Metro Bruin: Empowering UCLA Students to Explore LA via Public Transit

MetroBruin

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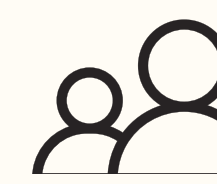Anika Balakrishnan
anikabala@g.ucla.edu
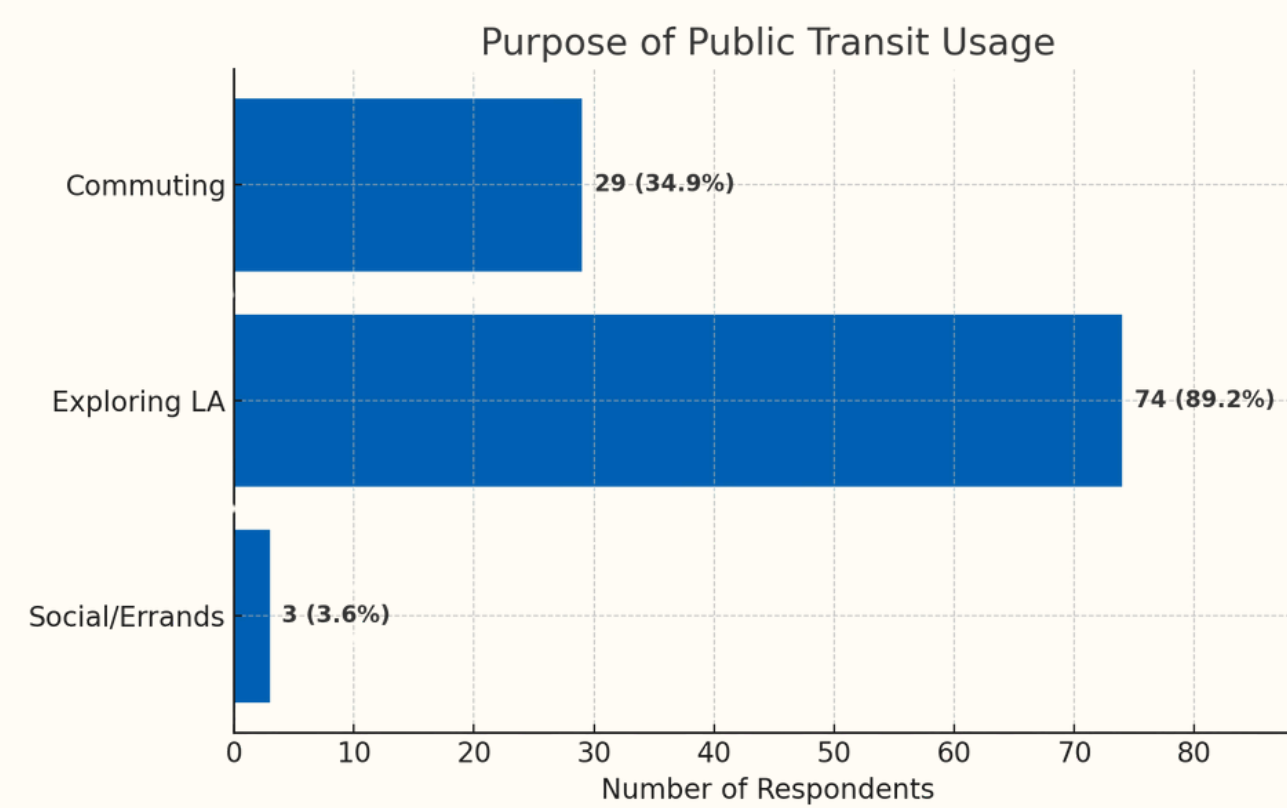
User Research

Survey

We created a survey to determine common pain points for UCLA students when using public transit, as well as intention and purpose of travel. The survey was successful and received 83 responses.

Interviews

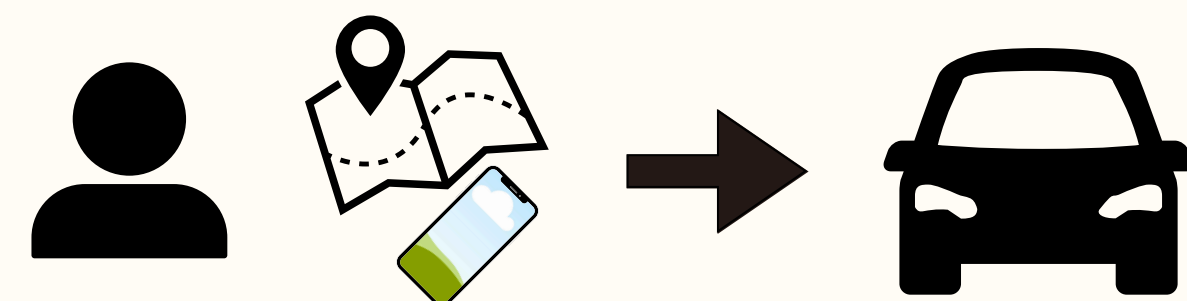12 UCLA students, 3 professionals
Christina Blackston (Project Lead, *Transit* App)
Jacob Wasserman (Research Manager, ITS)
Samuel Speroni (PhD Student, ITS)
ITS: Institute of Transportation Studies

Main User Group

UCLA students **without cars** who travel for **leisure**, and care about **time** and **convenience** when getting around.

Purpose of Public Transit Usage
- Commuting — 29 (34.9%)
- Exploring LA — 74 (89.2%)
- Social/Errands — 3 (3.6%)

Number of Respondents

Diverging Stacked Bar Chart of Importance Ratings
- Cost
- Sustainability
- Convenience
- Safety
- Cleanliness
- Travel time

Number of Responses

Importance Rating
- 1 (Most important)
- 2
- 3
- 4
- 5
- 6 (Least important)

Do you own or have access to a car?
- Yes 19.3%
- No 80.7%

Scenarios and Analysis

Pain Point: Time

User checks the route to their destination on Google Maps. It shows that driving takes 20 minutes, whereas bus takes 40. User chooses to take an Uber.

Pain Point: Convenience

Users have to precisely time their travel, factoring in walking to the bus stop and coordinating transfers. Navigating routes and directions on their phone adds friction, making it easier to call an Uber instead.
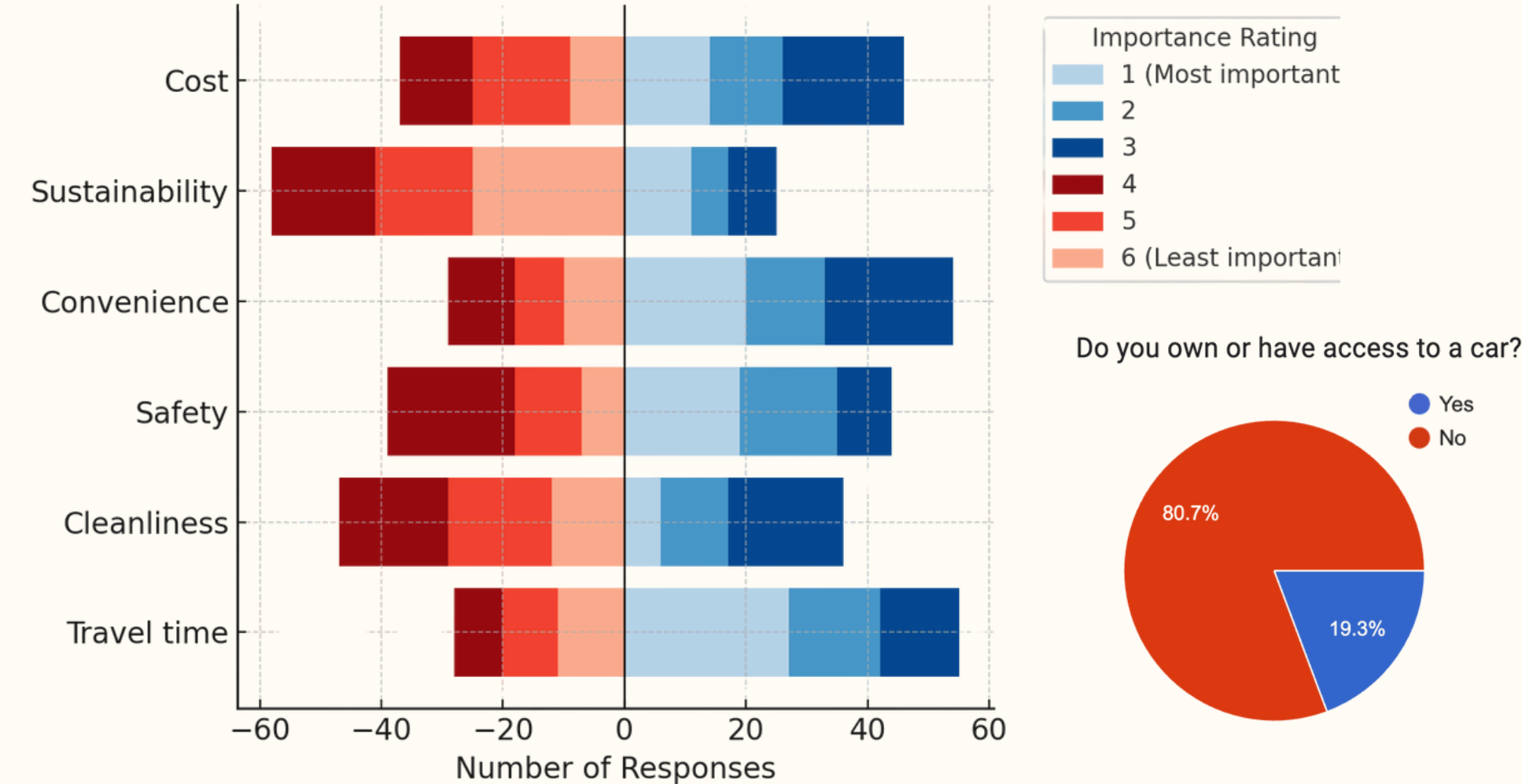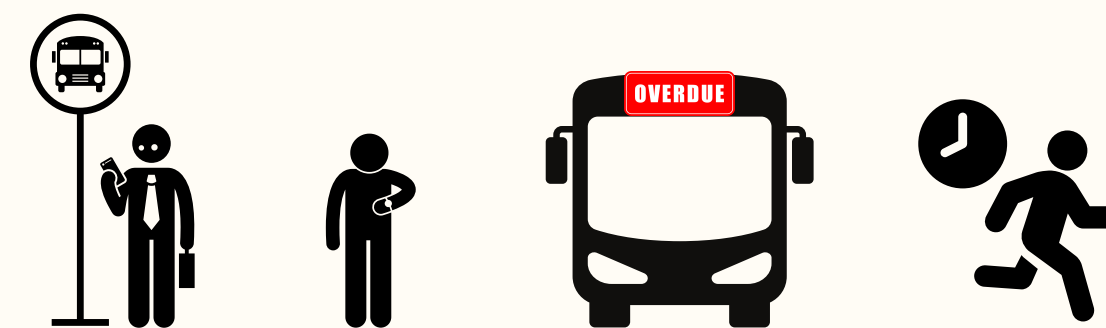
Pain Point: Reliability

User sees that the bus they want to take will arrive in 10 minutes. User waits at the bus stop, but the bus is 12 minutes late with no warning. User no longer uses the bus to travel.

Insight: There are many <u>perception-based</u> issues and <u>high amounts of friction</u> in the information gathering stage when choosing a mode of transportation.

Solution: A mobile app that compiles and presents key information aligned with what perception-based issues users value, helping shift behavior toward choosing transit.

System Overview & Approach

MetroBruin helps students discover Los Angeles by highlighting destinations along transit lines. Its interactive map, centered on transit corridors, lets users plan low-stakes trips to nearby restaurants, attractions, and neighborhoods—building trust in the system and countering negative stigmas. By encouraging ridership, MetroBruin aims to create a positive feedback loop that improves LA transit overall.
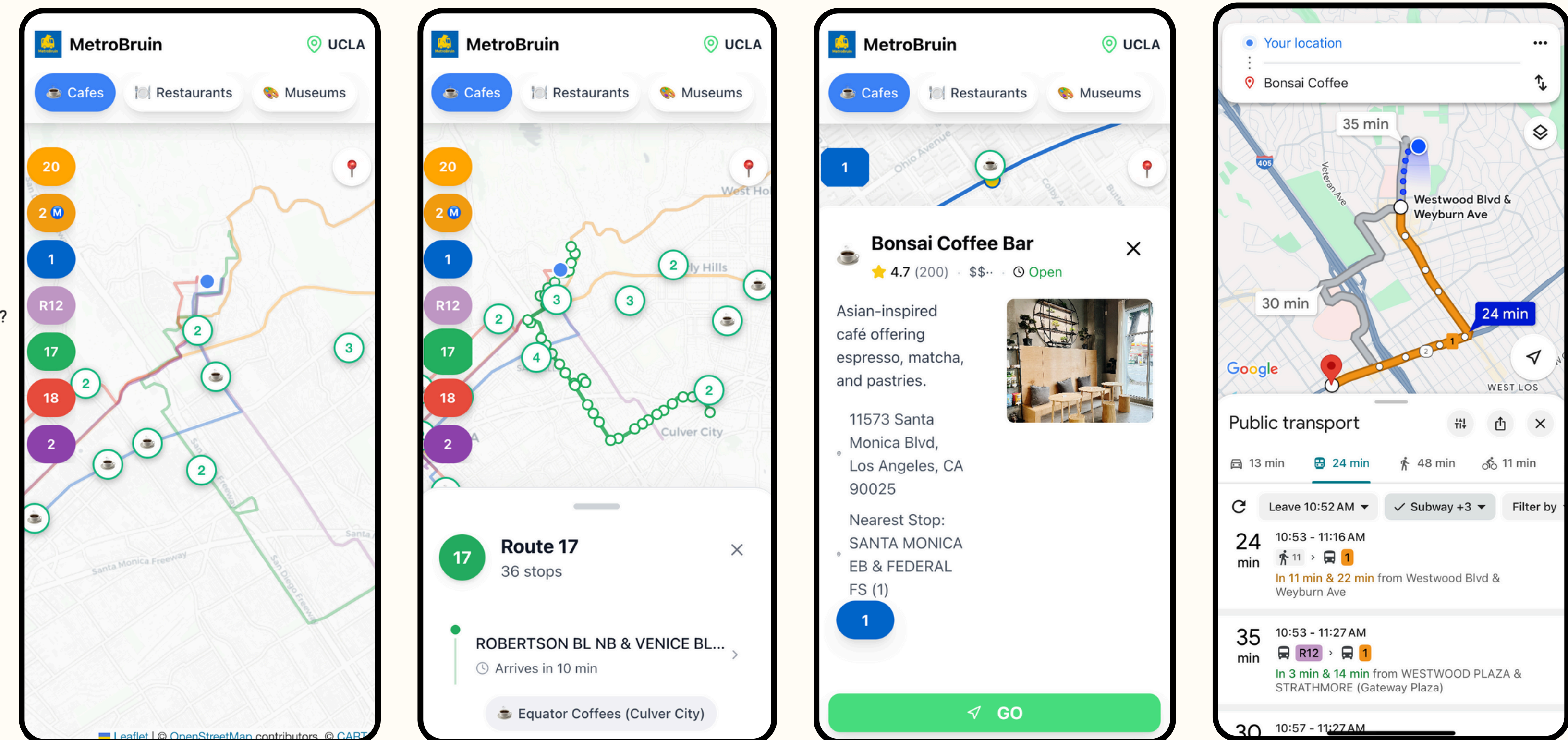
Evaluation & Future

We piloted our application with 12 users.

What Went Well

Condensed bus and transit information is **easy-to-digest** due to the overlay, visually directing users to accessible locations.

Relatively thorough **starter database** of various coffee shops and restaurants.

Simplified location discovery by allowing users to filter for easy-to-travel-to locations.

Less noisy and **more intuitive** user interface compared to popular applications, while still providing the basic pre-existing functionality.

Moving Forward...

More Real-Time Data
Users wanted access to total trip time, walk time, bus headways based on the time of day in app to help aid in their decision making process.

Customizability and Filters
Users wanted to narrow down their options by preferences like "ride within 20 minutes" or "vegetarian-friendly" spots.

Community Elements
Users wanted to see community ratings and reviews inside the app, similar to Yelp and Beli.