

User Documentation

Group 2

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In this document, we will tell you, the user, to the IOS mobile app and explain how to use it. Our goal is to help users monitor the overall health related information of the American people from different aspects and get health related suggestions. The data we use here is a week data, from Oct. 13 to 19, crawled from the Twitter database. When you first navigate to the page, you will encounter the following screen:

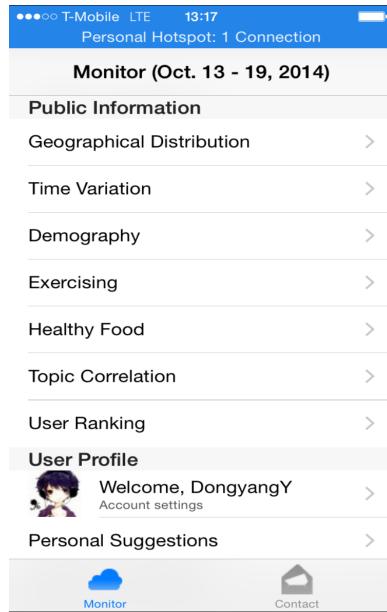


Figure 1: Monitor

In Figure 1, this interface contains two list views, “Public Information” and “User Profile”. Each item in the “Public Information” list shows the specific analysis of the public who are tweeter users. Each item in “User Profile” list shows analysis concerning user’s own tweet data. If you click the Geographical Distribution, this app will navigate you to the next screen:

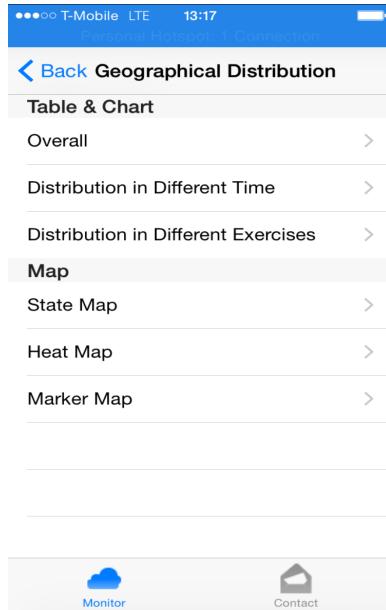


Figure 2: Geographical Distribution

In Figure 2, this interface contains a sub menu in which each item contains analytical information concerning the exercise intensity, distribution of the public. In the geographical distribution, you can see the amount of tweets in different locations such as a state map as below:

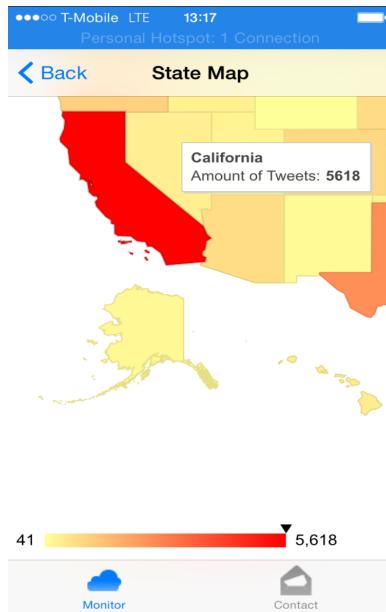


Figure 3: State Map

In Figure 3, this interface shows a US map in which each state contains information of the amount of tweets concerning exercise and health. The more the number of

tweets being tweeted, the darker the color of the certain state will be. Thus California has the most amount of tweets. You may also see a heat map as below:

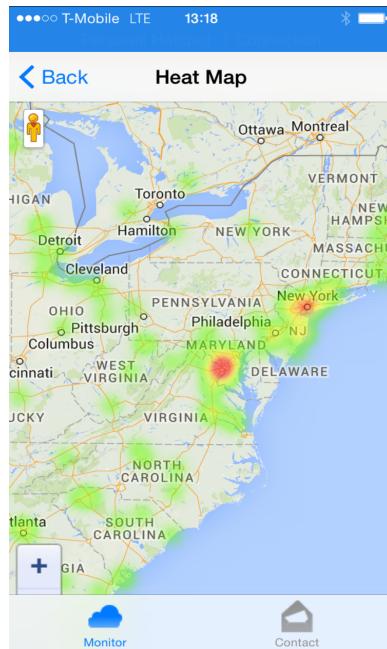


Figure 4: Heat Map

In Figure 4, when the color is closer to red, the amount of tweets is larger. You may also see a marker map as below:

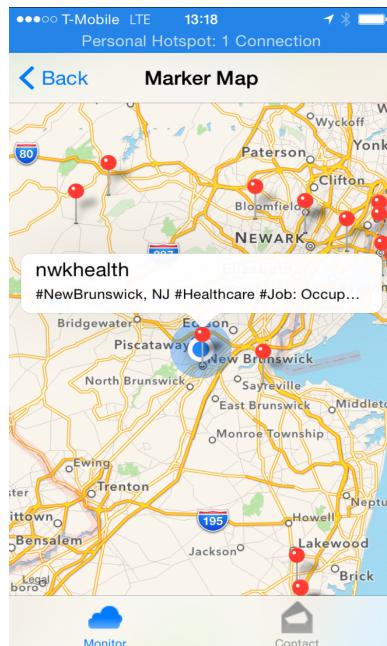


Figure 5: Marker Map

In Figure 5, this interface shows a Google map where marks will be showed on it if users post their tweet with location info. The interface will pop out certain user's name and his tweets if a single mark is clicked. You can see the recent health tweets around you, such as this figure above. Besides, we are willing to support you to see that information in different time period in a day and in different exercise types.

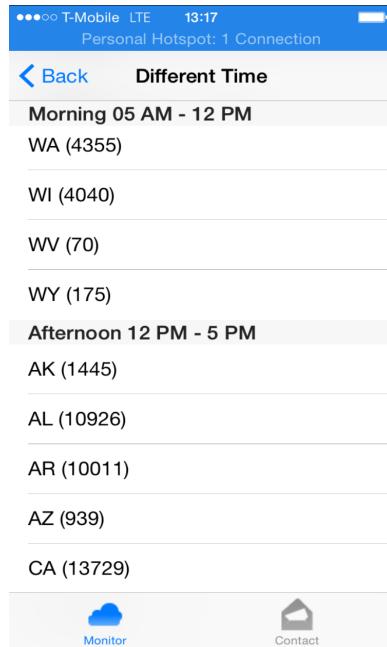


Figure 6:State Tweets by Different Time

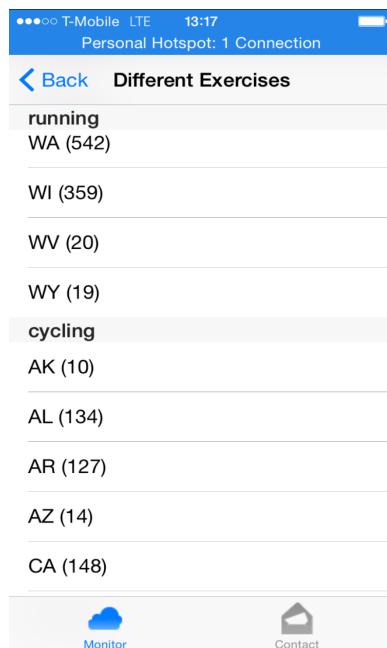


Figure 7: State Tweets by Different Exercise

In the time variation, you may see the trend based on different days in Figure 9, and based on different time periods in different exercises in Figure 10, you can compare them like this. We also have states classification in Figure 11.

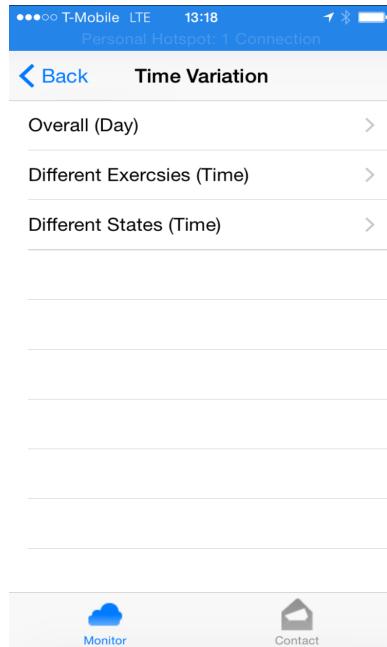


Figure 8: Time Variation



Figure 9: Trend of the week

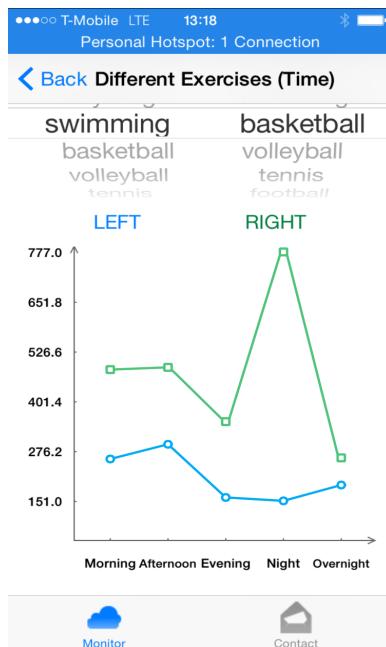


Figure 10: Trend by Different Exercise

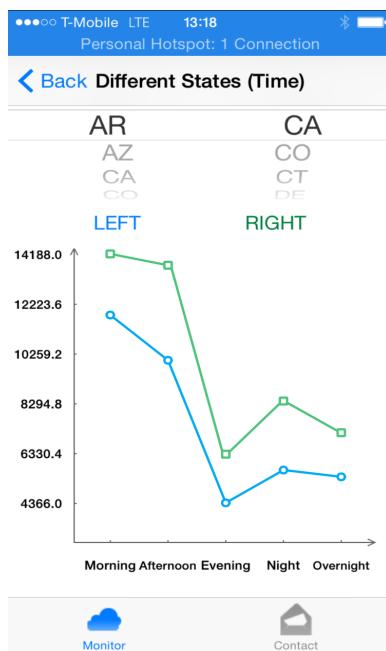


Figure 11: Trend by Different States

In the demography, we have overall gender distribution in Figure 12, and age distribution in Figure 13.

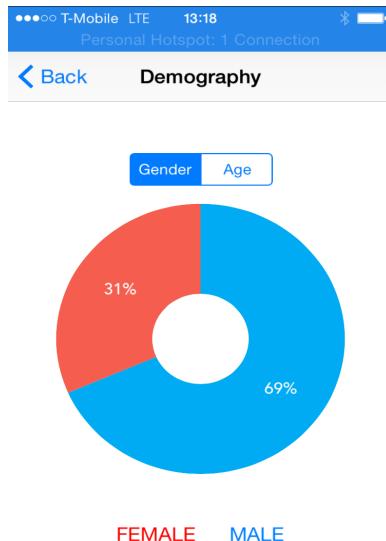


Figure 12: Gender Distribution

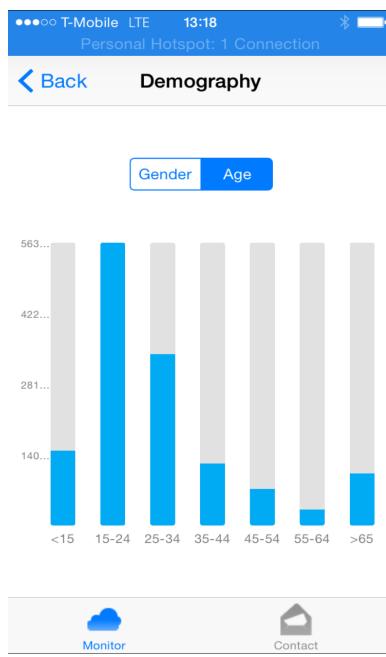


Figure 13: Age Distribution

In the exercising classification, you still can see the amount of tweets in different states in Figure 14 and time in Figure 15, you can touch the bar to see the detail.

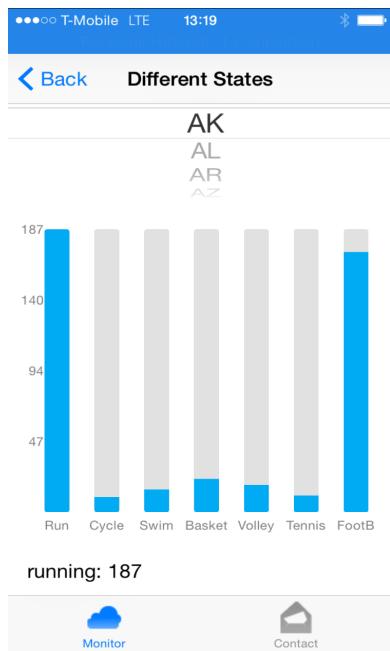


Figure 14:Exercise Classification by Different State

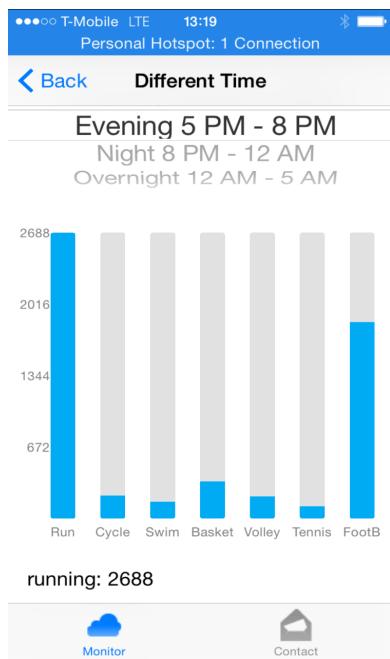


Figure 15:Exercise Classification by Different Time

Also, you can see the average, maximum, and individual difference of exercising time duration in Figure 16. This interface displays a bar chart of the “mean”, “max” and “standard deviation” of exercise duration time varied by different exercise types in Figure 17.



Figure 16: Exercise time by Different State

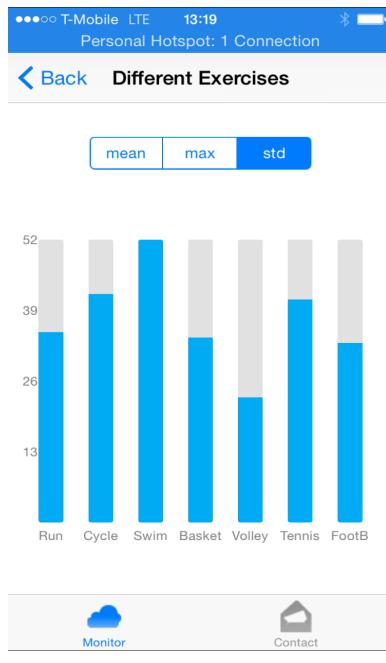


Figure 17: Exercise time by Different Types

In Figure 18, we also have a marker map here. This interface shows markers on the map for users who have tweeted a tweet concerning exercise and mentioned his exercise duration time. Once the marker is clicked, the interface will pop out the

duration time and the exercise type on the top of the marker. For example, a person called Nicholasmeezy has just played basketball for 30 minutes.

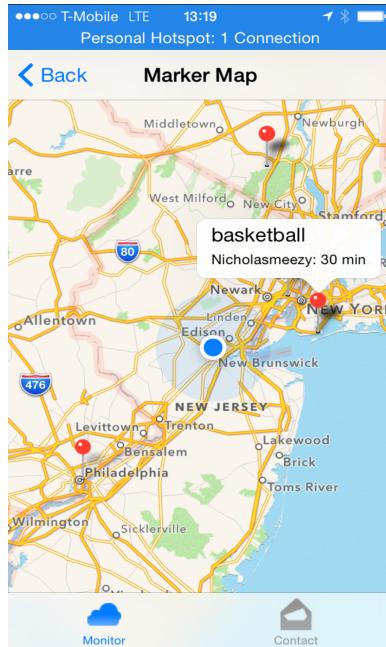


Figure 18: Exercise Marker Map

We also have exercising frequency estimation in Figure 19.



Figure 19: Exercise Frequency Estimation

In the sentiment state map, you can see the mood when people are exercising in

Figure 20. For example, Alaska's mood value is the average.



Figure 20: Sentiment State Map

In Figure 21, this interface includes the analysis of healthy food, sorted by either different states or different exercise. For example, in Arizona people like apple most in Figure 22 and in the running type people like apple and pear most in Figure 23.

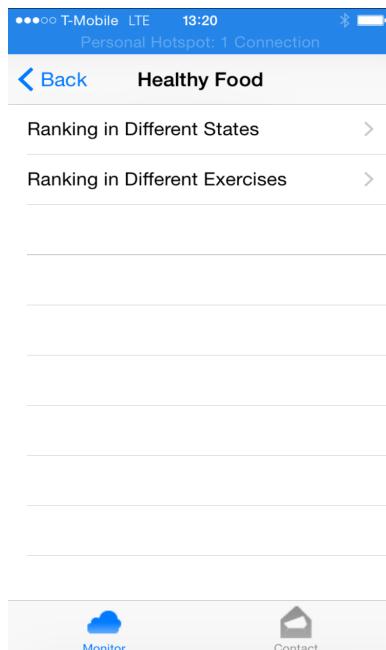


Figure 21: Healthy Food

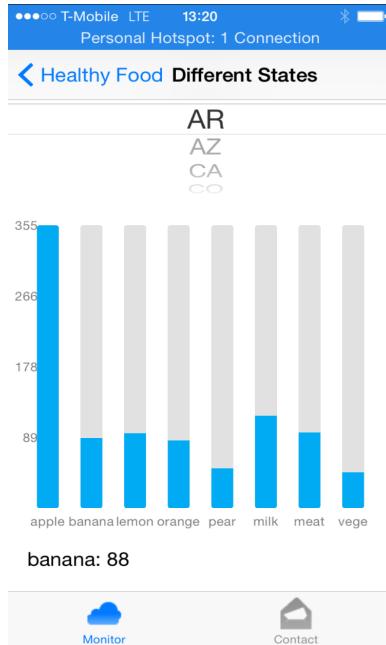


Figure 22: Food Analysis by Different State

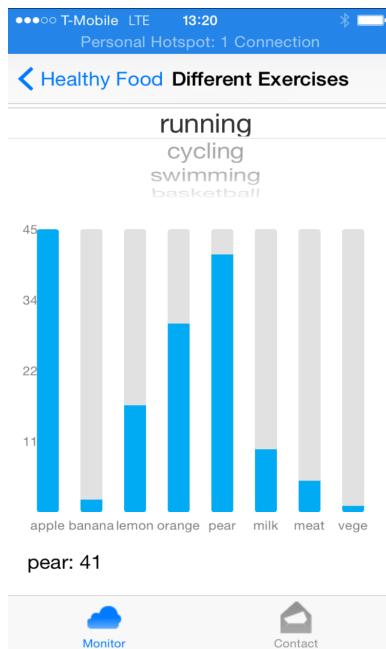


Figure 23: Food Analysis by Different Exercise Types

In Figure 24, this interface shows topic correlation between exercise and health, exercise and fruit, health and fruit. For instance, from the figure below you may see the amount of tweets about health is positive correlated with the amount of tweets about exercise.



Figure 24: Topic Correlation

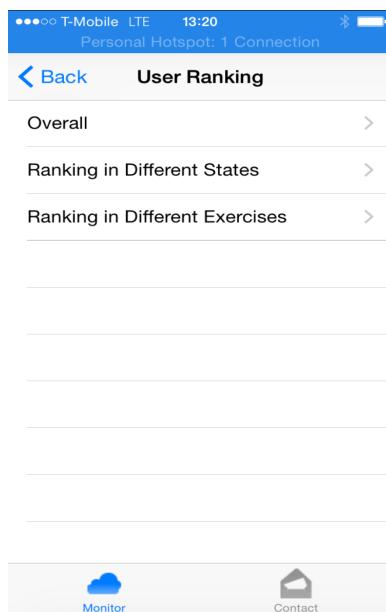


Figure 25: User Ranking

In Figure 26, this interface displays the ranking list of the users who exercise the most often in different states.

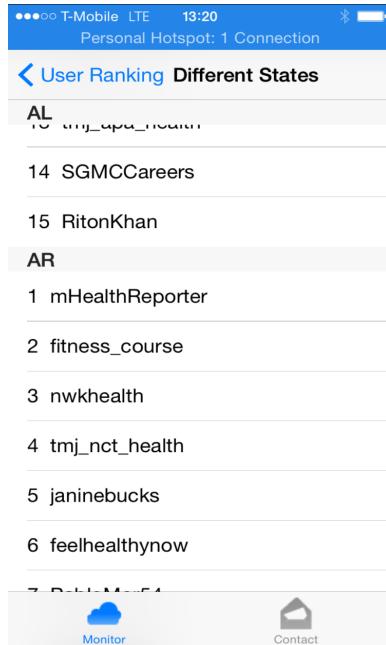


Figure 26: User Ranking by Different States

In Figure 27, this interface displays the ranking list of the users who exercise the most often in different exercise types.

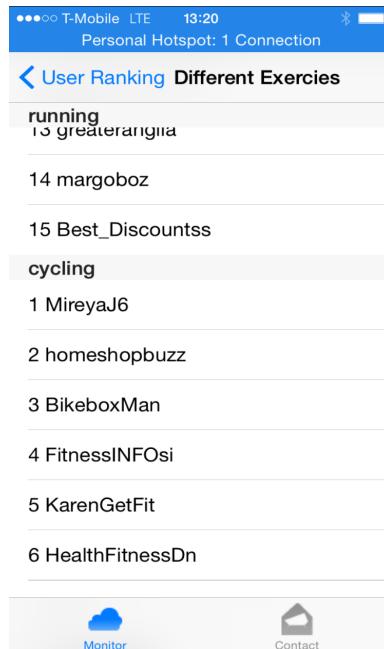


Figure 27: User Ranking by Different Exercise

In Figure 28, in this interface the users can see an analysis of their personal exercise history. Personal exercise duration, average level in area and the difference can be

shown.

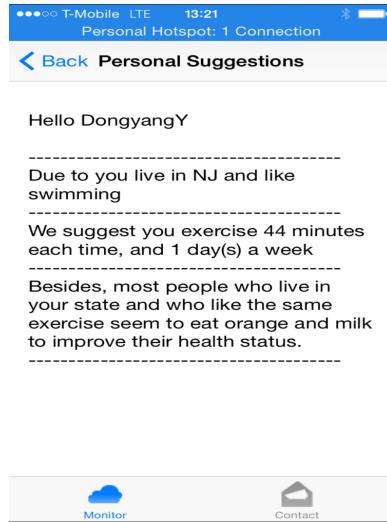


Figure 28: Personal Suggestions

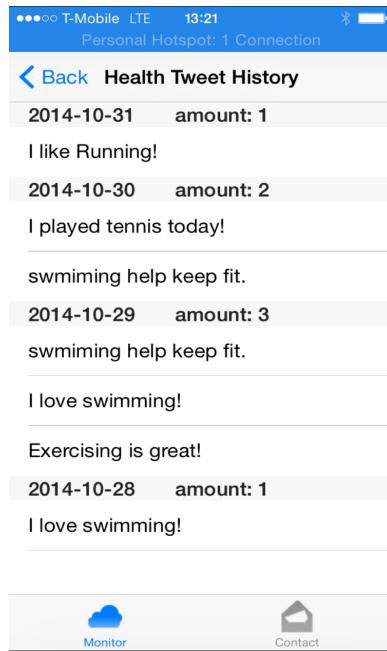


Figure 29: Health Tweet History

In Figure 29, this interface shows the history of user tweets related about Health.