

## **Final Project Proposal: Public Opinion Explorer**

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As public participation is always an important part of city planning, governors and planners now are seeking innovative ways to gather suggestions from the residents and make decisions based on the feedback. There are already similar applications such as the review function in google map and yelp, however, how to comprehensively make use of the geocoded information effectively and straightforwardly is still a challenge. This project is designed to response to this challenge. It will be based on the product of my midterm project, a platform that allows users to see spatial patterns and keywords in the public opinion collected from the residents of Xiamen City.

The data is collected from the Pinstreet, a mobile application that geo-records user opinions. I further processed the data in python, removing the user identification, and only keeping the locations and comments. The processed data is exported into geojson format and ready to use. In my midterm project, the website has already employed technologies such as customize data filters through dropdown menu, interactive data visualization charts, changeable zoom level, and cross-selection between charts and maps. In the final project, I will further develop this website by adding: 1) drawing function that allows users to customize a bounding box to filter the data; 2) search function that allows users to find all feedbacks that contain the input keywords, showing them on the map by adding pop out boxes; 3) change layer function that allows users flip between point map, heatmap and other demographic and economic map layers.

The target users will be the city's decision makers and planners, who can use this platform to easily generate comprehensive reports in both geospatial and topic levels with a minimal learning curve. The layout and visual design will be inherited from my midterm, but I will try to cut down the pages and combine all the infoboxes in one page. The most difficult part might be how to graphically make the website clean and easy to read while still containing a decent amount of information. One option is to use hidden windows that will only pop out upon request. Another challenge is to get demographic information of Xiamen City since this kind of data is usually not open to the public in China.

This website could be turned to a real application that can be used not just in Xiamen. Using Django and python script, I can hardcode the data processing process in the server, grabbing data from Pinstreet using API in realtime. In this way, the user can see the most up-to-date report.

