

LifeSpeeder

A Web and Mobile Platform for Events Location

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Abstract The use of smartphones and tablets has become almost banal in these days. Smartphones, besides serving their main purpose of making and receiving calls, come to be one of the main equipments to obtain information from the Internet, using the commonly installed browsers or through the use of dedicated applications. Furthermore, several other devices are also very frequent to the majority of the modern smartphones and tablets in the market (e.g., GPS – Global Positioning System). This devices give the current systems a very high potential of usage.

One example of applicability, comes from the wish to find and navigate to events or activities which are or will soon be occurring near the user. The LifeSpeeder platform is one of the first applications in the mobile equipment market of applications which take into consideration exactly what we have just outlined, i.e., a mobile and desktop application which allows the users to locate events according with their preferences and to get help navigating to them. In this paper we briefly describe the LifeSpeeder's front and back-end.

Keywords: Geographic and Temporal Location of Events, Android, NoSQL Databases.

1 Introduction

The growing usage of Information and Communication Technologies has recently been followed by a significant increment on the number of heterogeneous terminals that are used to access the Internet. Such terminals are currently being used in a personalized and mobile way, integrating sensors and global positioning receivers with an ubiquitous Internet access. In this field, there is a shift from location agnostic web content retrieve, to a new type of applications that take into consideration users preferences and their location to identify which data is more relevant to them.

Such shift in Internet usage gains a particular relevance in the case of events location. Information about events, like concerts or sport competitions, is by its nature associated with one or more sites and occur in one or more moments in time, after which it tends to be irrelevant. The importance of the information is

also very much dependent on the users preferences. In this field while numerous sites are specialized in some set of event types, the information they have tend to be sparsely distributed and do not automatically associated with user preferences and location. Also users tend to search and select which events to attend within hours or days before its occurrence, which requires a solution on time for their requests.

For this purpose, some applications are already available in the market. For example, the *Scoutmob* Android app [1] is a mobile guide to local deals, events, restaurants in some US cities. The *Eventbrite* Android app [2] allows to create, promote and manage events. Some cities or regions have also dedicated applications [3, 4]. The *Where To Go? GPS POI Finder* [5] provides turn-by-turn directions to the chosen destination, which include a dozen of categories. However, as far as we know none of them includes in a single application all the mentioned features, location and navigation to events with multilingual support and responding to the users preferences.

In response to the above mentioned requirements (e.g., spatially and temporally locate events according with the users preferences and navigation to them), in this paper we present the LifeSpeeder platform which combines into a web and a mobile application interfaces an event driven computational core to the localization of events. In other words, using a mobile device with an Internet connection, users are able to quickly and easily obtain lists of events that are going to happen near them or at some other temporal and spacial location. Then the mobile application calls an external application to navigate to the events. In the back-end a MongoDB database stores the data providing the support for an efficient and relatively easy implementation of the multilingual and the geolocation mechanisms [6].

The remaining document is structured as follows. The second section describes the front-end of the LifeSpeeder platform. Section 3 presents resumed details about the LifeSpeeder back-end, namely some of the used technologies. Conclusions and future work are presented in the fourth and final section.

2 Lifespeeder's Frontend

The LifeSpeeder project consists on the development of a platform to manage, monitor and locate events in a simple and fast way. The motivations behind the developed work starts at the fact that we are located in one of the touristic regions of Portugal. Mostly during the summer season, the Algarve's region is replete with many events and tourists that do not know well the regions, but want to get the best experience possible. Furthermore, many people decide to spend a few days in the region on the off-peak time, tacking advantage of the weather conditions and lower prices of the flights, hotels, golf courses and other infrastructures.

Although the initial idea was explored taking into consideration specially the touristic case, we came to the conclusion that most of the times the majority of the residents also don't have knowledge about the region events, since the