

# A Review on Categorization and Summarization of Mobile Application

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**Abstract:** *The Sentiment analysis is an excellent methodology for collecting the public opinions. This proposed system is depends on a study of dual sentiment analysis considering two sides of one review. In this system we implement a training and prediction of user review algorithm to use for learning sentiment classifier, and to classify the mobile based user reviews by considering three sides of one review respectively. We extend the DSA framework from polarity classification (positive-negative) to 3-class classification (positive-negative-neutral), by also considering the neutral reviews. We also implement web log technique depending upon the frequency of users visiting each page mining is performed.*

**Keywords:** Mining, Sentiment Analysis, Ranking, Filtering.

## I. INTRODUCTION

In the recent scenario all tasks and functionalities are rehabilitated into smart phone. Every user owns a smart phone and performs all tasks using that. These processes are performed using several mobile applications, which are available in the website for free of cost. So classifying and analyzing such mobile application is very important. Data mining techniques for App Classification aim at extracting those features which are helpful in identifying the relevancy of an application to each category. Data can be collected from mobile phones in various forms. The data collected, can be from call logs, location, web usage, application usage, sensor data, etc. Figure 1 describes the different types of data, which can be generated from mobile phones. Using this data, various data mining activities can be performed. Some of these activities include Location based service and behavioral analysis.

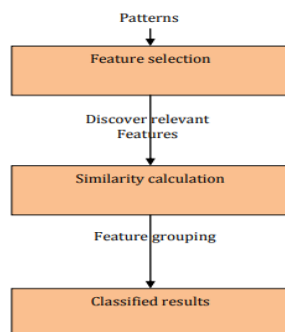


Fig 1.0

The above fig 1.0 represents the basic process involved in App Classification. In order to group the application based on the features, this is important to find the relevant and appropriate features from its descriptions and functionalities. The above process shows the feature selection and feature based application similarity calculation and based on the similarity score, the applications are grouped together.

## A. MOTIVATION

This system motivate to confidence about the type of Application (Social media, gaming, Entertainment, news app etc.) The proposed system improve the quality of application based on user review.

## B. OBJECTIVE

The Objective of the system is to focus on the feedback and the popularity of the application. And to analyze the sentiment analysis algorithm.

## II. PROBLEM DEFINITION

User reviews of mobile apps often contain complaints or suggestions which are valuable for app developers to the improve usersatisfaction. This system built the android application only and it provide ability to the user to categorize and summarize the app. The feature and permissions are extracted from the user. This application used only for android users.

## LITERATURE REVIEW

### Mobile Application analysis and classification using data mining:

In the recent scenario all tasks and functionalities are rehabilitated into smart phone. Every user owns a smartphone and performs all tasks using that. These processes are performed using several mobile applications, which are available in the website for free of cost. So classifying and analysing such mobile application is very important. Machine learning techniques for App Classification aim at extracting those features which are helpful in identifying the relevancy of an application to each category. The following two broad Machine Learning techniques are usually employed.

## Android Application Catagorization using Bayesian Classification:

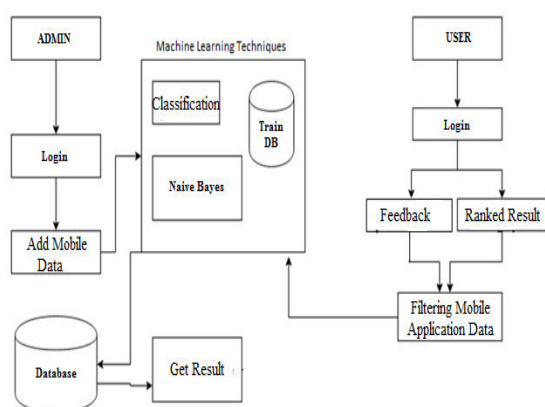
With the development of Mobile Internet, the global mobile devices market has exploded in the past several years. Meanwhile, Android is the most popular mobile platform, holding nearly 82.8% of the global smartphone market share. Mobile Internet brings convenience to our life. Nevertheless, it brings a lot of negative impacts to our life. The number of malicious software on mobile devices is growing and Android is the most affected mobile platform. According to 2015 MOBILE THREAT REPORT, 97% of malware application target to Android. In order to mitigate the threats on Android mobile devices, machine learning.

## Information Extraction For mobile application user review:

The growth of the digital economy in Indonesia has grown rapidly over the years. OneData released a study for position and growth of e-commerce in Indonesia during the first and second quarter of 2017 to analyze the behavior of desktop and smartphone users over age 16 years old. The results of that research reported the total population of e-commerce and marketplace users in Indonesia is over 84% accessed through mobile devices, this is indicated that the mobile apps cannot be underestimated. The growth in the number of smartphone users is also influenced by the evolution of mobile application technology. Mobile applications are distributed through application marketplace such as Google Play for Android platform, Apple App Store for iOS platform, or Windows Phone Apps Store for Windows Phone platform.

## III. PROPOSED SYSTEM

### A. Architecture:



Model:

### User Module:

Text Collection: In these steps the data is coming from the users comment, get them ranked result and categorized result.

### Server Module:

Sentiment Analysis: In that sentiment analysis we apply the algorithm mining and dual sentiment classification. In that analysis we apply the clustering, classification, pattern machining process.

### Admin Module:

Here admin add the mobile trained data for analysis the users input and categorized them.

## B. Algorithm:

### Algorithm:

Input: Customer's Reviews

Output: Class of the Reviews/ Classified Reviews  
Processing:

Step 1: User Comment

Obtain comments / reviews provided by the user for processing

### Naive bayes algorithm

Step 2: Conversion of Review(Preprocess)

- Determine the user product using dictionary approaches
- Generate dictionary for sentiment words using the clustered
- Data clustered is done
- Verify keywords

Step 3: Classifier()

For training inconsistency classifier proceeds for pattern machining

Step 4: Pattern analysis()

Then identifies word with three contexts words i.e positive and negative

Step 5: Prediction()

The class of the reviews is specified from the set pattern.

Step 6: Final analysis result()

Step 7: Stop

#### IV. CONCLUSION AND FUTURE SCOPE

In this work, we proposed data mining as a semi-automated framework to collect and determine user opinions from app markets using a keyword-based approach. The proposed system has discussed the categorization and summarization of android application present into our mobile into their respective categories. These improve the mobile efficiency among many application present on mobile.

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