

Demonstration of Mobilewalla

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Abstract. With the popularity of mobile apps on mobile devices based on iOS, Android, Blackberry and Windows Phone operating systems, the number of mobile apps in each of the respective native app stores are increasing in leaps and bounds. Currently there are almost 700,000 mobile apps across these four major native app stores. Due to such enormous number of apps, both the constituents in the app ecosystem, consumers and app developers, face problems in terms of ‘app discovery’. For consumers, it is a daunting task to discover the apps they like and need among the huge number of available apps. Likewise, for developers, making it possible for users to discover their apps in the large number of available apps is a challenge. To address these issues, Mobilewalla(MW), provides an independent unbiased search engine for mobile apps with semantic search capabilities. It has also developed an objective scoring mechanism based on user and developer involvement with an app. The scoring mechanism enables MW to provide a number of other ways to discover apps - such as dynamically maintained ‘hot’ lists and ‘fast rising’ lists. In this paper, we demonstrate some of the key functionalities of MW.

Keywords: Mobile App, Search Engine, Semantic Similarity.

1 Introduction

Consumer software applications that run on smartphones (popularly known as mobile apps, or, simply, apps) represent the fastest growing consumer product segment in the annals of human merchandising [1,2]. The absolute number of apps currently in existence, as well as their rates of growth, are remarkable. At the time of writing, there are 404126, 274555, 30784, 19796 apps available in Apple, Android, Blackberry and Windows platforms respectively. Since December, 2010, the app growth rates for the Apple and Android platforms are nearly 4% and 7% on monthly basis respectively.

This scenario creates a number of problems for the two key constituencies in the app ecosystem, the consumers and the developers. For consumers, there are simply too many apps and far too much fragmentation in these apps (e.g., a large number of categories). The analogy we often use to describe the confusion faced by a mobile app consumer is to imagine a customer walking into a grocery store,

needing only a few items, and finding that all aisles and category labels have been eliminated, and every product has been thrown into a pile on the floor. It is a similarly daunting task for a consumer to navigate native app stores [3,4] and discover apps they need and like, as has been widely discussed in media forums in the recent past [5,6].

For application developers, the situation is far worse. There are almost 700,000 mobile apps between Apple and Android alone and most smartphone owners only can only identify a handful - this is a nightmare scenario for developers whose success is contingent upon getting their apps “found” by consumers. “How will my apps be discovered?” is the number one question in the mind of app developers. This issue, known as the “app discovery” problem, has received wide attention in the media as well [7,8].

In response, there is intense interest in creating independent unbiased search systems for mobile apps. One of the earliest entrants in this space is Mobilewalla (MW) (www.mobilewalla.com). In this paper we demonstrate some of the key functionalities of Mobilewalla.

2 Screen Shots and Descriptions

The Mobilewalla architecture is flexibly implemented using a JSON interface. The application server provides a set of JSON APIs that can be invoked by any client over HTTP. Currently, the clients supported include iOS devices (i.e., iPhone/iPod/iPad), Android devices and desktop web applications. All these clients communicate with the Mobilewalla server application using the same JSON API set, but differ in the user interface offered to the end user. We will now proceed to demonstrate some of the important functionalities of the Mobilewalla application by using desktop web application as an example (the user may interact with this application at www.mobilewalla.com).

When the user arrives at the Mobilewalla application, the first step is to choose a platform of interest, i.e., the user must specify which smartphone platform is of interest to the user – iPhone/iPod, iPad, Android, Blackberry or Microsoft (the user may also choose a “don’t care” option, marked as “All” in Mobilewalla). Once a platform is chosen the user will be directed to the main “splash page”.

From this screen, the user may choose to navigate the app world in a number of ways. The first, and the most common method of interaction is by entering a search query in the keyword input box. Let’s assume the user enters the search term “**earth photo**”. Mobilewalla returns a set of apps that fit the user’s interest as shown in Fig 1 – in this view Mobilewalla provides not only the app name, but also a number of other core features such as author and price. One notable feature of this view are the *relevance* and *Mobilewalla meter* (*MW Meter*) indicators present in each app box. Relevance indicates the quality of “fit” of that app with respect to the input search query, whereas *MW Meter* is an encapsulation of the “goodness” of the app as measured by Mobilewalla (this is based on the Mobilewalla Score metric described earlier). Also, while not shown the screenshot, we also segment the apps by Free and Paid and allow a number of options to sort the result set (the user may view these by visiting mobilewalla.com).



Fig. 1. Keyword Search Results Page

The user may choose any app from the app-list view just described and delve into its details. Let us assume the user chooses the Google Earth app. In this case she will be presented with the detail view of this app, shown in Fig 2. In this view, Mobilewalla displays details such as the app description and screenshots and also allows the user to view a number of other interesting artifacts related to this app, such as “Apps by Author” (other apps created by the author of the app detail being viewed), “Mobilewalla Score” (the Mobilewalla score history related to this app over the past 14 days), “Comments”, and “Similar Apps” (similar to the “if you like this, you might also like” feature in Amazon). The screenshots corresponding to the “Apps by Author” and “Similar Apps” for the app Google Earth are shown in Figs 3 and 4.

The above two paragraphs describes how a user might interact with Mobilewalla by performing a keyword search and then drilling down on the results. However, keyword search is just one of many ways that the user can navigate Mobilewalla. He might also choose to view apps by categories, or choose one of the many “pre-defined” list options such as “Hot Apps”, “Fast Movers” and “New Apps”. Choosing the “Browse my category” option reveals a number of category icons from which the use may navigate the app world – Fig 5 shows the results of choosing the “Maps & Navigation” category.

Similarly choosing “Hot Apps” displays the list of the top 1000 apps ordered by their Mobilewalla Scores, while “Fast Rising” apps are those whose Mobilewalla scores have demonstrated the steepest ascent, i.e., apps getting hot the fastest. “New Apps” are those that are less than a month old. In every case a number of sort options are available that allow users to manipulate the result set along various dimensions.



Fig. 2. App Details Page



Fig. 3. Apps By Developer Page

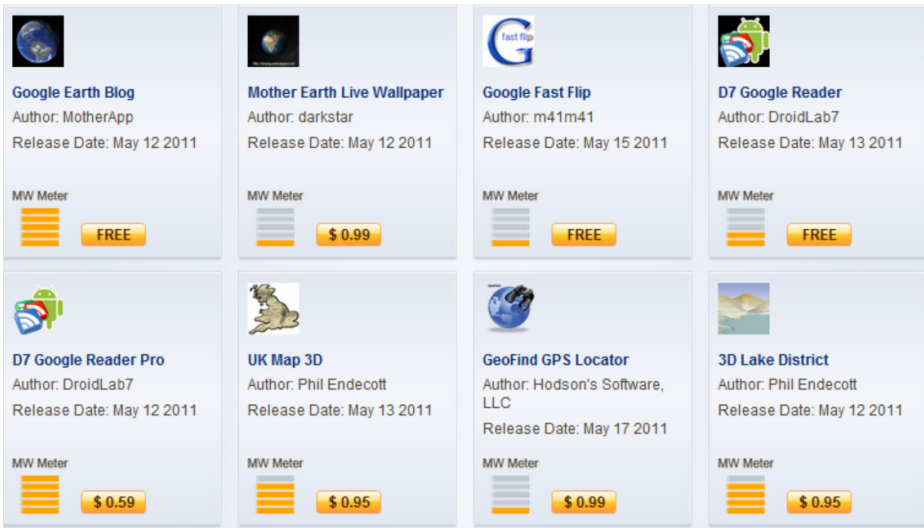


Fig. 4. Similar App Page



Fig. 5. Category Search Results Page

While Mobilewalla has a number of other interesting features, it is infeasible to describe them in this paper due to length restrictions. We invite the user to visit the site.

3 Conclusion

With the skyrocketing popularity of mobile apps on mobile devices based on iOS, Android, Blackberry and Windows Phone operating systems, the number of mobile apps is increasing in leaps and bounds. Currently there are over 700,000 mobile apps across these four major native app stores. Due to such enormous number of apps, both the constituents in the app ecosystem, consumers and app developers, face problems in terms of ‘app discovery’. For consumers, it is a daunting task to discover the apps they like and need among the huge number of available apps. Likewise, for developers, getting their apps discovered in the pool of an enormous number of apps is a challenge. To address these issues, Mobilewalla provides an independent unbiased search engine for mobile apps with semantic search capabilities. It has also developed an objective app rating and scoring mechanism based on user and developer involvement with an app. Such scoring mechanism enables MW to provide a number of other ways to discover apps - such as dynamically maintained ‘hot’ lists and ‘fast rising’ lists.

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