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CSE 403
Project Proposal

Finders Keepers

Vision

There are many tools for people to buy used goods at a discounted rate from each other, and people also can use those tools to get rid of their old stuff. This process involves searching through products, pulling out cash, traveling all around town to meet up with many people, and being overcharged for someone's old junk.

We should condense this process of buying and selling into one step: trading! With Finders Keepers™, people can list all of the items they want to trade, tag item types that they would like, and get matched with local users that will trade with them. Get rid of the paper trail, let the app do the searching for you, and keep your money by trading with your neighbors!

Unlike competitors such as MatchTrade or SwapRight, where every item you want to trade for has to be browsed for, Finders Keepers automatically matches you with suggestions based on user defined preferences. Finders Keepers' goal is to help users get rid of their junk and get what they want, with minimal user time wasted.

Approach

The users can post the items they wish to trade away, tagged with what kind of item it is, and indicate the types of items they are looking for, such as "coffee cup" and "iPhone". While the users can upload photos and descriptions to make their listings unique, for simplicity, the tags will be limited to what our third party API provides.

Then, the app uses a heuristic to match potential traders with each other based on the tags on their items. The app also limits the search scope based on the traders' proximity to each other using GPS.

Finders Keepers will require a third party library for getting a large diverse set of nouns to use as item tags. It will also require database support to store users' listings. The back end will connect these resources to the front end in the form of a web service.

The backend can be primarily built from raw python, as server interactions are mainly made up of sending/receiving text and image data. The PushNotify library can be used for the notification components.



Challenges

The largest challenge, but possibly the most fun part, is implementing a way for users to communicate with each other in the negotiating process. This could be a messaging interface, just an automated message indicating the items the initiator wants to swap, or even a contact button that leads to external communication between the traders. This challenge should be addressed as a team, collaborating to decide on the best solution and communicating throughout the development process.