Extracting Yelp Review Insights through Interactive Visualization

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Background of Related Work

• *Improving Restaurants by Extracting Subtopics of Reviews*

"used LDA algorithm to show what users care about most…

predicted stars of hidden topics."

Fig. 2: Four Restaurants' Predicted Subtopic Ratings

Latent Subtopics in Yelp
Restaurant Reviews
Stephanie Rogers, James Huang, Eunkwang Joo

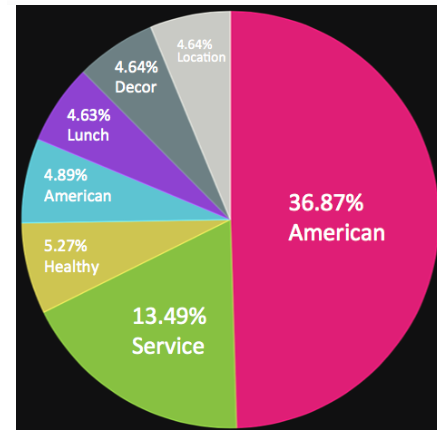Fig. 1: Example Review Topics
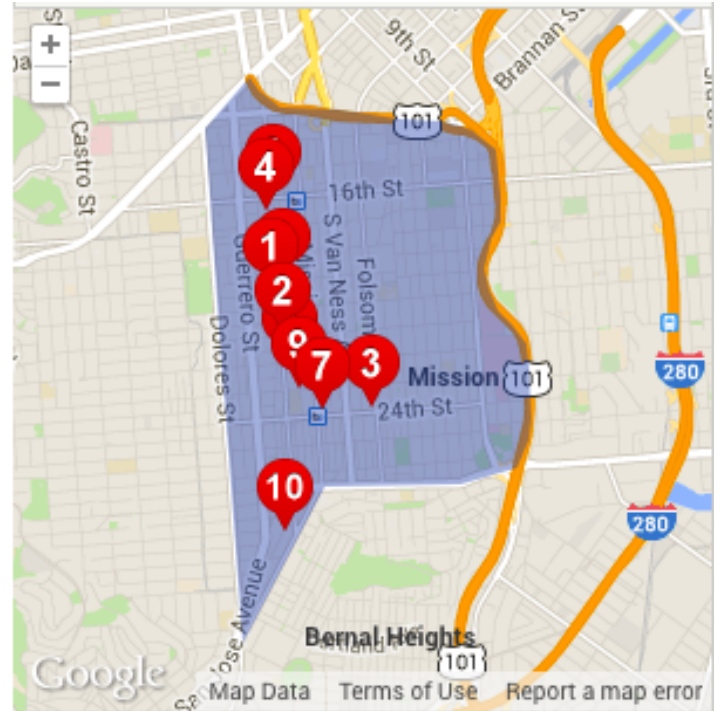
Background of Related Work

•*Clustered Layout Word Cloud for User Generated Review, Wang et al.*

"presents the clustered layout word cloud; a text visualization that would assist in making decision quicker based on user generated reviews."

Primary Research

• Over a 2-day period, we spoke with 15 local business owners in the Mission, Embarcadero, and Berkeley area

Primary Research

Found that businesses

- often have a negative view of Yelp
- dislike presence of "hate" reviews
- would like to see general trends in their reviews
- would like to compare their businesses to others

The Problem

Businesses would like to see trends in their Yelp reviews and extract useful information quickly

Proposed Solution

Create a tool to explore businesses and view visualizations of ratings and review content.

-Key metrics: ratings, sentiment, keywords
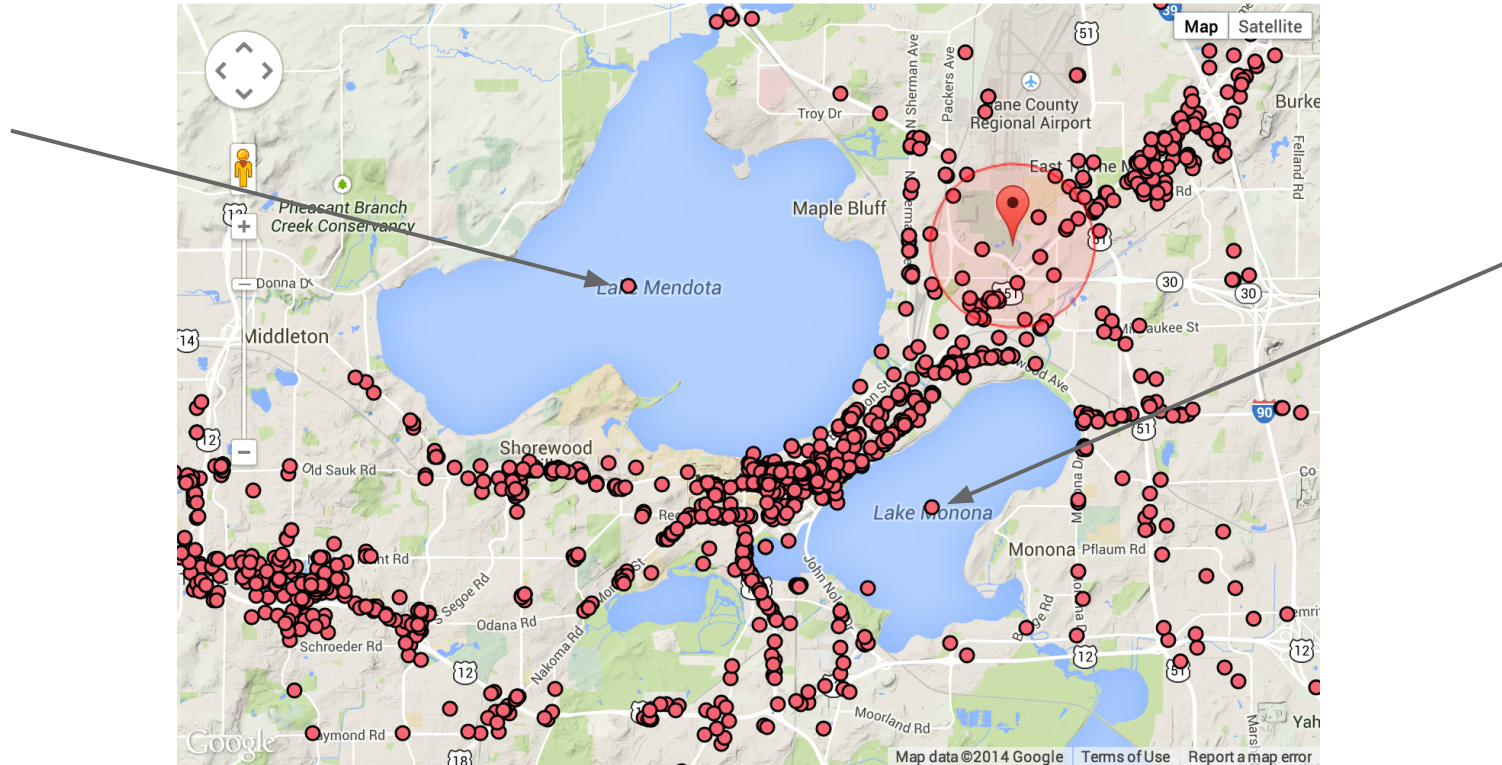
-Independent variables: time, "useful" votes

Description

-Navigation panel/search bar with map and business attributes

-Main visualization space: room for multiple plots showing in-depth analysis of reviews

-Filter reviews by useful votes, avg. useful rating of user, sentiment

Storyboard
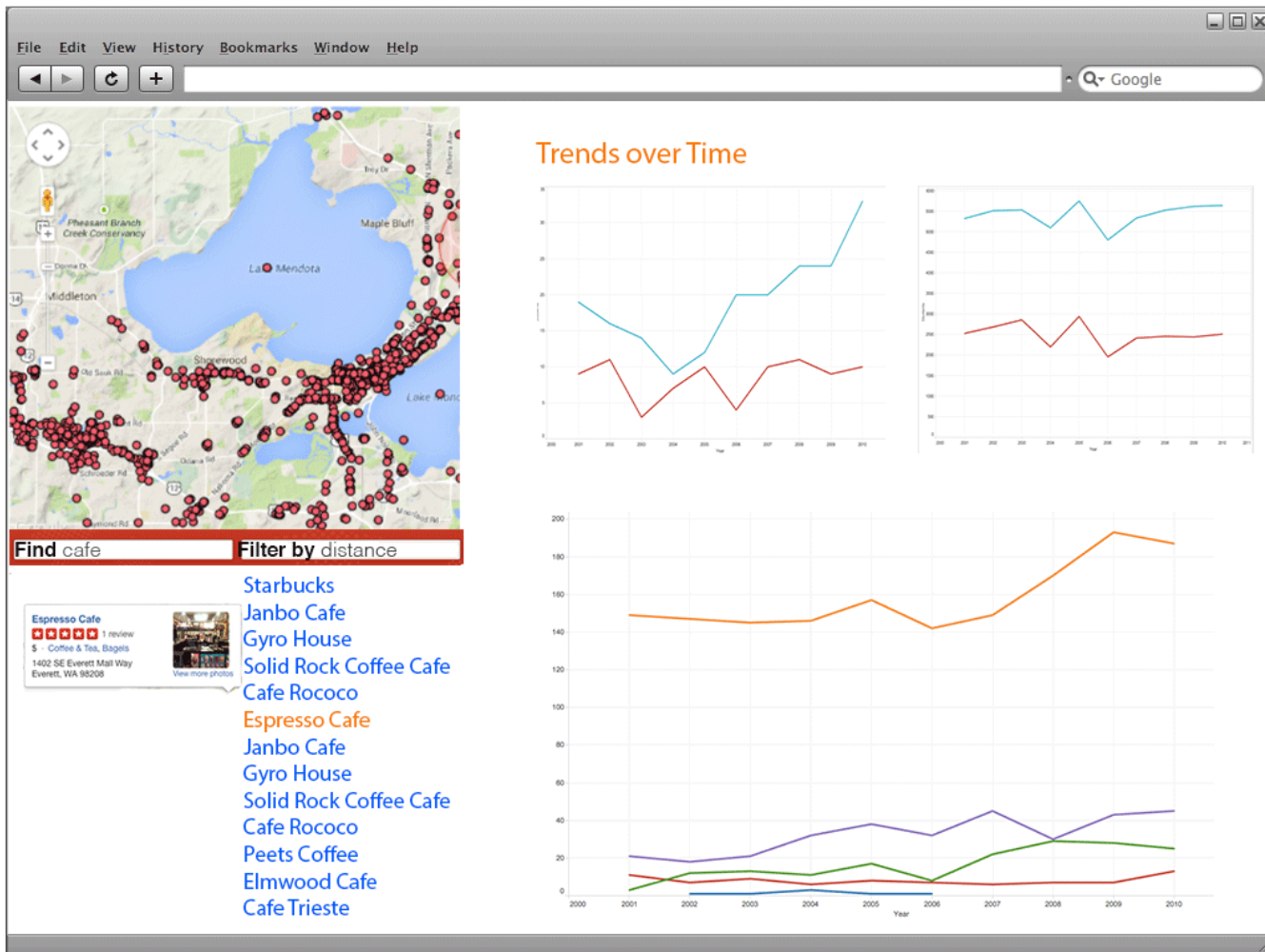
Current Progress

Milestones and Task Development

-Week 1: Wrangle data, implement navigation of businesses.

-Week 2: Finish prototype, begin user testing.

-Week 3: Finish user testing, implement feedback.

-Week 4: Complete deliverables and paper.