

Project Proposal

Title: On-demand and Reactive Mood Insights based on Episode Tracking (ormi)

Group Members: Ben Fu, Alvin Tung

Description:

We plan to create a smartphone application for on-demand and reactive mood and well-being insight into daily and future activities based on time, location, weather, and contacts. We will ask users to provide their feedback on mood based on those activities throughout the day and aggregate the information into a database for visualization and pattern recognition. These activities or episodes are characterized by the extended duration of time, static location, and current social interaction. The users can visualize this data on the application as a calendar/map view to see insights into their well-being as well as receive notifications about their possible well-being based on future, scheduled activities from their calendar.

Motivation:

The goal of this research project is to help users become more self-aware of their past well-being in both temporal, spatial, and social environment in hopes of improving future well-being. It further removes the hassle of manual logging of mood and activity by prompting the user based on aforementioned episodes.

Description of previous research in the area (with references)

1. *ESM*: is a method of data collection in which participants respond to repeated assessments at moments over the course of time while functioning within their natural settings. (Minimal obtrusiveness for detected episodes)
2. *Daylio*: is a simple, easy to use mobile application that can help people track their moods and activities to identify triggers to disorders. (no location awareness and manual logging)
3. *The eyes have it*: is a starting point for designing advanced graphical user interfaces is the Visual Information-Seeking Mantra: Overview first, zoom and filter, then details-on-demand. (Organize information for easy and useful visualization for insights)

Resources you may need (in terms of hardware, software, etc)

- Google Timeline, Google Calendar, Contacts data and API
- Weather Data
- Smartphones

- Database and Server

How do you plan to get these resources?

- Third party APIs
- Manual data export for Google Timeline
- Weather Underground API
- Personal computer for software hosting

Timeline

- Modeling (1 week, 3/1)
- Backend (3 weeks, 3/1-3/22)
- Frontend (3 weeks, 3/29-4/12)
- User Trials/Testing (2 weeks, 4/19-4/26)
- Presentation (1 week, 5/3)
- Report (1 week, 5/10)

Grading Criteria: How should we grade your project?

- Objective criteria:
 - Functionality: Does it work as intended?
- User Experience:
 - Do they find insight helpful. 1) On-demand 2) Reactive

References

ESM:

<http://users.ece.utexas.edu/~ethomaz/courses/pi/papers/esm-pitfalls.pdf>

Daylio:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5344152/pdf/mh-02-2016.08.04.pdf>

The eyes have it:

<http://users.ece.utexas.edu/~ethomaz/courses/pi/papers/overview-zoom-filter.pdf>