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**Smoking Cessation Buddy System**

**Definition:**

Smoking is a major health problem in today’s society. It is reported by the Center for Disease & Prevention that around 443,000 premature deaths occur each year in the United States as a result from both smoking and secondhand smoke. In addition, there is another 8.6 million people in the United States who suffer from smoking related illnesses. They also report that 70% of US smokers said that they wanted to quit smoking, and 40% of those smokers actually attempt to quit every year. However, only 4% to 7% of those people are actually successful in quitting. This leads us to question why the number of smokers who successfully quit is so low. We believe that it is due to the high cost of the already available cessation techniques such as medication and therapy, and also their inability to access these cessation techniques.

So who should care about this problem? It is obvious that the smokers themselves should care about this problem because they are the ones who are suffering from this addiction and are the ones who are in need of the help in order to quit smoking. Also, the friends and family members of anyone who smokes should care as well because this is directly affecting someone who they know or love personally. In addition, due to the effects of secondhand smoke, simply being near anyone who smokes while they are in the act of smoking is a health risk to any individual. Reducing the amount of smokers in the world will slow the premature death rate, provide both cleaner air and a cleaner environment for everyone, and ultimately result in a healthier society as a whole.

**Requirements:**

In the process of assessing the requirements for our project, we had a few goals in mind: To make our service in such a way that held users accountable for one another, including themselves, to stop smoking; and also, keep the users engaged over time so that they can maintain long term success in their goal to stop smoking.

We will use an HCI approach in developing a solution for our problem, meaning that we begin by engaging the end user. Our target users are active smokers who wish to stop smoking and we will employ two methods in order to reach them. First, we will be conducting semi structured interviews with subjects which we hope to acquire via snowball sampling, starting with a few personal friends, and obtaining contact information for additional subjects over the course of the interview. We plan to conduct 4-6 of these semi-structured interviews, and our questions will be geared toward assessing the needs of the users in terms of what they would be looking for out of a technology based smoking service. If our subjects are Western Washington University students we will conduct interviews in a neutral place on the campus, otherwise, interviews will likely be held in coffee shops.

We will supplement this method with a survey which we will administer at various channels on the web, mainly social media, such as facebook, google+, recovering smoker forums etc. It’s difficult to get a number on how many surveys we can obtain, but dissemination over the web makes it considerably more easy to reach end users.

**System:**

Our proposed solution would be to creating a mobile app to help aid users trying to stop smoking. Each user will be put in a group of two to five users, where they will have the option to choose friends or strangers to have in their group. The reason for groups is giving us a way to have the people attempting to stop smoking rely on each other to aid their efforts as opposed to having to rely solely on self-motivation. It has been shown that “gamification provides positive effects…” (Hamari).

We can leverage a buddy system to help users trying to stop smoking and motivate each other with the statistics of how their buddies are doing. One example of this is that when a user wants to smoke, they can go into the app and ask for help. This would send a notification to the phones of their buddies that would tell them to say an encouraging word. Also, it would give the user a helpful statistic like “Your friend has not smoked in X days. You can do it too!”

For this project, we are looking at using Android devices to start, since they have a greater market share than iPhones and Windows Phones. While there have been other attempts to use mobile phones to help users stop smoking, none of them have tried to use a buddy system. Most other apps give details on the user’s improving health as well as how much money we have saved. We will be including this information in our app as well.

**Evaluation:**

To evaluate how well our application helps users quit smoking we will look both at the data from the application, as well as speak to people who have tested out application. We will first speak to the people we know who are using the application and interview them to see how effective the application was to help them quit smoking.

As well as conducting interviews, we will look at the data that we’ve gathered from the application itself. We will look at user reviews of the application to see if users found the application helpful. We will also look at the data gathered from the application, and see if it is more effective to be paired with one person or more people, and if there’s a number that is most effective.

**Sources:**

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