

Nate Kelley

Motivation



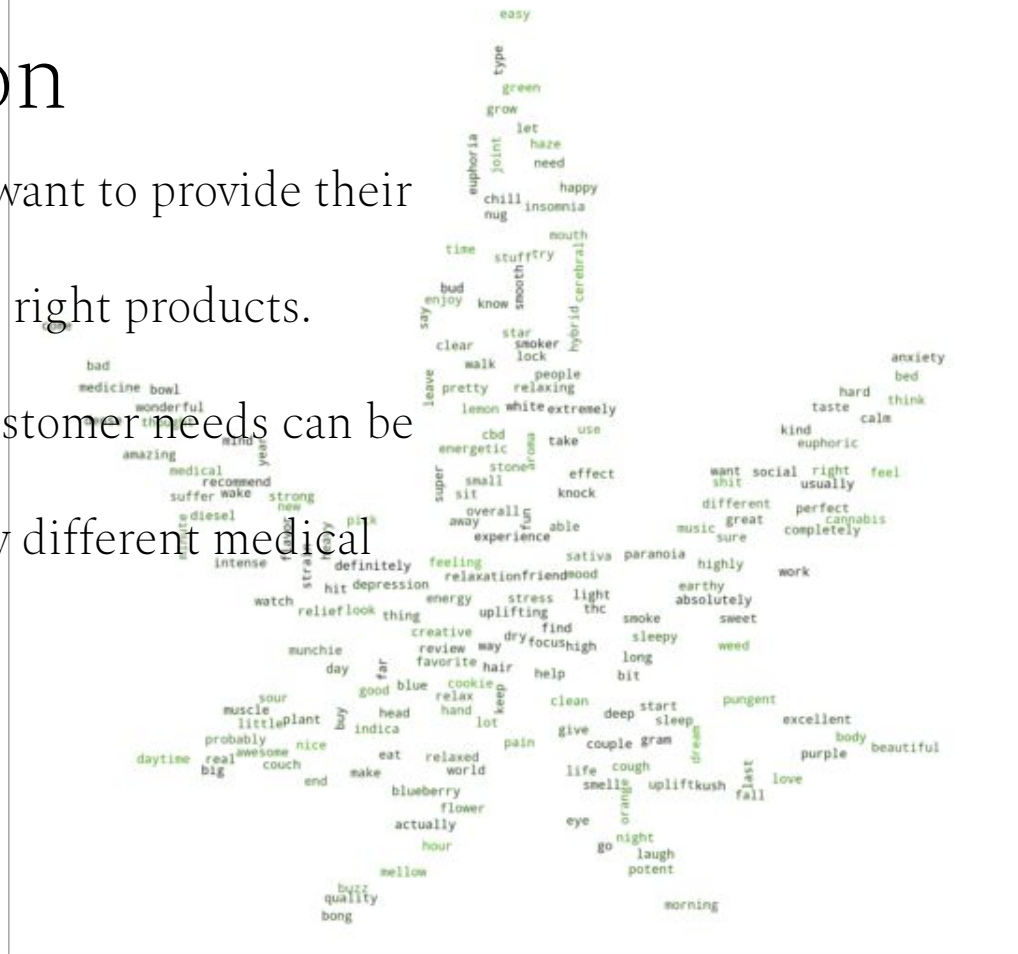
Motivation

- Dispensaries want to provide their customers the right products.



Motivation

- Dispensaries want to provide their customers the right products.
- They think customer needs can be categorized by different medical conditions.



Data Sourcing

- ~100 most recent reviews from the top 200 strains on Leafly using Selenium.
- Stored in Mongo.



Tools

Text formatting:

- spaCy

spaCy



Tools

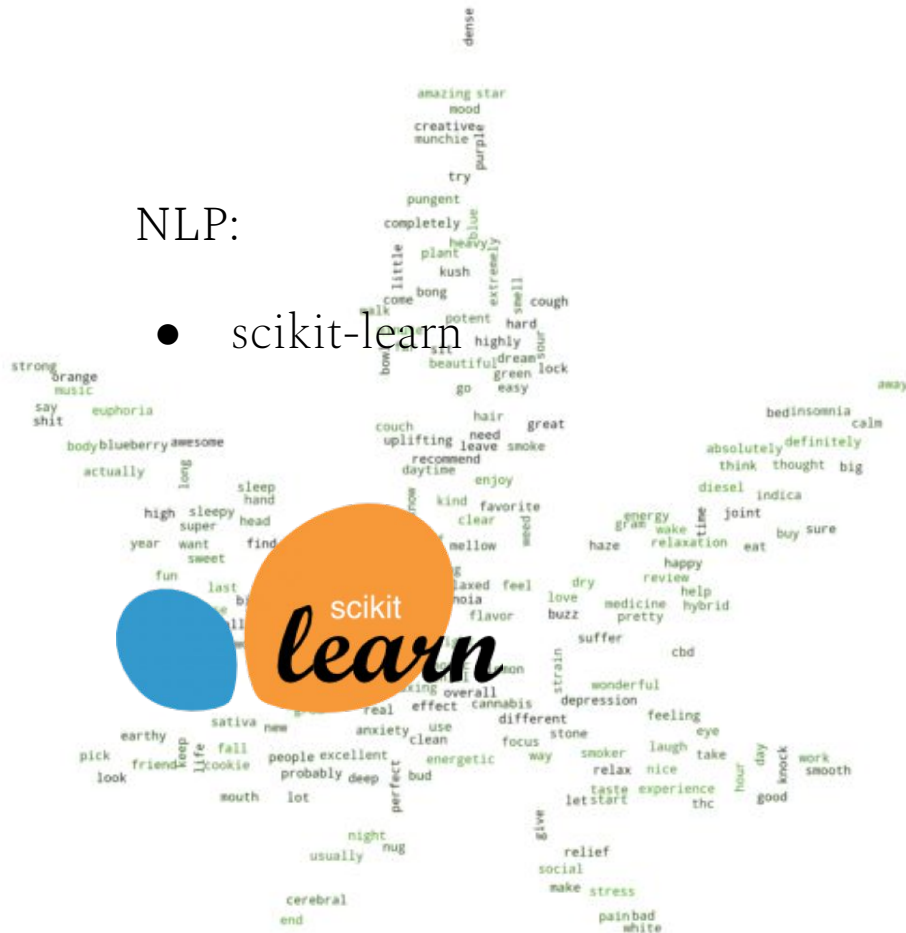
Text formatting:

- spaCy

NLP:

- scikit-learn

spaCy



Tools

Text formatting:

- spaCy

NLP:

- scikit-learn

Visuals:

- Plotly

spaCy

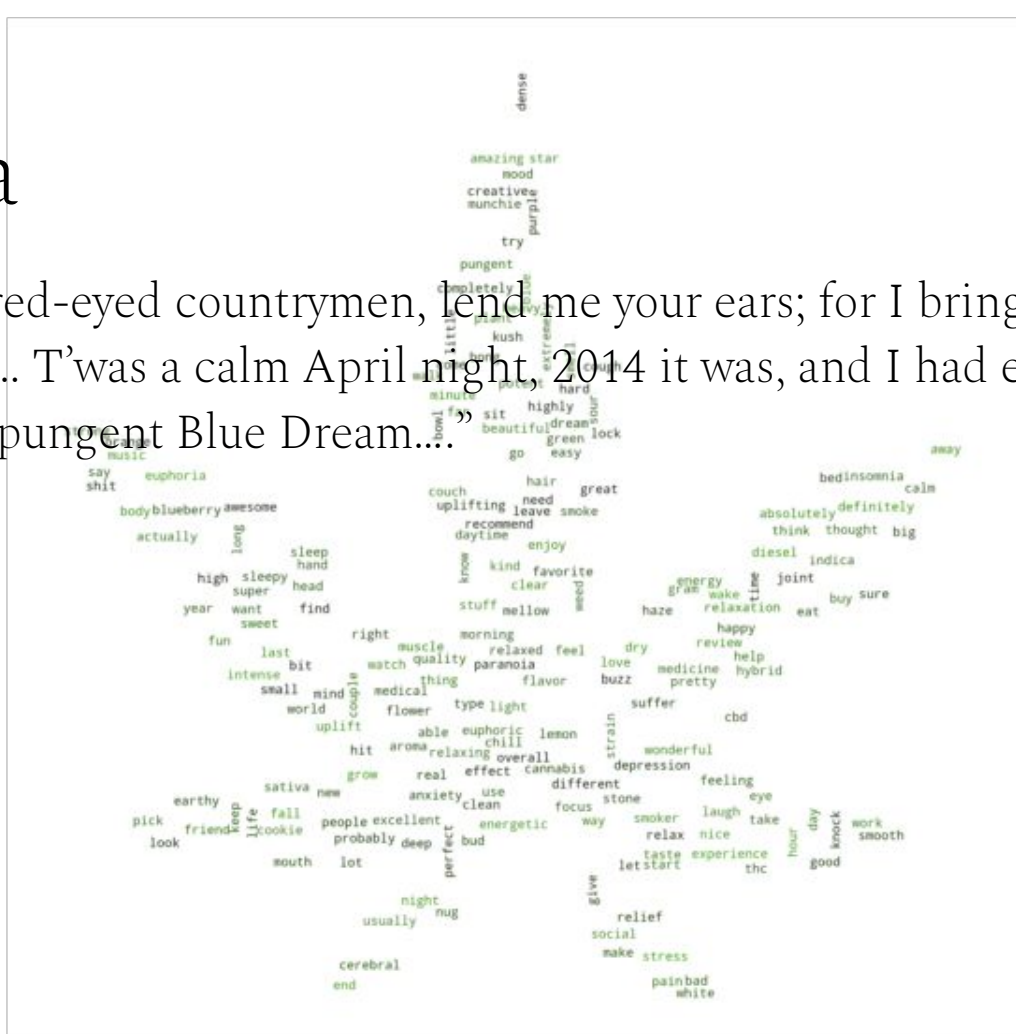


plotly

Text Data

"Friends, stoners, red-eyed countrymen, lend me your ears; for I bring unto thee a tale of the Blue Dream... T'was a calm April night, 2014 it was, and I had eagerly purchased an eighth of some pungent Blue Dream..."

-CannabisKook

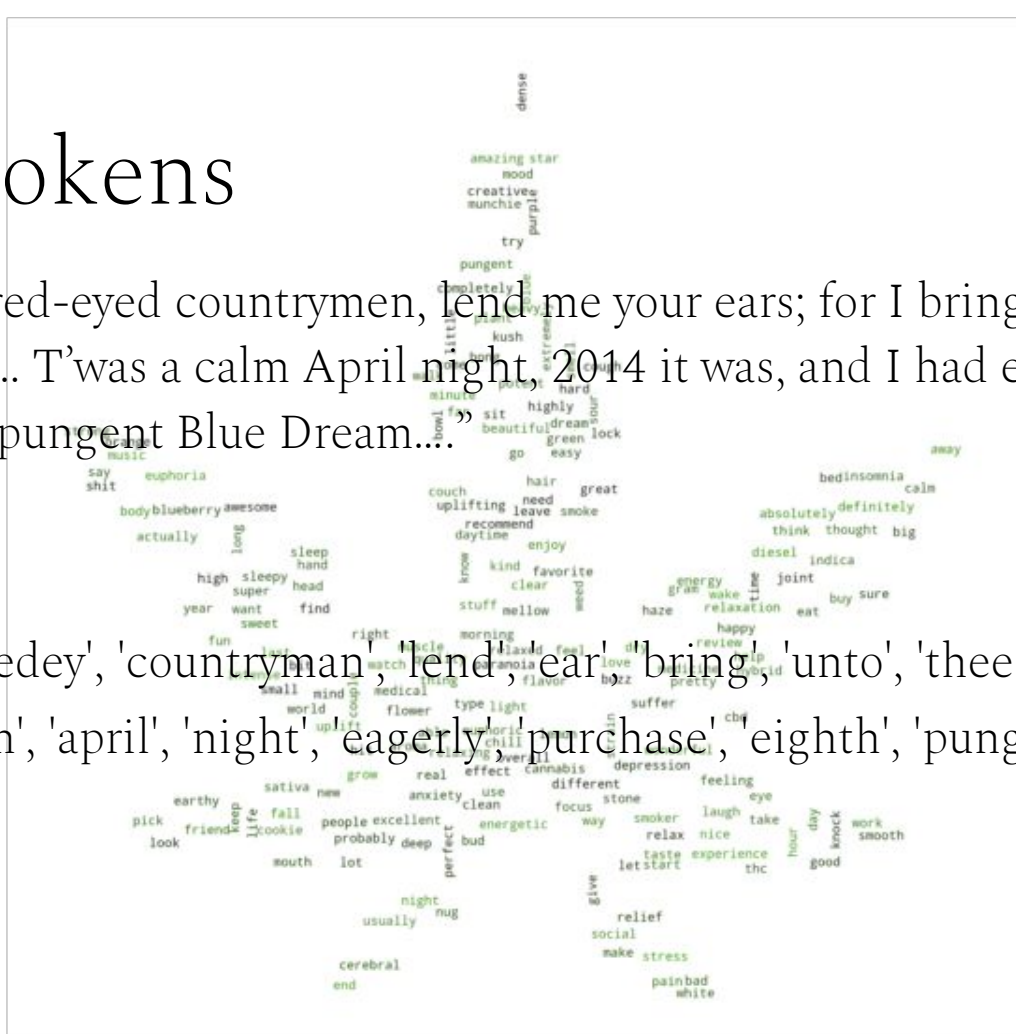


Text to Tokens

"Friends, stoners, red-eyed countrymen, lend me your ears; for I bring unto thee a tale of the Blue Dream... T'was a calm April night, 2014 it was, and I had eagerly purchased an eighth of some pungent Blue Dream...."

-CannabisKook

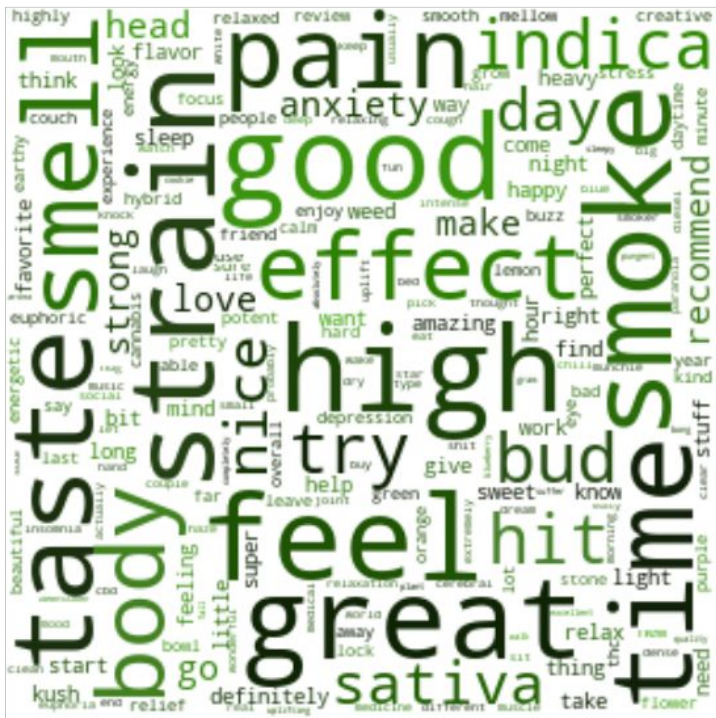
['friend', 'stoner', 'redey', 'countryman', 'lend', 'ear', 'bring', 'unto', 'thee', 'tale', 'blue', 'dream', 't'wa', 'calm', 'april', 'night', 'eagerly', 'purchase', 'eighth', 'pungent']



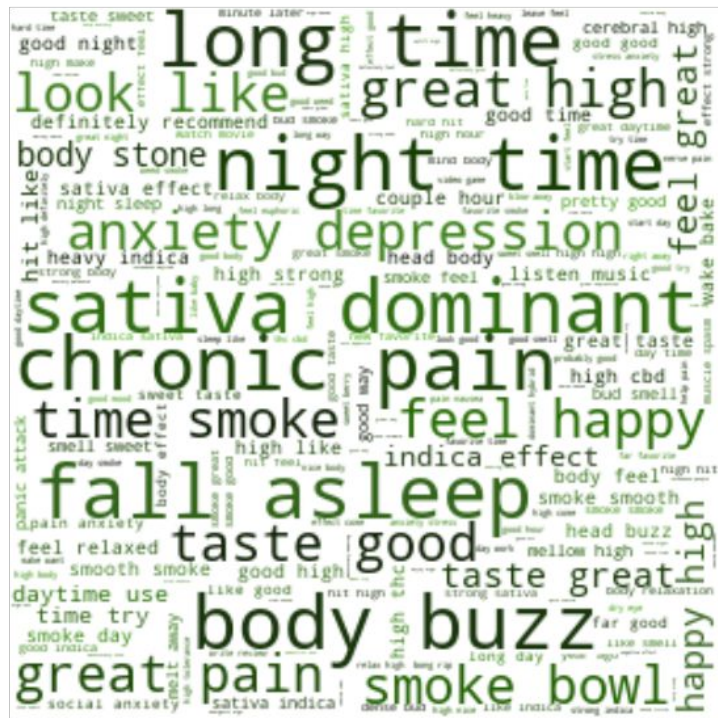
Before NLP



Before NLP



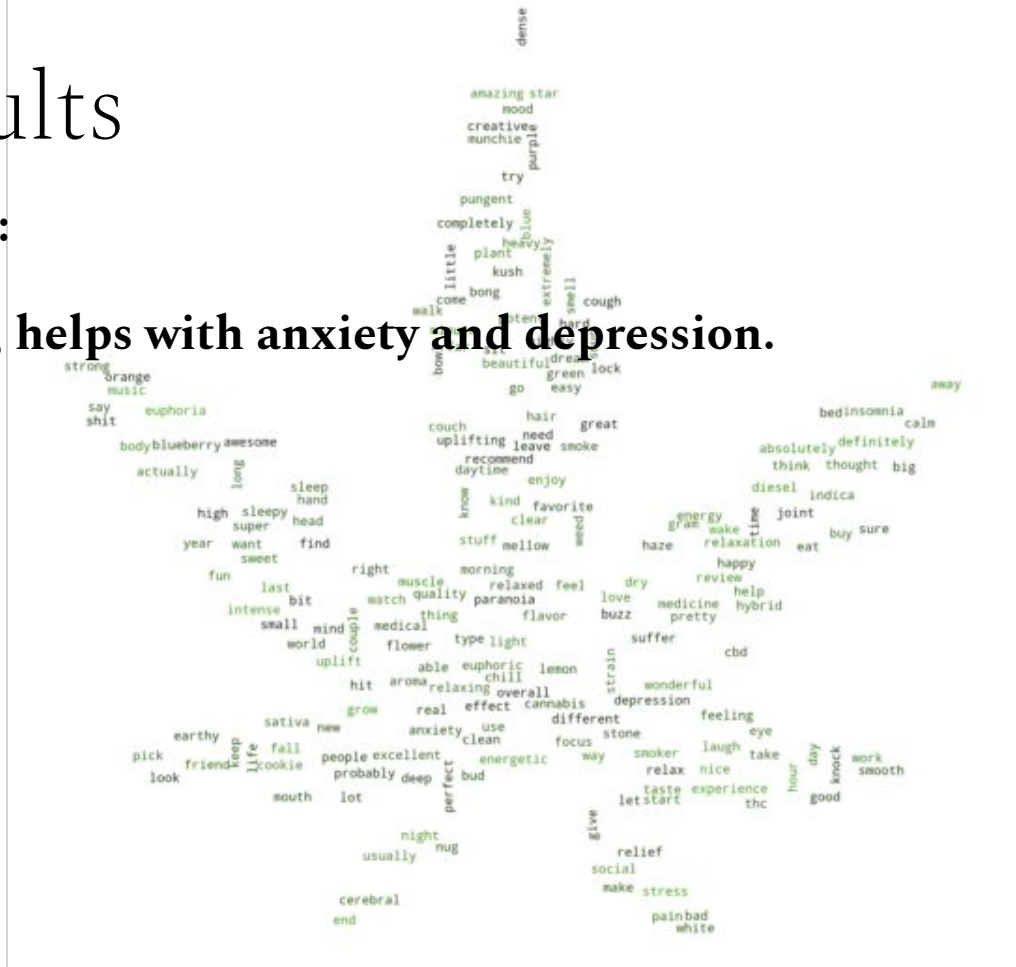
& After



NLP Results

Four main topics:

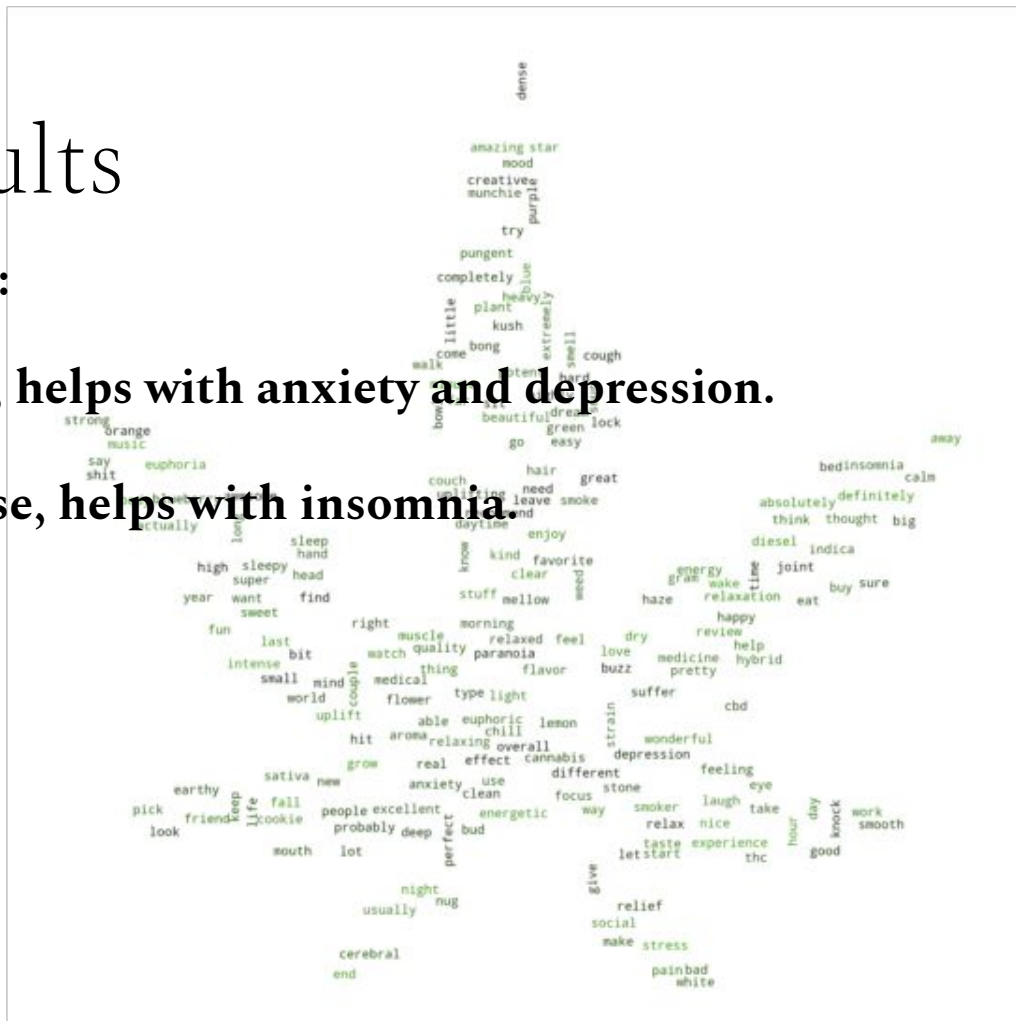
1. Daytime use, helps with anxiety and depression.



NLP Results

Four main topics:

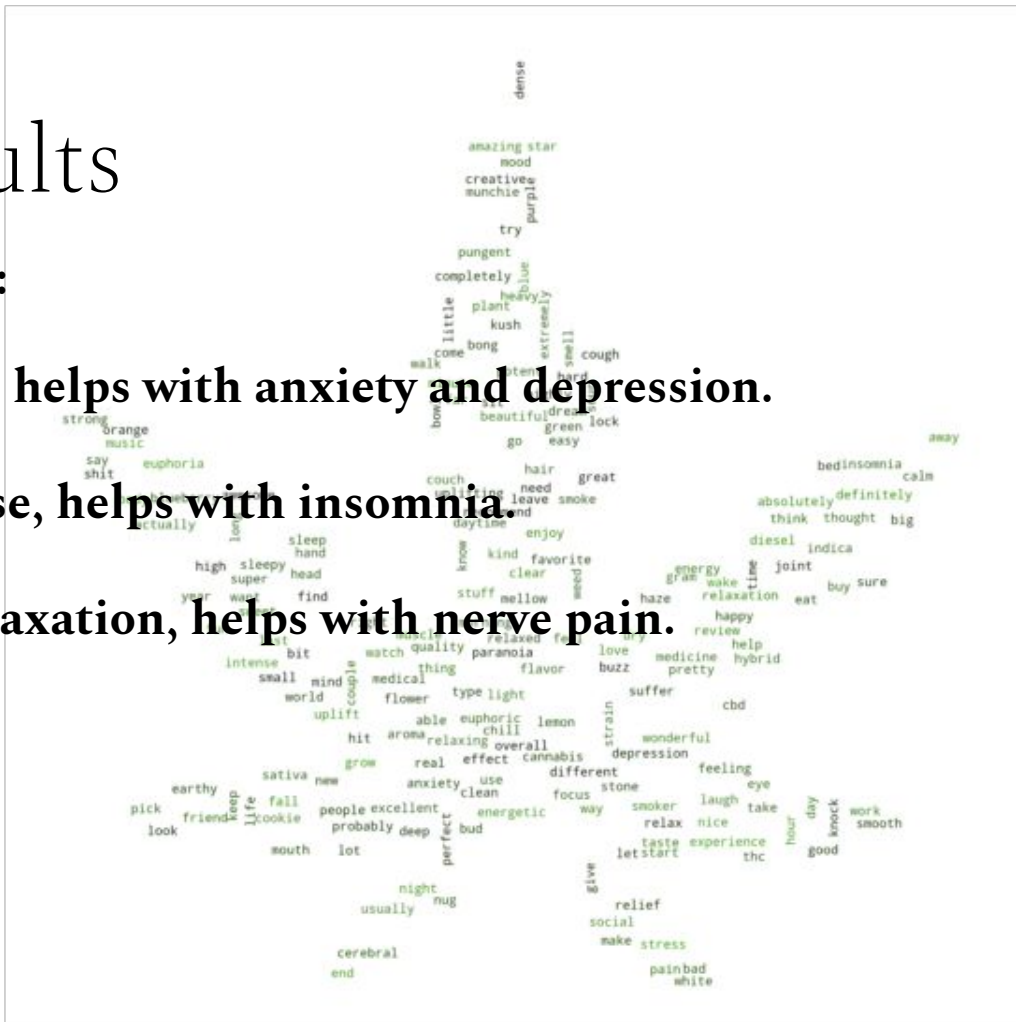
1. **Daytime use, helps with anxiety and depression.**
2. **Nighttime use, helps with insomnia.**



NLP Results

Four main topics:

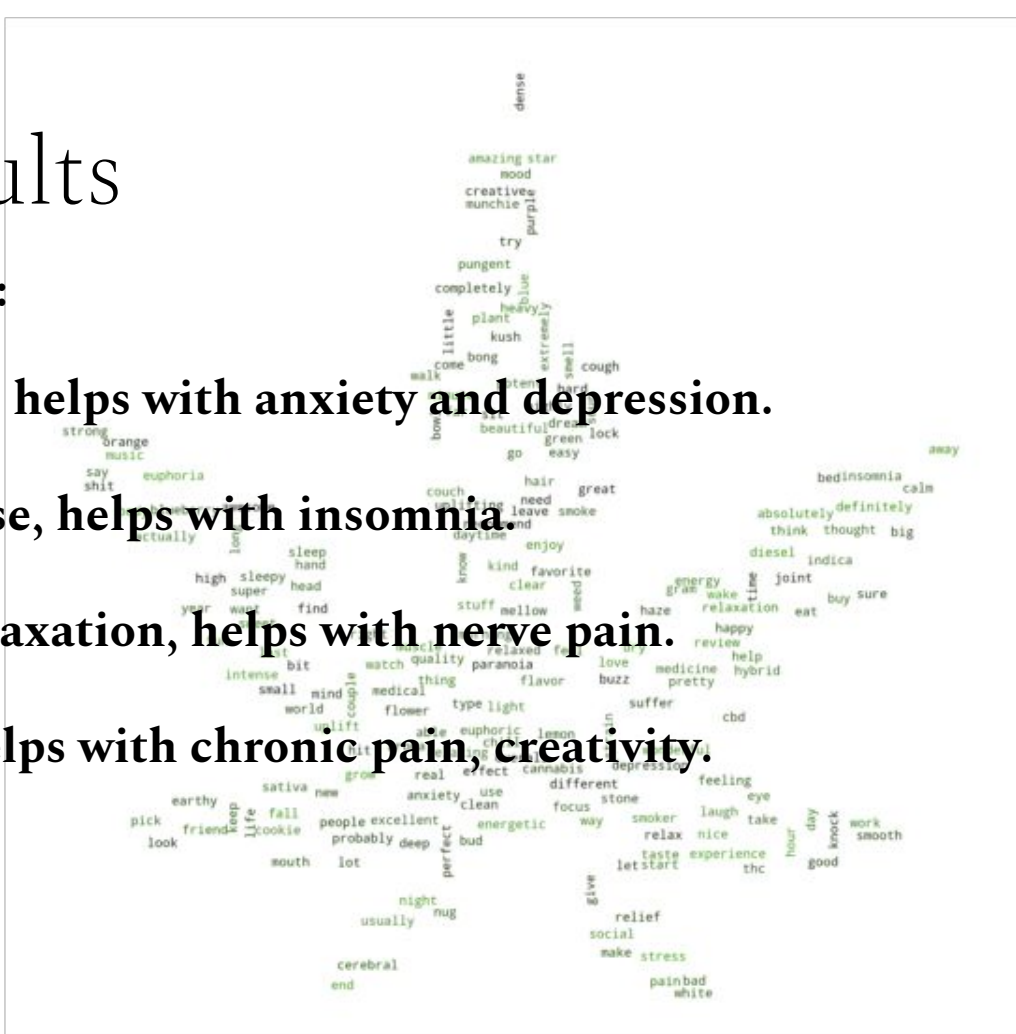
1. **Daytime use, helps with anxiety and depression.**
2. **Nighttime use, helps with insomnia.**
3. **Promotes relaxation, helps with nerve pain.**



NLP Results

Four main topics:

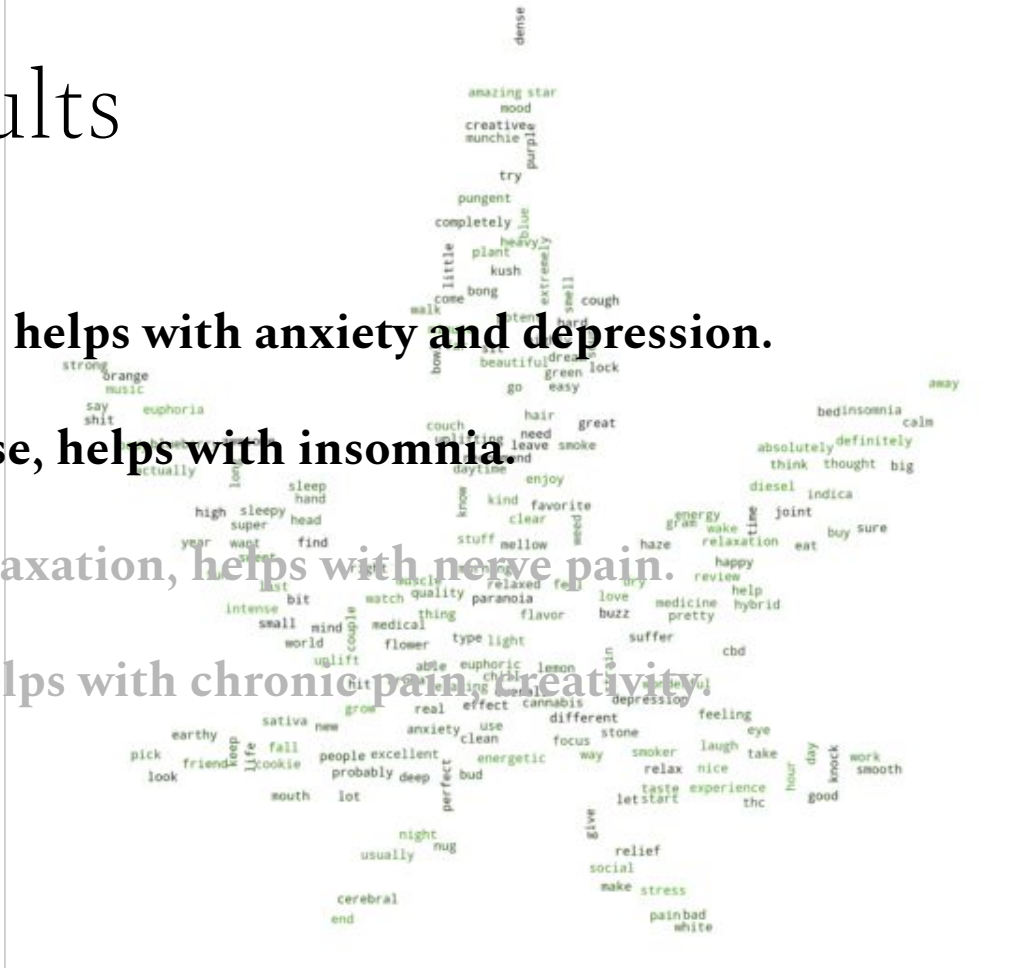
1. **Daytime use, helps with anxiety and depression.**
2. **Nighttime use, helps with insomnia.**
3. **Promotes relaxation, helps with nerve pain.**
4. **Uplifting, helps with chronic pain, creativity.**



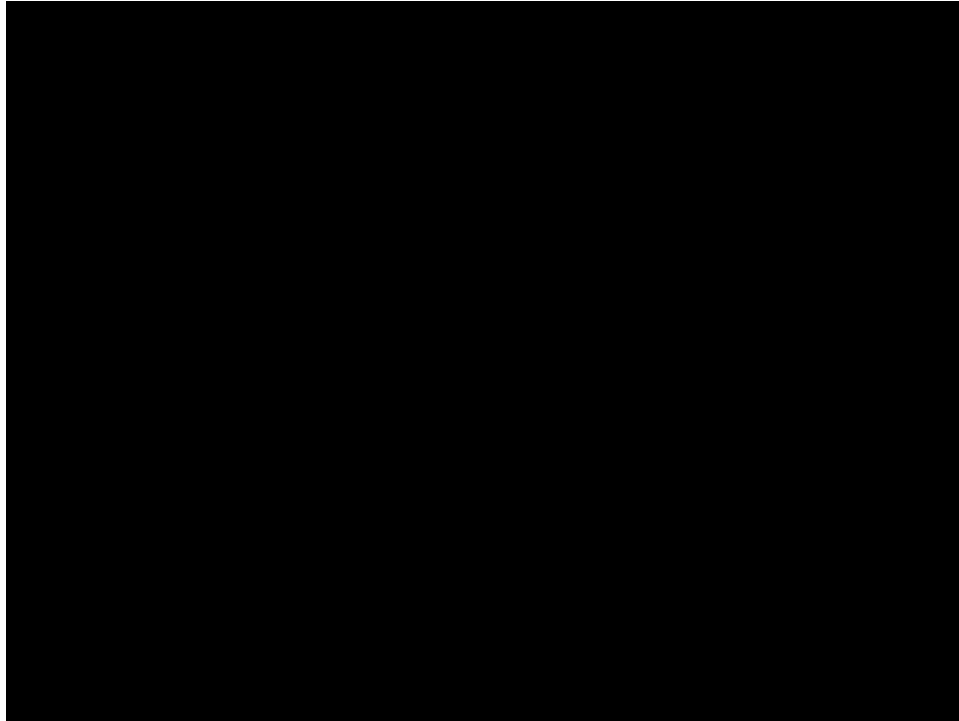
NLP Results

Majority:

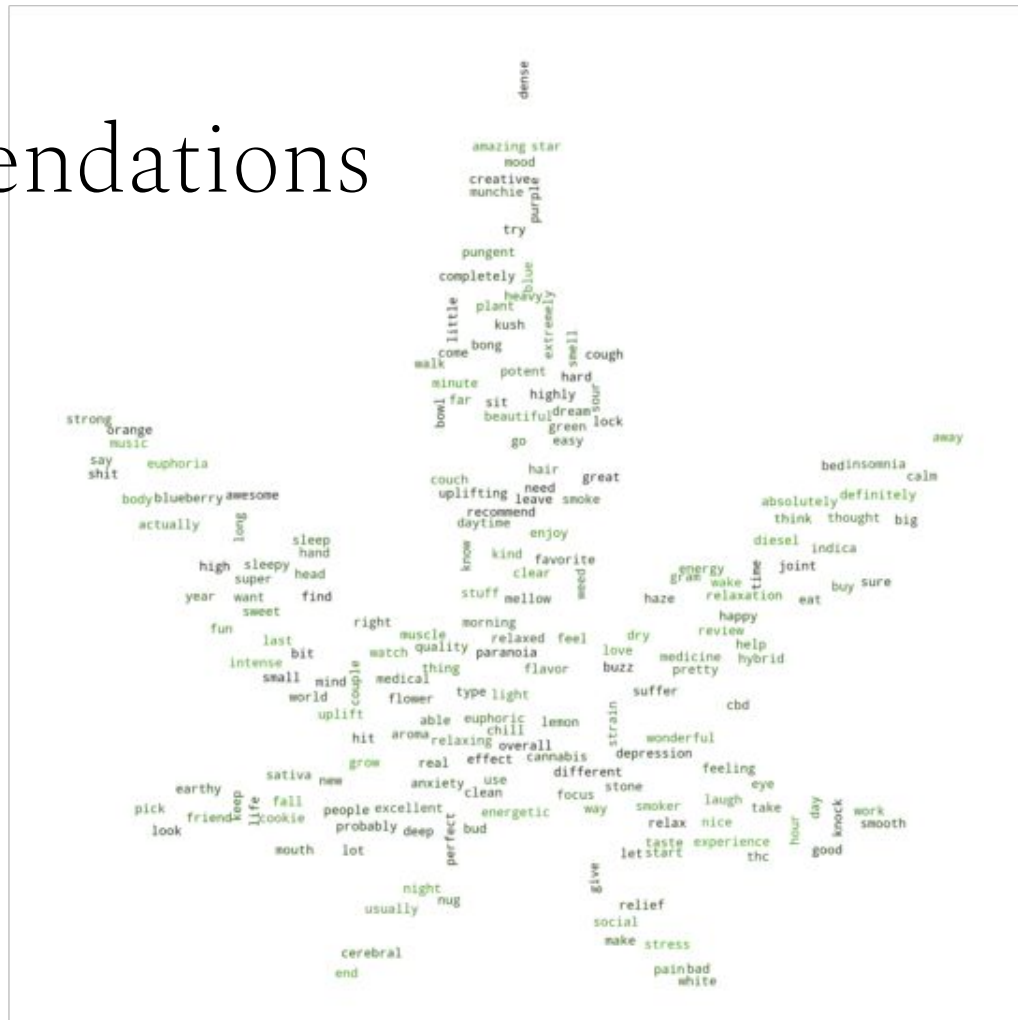
1. Daytime use, helps with anxiety and depression.
2. Nighttime use, helps with insomnia.
3. Promotes relaxation, helps with nerve pain.
4. Uplifting, helps with chronic pain, creativity.



Strains in Space



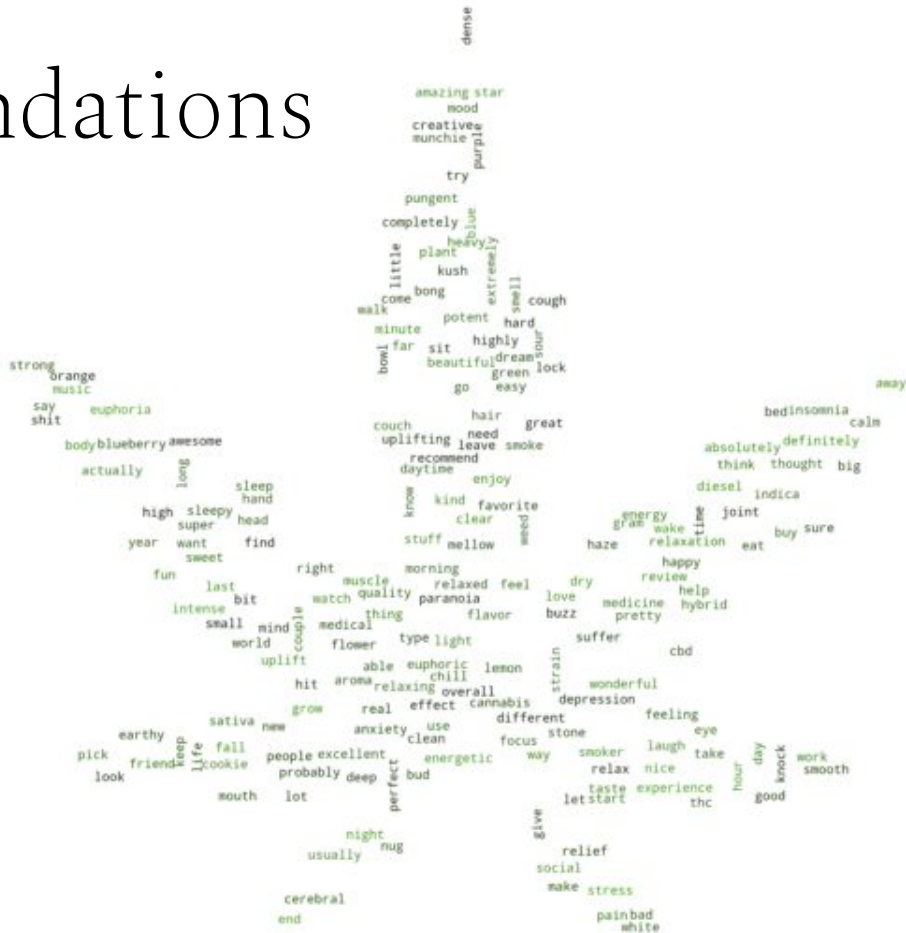
Purple Kush:



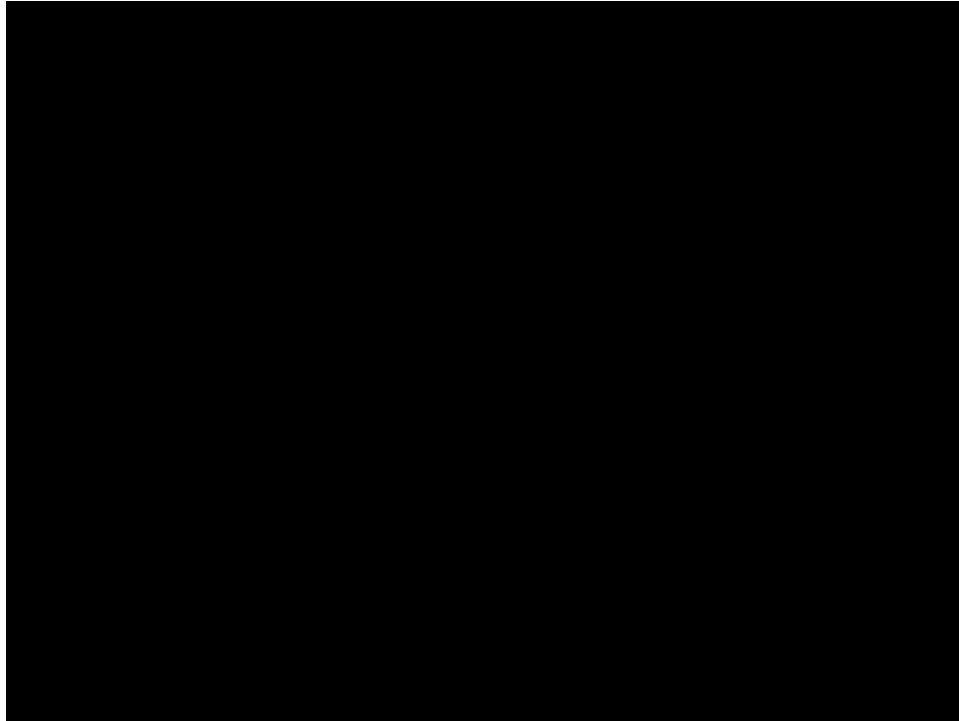
Recommendations

Purple Kush:

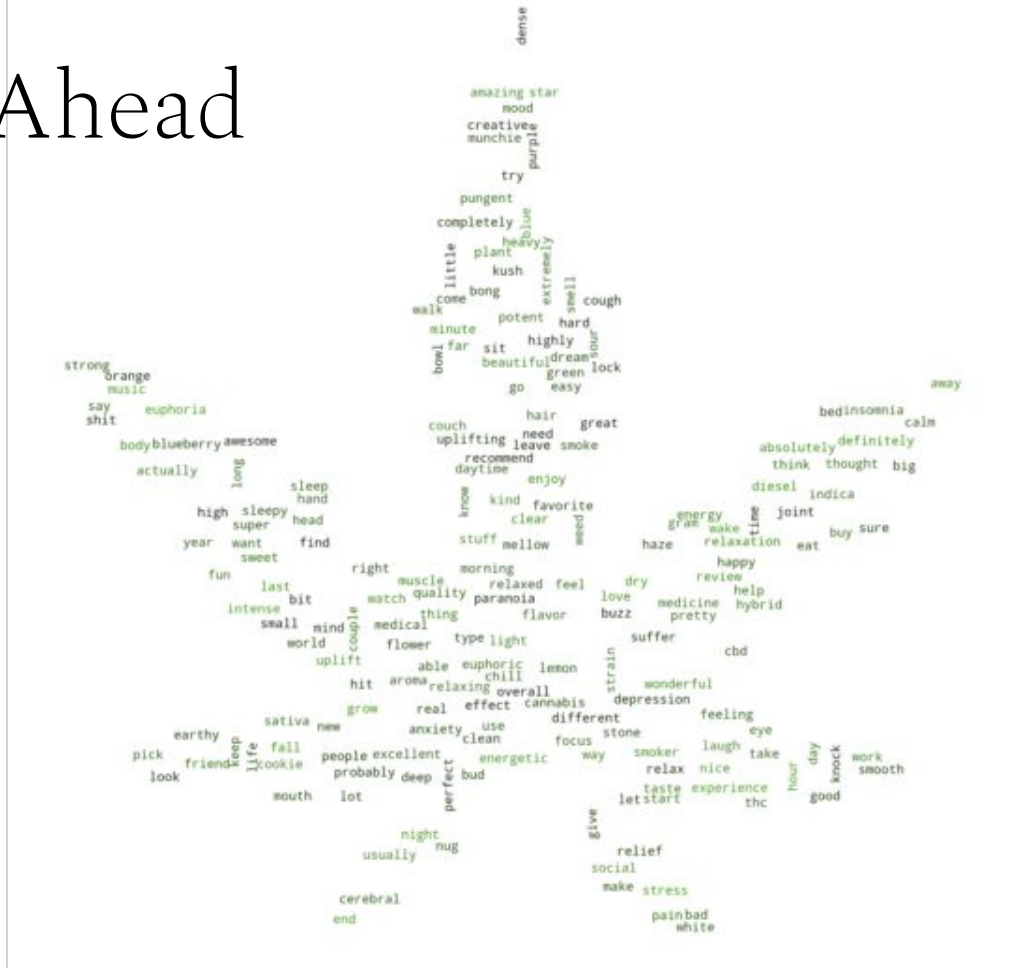
1. Master Kush
2. Hindu Kush
3. LA Confidential



Strains in Space

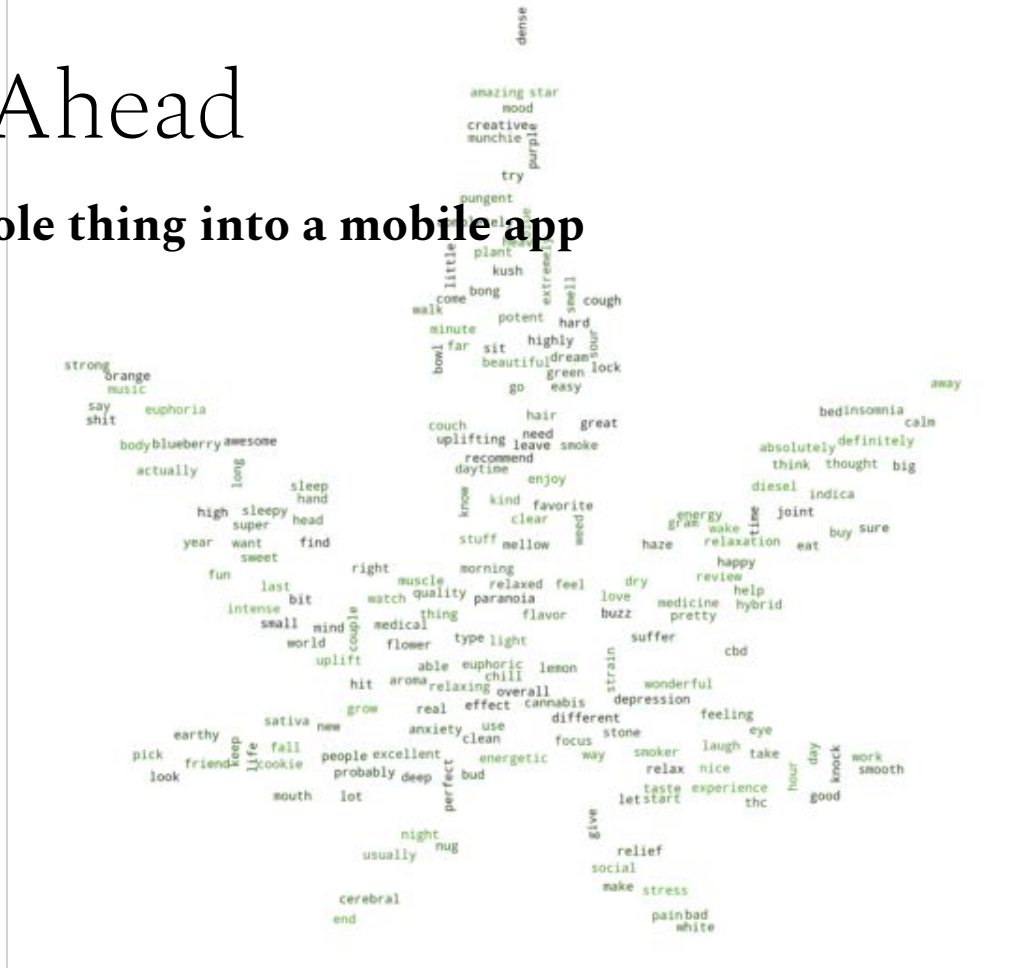


Looking Ahead



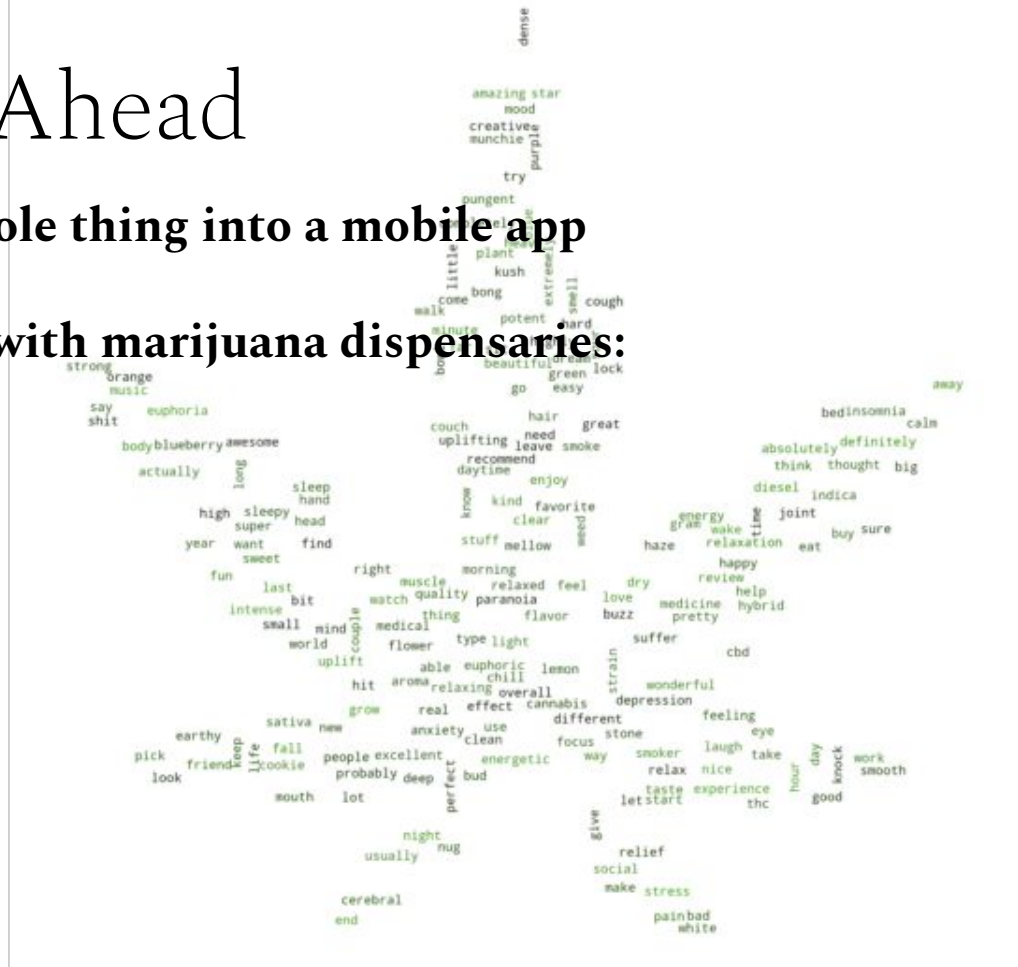
Looking Ahead

- **Turn the whole thing into a mobile app**



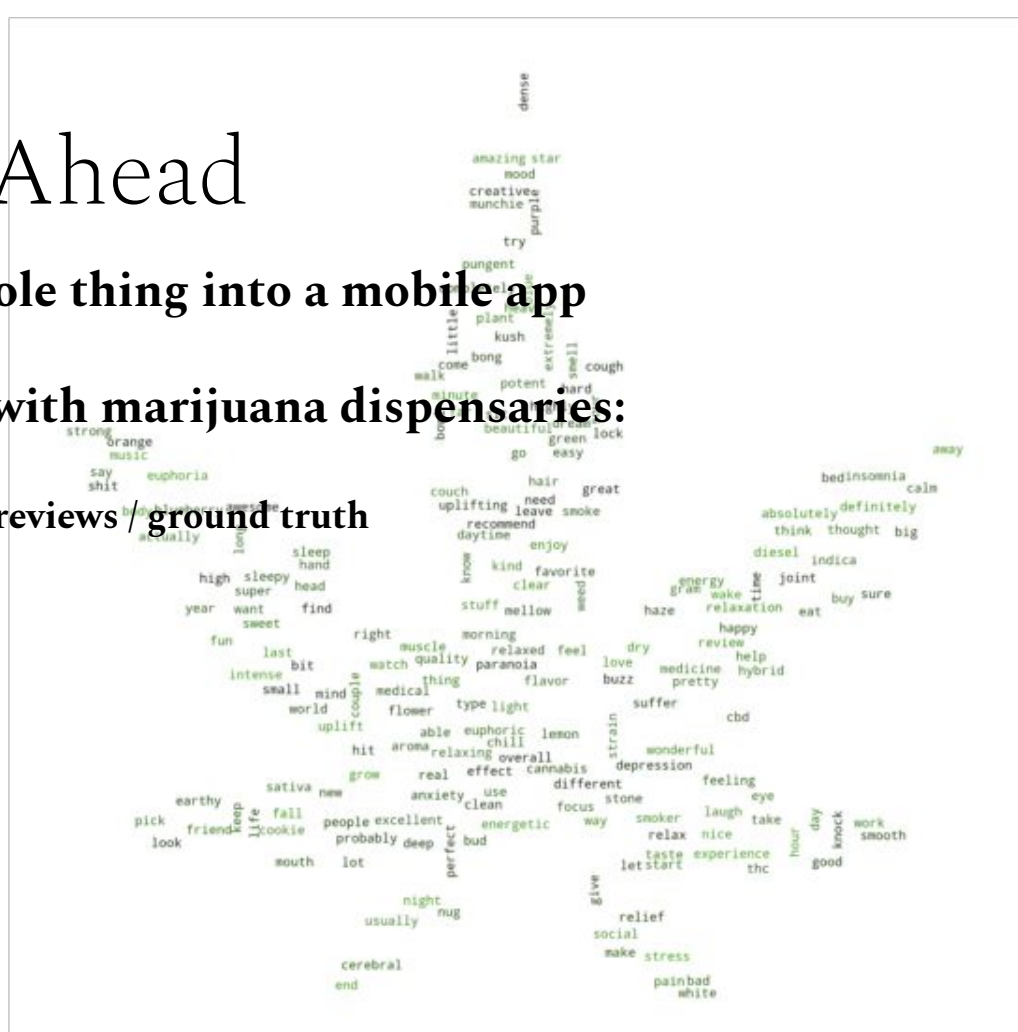
Looking Ahead

- **Turn the whole thing into a mobile app**
- **Collaborate with marijuana dispensaries:**



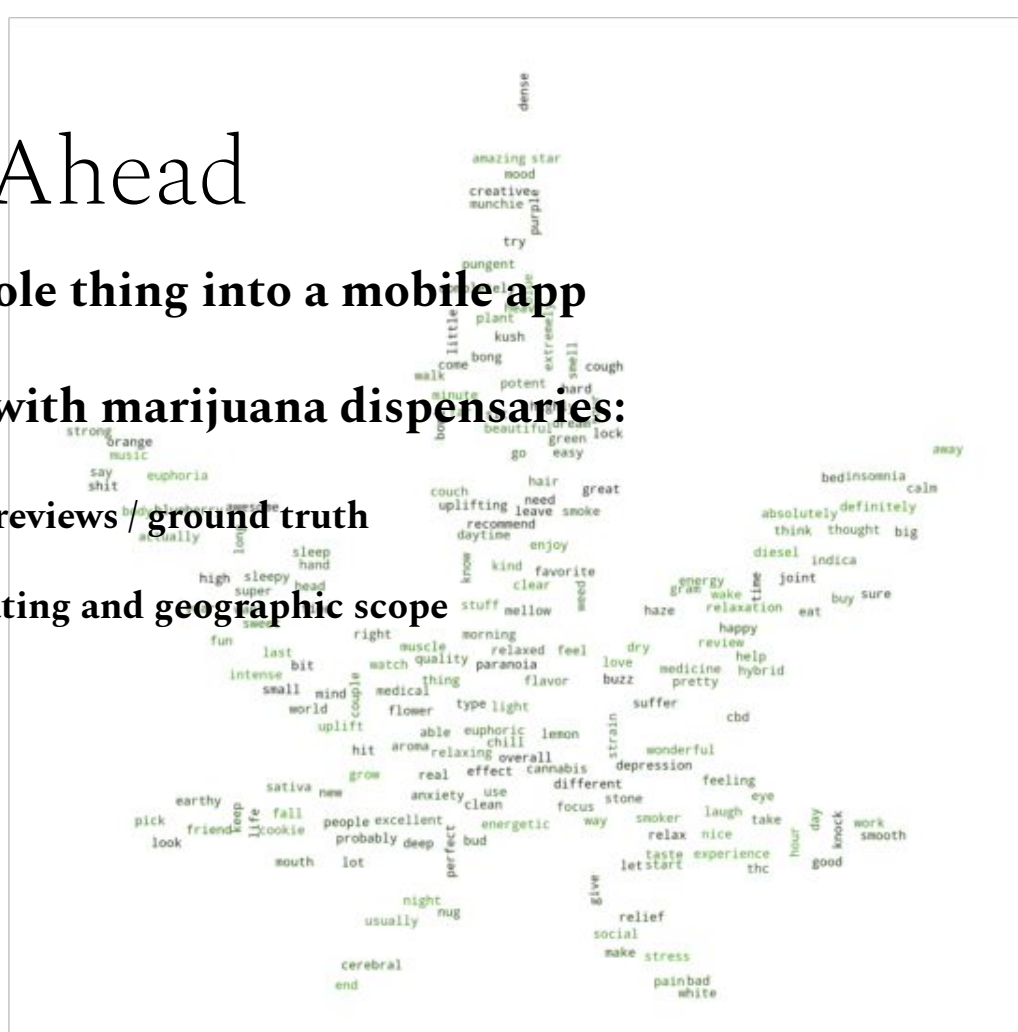
Looking Ahead

- Turn the whole thing into a mobile app
- Collaborate with marijuana dispensaries:
 - Customer reviews / ground truth



Looking Ahead

- Turn the whole thing into a mobile app
- Collaborate with marijuana dispensaries:
 - Customer reviews / ground truth
 - Daily updating and geographic scope



Thank You!



Index:

Pipeline:

Raw text

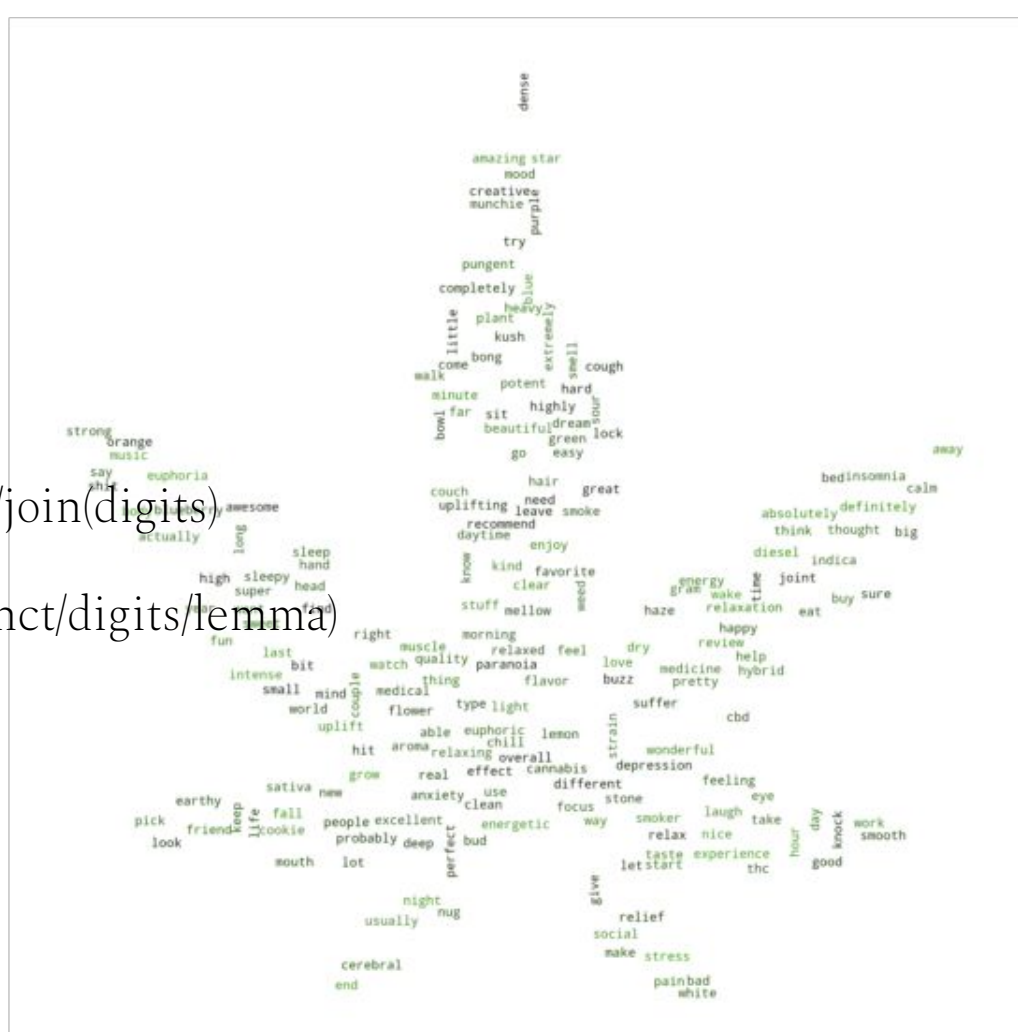
-> translate(punct)/join(digits)

-> spaCy (stops/punct/digits/lemma)

-> TF-IDF

-> NMF

-> PCA



Index:

Topics:

Topic 0

sativa dominant, start day, anxiety depression, make want, sativa high, strong sativa, wake bake, great day, great sativa, definitely recommend

Topic 1

night time, fall asleep, body stone, night sleep, great pain, strong body, great night, pure indica, heavy indica, listen music

Topic 2

nerve pain, strong indica, head body, body relaxation, glass pipe, good representation, happy high, taste sweet, high munchie, taste delicious

Topic 3

chronic pain, high cbd, like train, creative mind, hit like good time, enjoy company, effect uplift, good high, enjoy high

