Why don’t recommendation apps know their users better?
Restaurant and dining recommendation apps pool user-generated ratings and reviews to provide personalized search results, but many fail to ask what users want and need. For most, this might seem like common courtesy, but for millions of Americans with food allergies, understanding dietary restrictions could mean the difference between a pleasant dining experience and a serious and potentially life-threatening allergic reaction (National Institute of Allergy and Infectious Disease, 2012).

Solution
By allowing users to specify their preferences and dietary restrictions, we can understand more about their needs and behaviors and provide the most suitable dining recommendations in a variety of circumstances. Comparing this deeper level of description with contextual data about users’ locations and contacts, Cater provides a more comprehensive recommendation service and a better user experience.

Cater
The Cater app is driven by a comprehensive list of settings where users can specify dietary restrictions, cuisine and ambiance preferences, and allow the app to access location and contact information to improve recommendation results.

Other featured settings include history of use and reviews, favorites, and nutrition tracking to help users monitor and achieve their dietary goals.

Context - Users’ actions and decisions are largely influenced by the context in which recommendations are given and received. At times location and cuisine type inhibit users’ ability to give recommendations. Two participants said that they were more likely to take a recommendation from someone they know than from an app or recommendation service.

Interaction - Users rely on a range of services and resources when making decisions about dining. Google and Yelp ratings are the most frequently used. Participants compared search results, ratings, and reviews from these services with information from people in their social networks (friends and family members) and other outside sources.

Preference - Participant preference guides most of the decision-making process, and is found to be the first and last consideration made in each scenario. This reveals a mutually shaping effect, as users’ preferences lead to experiences, which in turn generate, reinforce, or diminish future preferences.

User Research
To understand users’ goals and behaviors when giving and receiving dining recommendations, we conducted contextual inquiries and semi-structured interviews with 10 participants. Participants were asked to play opposite roles in a dining recommendation scenario and were recorded and observed for notable successes and difficulties throughout the process. Participants were interviewed before and after the contextual inquiry to confirm and validate these observations.

Participant 7: “I constantly am like ‘restaurants near me’, and I hate it when it pulls up Subway and McDonald’s. I’m like ‘no, that’s not what I mean’. I mean restaurant. You know, like where you sit.”

Participant 6: “If we’re in an area that I’m not familiar with, there are many many times that I will get on Yelp or just Google what’s in the area. I travel for work, so I use social media a lot. I’ll use that as a starting point.”

Participant 9: “Sometimes it would be nice to see the menu and the prices and you don’t always have access to that.”

HCDE Capstone | University of Washington
Samuel Marks | sjmarks7@uw.edu

Special Thanks to Subject Matter Experts:
Eric ONeal, PhD, Senior Researcher at & Jared Boren, PhD Candidate at
Microsoft Research & Information School
UNIVERSITY OF WASHINGTON