

# HEALTH AND WELLNESS APP REVIEW


ANDI OSIKA

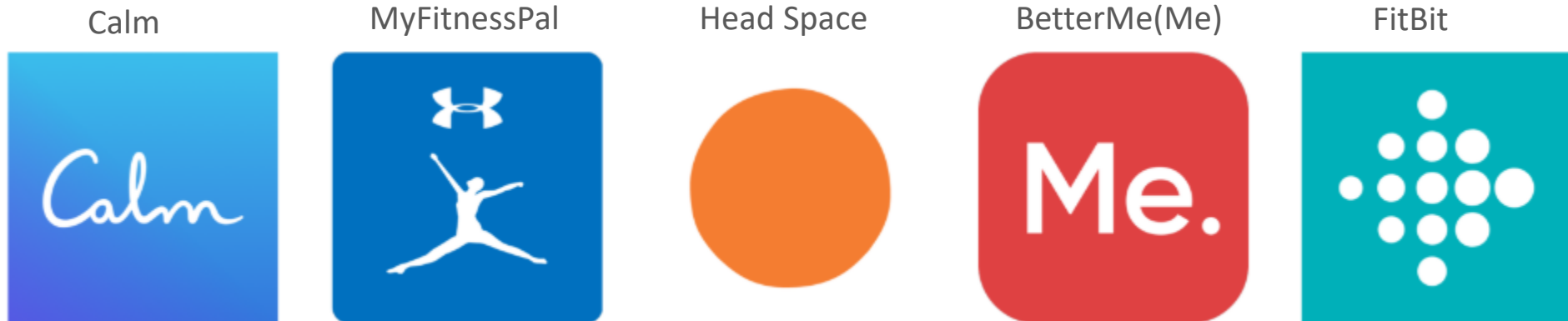
# BACKGROUND:

HEALTH AND WELLNESS APPS

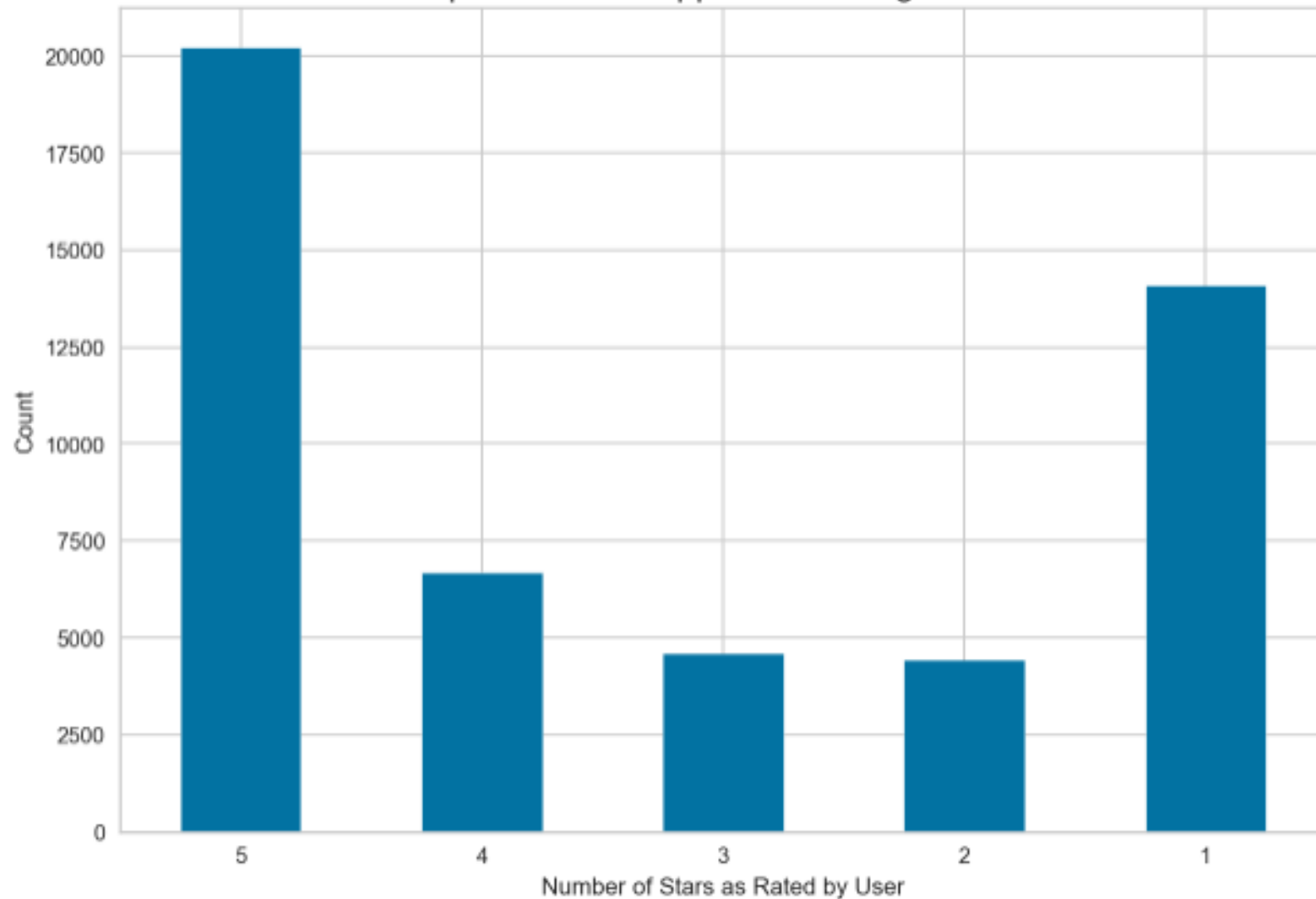
USER REVIEW INSIGHT

# BACKGROUND:

- Mobile application programs focusing on various aspects of promoting digital health
- Categories/Examples:
  - Sports/Fitness Tracking
  - Diet Nutrition/Weight Loss
  - Stress Reduction
  - Mediation
  - Medical Tracking, Community, and Services
- Positive user sentiment  key component of conversion rate.
- Top 5 Grossing Health/Wellness Apps on Google Play:

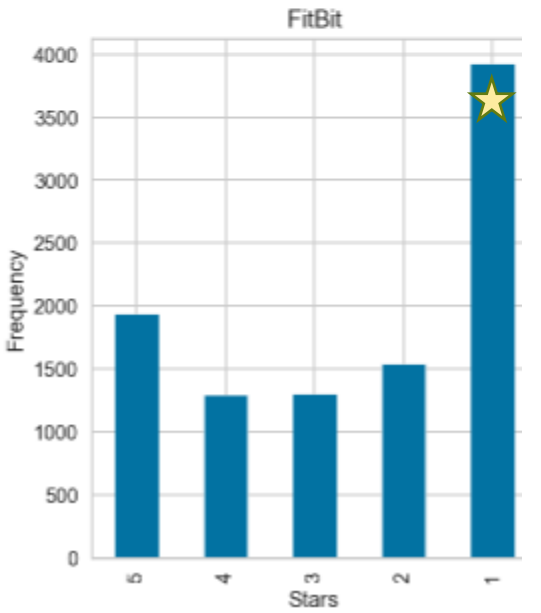
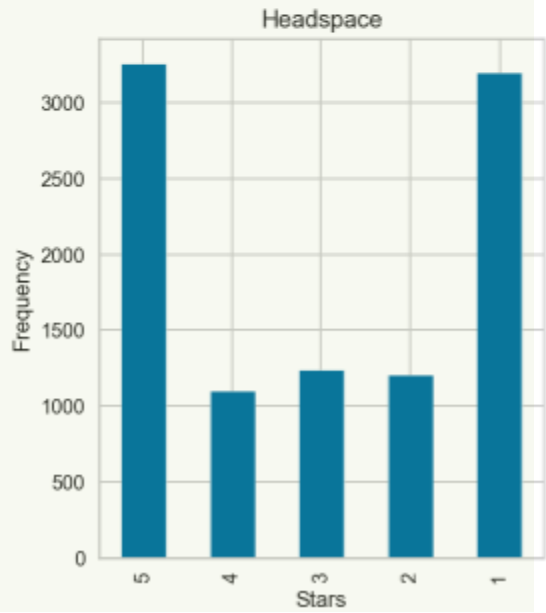
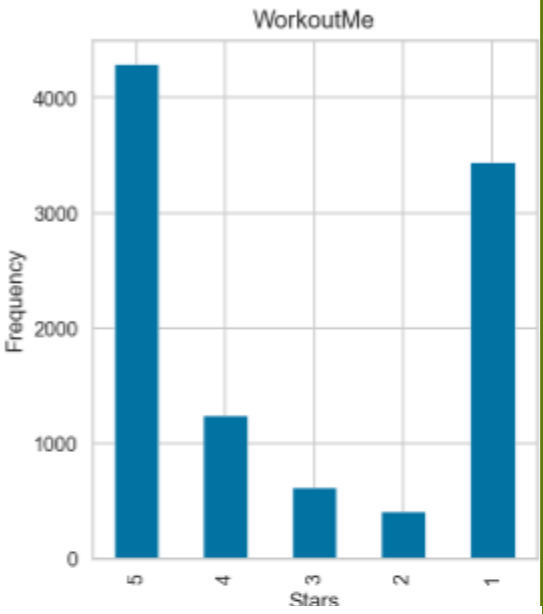
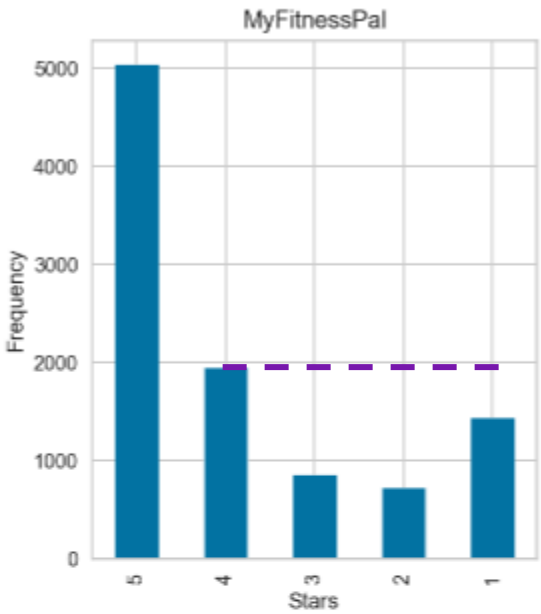
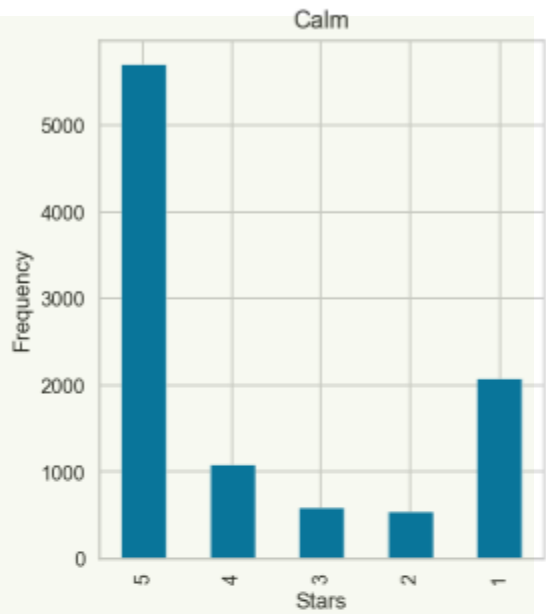


Top 5 Wellness Apps Star Rating Counts



ACROSS THE BOARD,  
REVIEWERS  
RATE WELLNESS APPS  
5 OR 1 STARS MOST  
FREQUENTLY WHEN  
IT COMES TO MOST  
RELEVANT REVIEWS:

Comparative Ratings Across Top 5 Wellness Apps



Surprising that FitBit rendered more one-star reviews than 5s by more than 2X

THE SAME PATTERN CARRIED THROUGH EACH INDIVIDUAL APP, WITH ONE EXCEPTION.





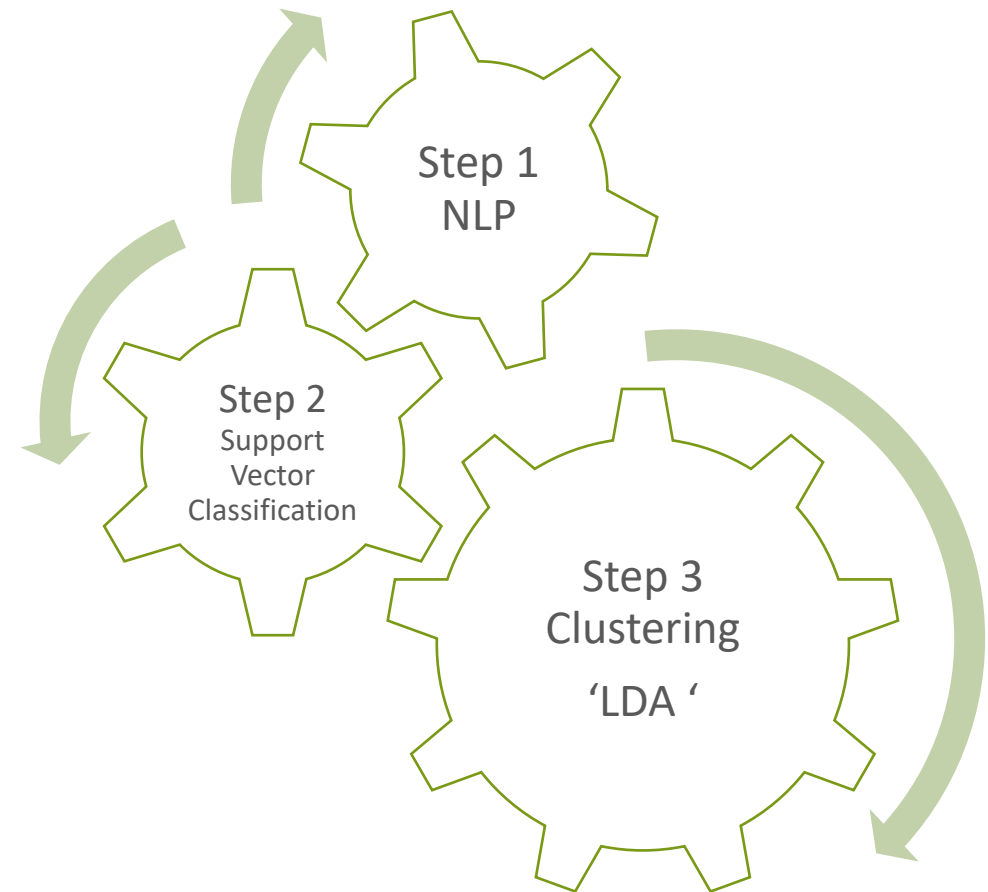
# WHAT'S IN A REVIEW?

## METHODOLOGY:

NATURAL LANGUAGE PROCESSING, SUPPORT VECTOR CLASSIFICATION AND 'CLUSTERING'  
A.K.A.  
(NLP, LSVC, & LDA)

# THE PROCESS OF EXAMINING REVIEW CONTENT

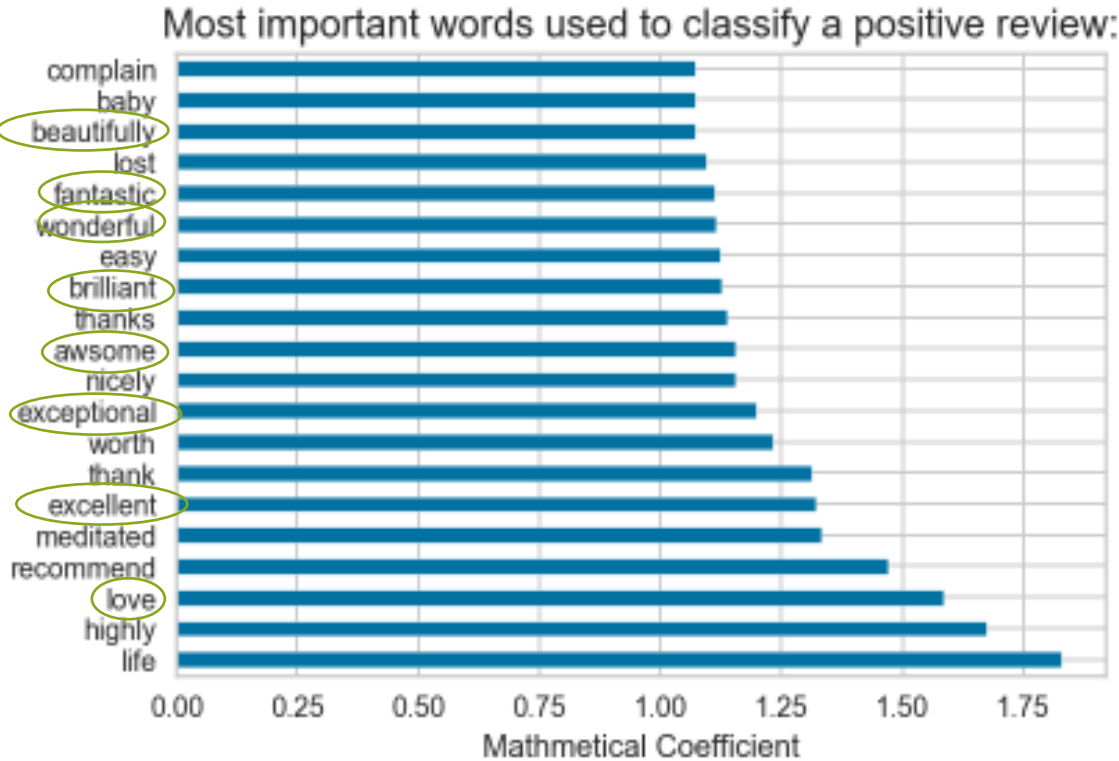
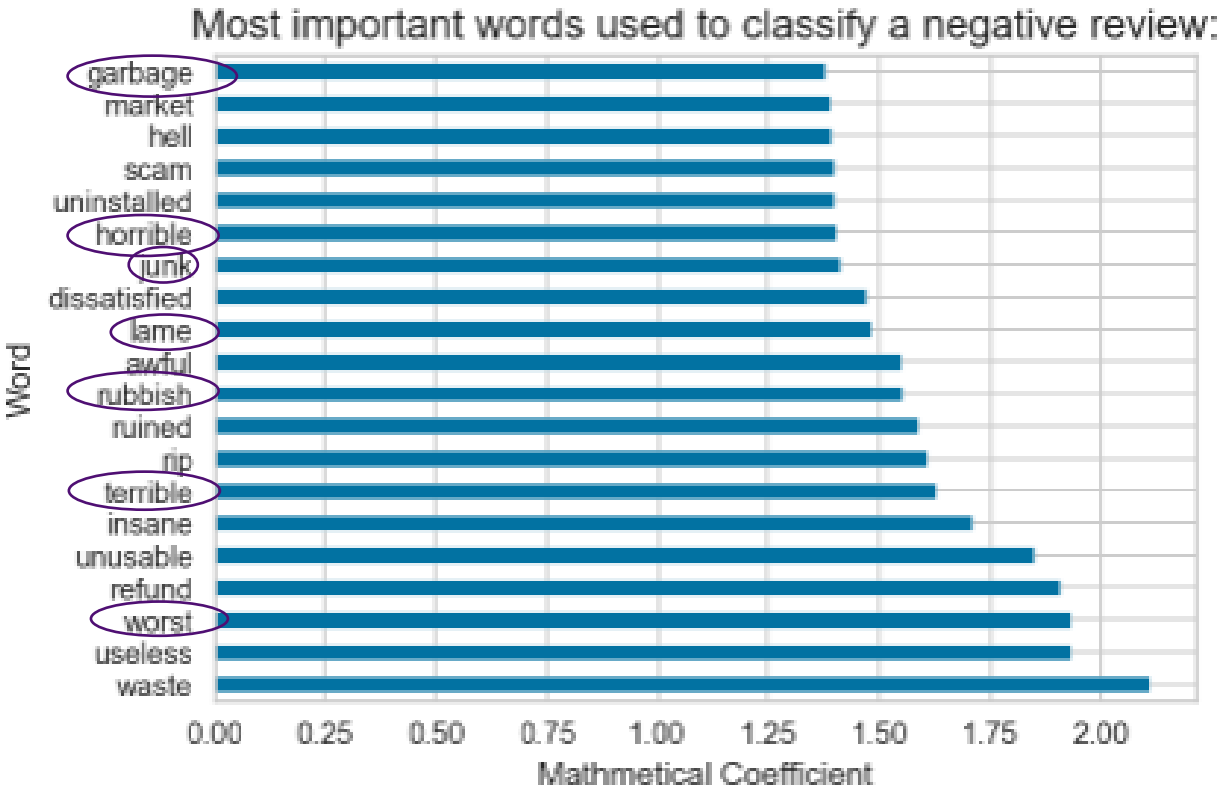
- Natural Language Processing:
  - Makes words → 'Vectors'
- Support Vector Machine Classification
  - Vectors → Classification
    - 'Positive', 'Negative' or 'Neutral'
- Clustering
  - Looks for patterns in terms based on how they 'relate' to each other.
  - LDA: Latent Dirichlet Allocation



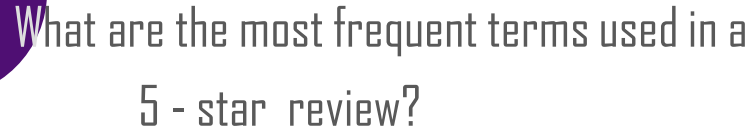
# RESULTS:

## ISVC: Linear Support Vector Classification

Class	Baseline Values:	ISVC Recall Values:
Positive Sentiment	41%	92%
Negative Sentiment	31%	85%
Neutral Sentiment	28%	43%







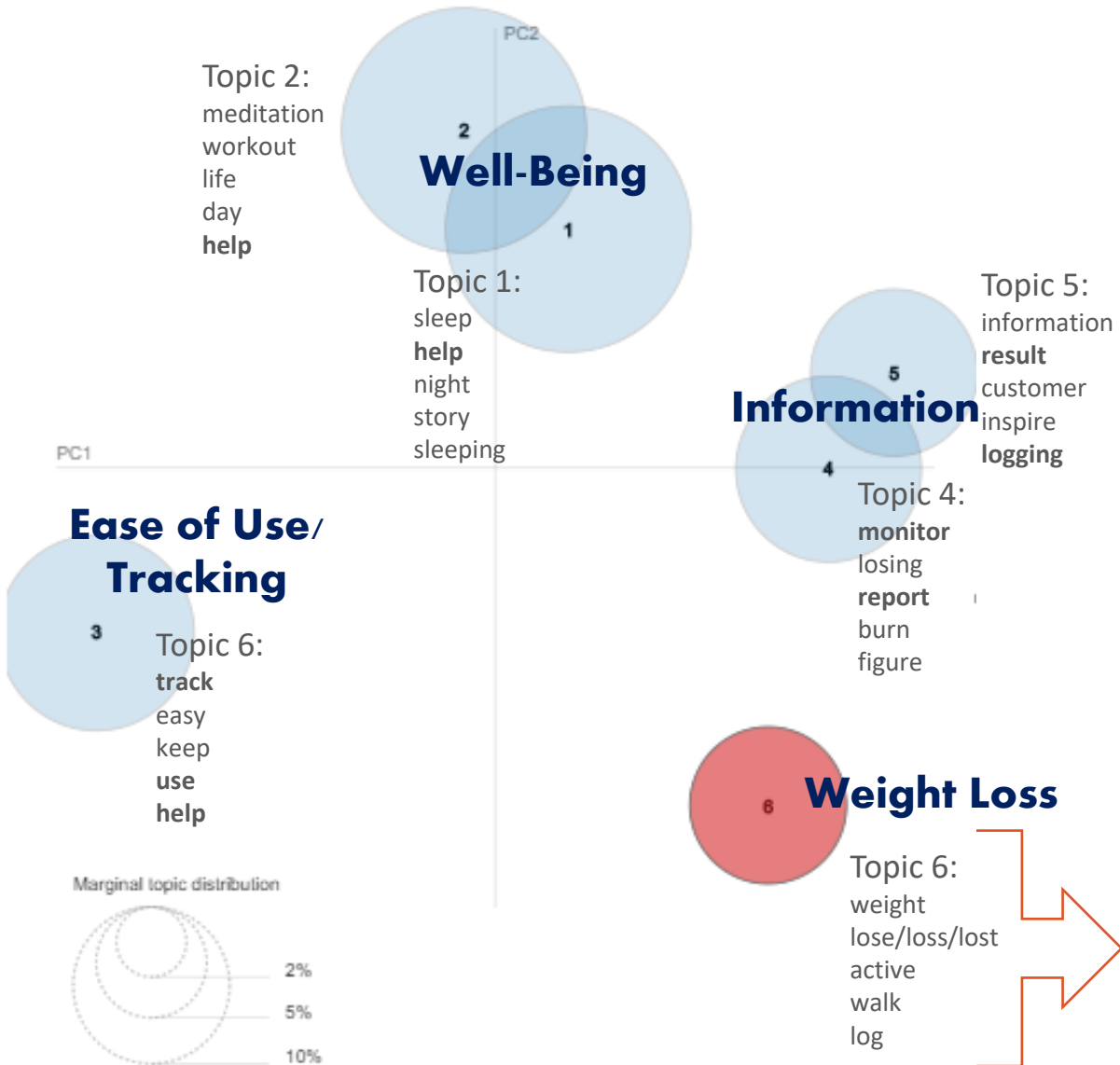
What trends are observed by comparing words used in relation to the rating?

# POSITIVE SENTIMENT CLUSTER ANALYSIS USING

# LATENT DIRICHLET ALLOCATION – L.D.A

Selected Topic:

Intertopic Distance Map (via multidimensional scaling)



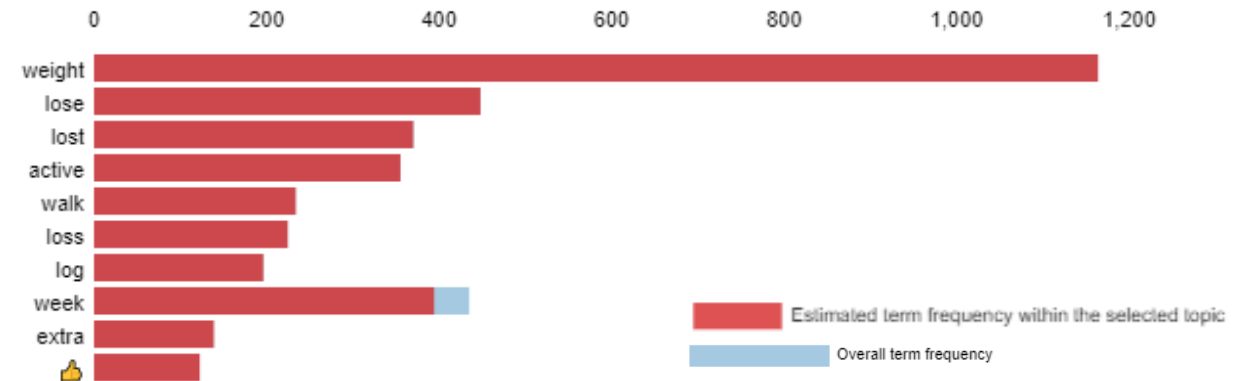
## 5-Star LDA Model Results

6 Topics

4 Areas

Cross- topic terms:  
Tracking/logging, use, help

Top 10 Most Relevant Terms for Topic 6 ( 10% of tokens )





# NEGATIVE SENTIMENT ANALYSIS USING

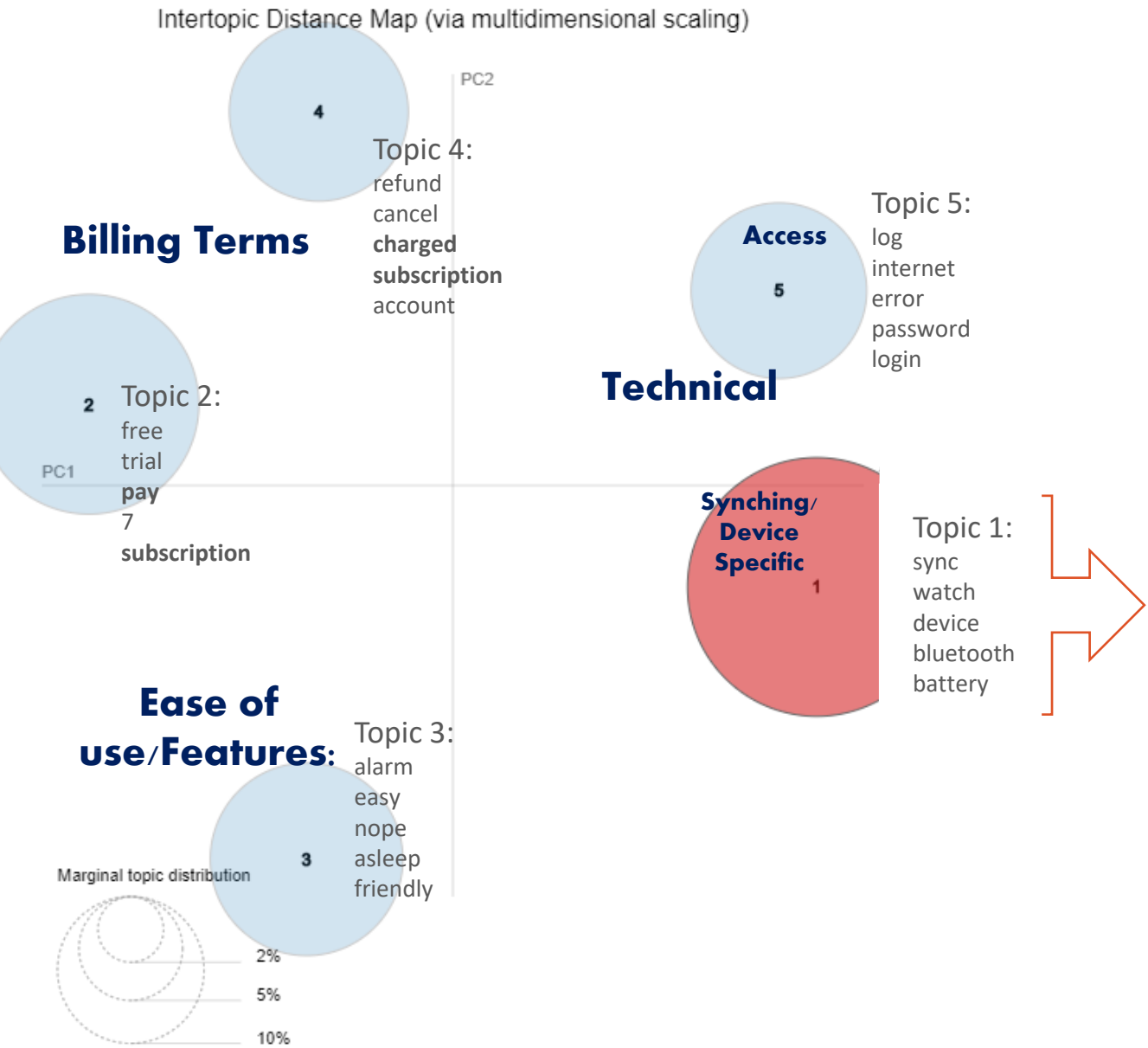
# LATENT DIRICHLET ALLOCATION – L.D.A.



## What are the most informative terms used in a 1 - star review?



What trends are observed by comparing words used in relation to the rating?

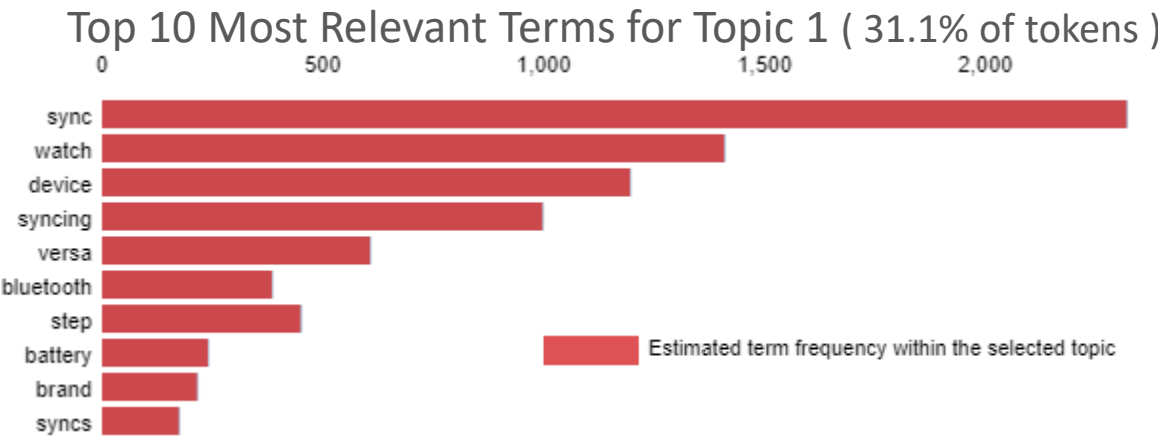


1-Star LDA Model Results

5 Topics

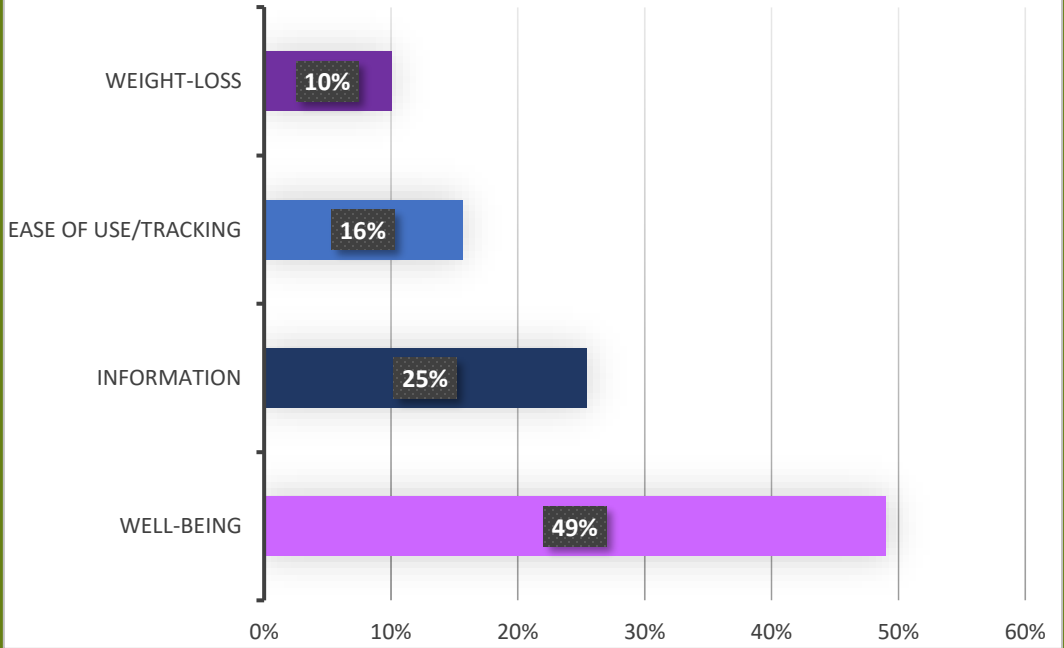
4 Areas

Cross- topic terms:  
Subscription, payment

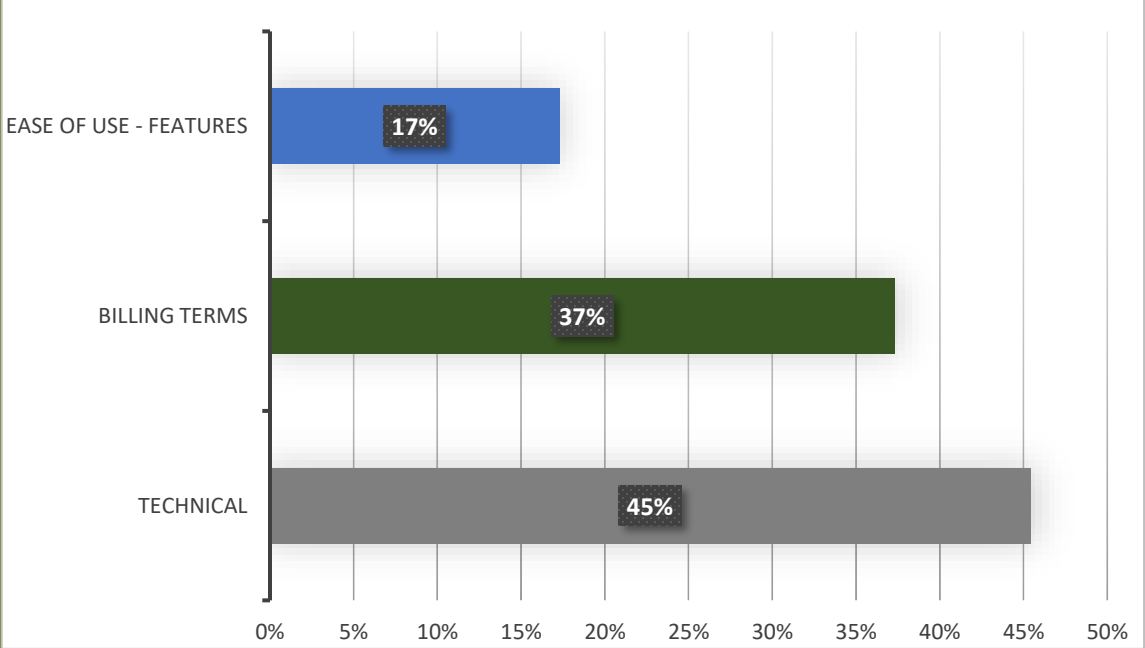


# 5-STAR VS 1-STAR REVIEW COMPOSITION COMPARISON:

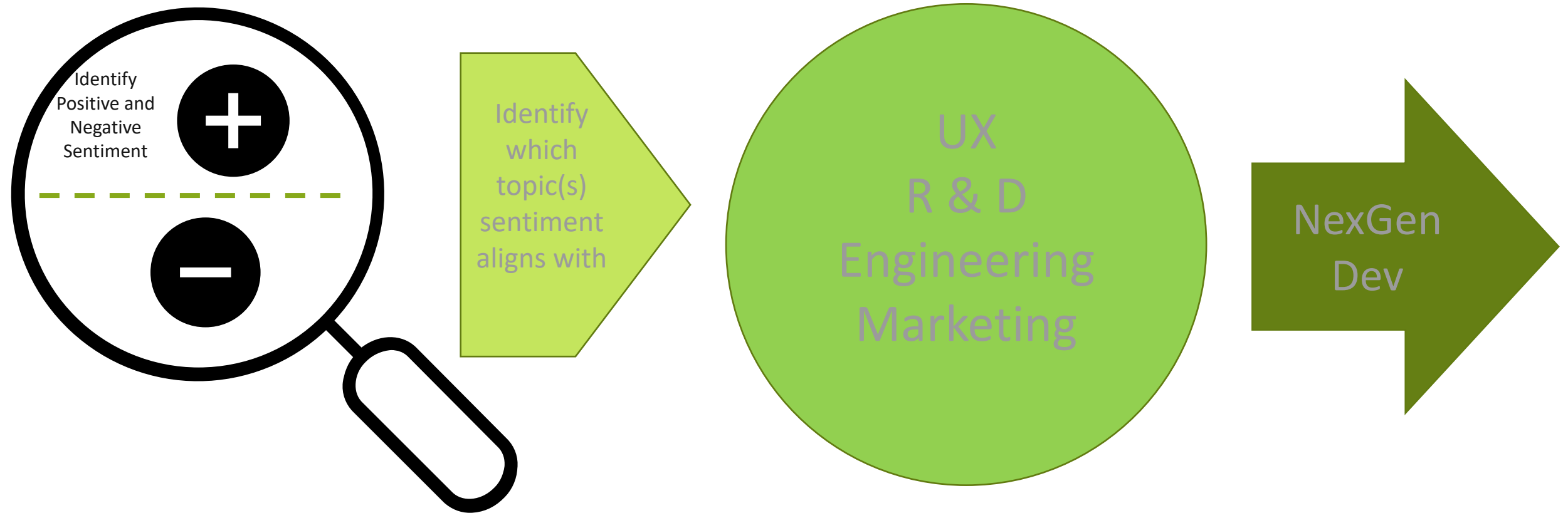
Topic Frequency in 5 Star Reviews



Topic Frequency in 1 Star Reviews

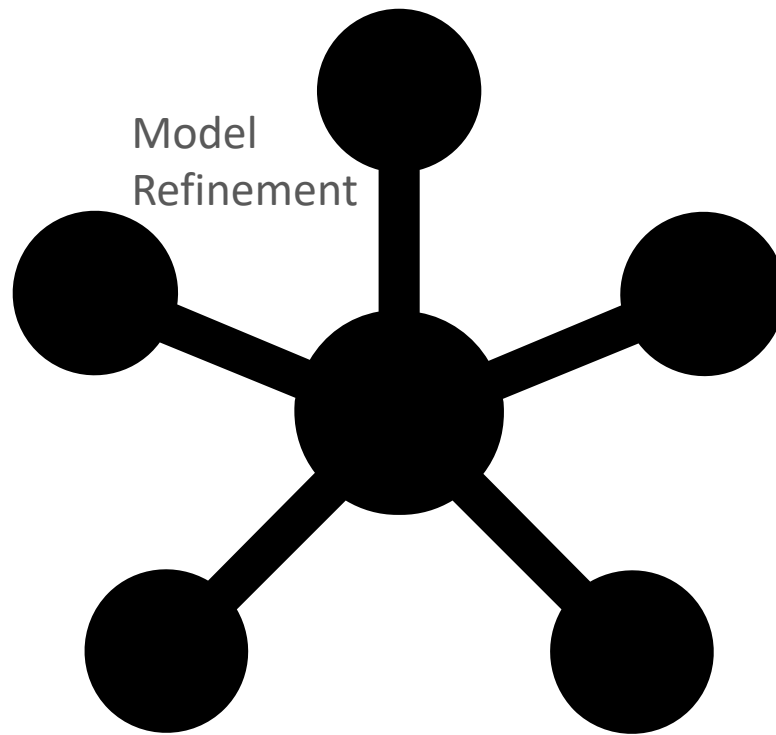
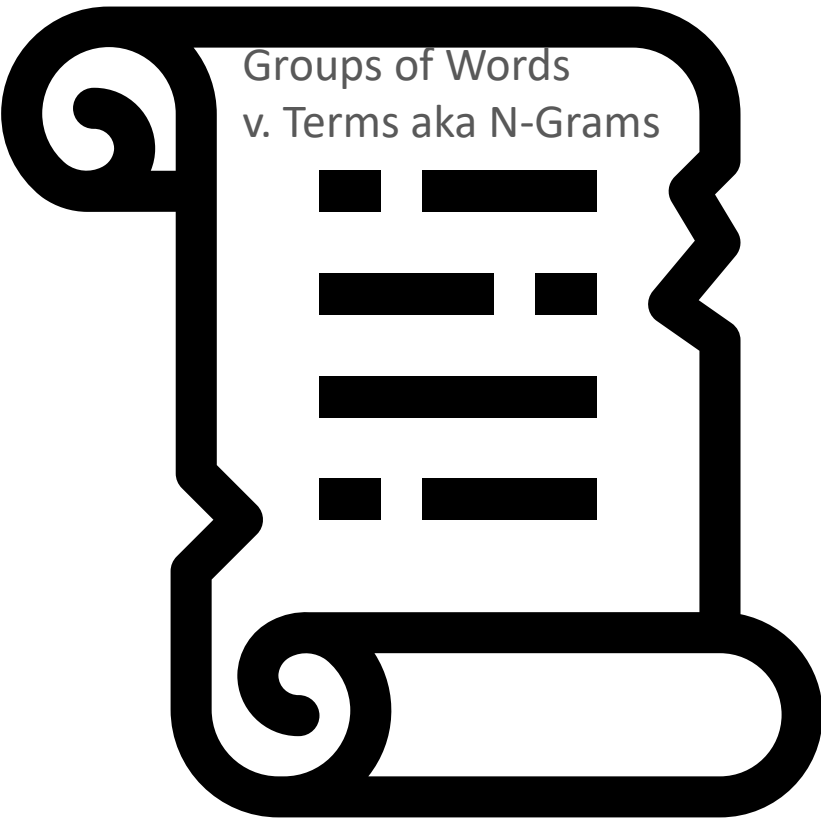






## RECOMMENDATIONS

- MAKE EASE OF USE A PRIORITY
- IMPROVE UX WITH ACCESS TO RELEVANT DATA
- EXPLOIT APP-SPECIFIC FEATURES
- RESOLVE SYNCING ISSUES
- BE CLEAR ON TRIAL AND PAYMENT TERMS



FUTURE WORK:

# THANK YOU

VISIT: [HTTPS://GITHUB.COM/ANDIOSIKA/FLATIRON\\_CAPSTONE](https://github.com/ANDIOSIKA/FLATIRON_CAPSTONE)