

# Comparing 2 Mobile Location Sharing Systems

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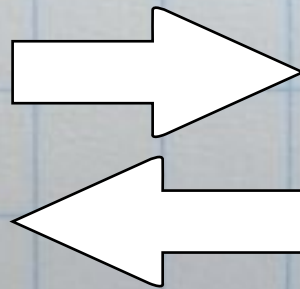
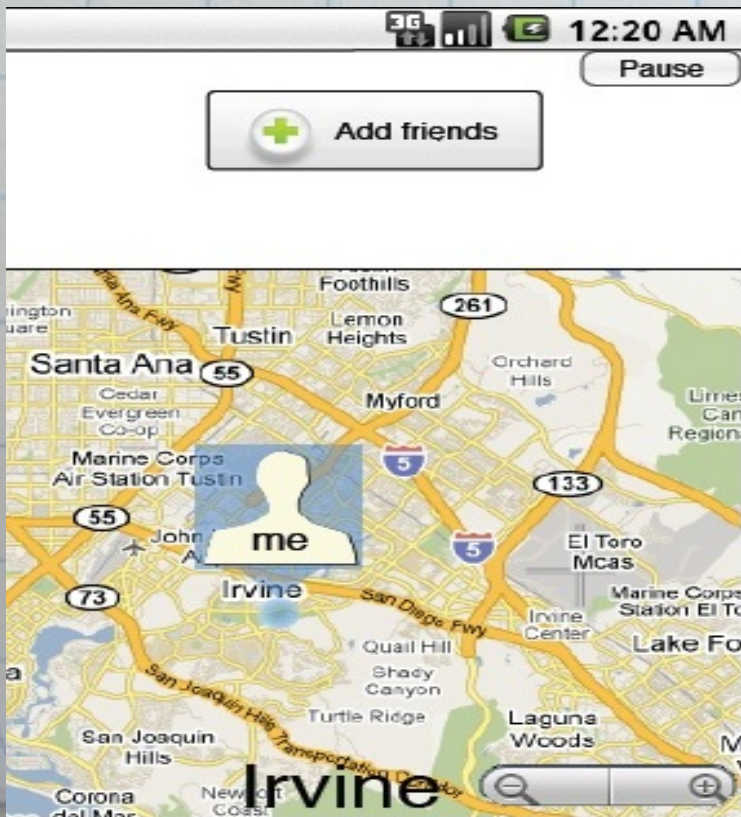
# Location Sharing Services(LSS) - A brief overview

- One of many Location Based Services (LBS) e.g. turn by turn navigation, location aware advertising etc.
- It provides the user of the service the option to share one's location to known acquaintances who also use the same service.
- Some examples of such services are Google Latitude, Foursquare, Gowalla, Whrri, Loopt and the upcoming Places(from Facebook).

# Latitude or Longitude...

Longitude, another LSS, is being currently developed as a prototype by the research team at UCI which could effectively answer several social and privacy concerns raised.

Our project would perform a comparative evaluation of both these services through usability tests simulating actual user journeys.



# The Problem

Latitude vs Longitude  
Social Concerns

# The Problem: Social Anxieties in Location Sharing Systems

- People have social anxieties using location-sharing systems. Can these anxieties be mitigated while also preserving functionality and usability?
- Both systems, Latitude and Longitude, will be tested and compared with regards to social anxieties:
  - privacy
  - social pressures
  - appropriateness in the workplace

**Main goal: develop scripts to test all of these situations**

# Methods & tentative plan

Solving Our HCI Problem

# Task

- Address social anxieties and usability of a location-sharing service by comparing user experience between Latitude (Google's app) and Longitude (UCI's app), which was developed as a direct attempt to create a location-sharing service with more attention paid to social anxieties.
- Use qualitative analysis and pilot heuristic usability tests to create and refine test scripts for an eventual formal usability test.

# Conceptual Analysis (1 week)

- Identify major concerns/advantages represented by 10 specific user scenarios
- Incorporate findings into both Longitude and Latitude scripts in a way that probes into the main issues we're trying to get at the heart of such as:
  - *Privacy concerns*
  - *How do users perceive themselves within the social ecology of location-sharing systems?*
  - *How do users perceive friends?*
  - *What are the social pressures at play?*

**Personnel: All**

# Creating/Refining scripts (2-3 weeks)

- Highly iterative process--back and forth till it looks right!
- Make changes to Longitude script based on conceptual analysis.
  - Add/remove scenarios
- Create the Latitude script
  - Make sure to present the same scenarios so users can compare the two systems
- Scripts will incorporate such tasks as:
  - Accepting friend requests (allows you and your friend to see where each other are)
  - See all friends in a city or region (does the UI lend itself well to this task?)
  - Hiding user's location (testing social anxieties)

**Personnel: one chief editor & contributions from all**

# Prototype Redesign (2-3 weeks)

- In parallel with script development
- Based on first draft of script
- Changes will be iterative with script changes
- Until prototype and script will "BECOME ONE"

**Personnel: Arjun**

# Pilot Test (half week)

- A preliminary usability test with a small group of users
- Screen recording of users for visual usability feedback
- Note-taking during testing
- Asking users specific questions during and after tasks
- One test each for Longitude and Latitude

**Personnel:**

**Longitude - David, Raminder**

**Latitude - Jackie, Arjun**

# Script & Prototype Revision(1-2 weeks)

- Based on pilot testing feedback
- Use measurements and metrics for:
  - Task completion
  - Time spent on unproductive activities
  - Program interactions (are users clicking in the right places?)

**Personnel: same roles as previous**

## Pilot Test Round 2 (half week)

- After script and prototype revision based on the first pilot
- Hopefully the usability will be improved!

**Personnel: same roles as previous**

# Final Write-Up & Analysis (1-2 weeks)

- By this time:
  - Two pilots conducted
  - Multiple iterations of scripts and prototype
- Sum up everything that we learned and did.

**Personnel: All**

| Task                        | Timeline      | Resource                                             |
|-----------------------------|---------------|------------------------------------------------------|
| Conceptual Analysis         | 10/18 - 10/24 | All                                                  |
| Creating/Refining scripts   | 10/25 - 11/14 | All (1/2 chief editors)                              |
| Prototype Redesign          | 10/25 - 11/14 | Arjun                                                |
| Pilot Test                  | 11/15 - 11/18 | Longitude - David, Raminder Latitude - Jackie, Arjun |
| Script & Prototype Revision | 11/19 - 11/25 | same roles as first phase                            |
| Pilot Test Round 2          | 11/25 - 11/28 | same roles as first phase                            |
| Final Write-Up & Analysis   | 11/29 - 12/5  | All                                                  |

**THANK YOU!**