



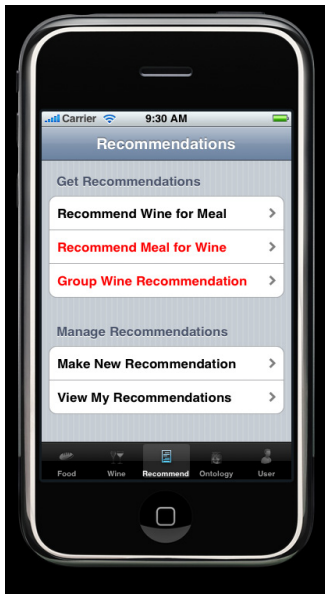
Tetherless World

http://tw.rpi.edu/

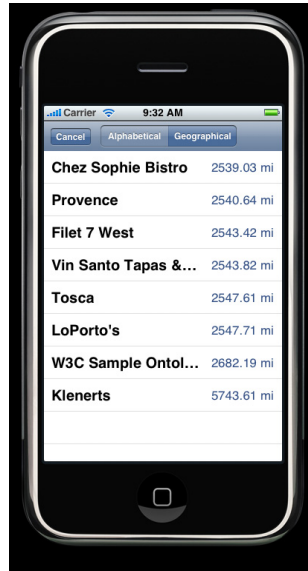
Mobile Web: Wine Agent on iPhone

Evan W Patton

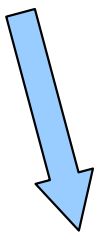
Tetherless World Constellation, Rensselaer Polytechnic Institute, Troy, NY 12180



Users can get recommendations from the system as well as contribute their own recommendations.



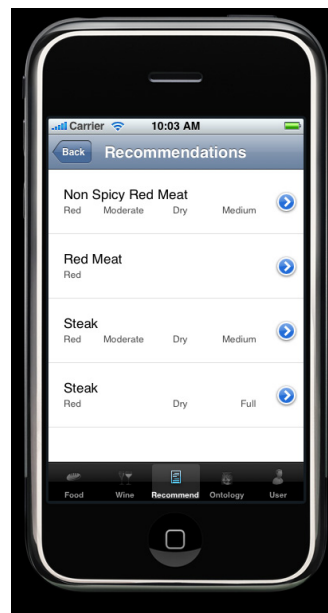
Restaurants register their location and RDF versions of their food and wine menus. The Wine Agent uses the geolocation abilities of the iPhone to present users with the closest possible restaurants to their current location.



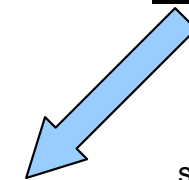
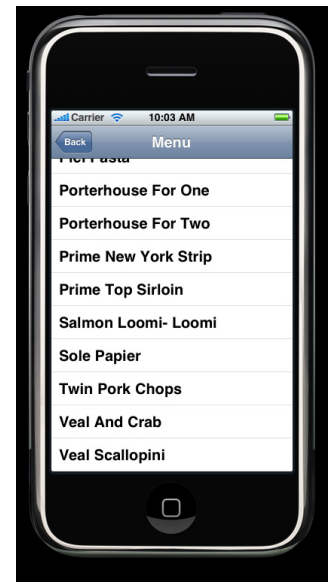
Users contribute their own recommendations by defining a set of restrictions on wine instances and pairing that to a particular food.



When the user saves the recommendation, the RDF describing the recommendation is communicated to the server, where it is added to the triple store and exported to an RDF file accessible to others.



After users choose a restaurant, the agent loads that restaurant's food and wine menus from supplied URIs. The processed food menu is displayed so that the user can make a selection. Each meal has one or more primary food classes (steak, fish, etc.) which are used by the system to search for wine recommendations.



The server handles the user's selection by extracting all wine recommendations for the primary food classes in the selected meal. This data is then joined (at the user's request) with the wines listed on the restaurant's wine menu in order to produce a list of available wines given other users' recommendations.

Future Work

Humans have a variety of different dietary needs, be them necessary, lifestyle choices, or religious. When the Wine Agent makes recommendations, these preferences ought to be taken into account. Using the logical structure described in OWL, I plan to incorporate reasoning over meals and individual user preferences in order to extend the system to provide a more personalized user experience.