

Efficient and Scalable Systems Support for Mobile Group Formation, Inference, Recommendation and Classification



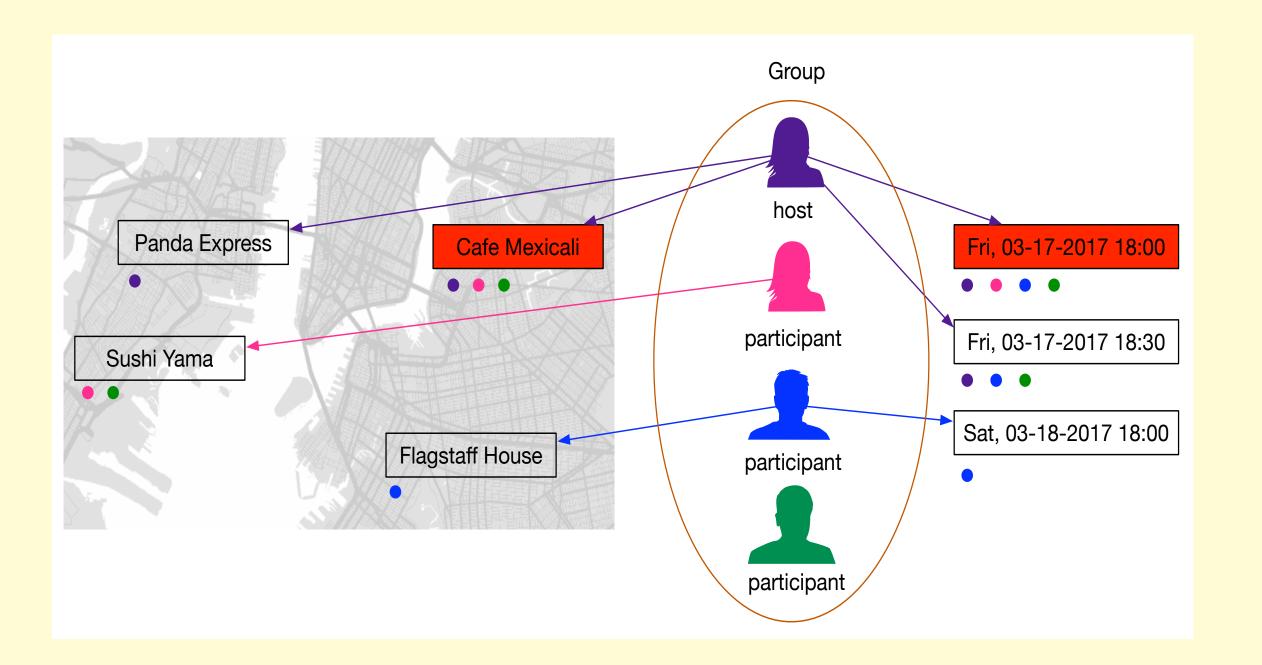
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.. OutWithFriendz Key Elements

OutWithFriendz is a mobile application that enables groups of people to decide together through a voting process the **date/time** the group would like to meet as well as the **location**.

Figure: The key elements of OutWithFriendz.



4. UI Design Challenges

For improving UI design, we started with an initial usage survey before releasing the app to the market. During our survey, we hired seven students on campus who have different academic backgrounds. Their suggestions include:

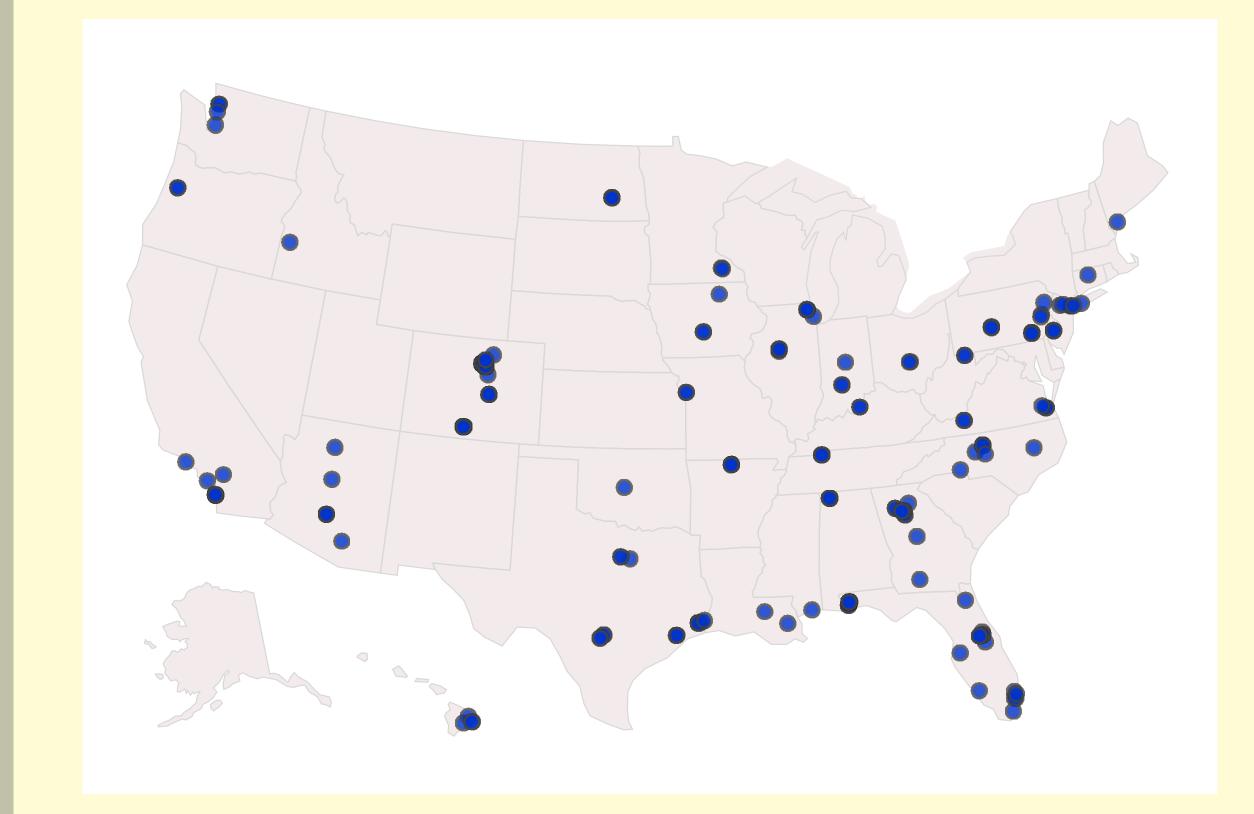
- 1. Adding a chat board to allow group members to discuss their opinions;
- 2. Allowing users to edit the location title and provide detailed information for each location;
- 3. Allowing users to link suggested locations with the Google Places application;
- 4. Pushing notifications if an invitation is created or modified;
- 5. Replacing text buttons with interactive icon buttons.

Done Cancel Cancel Title Friday Dinner TIMES Fri, 03-17-2017 18:00 Fri, 03-17-2017 18:30 Fri, 03-17-2017 19:00 PLACES May Wah Panda Express **PARTICIPANTS** Linda John Peter Smith (b) Add location. (a) Create invitation. **⊠ 9 () K** Back **Invitation Title:** Jason Zhang says: hello, when and where shall we meet? Friday Dinner John Allen says: I can meet after Time Voting: How about Texas Roadhouse Fri, 03-17-2017 18:30 Fri, 03-17-2017 18:00 Fri, 03-17-2017 19:00 Mew Message **Place Voting:** Panda Express 1 2 3 4 5 6 7 8 9 0 Kim's Food To Go) \$ & @ May Wah return (c) Vote (d) Chat Screen ●●○○○ T-Mobile Wi-Fi **?** 23:22 **⊠ 9 ७ 〈** Back Invitation Title: Feb 17 12:30 Friday dinner Sushi Bistro TASUKI **Friday Dinner** Time Voting: Mar 17 18:30 May Wah Fri, 05-20-2016 18:00 **Sunday Skiing** Fri, 05-13-2016 18:30 Time voting is open! • Location voting is open! Fri, 05-13-2016 17:30 Place Voting: Golden Sun Chinese final! 1 Asian Seafood Market \oplus Participants: St. Fat (e) Finalize (f) Invitation List

3. Geographic Locations

In total, 503 distinct users of our OutWithFriendz app were identified, generating 322 legitimate invitations. Our users are widespread in 34 different states and 81 cities all over the country.

Figure: The geographic distribution of all finalized locations across the US.



5. Future Works

- 1. Expanding event coverage: we hope to grow our user base through more effective advertising, so that we may achieve viral adoption and gather data at even larger scales.
- 2. Facebook friends requirement: We plan to design an 'Add Friend' function which enables users to log in and connect with other users directly within the application.
- 3. Group recommendation: Building a distributed system implementation of mobile group recommendation will help us gain a better understanding of mobile group dynamics in the real world, and provide useful suggestions for group organizers.