# Spot on Ads on Spotify

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## Asking the right questions

How do we create a meaningful ad?

Ads attached to an emotion are meaningful

How can we know the emotion of a viewer?

- Random guess
- Demographics
- **Proposal:** Understand the meaning of the songs they are listening to!

### Data & Tools













## Methodology

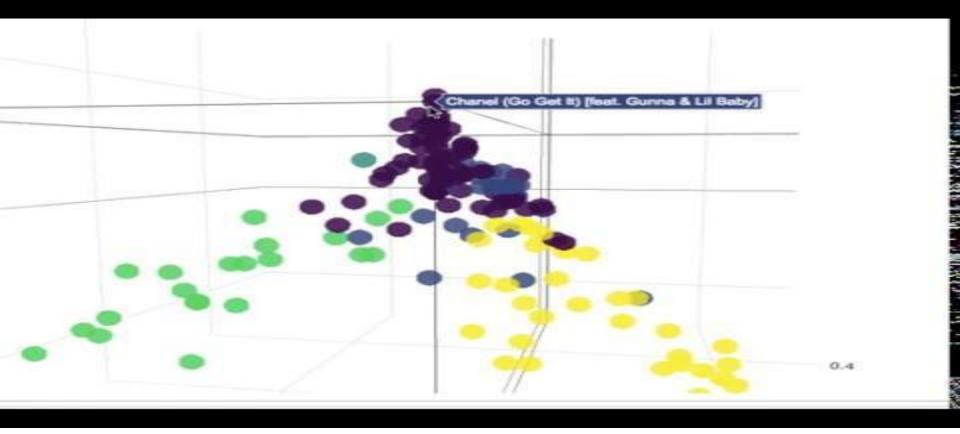
Annotations were more important than lyrics

NMF (Non-Negative Matrix Factorization) with 5 features using tf-idf:

- 200 songs into 5 topics
- Tf-ldf is a way to represent text data to a computer

PCA (Principal Component Analysis) with 3 components:

- 3 components that best capture most variation in data
- Visualization



#### Conclusion

Create meaningful advertising campaigns by echoing emotions in songs

- Products themselves don't need to be in those categories
- Stories that you create do
- How you advertise something is as important as what you are advertising