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Project Proposal (HW 1)

## FriendMap

### PROBLEM:

On a social networking website such as Facebook, users can create a personal profile, add other users as friends, exchange messages, update statuses, read about an event one of their friends is attending, etc. However, most social networking services and websites are too computer-oriented, which is not perfect for facilitating the social contact in our *real life*. People may want to use a social networking service to 1) know where their friends are in a straightforward and intuitive way, 2) organize activities and meet-ups with their friends based on their locations and availability, and 3) find an ideal venue (a restaurant, cafe, clothing store, etc.) to hang out with friends. Meanwhile, we should also consider about users' privacy.

A smartphone is generally more portable than traditional desktop computers or laptops, which allows users to get access to a social networking service anytime and anywhere; in fact, its contact book itself is a social network and/or circle! Also, mobile applications present unique opportunities such as location-based services, map APIs, cameras, sensors, etc. Thus, a mobile application is suitable for resolving the problems mentioned above.

### ANALYSIS:

Many social networking websites already have their client for mobile phones (Android, iPhone, etc.). Following are two examples that are related to our project:

Facebook:

Facebook Places is a feature that lets users "check in" to Facebook using a mobile device to let a user's friends know where they are at the moment. This feature is already known from Foursquare, a social network where users share their geolocation data via mobile phones. GPS use is also integrated in this app. Once the user is checked in to a venue, it will appear in "Here Now" to friends and others nearby who are also checked in; the user's update will appear on Place page, his/her friends' News Feed and his/her Wall.

(Facebook Places screenshots)

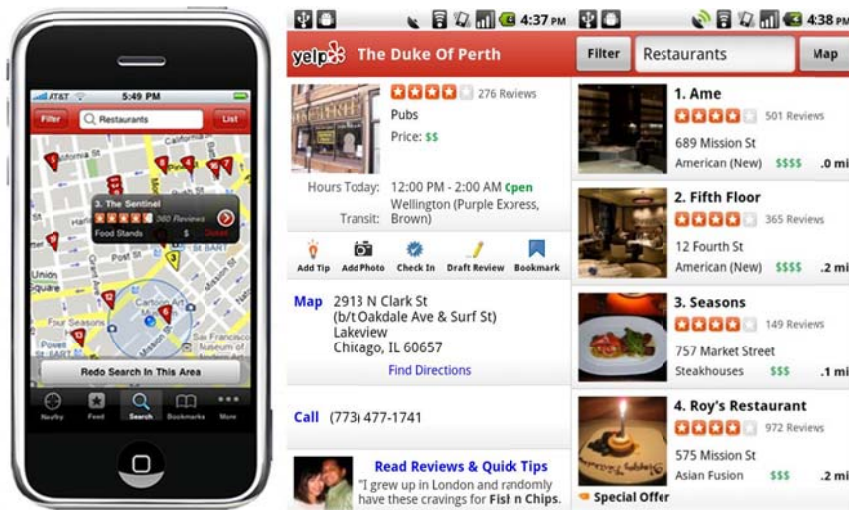


Yelp:

Yelp Mobile allows users to search for places to eat, shop, and relax based on the user's location; the user can read and add reviews, and publish their reviews to Facebook or Twitter. Yelp also favors reviews from the user's friends and other people the user follows.

Since Yelp partners with Facebook, users can easily import their Facebook information to Yelp.

(Yelp Mobile screenshots)



Limitations:

- 1) People are not always willing to check in. (This can be seen from the fact that Foursquare awards the user points and sometimes "badges" for each check-in.)
- 2) Users are often left reading about their friends' activities/events, updates and reviews, rather than actively joining them in the real life.
- 3) Neither app utilizes the smartphone's contact book and/or records (e.g. the app can be more "smart" if it can learn which people the user contacts most frequently with).
- 4) In both apps, users cannot see their friends' locations on a *map* simultaneously, and thus they cannot intuitively get a view of where their friends are. If a user wants to invite some friends to join him/her, it will be hard for him/her to find the friends nearby only if other friends are also checked in.
- 5) Check-in is a passive way of sharing geolocation data in which people can only check in after they are at a specific venue. However, sometimes people may want to select a place that is accessible by other friends *before* organizing a meet-up with them. In this scenario, a map that can dynamically show friends' locations is more useful. In addition, the user may also want to know if other friends are available - are they busy, studying, bored, tired, or are also looking for people to hang out with?

**IMPROVEMENT:**

The main feature that I am suggesting is a *dynamic map* which shows the current locations of the user's *contacts* relative to the user's own position; in this way, the user can directly search for and communicate with friends nearby.

Another feature is that once the user selects one or more friend(s), the mobile app can automatically display some potential venues they can meet up with. The filter criteria are based on the venues' locations (whether close or not), review rates, and the users' personal interest (a café, burrito, Asian food, or burgers?). At this point, the user may choose one of the venues and send a message asking if their friends would like to go there.

Privacy is a major issue/concern of this project. The app should allow users to change their visibility. If some users are not available to meet friends or they just do not want others to know where they are, they can simply disable the location-sharing functionality by setting themselves as "invisible"; optionally, they can also update a status showing that they are say, working, studying, tired, or sleeping, etc. Once they are invisible, their friends can only contact with them by sending a message, or a phone call if necessary. If they are available, then they can set themselves as "visible" and update a status showing that they are free to meet friends.

#### **SCENARIOS:**

Joe is a college student. It is 12:20pm on Wednesday. Joe has finished all the classes in the morning and wants to find someone to go for lunch together. He opens the FriendMap app on his Android phone, and the GPS-based map shows that his friends David and Sam are nearby. Sam's status is "in class," while David status is "I'd like to go for lunch, anyone with me?" Joe clicks on David's profile picture on the map and launches a chat: "Want to grab lunch?" "Sounds good. Burger?" Joe then types "burger" in the search box, in seconds the map shows two burger stores that are close to *both* of them. The first one "Burger First" is five-star rated by Joe's friend Mary and is 4.5-star overall, while the second one "Johnny's" is only two-star rated and no friends have been there before. Joe then sends another instant message to David: "What about Burger First?" "Great!" "OK. See you there." They walk to Burger First respectively, meet up and have a good meal there. Joe later adds a positive review on this burger store. Now it's almost 1:30pm, Joe's afternoon classes begin. He changes his visibility from visible to invisible on FriendMap and updates a new status: "busy studying."