CSC425 Deliverable 2: User Research & Problem Definition Submission

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Target User Group

Commuting or Residing College Students, Staff, and Visitors
Any individual or family planning to utilize a university's controlled parking areas would be a likely user of this platform.

Problem Description

Persons using MSU's paper parking maps or maps hosted on Google's platform face limitations. Lot users currently have no way of knowing how many spaces and what subtypes (besides color and time limits) are available at any given moment when parking. This results in headaches with persons seeking to park in a lot that they cannot immediately tell is full. It can harm the environment with vehicle emissions that could be avoided, had users known prior to entering a lot the number of available parking spaces.

Evidence of the Problem

- Numerous videos posted to TikTok from CSU Long Beach show students reportedly stuck in parking structures and being late for class. Commenters said they would have to arrive early in the morning just for an afternoon class because the lots would be full.
- Construction of the New Nursing Building, destruction of College Courts, and renovation of the lots north of the Education Building have resulted in a scarcity of parking spaces on campus.

"How Might We" Statement

How might we reduce frustrations, vehicular idle times, emissions, and the number of persons late or missing to events for people who need to park in a connected set of parking lots that frequently fill up?

User Persona

Name: John Doe
Age: 20
Occupation: Full-time college student
Location: On campus or approaching campus via commute
Goals: Find parking quickly and efficiently to avoid being late.
Frustrations: Perceived lack of parking or abundance of others taking the spaces.
Technology Comfort Level: Moderate (uses smartphone and computer daily, but does not use

Ethical Lens Applied

Principle: Equity of access to parking and universities/education/businesses

- **Application:** The issue disadvantages persons arriving at lots to park unless they arrive exceptionally early; this issue also disadvantages those that have to arrive early by restricting the time they can use for other activities.
- **Stakeholders Impacted:** Live map platforms that may provide route guidance to affected lots; universities and other businesses with color-based or complex lots wishing to improve their parking services and alleviate frustrations; students, faculty, and visitors present at those universities or businesses
- **Professional Standard:** Aligns with ACM Code of Ethics 3.1: *"Ensure that the public good is the central concern during all professional computing work."*