Understanding Group Event Scheduling via the OutWithFriendz Mobile App

Jason Shuo Zhang
University of Colorado Boulder
http://jasondarkblue.com/

Joint work with Khaled Alanezi, Mike Gartrell,
Richard Han, Qin Lv, and Shivakant Mishra

Group event planning is stressful

Event coordinator is the fifth most stressful job, right behind well-known tough ones, such as firefighters and soldiers.
@careercast

Limitations of existing services

Hosts decide event date and location, participants have no say.

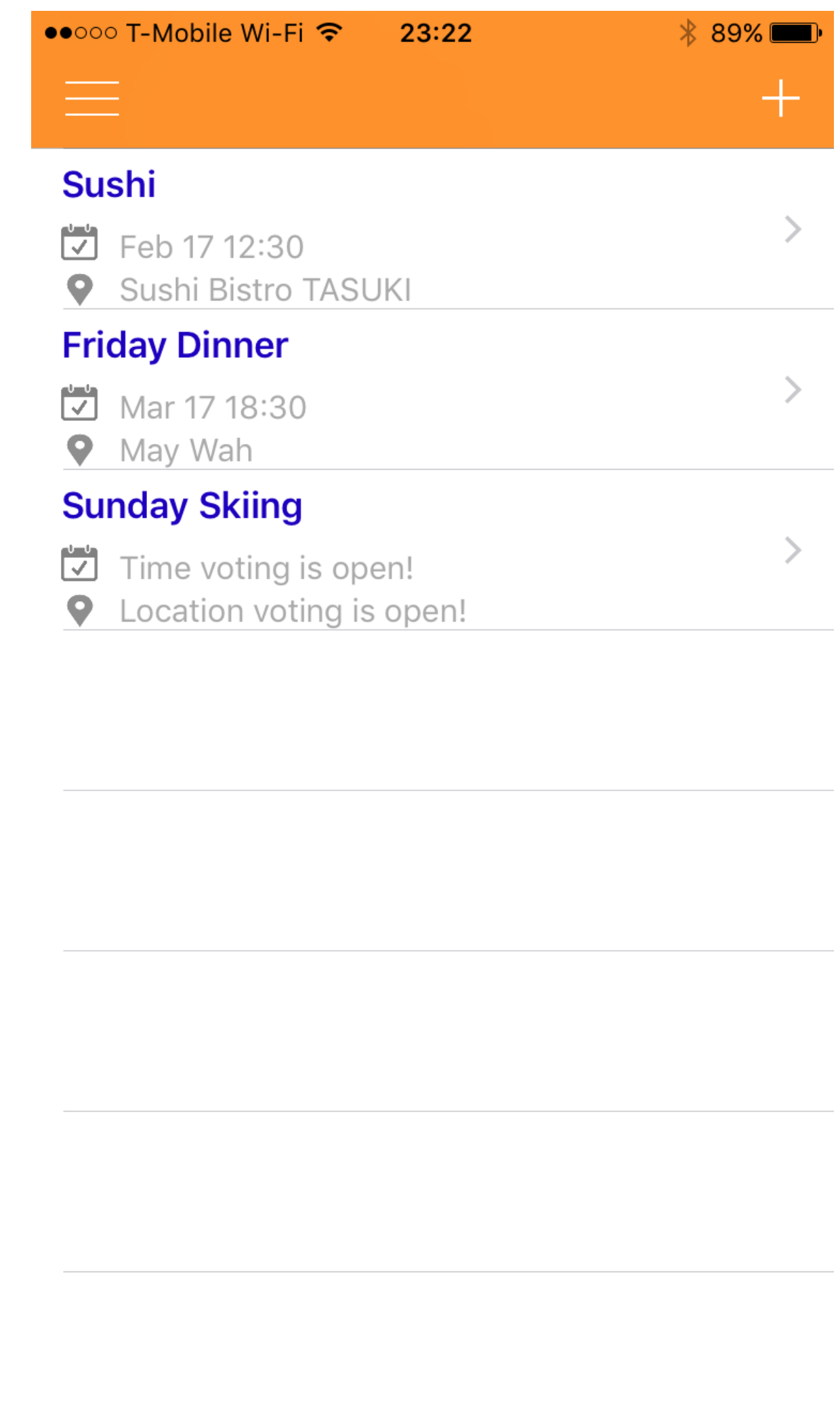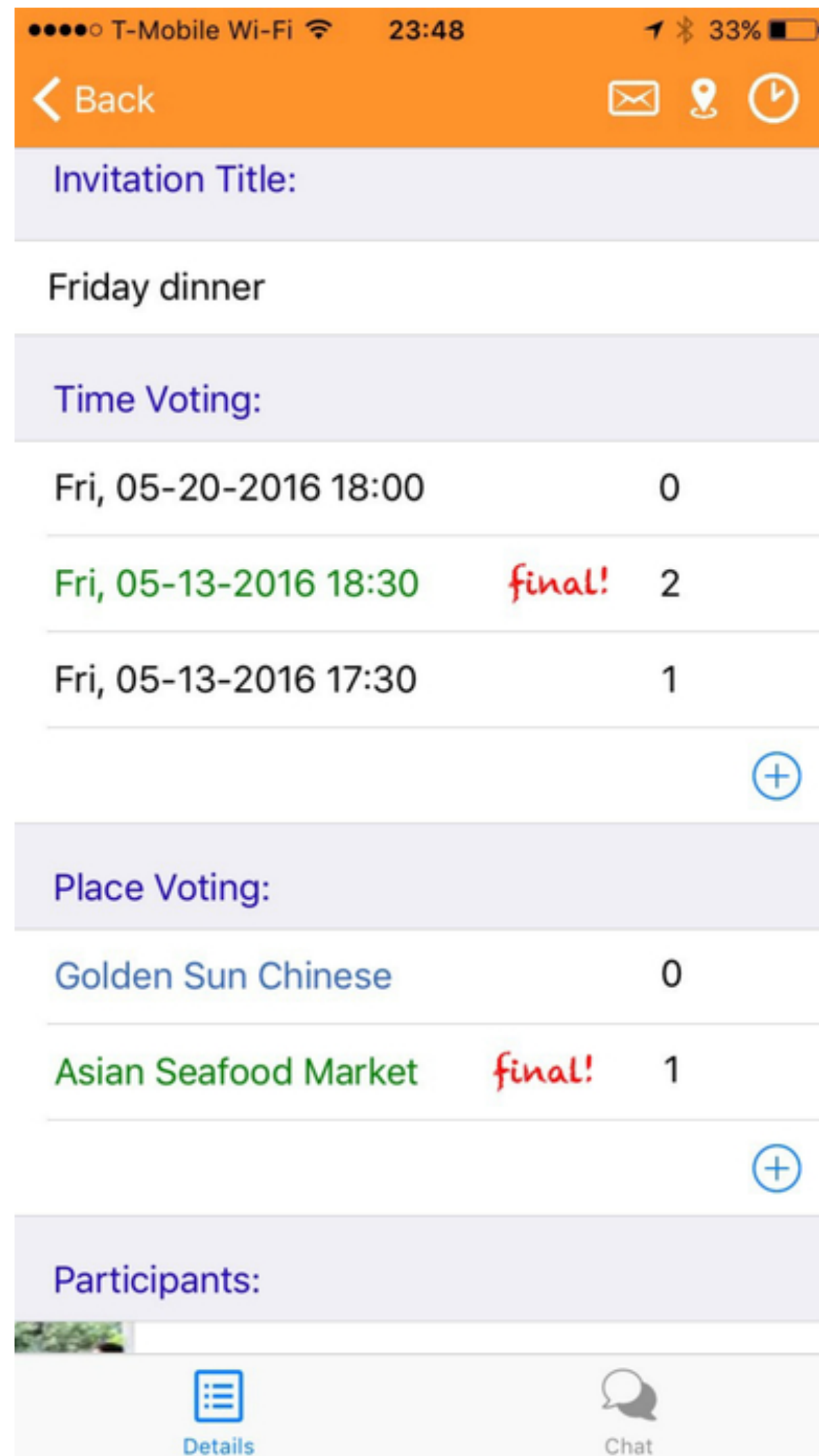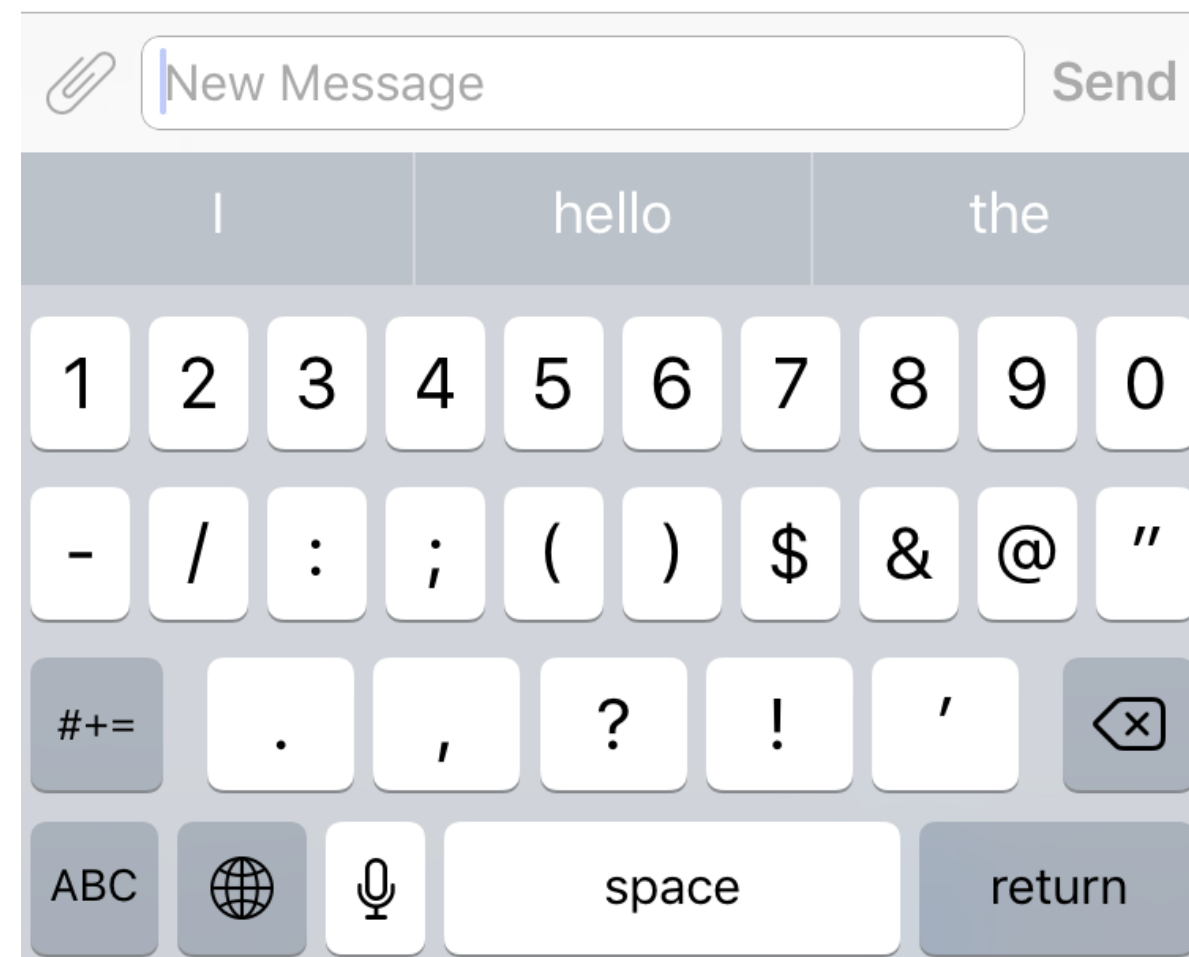
No meeting location polls, and participants cannot suggest new ones

Understand the process of group event scheduling

OutWithFriendz mobile application
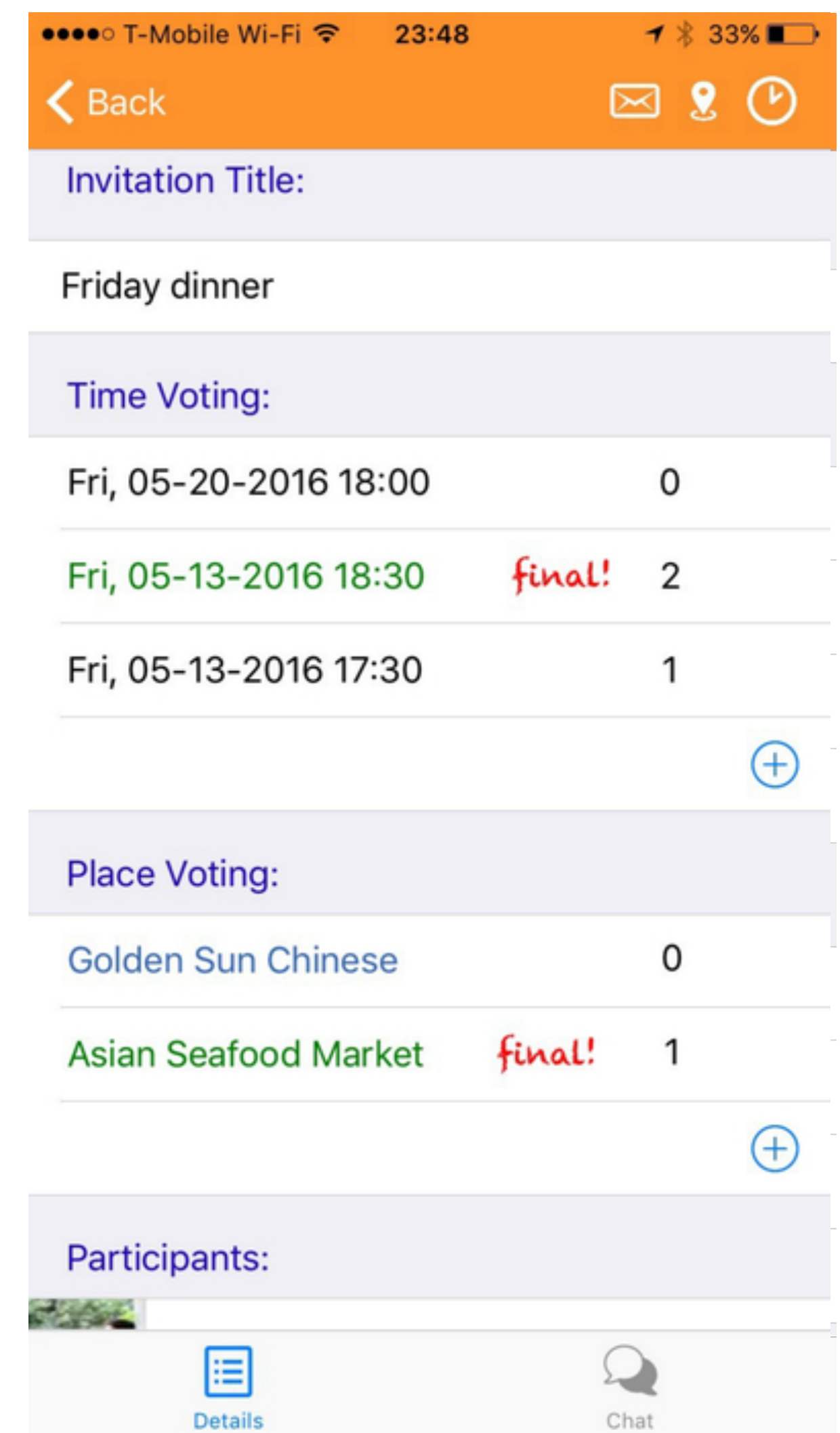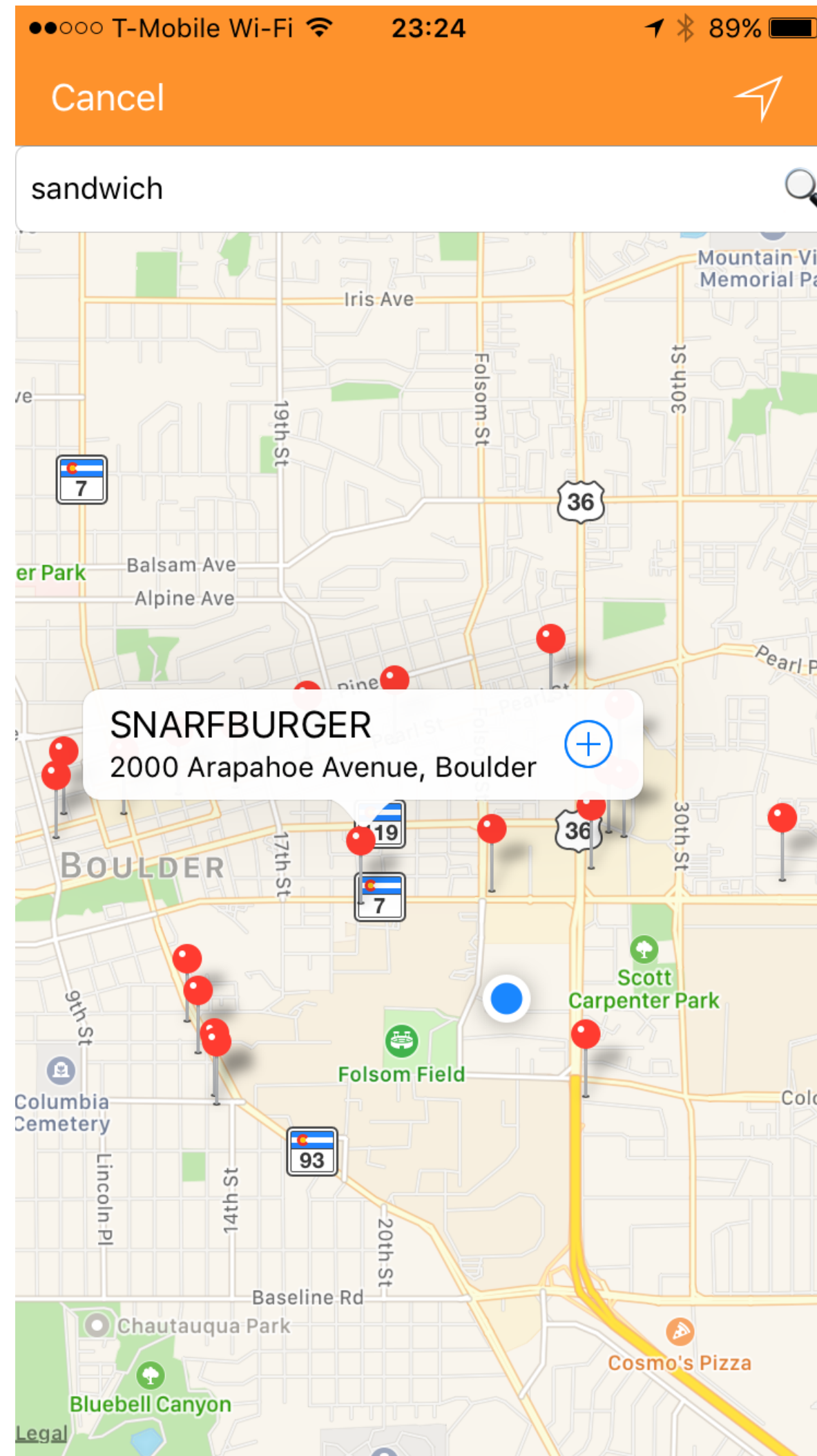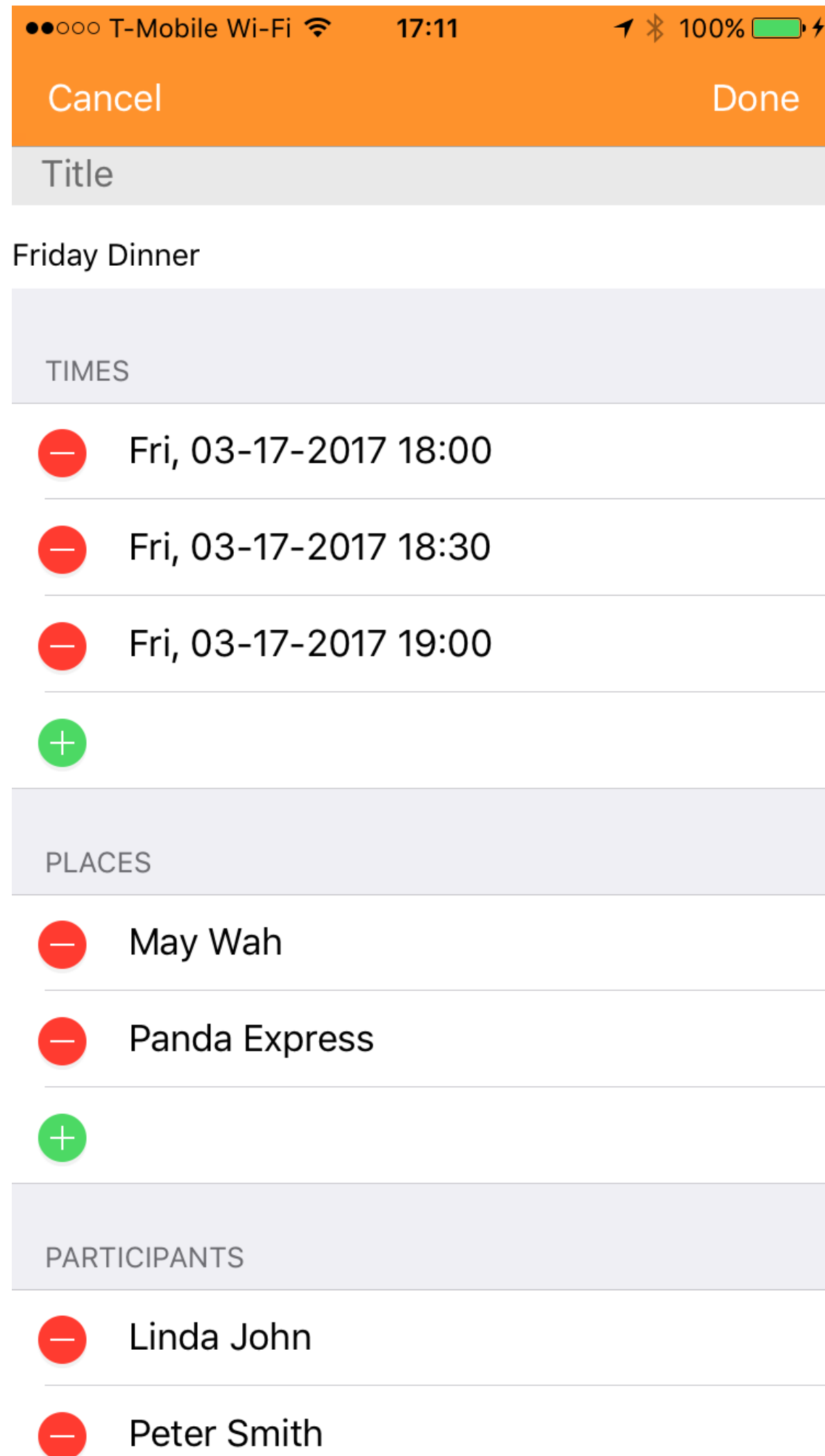
OutWithFriendz mobile application
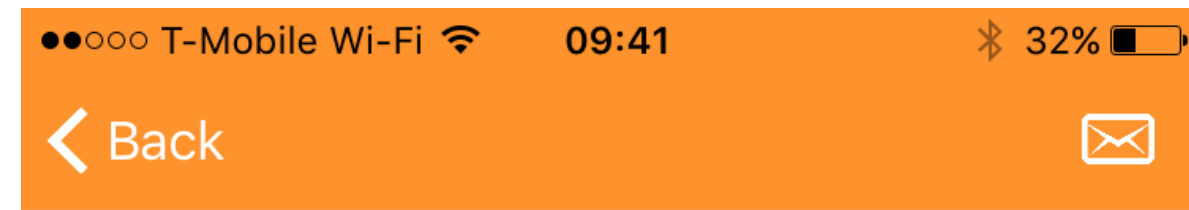
Deployed on mobile app platforms

Google Cloud
Messaging Server

Google Map API

OutWithFriendz Data
Collection Server

1. Data transmission

2. Push notifications

3. Location search

iOS

Android
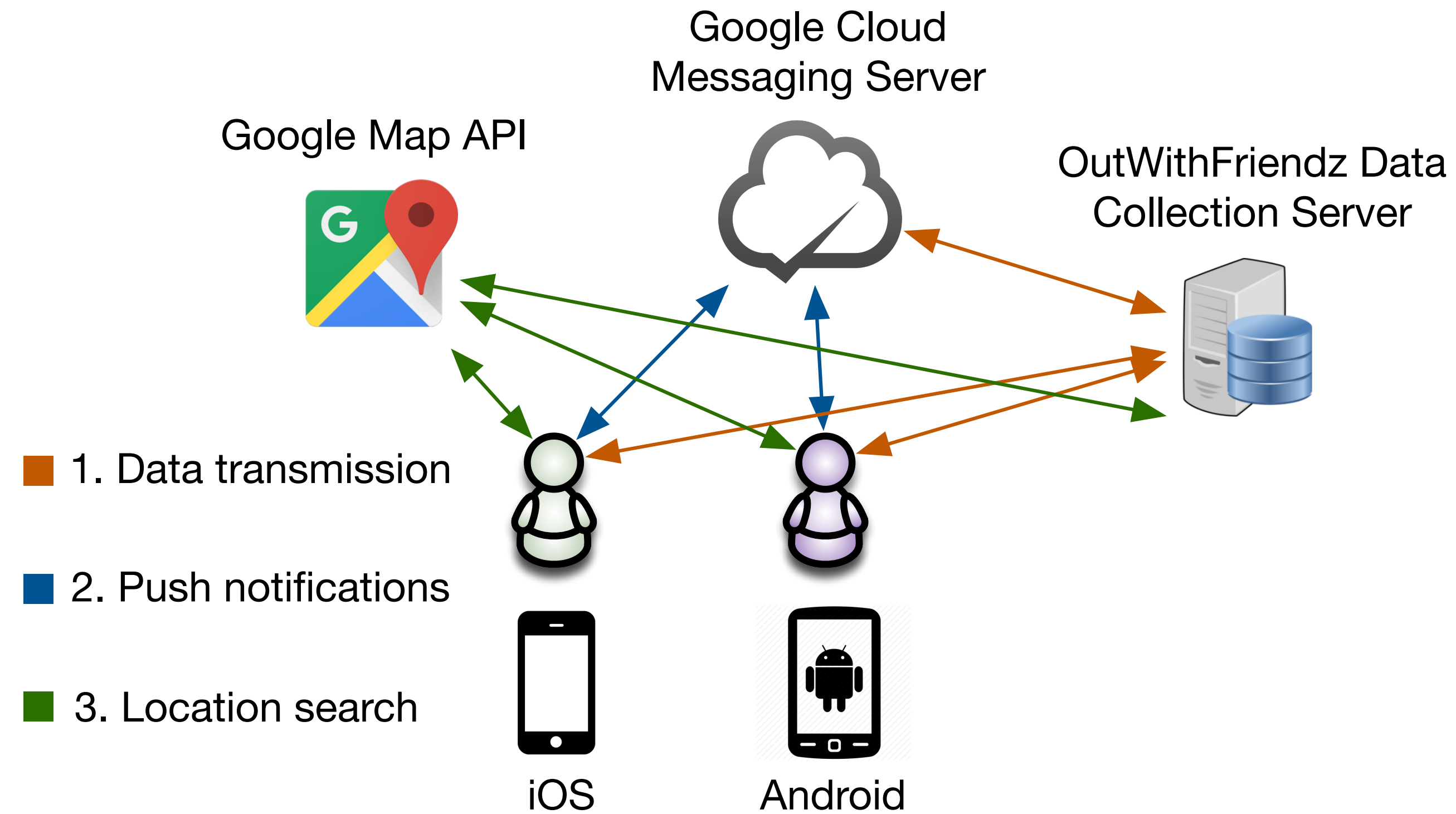
Data Collection
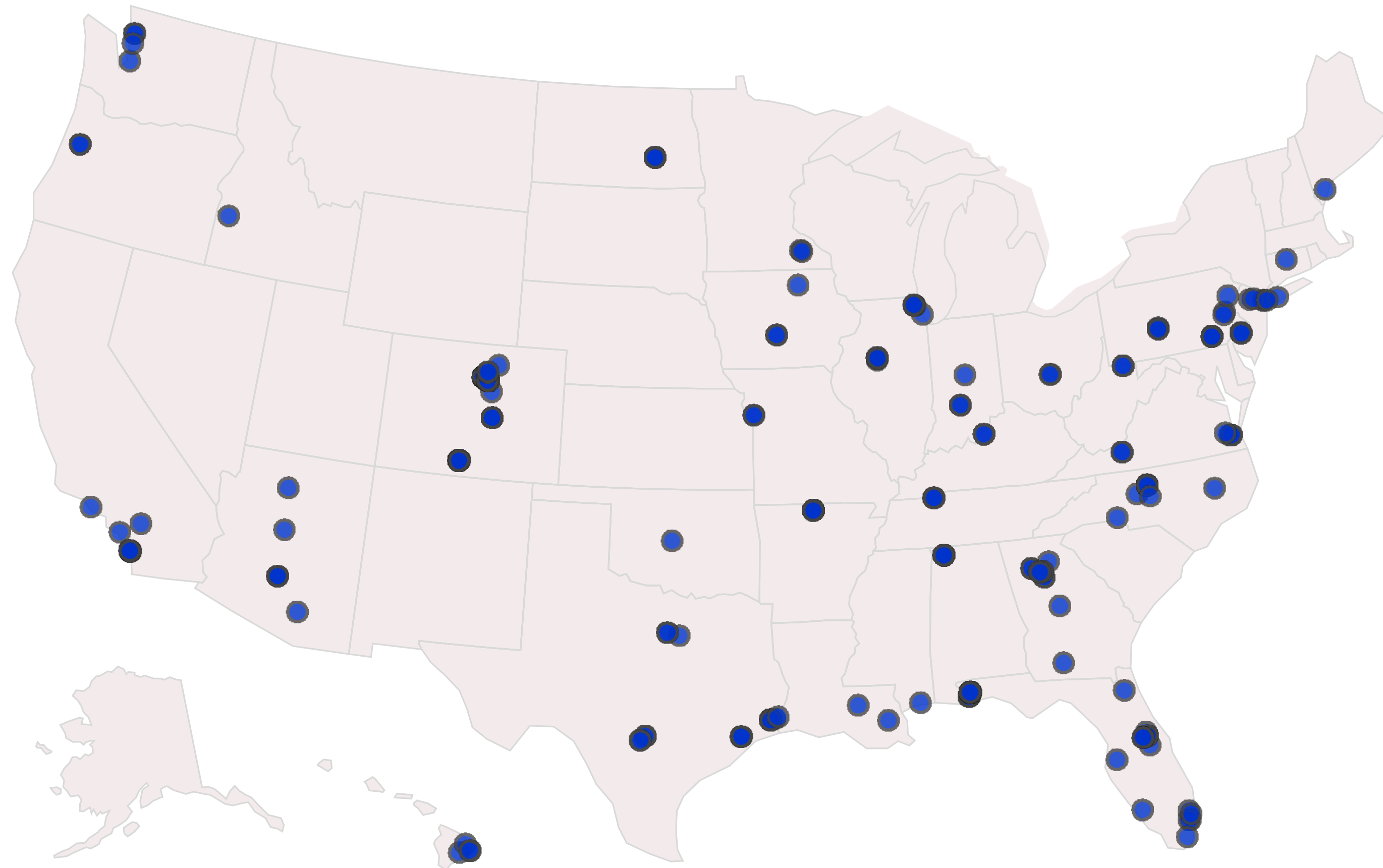
Events: 246
Users: 432
States: 34
Cities: 81

User Demographics
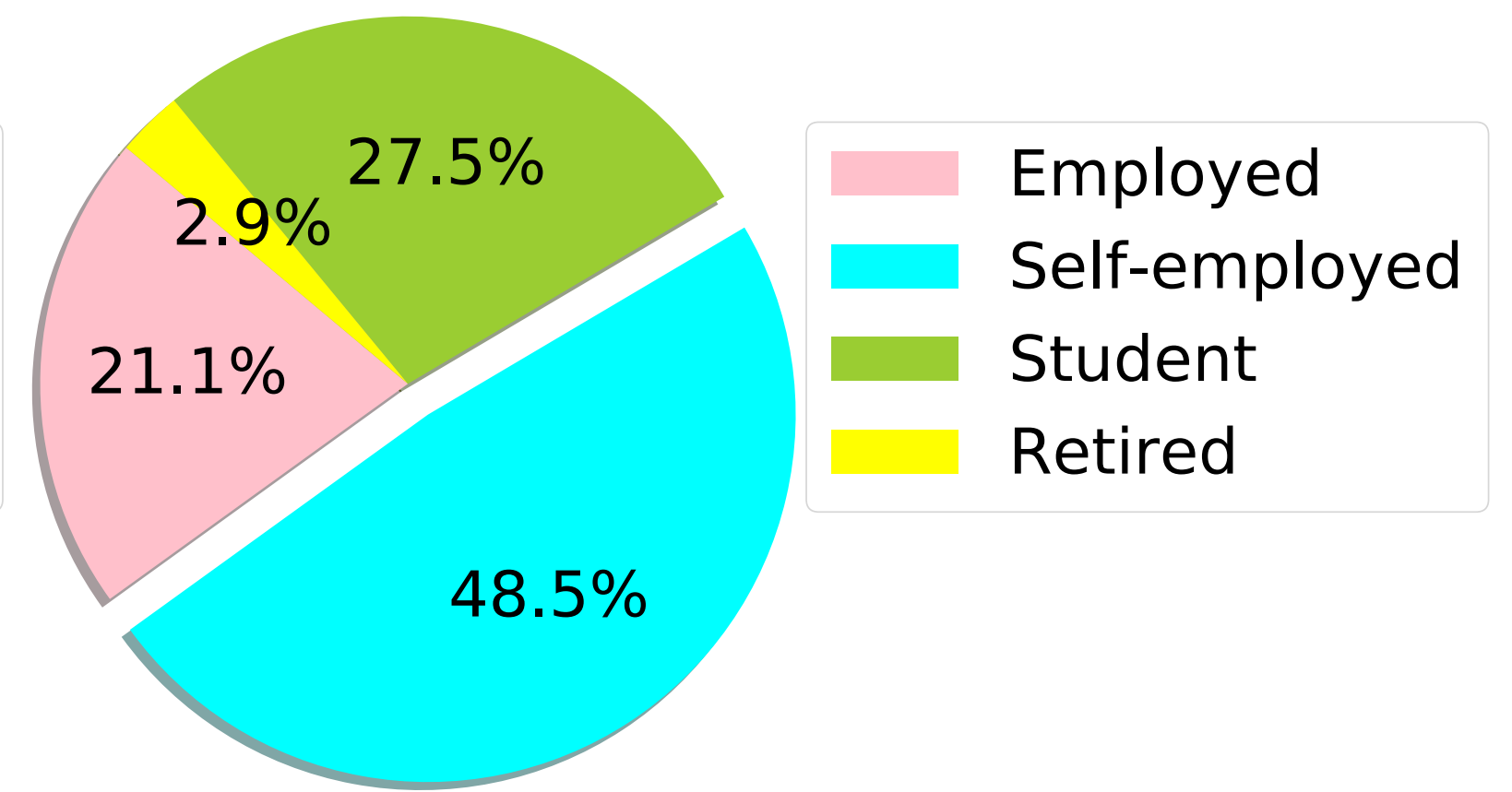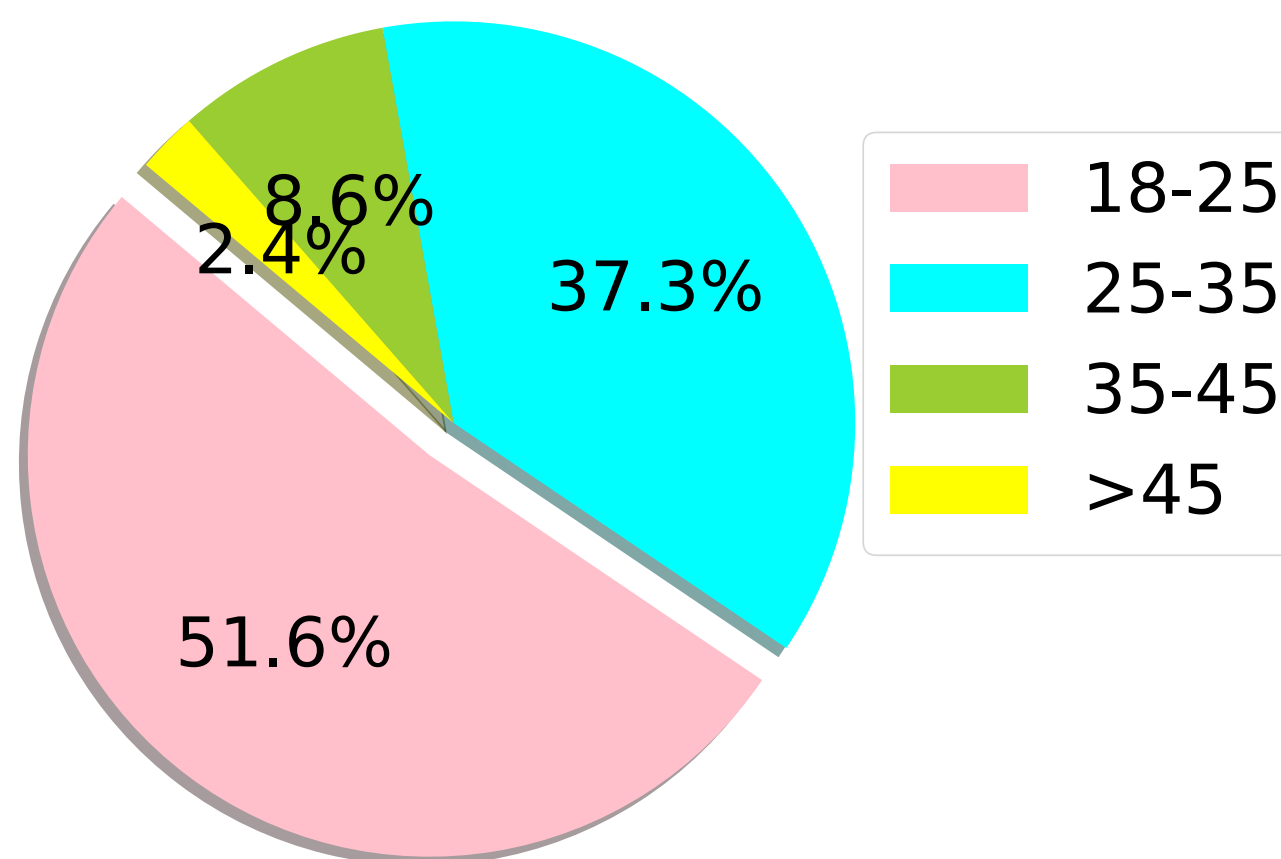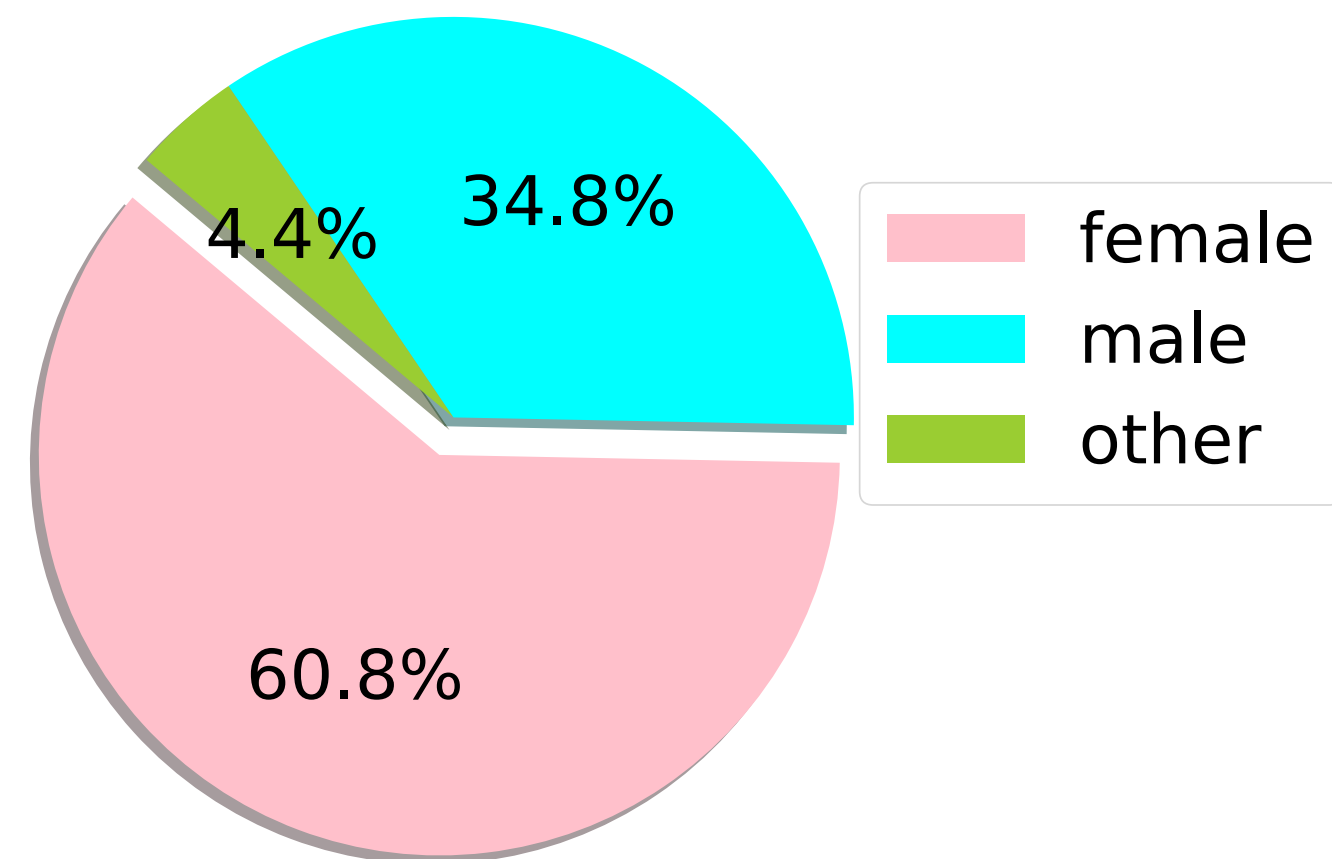
Factors influencing group decisions

- User mobility

- Host preference

- Voting process

Impact of the user mobility

Table: The correlation of user mobility and voting availability.

		Corr	P-value
User mobility	Date availability	0.276	7.12E-05
User mobility	Location availability	0.281	2.92E-06

Observation 1: Users with higher mobility exhibits higher availability when scheduling social events.

Possible explanations

- The users who travel long distances may travel by car, easy to reach locations far away.

- The users who have higher mobility are more likely to be active event attendees.

Impact of the host preference

Table: The probability of a final event option is voted by the host vs. participant.

		Probability
Final event date	Host	0.71
Final event date	Member	0.36
Final event location	Host	0.72
Final event location	Member	0.34

Observation 2: The final meeting option is more likely to be voted by the host than a random participant.

Impact of host preference

Table: The correlation between whether host comply with voting result and the event attendance rate.

	Corr	P-value
The host comply with the date voting result and the event attendance rate	0.47	<10e-10
The host comply with the location voting result and the event attendance rate	0.48	<10e-10

Observation 4: The host choose not to use the consensus result would a have negative influence on the event attendance rate.

Impact of the voting process

Figure: The relationship between the average availability and the voter position.
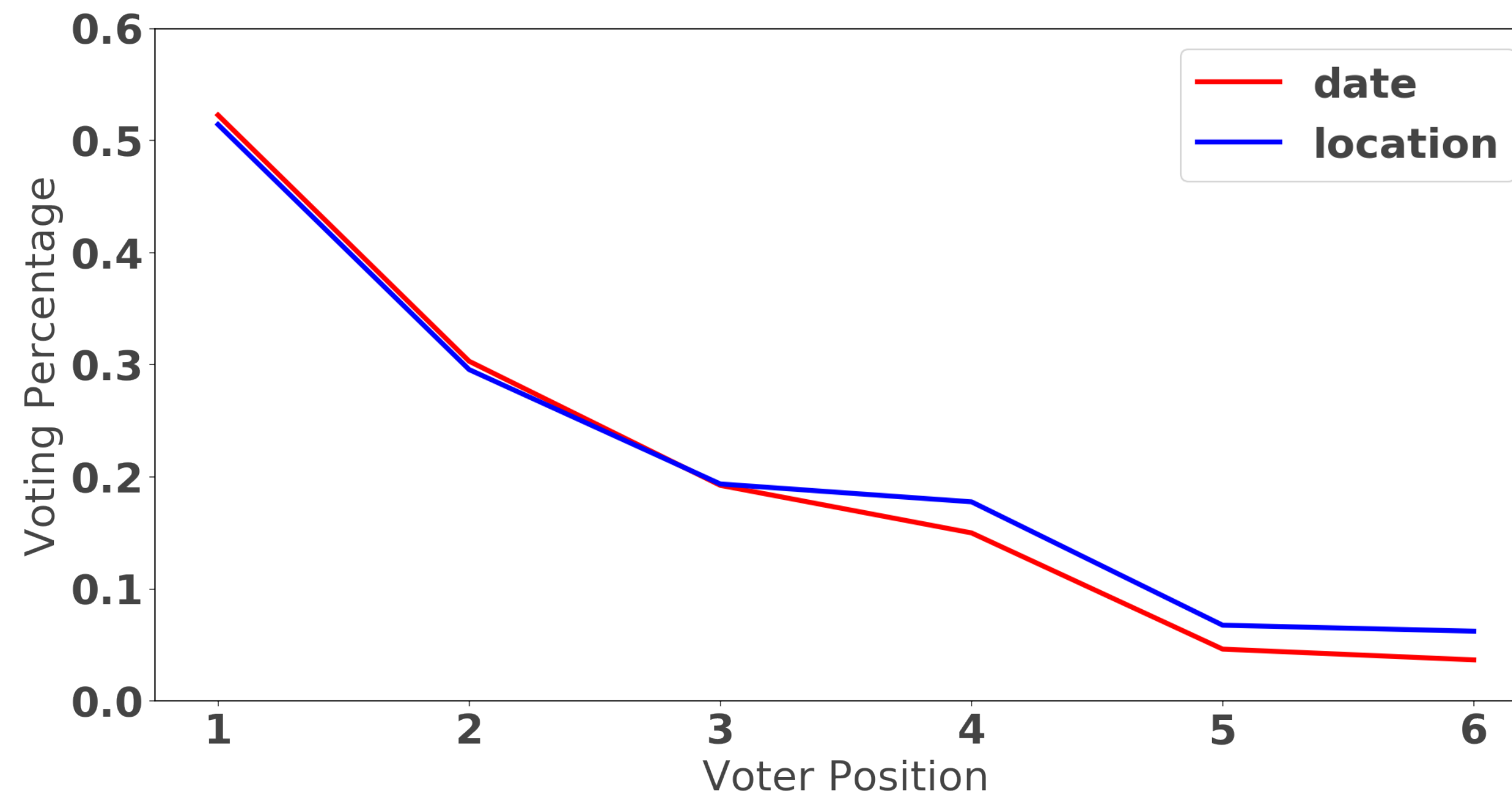
Observation 3: Early voters tend to vote for a wide variety of options, while later voters are more likely to report limited availability

Possible explanations

- Later voters are busier, with smaller time windows

- Open polls and late votes may not be able to change the winner

- Later voters are being "nice," only vote for mutually agreeable options to save hosts' life.

Big picture, future work and questions
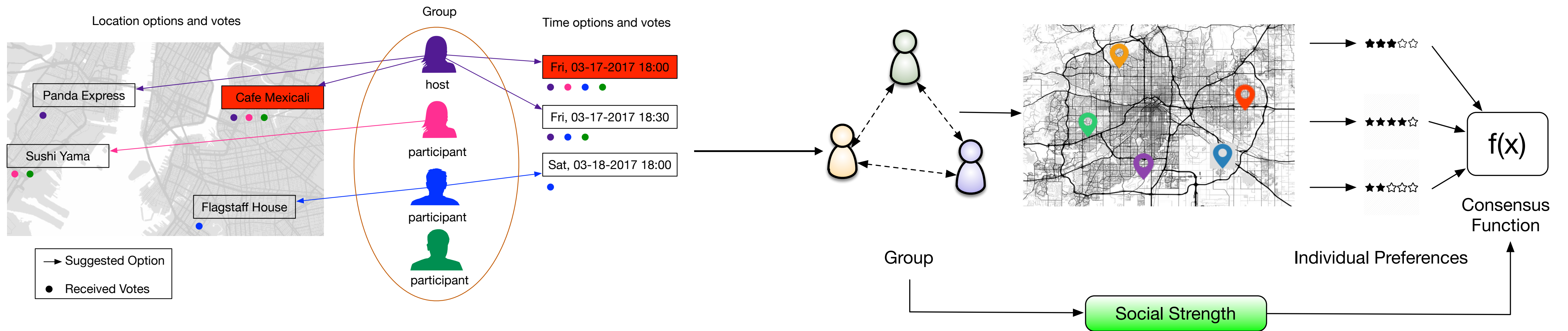
First attempt to understand group event scheduling

Towards more effective group event planning

Thank you!

Jason Zhang, jasonzhang@colorado.edu
http://jasondarkblue.com/