize for **precision**: false positives can surface bad content while false negatives are ok (the content can still be popular)

Keeping Viewers

Evaluating whether users continue to engage with content is also important

Use views as a measure of engagement

Focus on content features to predict user engagement



What Makes an Engaging Talk?

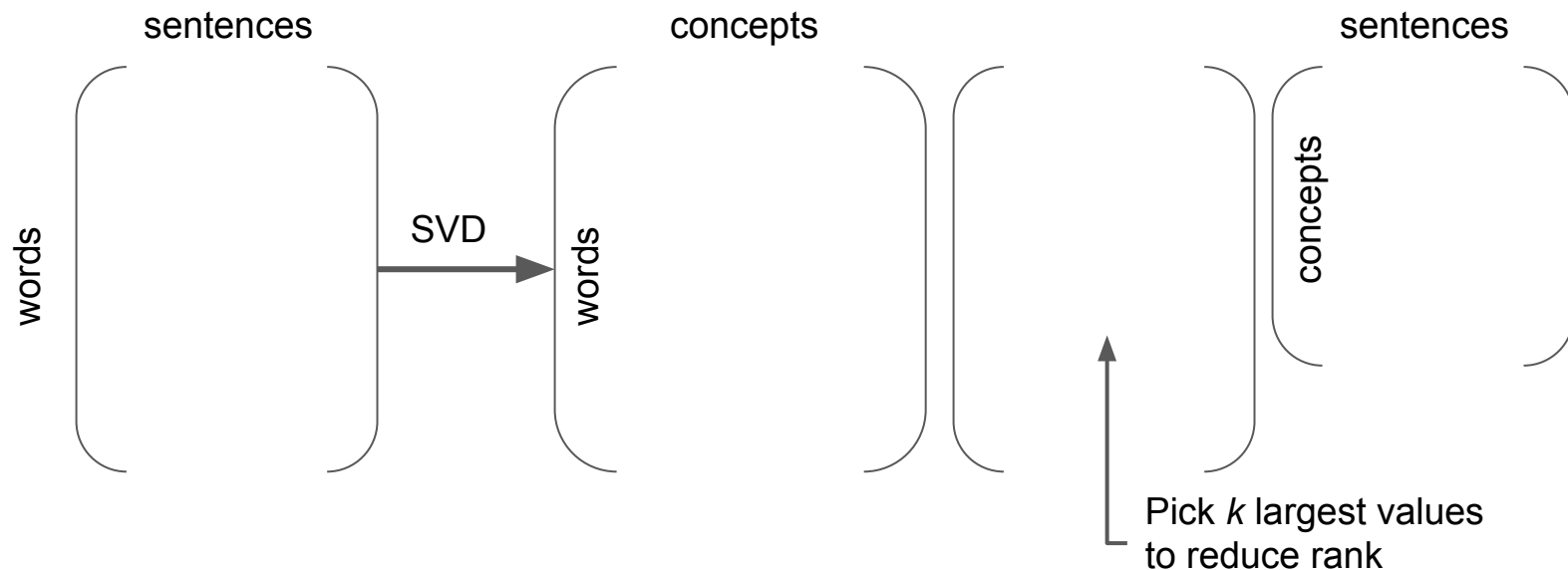
1. Contains an idea. Speakers should dig further to find the valuable insight that they can share with the audience.
2. Share one single cohesive idea.
3. Share an idea that is new. Speakers should present something that is surprising and changes perceptions.
4. Take your audience on a journey step by step - but don't let them get lost along the way.

Data Challenge: How to measure the cohesiveness of a talk.

Measuring Cohesiveness of Content

Use semantic information to assess “cohesiveness” -- LSA

Idea: build term-document matrix using tf-idf, SVD to learn latent concepts



Talk Cohesion

In this lower-dimensional representation, can compute similarity score between sentences.

Hypothesis: Highly viewed talks have high pairwise similarity scores. But what about pivots?

Case Study - Most and Least Viewed Talks

I performed a qualitative inspection of these features:

	Most Viewed	Least Viewed
Total Similarity Score	0.15	0.09
Number of Pivots	22	31

Next steps: Regress on number of views to evaluate if correlation is statistically significant

Recommendations for Content Creation

Curate links to/from popular content

- Related content popularity is good predictor of content popularity (more so than category tags)

Content structure is important

- Not too many content pivots
- Overall cohesion