Hey Seattle, what's in my neighborhood?

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Goal

Connect Seattle residents and visitors with city resources via an easy-to-use telephone interface

Data

My Neighborhood Map (data.seattle.gov)

- City features - 2072 total in 57 categories
  - Ex: children's play areas, food banks, light rail, hospitals, off leash areas, etc
- Accessed via API

Master Address File (data.seattle.gov)

- Database of all Seattle addresses
- downloaded and processed

My Neighborhood Map

City feature	Museums and Galleries
Common name	Frye Art Museum
Address	704 Terry Ave
Website	http://fryemuseum.org
Longitude	-122.324166
Latitude	47.60709

Tools

Voxeo/VoiceXML/PHP with UW webpage

My Neighborhood Map API

Google Maps API

Approach

1. User calls system
2. Get user's address
3. Get user's desired city feature
4. Calculate nearest city feature of that type
   a. retrieve addresses of all city features of that type using the neighborhood API
   b. find the nearest one using Google Maps API
5. Report information to user
   a. how many features of that type
   b. distance to nearest city feature of that type
   c. street address of nearest city feature of that type

Results so far...

Everything has mostly gone according to plan

System is (basically) working

But ...

Problems

Street addresses are surprisingly difficult

- street number, street name, street type (ave, blvd), directionals (NW, E, etc)
  - directionals can be before or after street name
  - abbreviations (St, Ave; NW, S); 1st vs first
    - everything is spelled out
  - digits

Street address grammar is too big (?)

- 1233 street names
- currently using smaller subset of ~800

Still to do

Address problems:
- still working on reporting back an address
- grammar size

Move toward mixed initiative

Make system more user friendly
- Give user a way:
  - to find out what features are listed
  - to navigate through the categories of city features
- help features