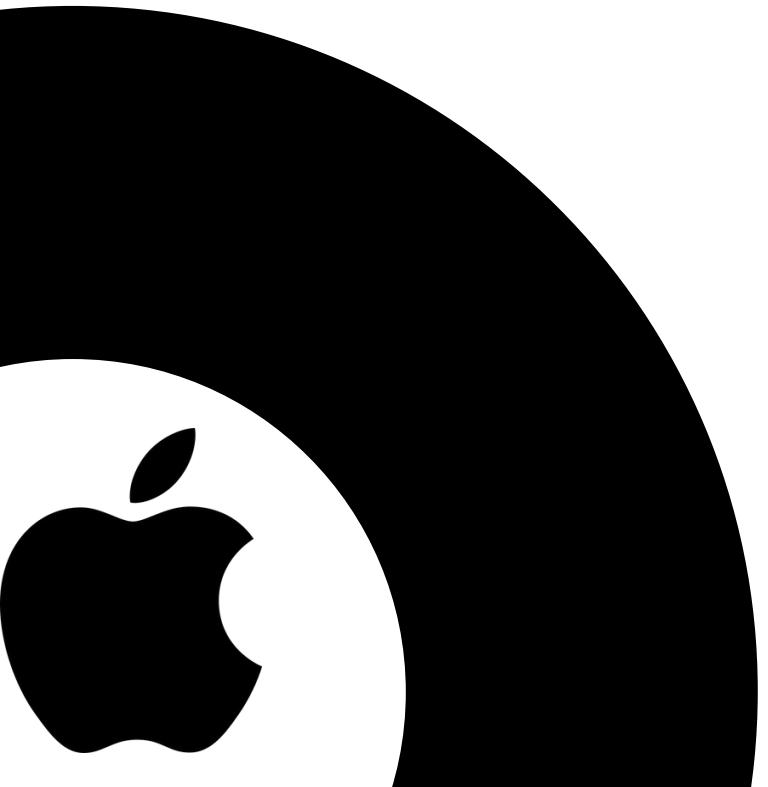
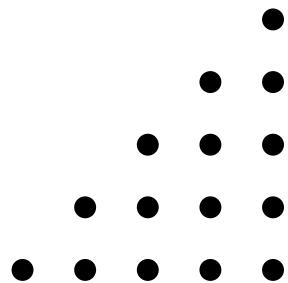




TWITTER SENTIMENT ANALYSIS



December 8, 2023



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AGENDA

01

BUSINESS PROBLEM

02

DATA OVERVIEW

03

ANALYSIS

04

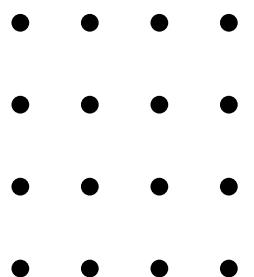
MODELING

05

RECOMMENDATIONS

06

FUTURE STEPS



BUSINESS PROBLEM

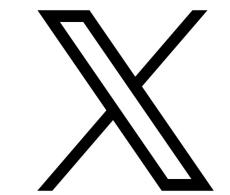


TASK - TWITTER SENTIMENT ANALYSIS:

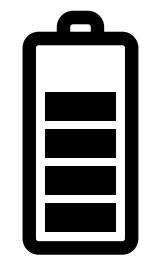
- IMPROVE BRAND RECOGNITION
- CREATE A MODEL

TWITTER BACKGROUND

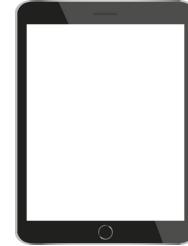
- 14TH MOST POPULAR SOCIAL MEDIA PLATFORM
- 237.8 MILLION MONETIZABLE DAILY ACTIVE USERS
- 40% FALLS IN THE 25 TO 34 AGE GROUP
- 56.4% MALE AND 43.6% FEMALE USERS



FINDINGS



IPHONE : CONCERNS ABOUT BATTERY



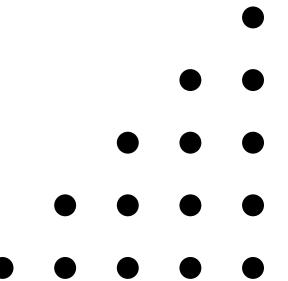
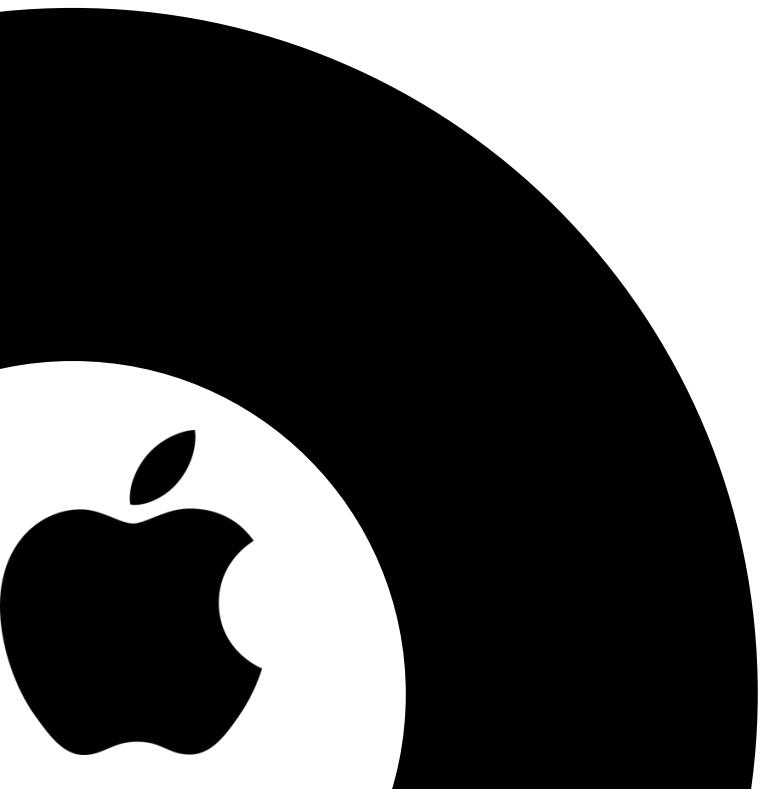
IPAD: PRAISE AND CONCERNS REGARDING DESIGN



APPLE COMPANY: SUBOPTIMAL EXTERNAL COMMUNICATION

X

DATA OVERVIEW



DATA OVERVIEW

- 9093 TWEETS DURING SXSW 2013
- GOOGLE AND APPLE
- 60% OF DATA CONSISTS OF NEUTRAL SENTIMENTS



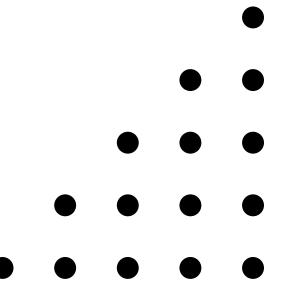
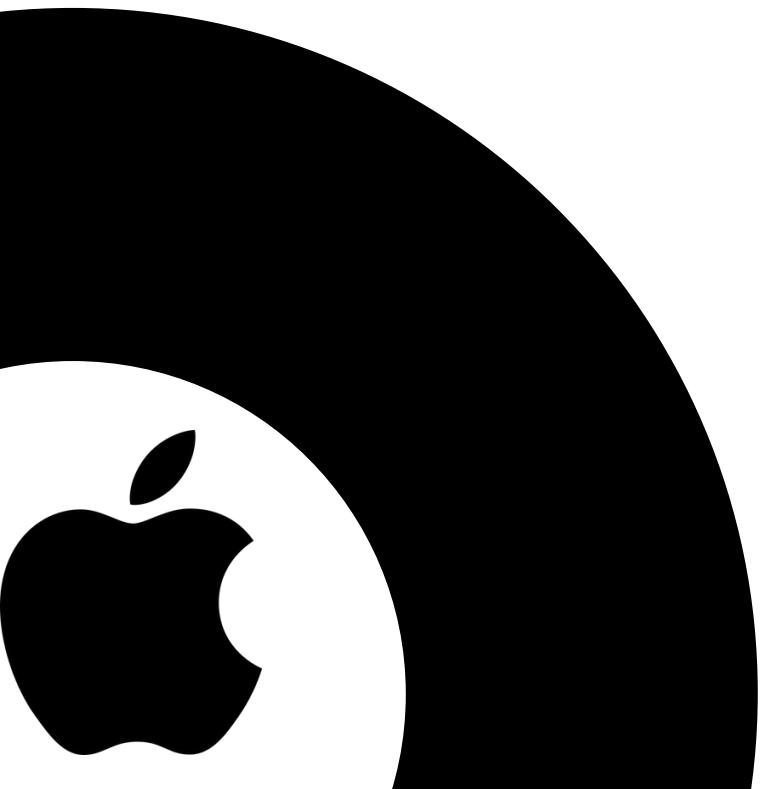
DATA LIMITATIONS

- IMBALANCED TARGET'S CLASSES
- LIMITED REPRESENTATION OF COMPANIES' CUSTOMERS
- SENTIMENT SUSCEPTIBLE TO INDIVIDUAL HUMAN INTERPRETATION

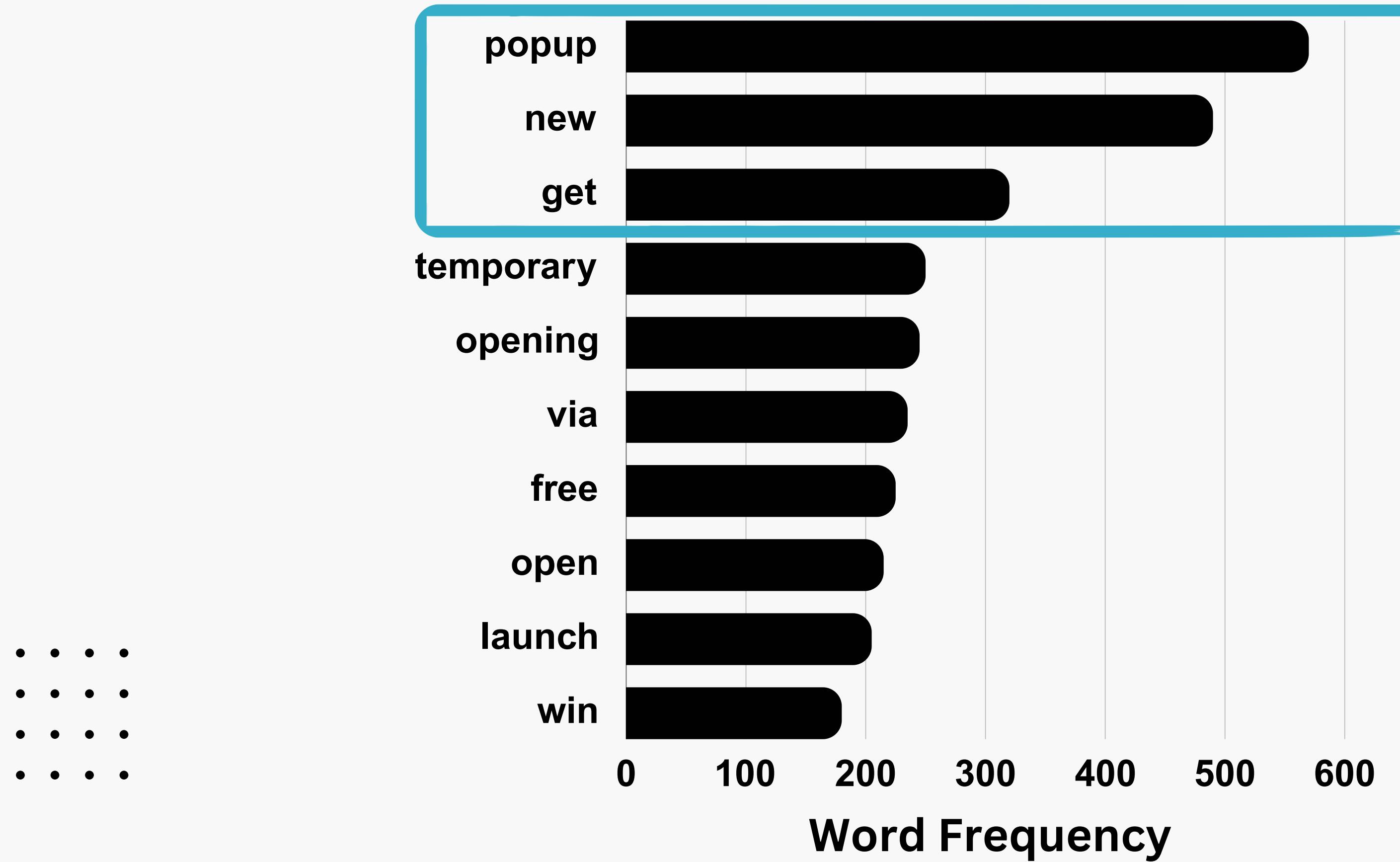
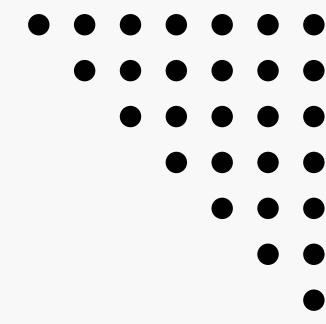


X

ANALYSIS & MODELING



PEOPLE ARE EXCITED ABOUT NEW APPLE PRODUCT LAUNCH



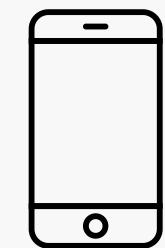
OPINION ON IPAD DESIGN IS DIVIDED

A word cloud visualization showing the most frequently used words from a dataset. The words are arranged in a grid-like pattern, with larger words representing higher frequency. The words include:

- design
- new
- year
- free
- time
- session
- got
- next
- great
- check
- video
- want
- case
- use
- first
- day
- thing

The words are color-coded, creating a visual gradient across the grid. The colors range from dark purple to bright green, with some words having multiple colors due to being part of different clusters or having multiple meanings.

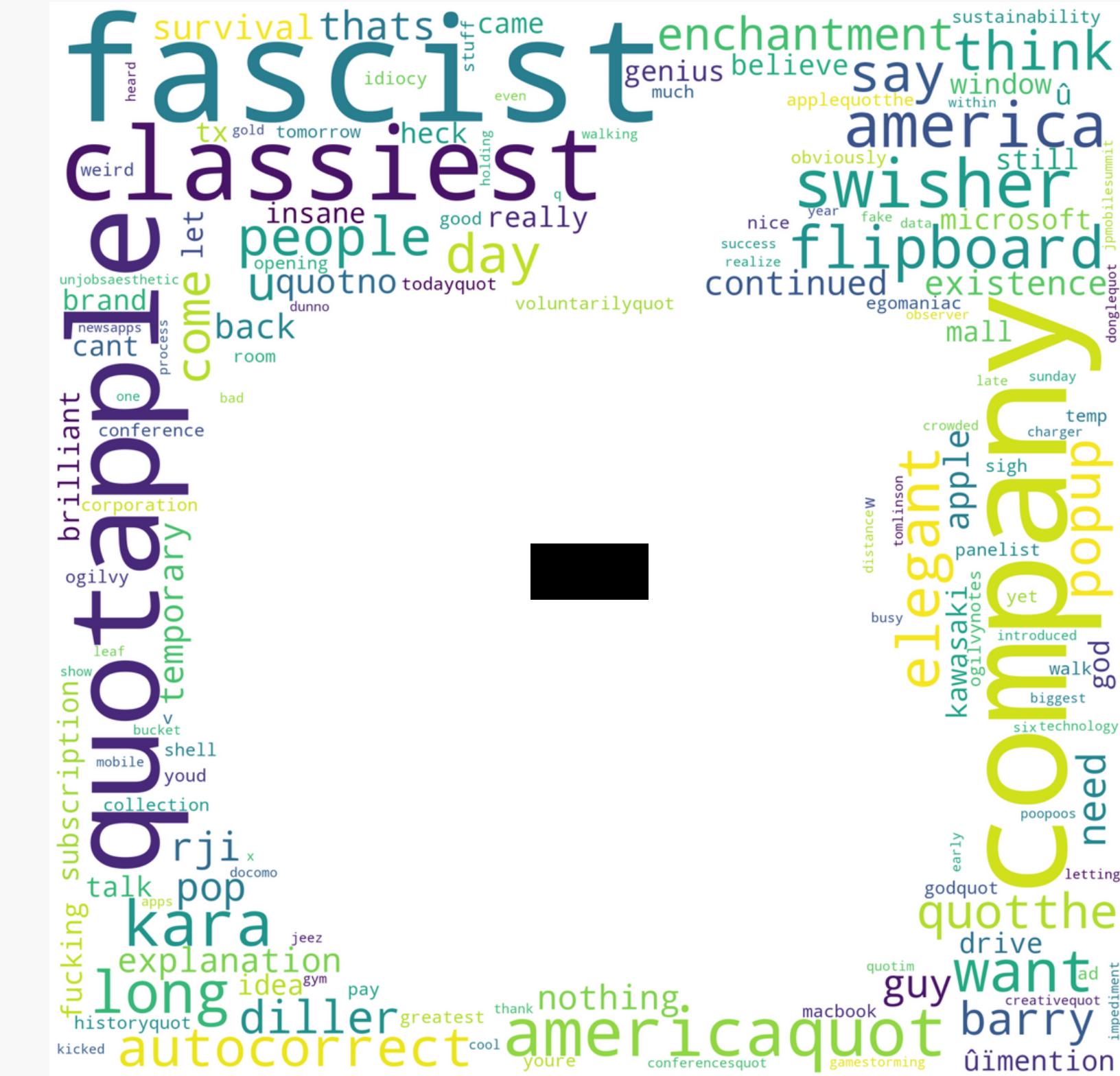
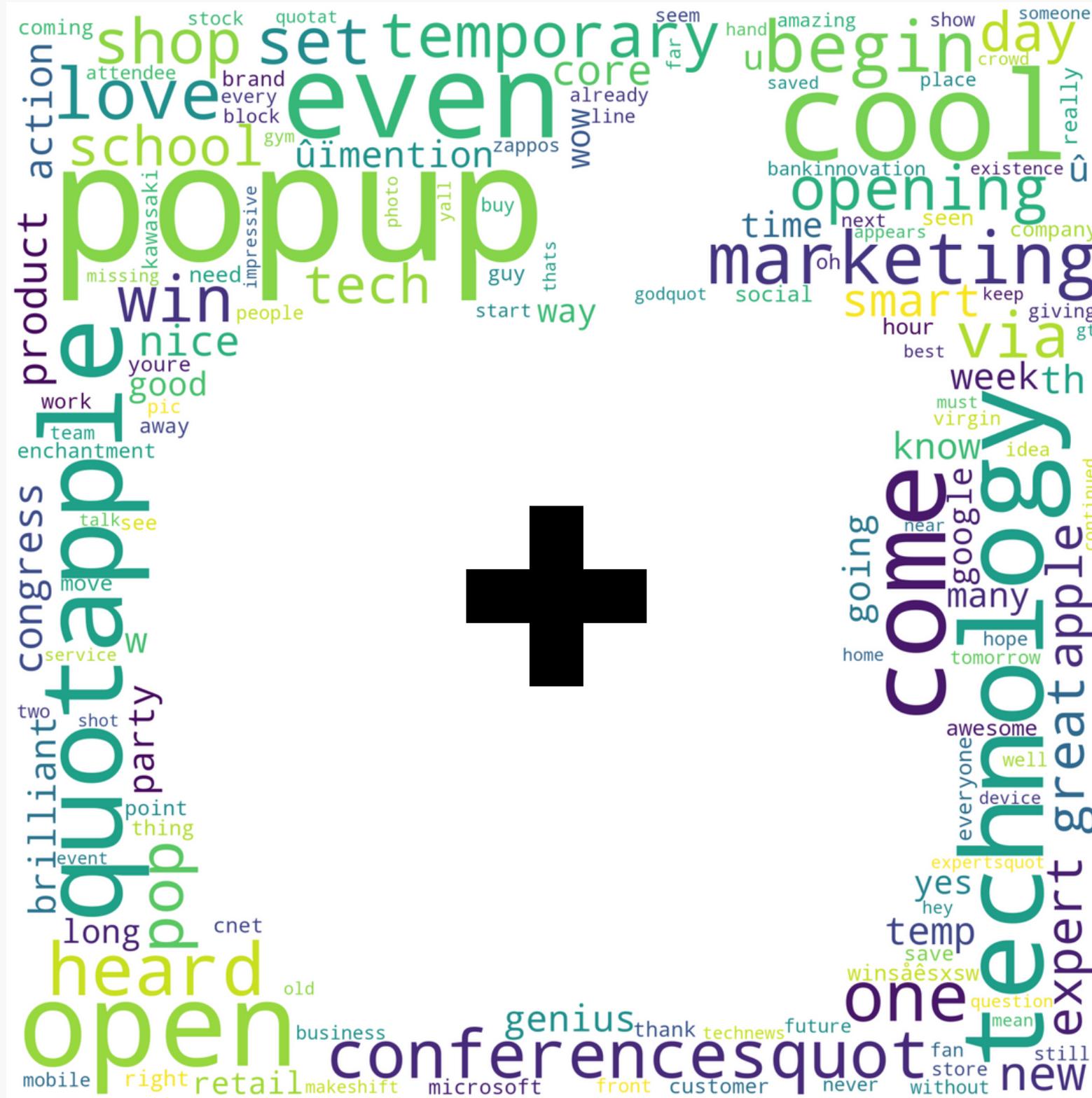
IPHONE BATTERY LIFE IS THE KEY



A word cloud visualization showing the frequency and context of various words from a dataset. The most prominent words include 'battery', 'time', 'user', 'phone', 'know', 'at', 'people', 'already', and 'go'. Smaller words provide context such as 'working', 'hour', 'think', 'stupid', 'changed', 'getting', 'job', 'strength', 'issue', 'nothing', 'dead', 'help', 'let', 'suck', 'crowded', 'film', 'coming', 'fail', 'overheard', 'fellow', 'change', 'many', 'mind', 'code', 'steve', 'tipdnt', 'source', 'quotdatavizquot', 'kinda', 'instead', 'work', 'want', 'new', 'year', 'glad', 'decided', 'embarrassed', 'roaming', 'dst', 'sayin', 'five', 'lying', 'booooo', 'quotasatanicquot', 'make', 'tweet', 'ive', 'morning', 'forward', 'delicious', 'quotvisigothsquot', 'translate', 'fest', 'weekend', 'check', 'everyone', 'hr', 'netflix', 'sunday', 'la', 'festgoers', 'struggles', 'thing', 'good', 'party', 'brick', 'behind', 'bc', 'iphones', 'see', 'abacus', 'wesley', 'u', 'talk', 'late', 'tried', 'started', 'station', 'alarm', 'away', 'day', 'signal', 'tmobile', 'better', 'life', 'last', 'shit', 'laptop', 'plus', 'plugin', 'never', 'hate', 'doucheput', 'ppl', 'replaced', 'etcall', 'much', 'flipboard', 'anything', 'panel', 'noticed', 'even', 'rate', 'provide', 'line', 'working', 'great', 'technology', 'building', 'find', 'home', 'say', 'dream', 'overheard', 'fail', 'friend', 'twitter', 'w', 'phone', 'long', 'dy', 'flight', 'blackberry', 'autocorrect', 'quotcoworkersquot'.

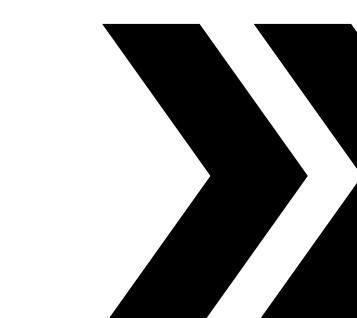
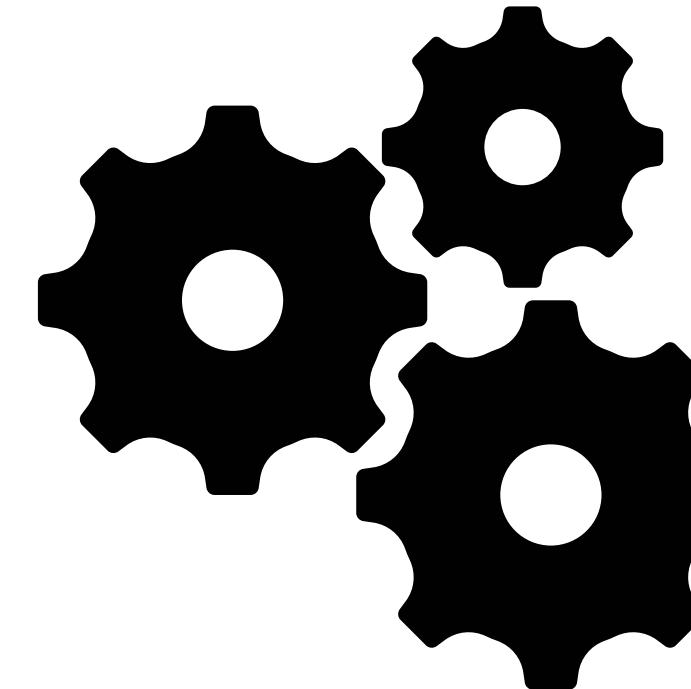
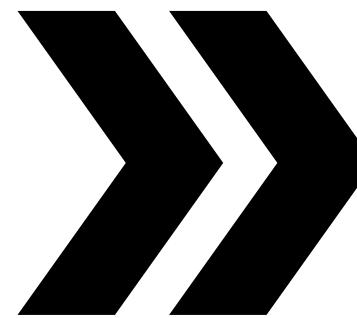


APPLE'S BRAND IMAGE IS RELATED TO POLICY CONCERN

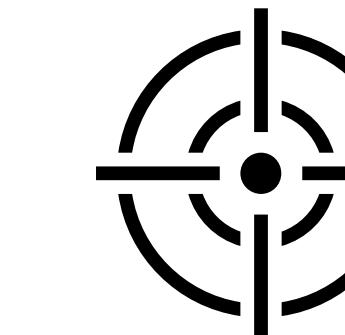


MULTINOMINAL NAIVE BAISE IS THE BEST MODEL

A
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A
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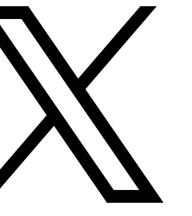
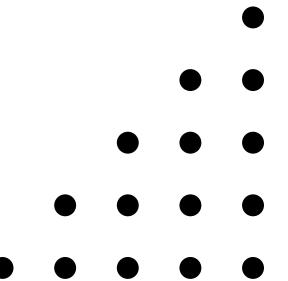
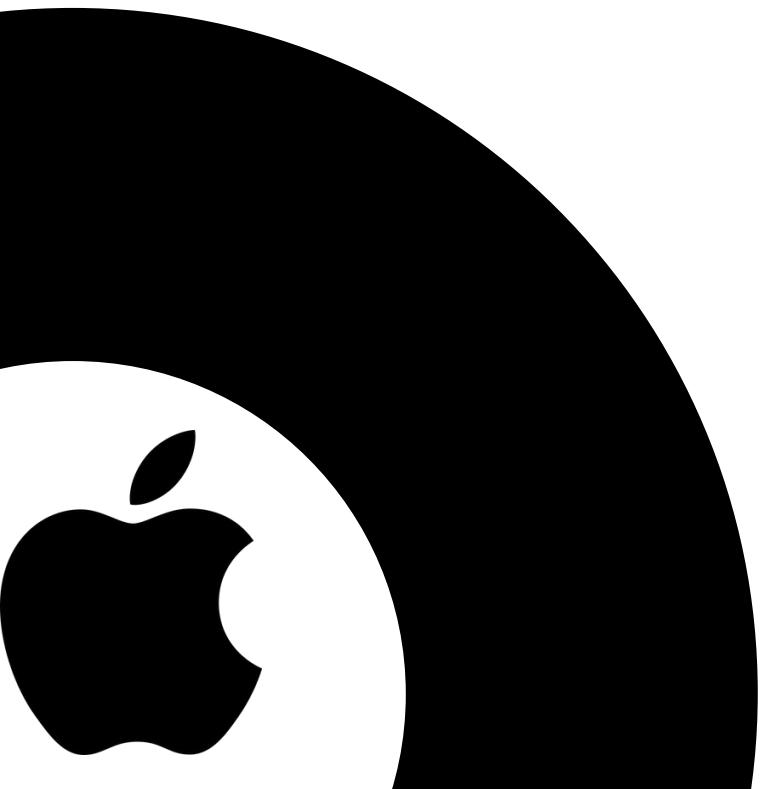
0: NEGATIVE

1: POSITIVE

ACCURACY 76%

X

RECOMMENDATIONS



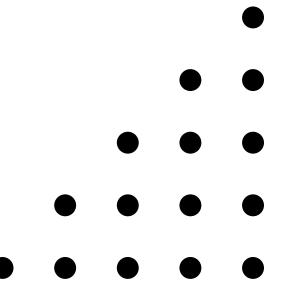
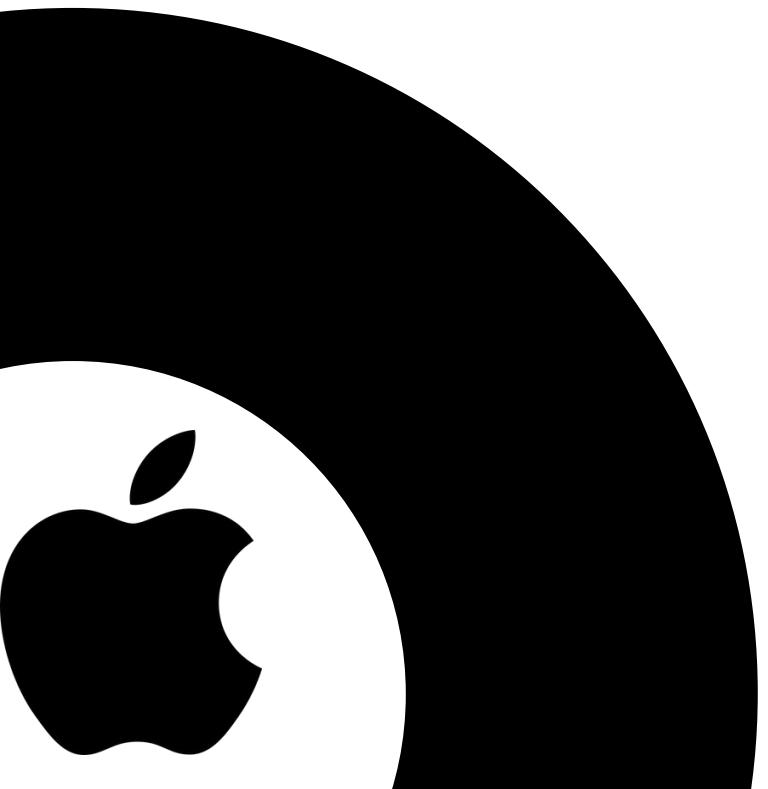


RECOMMENDATIONS

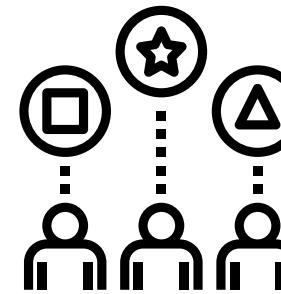
- ENHANCE EXTERNAL COMMUNICATION
- IMPROVE BATTERY LIFE OF THE IPHONE
- REFINE IPAD DESIGN WITH A SLIM PROFILE AND VARIED COLORS

X

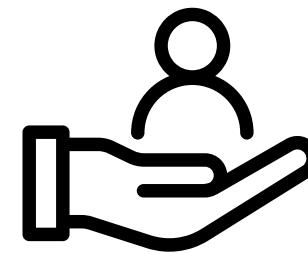
FUTURE STEPS



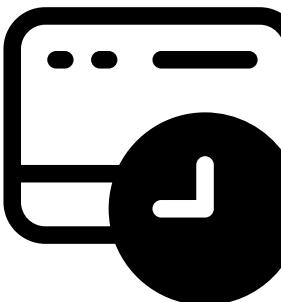
FUTURE STEPS



- EXPAND CHOICES BEYOND THE BASE MODEL:
 - PRICE, COLORS, SIZE, ETC.



- FOCUS ON CUSTOMER RELATIONSHIP COMMUNICATIONS



- OBTAIN MORE RECENT DATA



- USE DIFFERENT SOURCES OF SENTIMENTS: PLATFORM X AND THREADS



THANK YOU

