

# Project Smart Nation

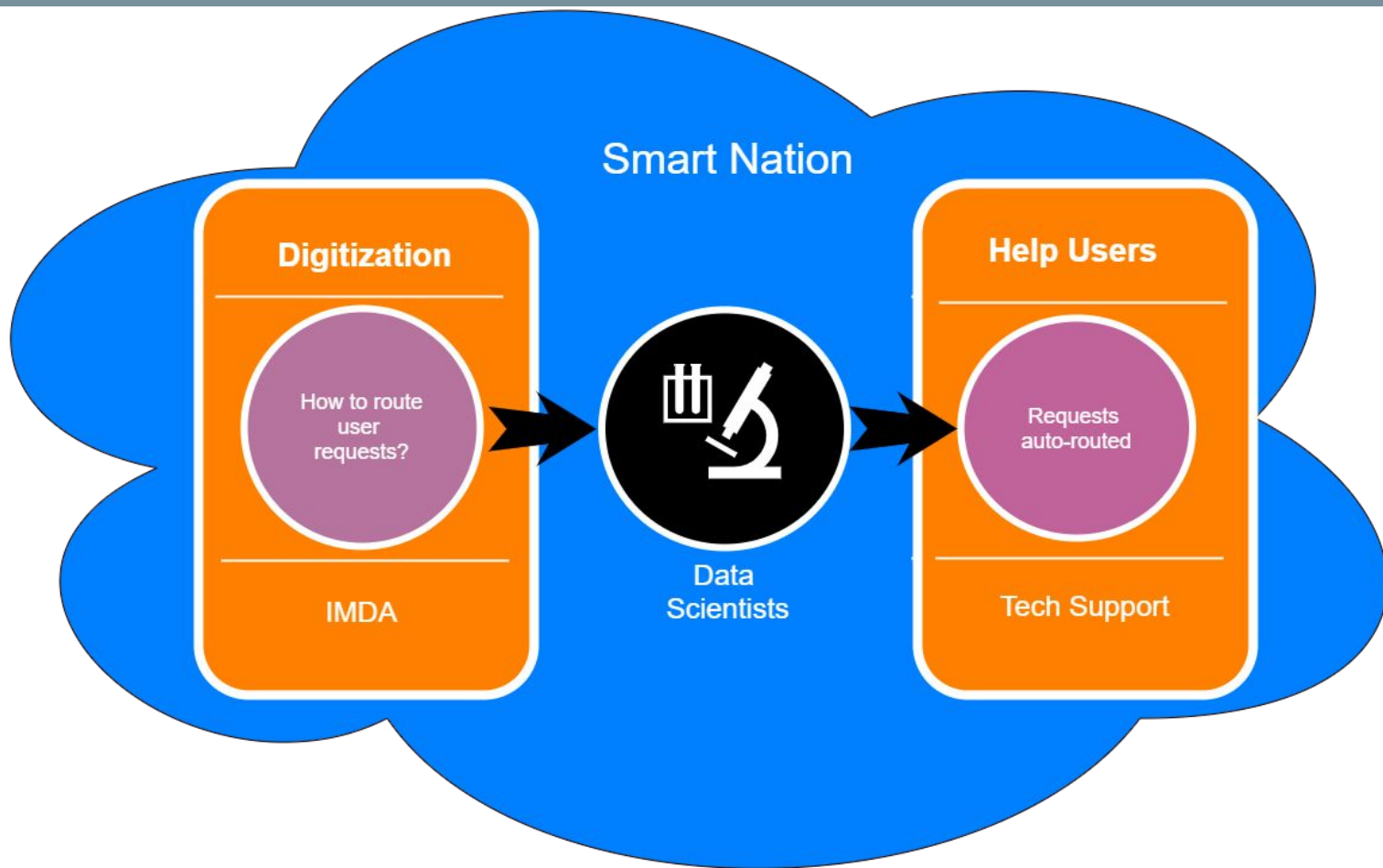
## Group 1:

- Ng Heok Joo
- Kua Kee Chuah (KC)
- Leonard Ng

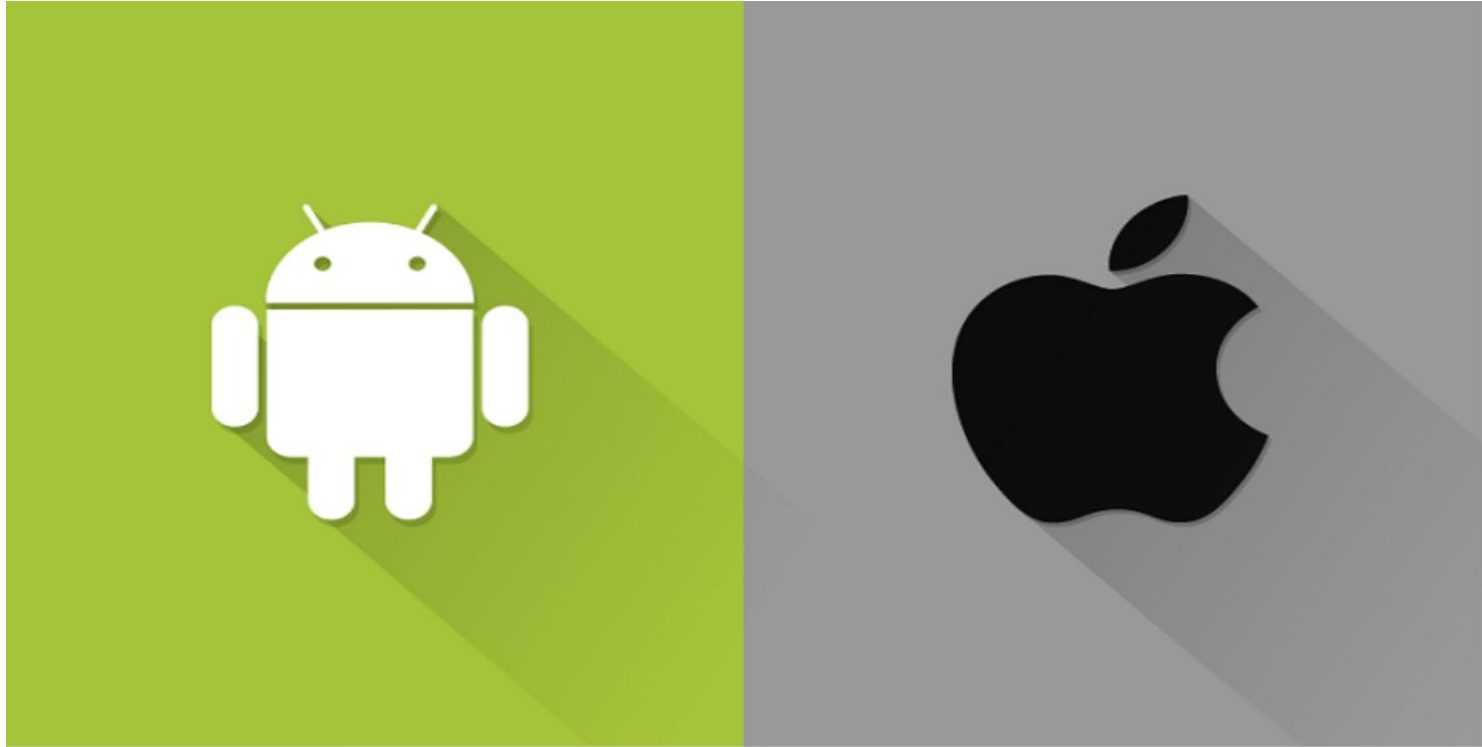


- 1. Background**
- 2. Problem Statement**
- 3. Workflow for Reddit Data Analysis**
- 4. Analysis of Reddit Data**
- 5. Model Accuracy & Findings**
- 6. Conclusion & Recommendations**

# 1. Background

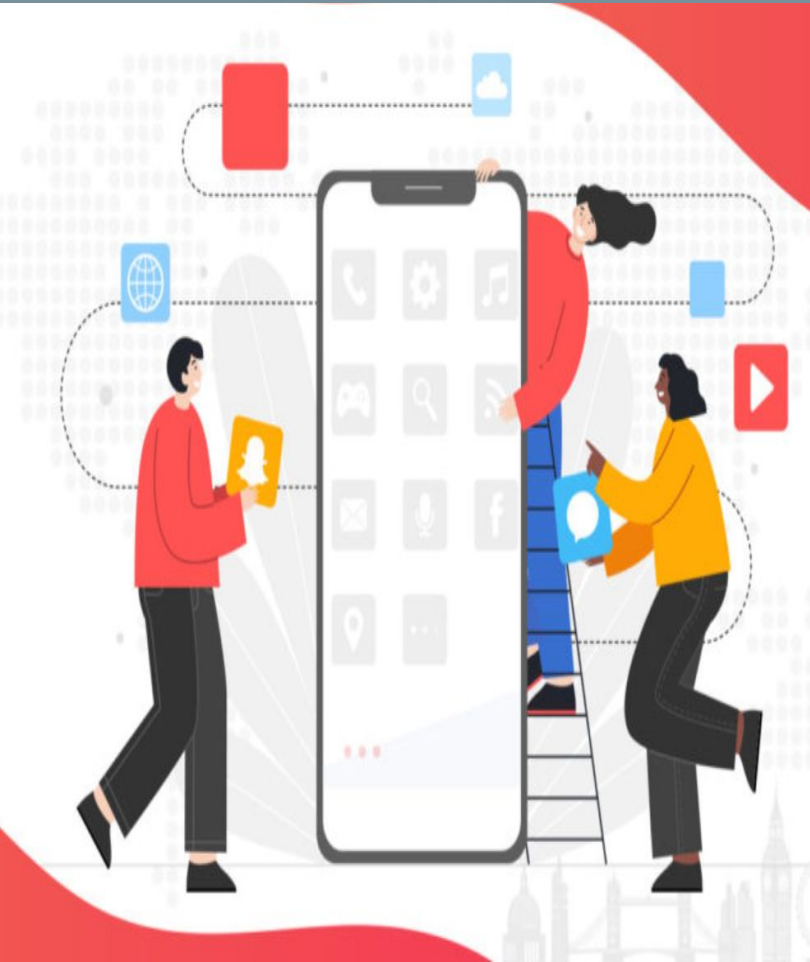


## 2. Problem Statement



**Can we classify a query to be Iphone or Android related based on subreddits?**

### 3. Workflow for Reddit Data Analysis

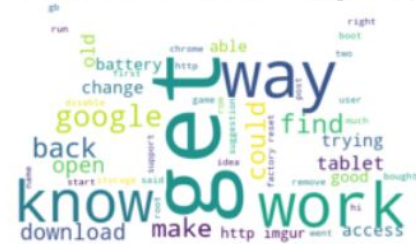


- Data Scrapping
- Data Cleansing
- Data Preprocessing
- Exploratory Data Analysis

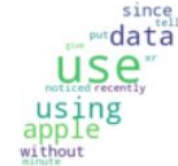
**Meaningful  
Words**

## 4. Analysis of Reddit Data

## Wordcloud for Androidquestions

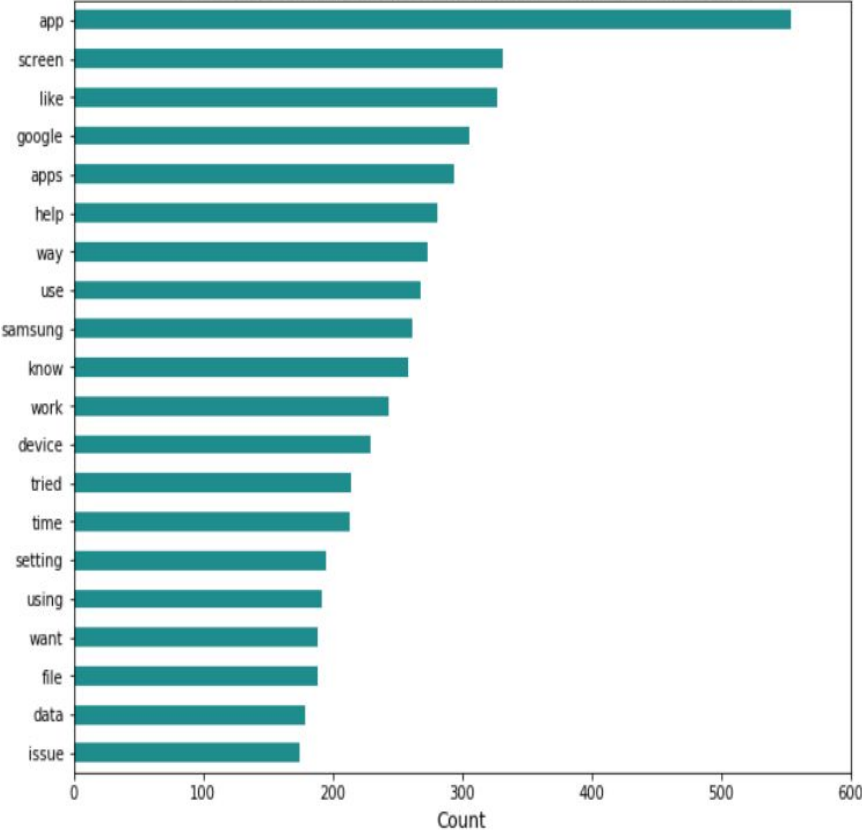


## Wordcloud for iphonehelp

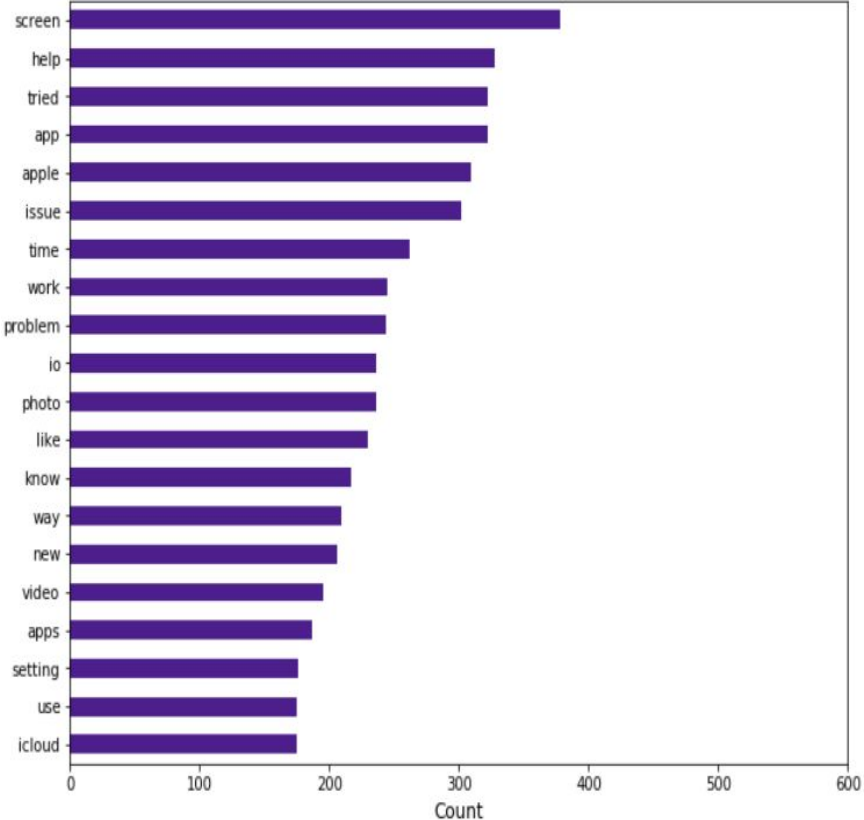


# 4. Analysis of Reddit Data

Top 20 most frequently occurring words in AndroidQuestions

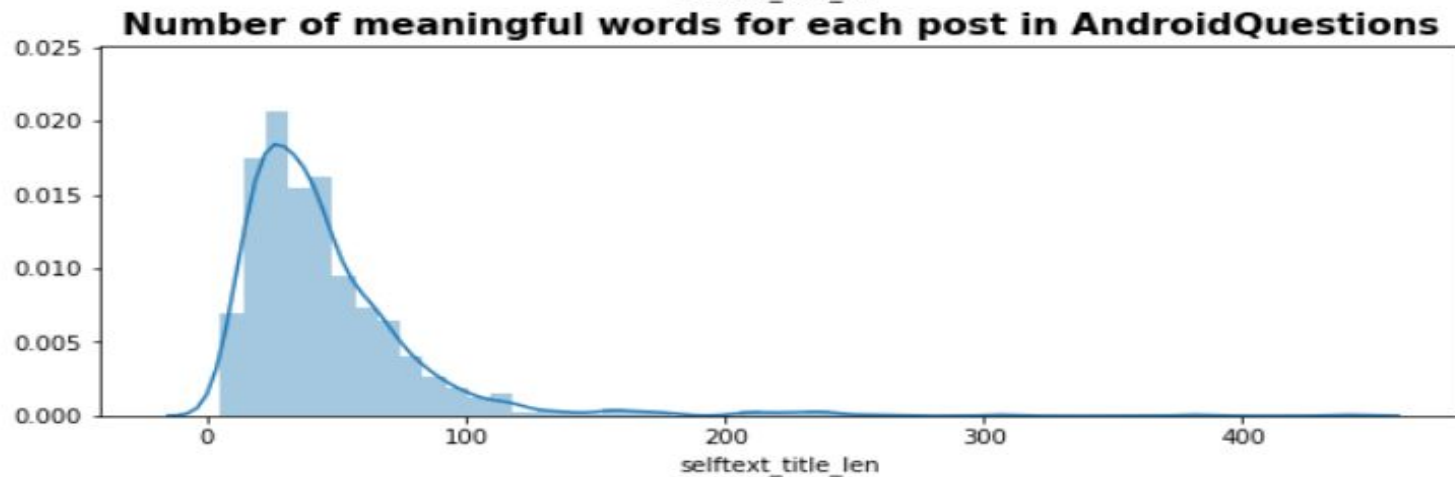
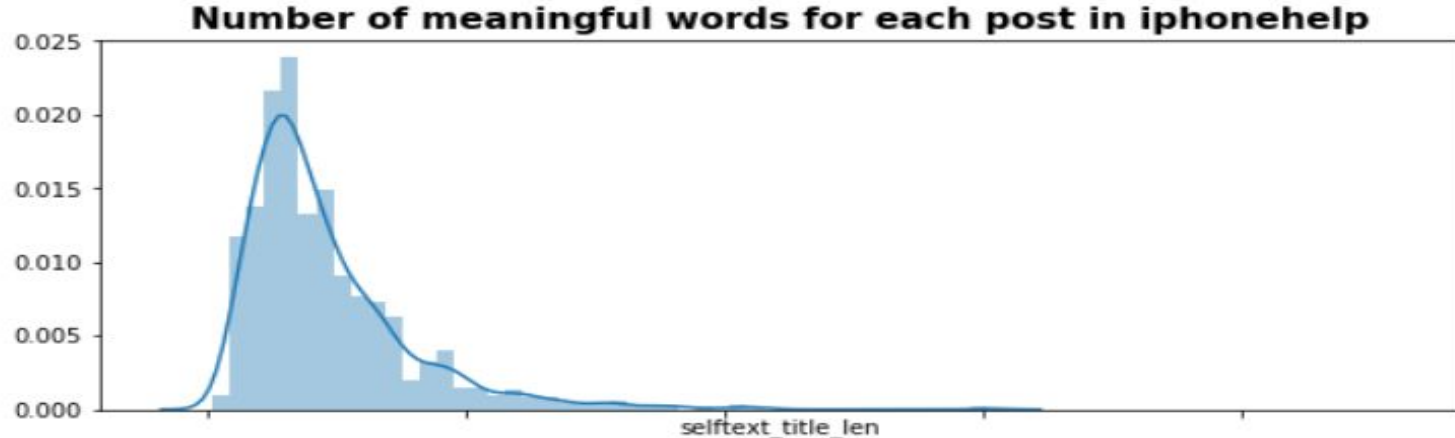


Top 20 most frequently occurring words in iphonehelp





## 4. Analysis of Reddit Data





Our optimized model classifies

**83%**

of unlabelled posts accurately

- Accuracy: 0.83 (Accurately classified posts/ Total posts)
- Based on an optimized Multinomial Naive Bayes model

## 4. Findings



### Data from 'title', 'text' or 'comments'?

- It does not matter
- Better to feed all data into the model

### More data is better

- Adding more data > optimising hyperparameters

### Model may never be perfect

- Many common issues between the two systems

## 5. Conclusion and Recommendations

**Problem Statement: Can we classify a query to be Iphone or Android related based on subreddits?**

- 1. Consolidate and throw all 'text'-related data at the model**
- 2. The model will improve in accuracy over time**
- 3. Consider using other sources of 'text'.**

# Project Smart Nation

Thank you!

Any Questions?



# References

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