

APP CLASSIFIER

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Abstract - For the App usage analysis the major step is to classify Apps into some categories which are predefined. However, it is difficult task to clearly classify mobile Apps due to the limited contextual information available for the analysis. For example, a limited contextual information about mobile Apps is present in their names. However, this contextual information is usually incomplete and ambiguous. we propose an approach for first extracting the contextual information of mobile Apps by exploiting the additional Web knowledge from the Web search engine. Then, we also extract some contextual features for mobile Apps from the context-rich device logs of mobile users. Finally, combining all the enriched contextual information into the Maximum Entropy model for training a mobile App classifier.

Key Words: Mobile App classification, web knowledge, real-world contexts, enriched contextual information.

1. INTRODUCTION

1.1 Project Idea

Idea behind project is to solve the problems people are facing currently in Google Playstore. Our proposed system will classify the apps based on user profile and also recommendation will be provided to them as per profile. The major challenge is that there are not many effective and explicit features available for classification models due to the limited contextual information of Apps available for the analysis. Specifically, a limited contextual information about mobile Apps exists in their names, and the only available explicit features of mobile Apps are the semantic words contained in their names. we propose to use both Web knowledge and real-world contexts for enriching the contextual information of Apps, thus can improve the performance of mobile App classification.

1.2 Motivation of the Project

Currently App store is not well classified, due to which user not all the time gets aware of it and also recommendation of apps is not done to user. So our system proposes recommendation as well as classification to apps as per the profile of user.

2. Literature Survey

Recently, according to Caos work Ma et al. proposed an automatic approach for normalizing user App usage records, which can leverage search snippets to build vector space for both App usages and categories, and classify App usage records according to the Cosine space distance. Compared with these works, the work reported in our paper does not only comprehensively take advantage of more Web knowledge based features but also leverages the relevant contexts of mobile Apps which reflect their usage patterns from user perspective.

3. Problem Definition and Scope

3.1 Problem Statement

In this digital learning age, young generation are not aware about the applications they are using. Just looking at the star rating and without having any other prior knowledge those applications are downloaded. To overcome this issue, our proposed system will categorize the apps as per the category mentioned by user.

3.1.1 Goals and Objectives

- i) The main objective of the proposed system is to get a proper classification of apps related to a particular field searched by the user.
- ii) Another main objective of this system is to create awareness among the young generation without depending on each other.

3.1.2 Statement of Scope

- i) Basically our software recommends applications to user as per user's profile, so input to software will be user's profile which will get stored in database and as per the classification apps will be recommended.
- ii) This Software is an android application which recommends app to user, it will not forcefully install recommended app in user's system.
- iii) It will contain classifications of applications as per the field specified by admin.

3.1.3 Software Context

The system has a base of android application and website.

3.1.3 Major Constraints

- i) Software is designed in the way that each activity like managing user’s profile, searching app, recommending new app, getting detail information of app to the user, will be treated separately.
- ii) It is tested with positive negative inputs.

3.2 Methodologies of problem solving and efficiency issues

- i) Here we are introducing app recommendation system, in which user have to add its profile which will get stored in admin’s database.
- ii) Then at admin side processing of classification will done and as per the user’s profile recommendation will be provided.
- iii) For our recommendation system and for classification purpose we need survey of people for which we need logs of user which are frequently used and this logs will be provided by volunteer.

3.3 Scenario in which multi-core, Embedded and Distributed Computing is used

Nowadays, every android phone has multiple core processors and embedded systems. Android smartphones that will be used by the clients and the database maintained on the admin's end will have distributed computing.

3.4 Outcome

- [1] Awareness is created among the young generation.
- [2] Time wastage is reduced.
- [3] Web knowledge and real-world contexts helps in improving the performance
- [4] It’ll reduce the human efforts and it will aware people what is current trend in market of mobile App classification.
- [5] Helps to understand the user preferences such as App recommendation.

4. Detailed Design

4.1 Introduction

The proposed approach for mobile App classification’s Design consists of two main stages. First, we collect many context logs from mobile users, and extract both Web knowledge based features and real-world contextual features for the Apps appearing in these logs. Second, we take advantage of the machine learning model for training an App classifier.

4.2 Architectural Design

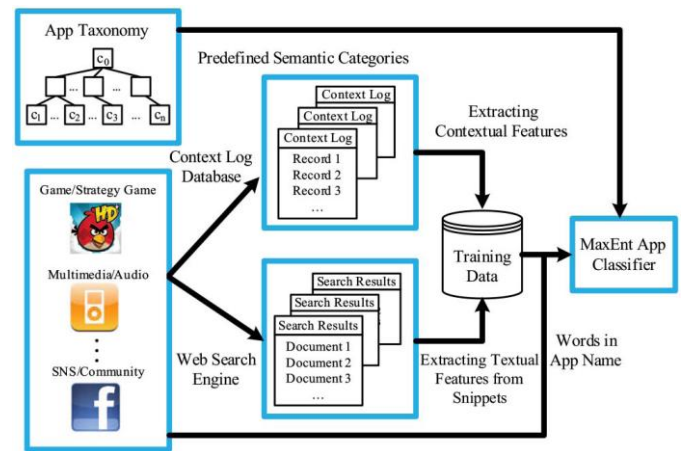


fig1: Framework for App Classification

1. App Taxonomy : To recognize the semantic meanings of Apps, we can classify each App into one or more categories according to a predefined App taxonomy.
2. Search Snippets : In our approach, we propose to leverage the Web knowledge to enrich the textual information of Apps.
3. Context Log : Smart mobile devices can capture the historical context data and the corresponding App usage records of users through context-rich device logs, or context logs for short.

5. Summary and Conclusion

Thus we have concluded a novel approach for classifying mobile apps by leveraging both Web knowledge and relevant real-world context. Then we have also used real-world context logs which records the usage of apps. Hence the proposed approach is both effective and efficient for solving the problem of automatic app classification.

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BIOGRAPHIES



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