Contextual Inquiry Report

CSE 440 – Winter 2014

ALLERGY RESTAURANT FINDER (ARF)

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Authored by: Katie Madonna, Rochelle Ng, Riley Porter, and Heather Eberhart

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Project Title and Team Breakdown

Title
Allergy Restaurant Finder (ARF)

Team Names and Roles
Riley Porter - Project Manager (keeps project on point)
Katie Madonna - User Experience Manager (keeps us focusing on user)
Rochelle Ng - UI Designer (keeps design principles in mind)
Heather Eberhart - Archivist (review and turn in assignments)

Problem and Solution Overview

Many people have difficulties eating out at restaurants because of food allergies. Either they have a restriction on their own diet, someone they are going out to eat with does, or a child in their care does. It can be a very frustrating search to find restaurants to meet the needs of everyone in the group, and potentially dangerous if the information on allergens in food prepared in restaurants is not readily available. Currently, the method for solving this problem is to waste time scouring blogs and applications like Yelp for suggestions and then scrutinizing the websites of the restaurants they find to look for allergen information. Also, restaurants will turn up in a search as having the right allergen requirements, but in reality that might only mean there are one or two side dishes that meet the requirements and then that means the time pouring over the restaurant's menu was wasted and the search has to continue. Technology could help solve this problem if there were a service to search for restaurants while also applying various allergen filters. This could allow users to search for the specific requirements they, or their group or child, need, with the confidence that the restaurants found will have food safe for them to eat. The service could also utilize a user base by having people comment and rate existing restaurants so that the other users have information on a restaurant before becoming too invested.

User Group, Stakeholders and Contextual Inquiry Participants

User Group
The target user group is someone with a food allergy or diet restriction, or going out to eat with someone else who has a food allergy. This includes all sorts of food allergies, like dairy, soy, vegetarian, vegan, or gluten free. Depending on the design we choose, the user group will narrow further to one, or a combination, of these groups based on further research and the design process. The narrowing that we expect is that the age range will become more specific, we may end up focusing on one food allergy, and we may focus on users at home in comparison to mobile users. Each of these groups has different needs, and for now we are able to design with

all of the groups in mind, but as our project narrows we will be able to specify the target users more clearly. We interviewed varied potential users with our contextual inquiries, to get a better idea of the different needs of the different groups. All of our contextual inquiry participants would be primary stockholders that would interact with our design directly and either have a food allergy themselves, or have kids with food allergies.

Stakeholders

Apart from our target user group, other stakeholders include restaurants themselves. People use services like Yelp and UrbanSpoon to find new restaurants all the time, but these applications are not always easy to use for people with specific allergies and food sensitivities. Restaurants could reach an entirely new user base (people with allergies) with our Allergy Restaurant Finder.

Contextual Inquiry Participants

In our first contextual inquiry we interviewed Mandi, a 21 year old college student with milk and soy allergies (and also lactose intolerance). She has had allergies all her life, but in the two years Mandi's allergies have become more severe. As a result she pays a great deal more attention to the ingredients in her food. After having lived on campus for the last few years Mandi is fairly aware of what restaurants in the area are able to accommodate her allergies and which on campus food items she can choose from. Mandi is a good example of a typical college student who wants to be able to accommodate dining on a daily basis and eating out with friends who may have their own allergies. We met Mandi on campus to simulate an on-the-go experience and she showed us how she would go about finding someplace new to eat on her tablet. Based on Mandi's interactions with her tablet, she would benefit from either a mobile application or a website.

For our second contextual inquiry, we interviewed Deb, a 57 year old woman with a gluten intolerance. She has only had this food sensitivity for a short time and so she is still figuring out what restaurants are likely to have food items she can eat. Deb usually eats out with one or two other people; her kids have grown up and left home, but she visits them and goes out on occasion with her husband. Especially when she is visiting her children in an unfamiliar area it can be a struggle to find restaurants with options for her to eat at that her children will also enjoy. When Deb is looking for new places to eat out, she prefers to use a computer and plan ahead. For the contextual inquiry, we worked at a computer and had her show us how she would search for restaurants she could eat at.

In our third contextual inquiry, we interviewed Kristen, a 38 year old mother with two young sons, Max (8) and Jackson (10). Max and Jackson are both allergic to eggs and nuts. In addition, Jackson is allergic to dairy products. Kristen rarely takes her children out to restaurants and prefers cooking for them at home because it is hard to find ingredient information for menu items at most restaurants, and she is worried about hidden allergens in restaurant foods. On the few occasions that she does go out to eat with her sons, she sticks to a couple restaurants that she has tried before and knows are safe. She says it is too much effort going out to find new, good places to eat with her sons.

Contextual Inquiry Results

We started out by asking Mandi to look for a Seattle restaurant that could accommodate her allergy. She started out with a general Google search for "Seattle allergen menu" which led her to a user compiled list of supposedly "allergy friendly" restaurants though several of the suggestions on the list didn't offer online access to an allergy menu. We asked Mandi if she usually found user compiled information useful, to which she replied yes. She has found that seeing other peoples' experiences can help her judge a restaurant she isn't too sure about. After switching to Yelp and searching for "allergen aware restaurants," she found a restaurant that listed the ingredients more specifically beneath the dishes, particularly noting when dairy was used in preparation such as sautéing with butter. She felt that this was sufficient with a few clarifying questions that she could eat there despite the lack of a separate allergen menu. We then moved on to asking if she could find out if Red Robin and Red Lobster offered allergy information. She was able to find Red Robin's interactive allergy menu easily. It allows the user to select there allergies from the top eight most common and filters out menu items that the user can't have. They are left with a customized menu that specifically lists how they should ask for it to be prepared (no bun, no seasoning, etc.). Mandi was really excited about their interface and wished that all restaurants would offer something similar. Red Lobster's allergy menu was easy to find however they were much less accommodating to allergies, saying they weren't able to guarantee that there was no contamination. They offered a long paper table that listed all the dishes and had checked columns if the dish contained the allergen (again the top eight). Mandi said she would have printed this out and highlighted dishes she could have so that she wasn't disappointed about not being able to have something that looked good. In general, Mandi with her multiple allergies says she tends to prefer chain restaurants because they offer more uniform preparation and are generally more accommodating and knowledgeable about allergies and the ingredients used, though this trend didn't continue with all the users. Finally we asked how Mandi would go about looking for a new place to eat with a friend who was gluten free. She said that she would look first for somewhere that accommodated gluten allergies before looking to see if she could find something to eat as well. She said that she would probably spend about 20 minutes looking for a new place before deciding to go somewhere she was already familiar with.

First, we asked Deb to find a couple of restaurants in the city of Seattle that had at least one gluten free option for her. Right away, this task showed that she prefers to be able to filter searches down. Using a computer, she first looked for an interesting neighborhood in Seattle and then started searching with "gluten free" as a keyword from there. When asked why she filtered to a neighborhood, she mentioned that it was more interesting to her to be able to narrow the search parameters to get a better idea of the options in the area and that a neighborhood had more appeal because it might have lots of options in proximity to each other. Also, from this task we noticed that she had a difficult time filtering out restaurants that didn't actually have gluten free options. She typically starts with a service like UrbanSpoon and that allows her to filter in some fashion, but it doesn't have allergen options or gluten free as a search parameter built in. When she did manage to find a restaurant that she thought might be interesting, she would then click to their website and look at the menu only to discover none of the entrees were actually gluten free. This was frustrating to her because she had gotten her hopes up about a restaurant and after her interest had been piqued, she had to start over. With the moderate task, we asked Deb to find a restaurant in a specific price range with two or more items she could eat within 10 miles of her. Starting off, she tried to use her phone to look up restaurants in the area with an app. This

app didn't have any gluten free filters, but she could specify some search parameters. After attempting to find a restaurant, she got frustrated and moved back to the computer. When asked why she went back to the computer, she mentioned that since there weren't any filters on the app, it wasn't very useful for finding gluten free places. She said that she would be happy to use the app, and would probably use it often, if there was a gluten free filter. With the third task we asked her to find two different restaurants in an unfamiliar city in a specific price range that she could eat at. This ended up being easier than she expected because she happened to find a magazine article that listed a bunch of gluten free restaurants in Portland organized by category and all local. She commented that it was lucky that she happened upon the article and that a lot of times she ends up looking at blogs or other such places trying to find a good recommended restaurant instead of searching on Google or Yelp because she has found blogs tend to have local and interesting suggestions that she wants to try. When we asked about this further, she commented that since she has discovered her food allergy, she has become extra discerning about the restaurants she goes to because she wants the food to be worth it. She can make gluten free food at home, and instead she prefers to find an interesting local place that has recommendations and cooks something unusual, like gluten free bread, than a chain restaurant. When the tasks were over, we discussed what she would look for in an app to find gluten free restaurants and she mentioned wanting a lot of depth in the search results with small local restaurants with lots of menu items she could eat, and being able to filter down or sort her results after searching.

We first asked Kristen to find a couple restaurants within the area where her sons could eat. Without looking anything up, she named a couple. She said that she never tries finding new places because it is too much work. She wishes that restaurants would provide ingredient lists for their menu items. Kristen says that before going to a new restaurant, she always checks the restaurant's website for menu information, but she rarely ever finds any. When we asked her to perform a harder task, such as finding a new restaurant in a distant city, she used a combination of Yelp and Google. She would look on Yelp for restaurants in that area, and pick out the ones that looked good based on user comments and ratings. Then, she would search for the restaurant on Google, go to the restaurant's home page, and try to find menu information. After trying several restaurants and not finding any ingredient information, she told us that at that point, she would just go to one of the restaurants and ask the wait staff about whether certain dishes contain allergens. However, even when she asks waiters if certain dishes contain an allergen, the waiter will give an inaccurate answer. For example, Kristen once asked if there was any egg in a Beef Chow-Fun dish, and the waiter said there was not; but, in fact, the beef had been dipped in egg. At the end of the contextual inquiry, she told us that most of her problems related to finding restaurants for her sons would be solved if restaurants just made their menus available with ingredient lists for each item.

Overall there were three important themes that emerged from our interviews. First, participants indicated that they often stuck to restaurants they knew well or chain restaurants because the menus were more detailed and easier to find. However, there was an overall desire to try new and interesting places if detailed menu information was available. Second, participants really enjoyed services that provided an easy and detailed filtering system with simple checkboxes for types of allergies or foods they wished to avoid. Third, participants expressed a desire for menus that listed exact ingredients in each of the menu items as well as ingredients used in preparation

(such as types of oil and butter). Our Allergy Restaurant Finder needs to provide detailed menus, quick and easy filtering, and a way to find new and exciting restaurants without extra hassle.

Existing and New Tasks

Easy

Find one restaurant in Seattle (or your home city) that has at least one _____ item on the menu. (The _____ indicates that the task should be tailored to the person's specific allergies.)

Grant is newly retired at 52 years old and is enjoying his retirement from his mechanical engineering career. Since he was so busy before he retired, he never had a chance to explore new local restaurants in Seattle where he lives. Grant is a single dad (widowed) and his two children have moved out and are attending college, so he no longer has to take into account their restaurant preferences. Unfortunately, Grant has Celiac's Disease and cannot eat any foods containing gluten. That doesn't stop him from trying to find the best gluten-free pastries in the area, though. Many of the other people he knows who have dietary restrictions stick to chain restaurants because their allergy information is easily available online. Grant tries to avoid chain restaurants because he likes new discoveries and supporting the local economy. He needs a way to find new and exciting restaurants that have gluten-free options available.

This task was particularly applicable to our second participant, Deb, who also needs to avoid gluten. She doesn't like going to chain restaurants if she can help it. When Deb goes out, she wants foods that she can't make at home and is looking for a new and exciting experience.

Medium

Find one restaurant with a couple _____ items on the menu within 10 miles of you, within a price range of $10 - $25.

Wanda is a 28 year old aunt of three young children. She is extremely close with her sister Lucy and often takes care of the children for her. All three children are highly allergic to nuts and soy and, like all children are, are very picky about their foods. Wanda likes taking the children out to lunch or dinner when she can, but it's hard for her to find a few different options, within a reasonable price range, that cater to nut and soy allergies. Usually Wanda will do extensive research online before they go out, searching for ingredient lists for the menus she looks at. Often, however, the menus are not specific enough, so she ends up taking the children to Red Robin because of their in-depth, interactive allergen menu that makes avoiding nuts and soy simple. Wanda is looking for new places to take the children.

Kristen was a perfect example of a target user for this task. With two children with allergies, she needs to be very careful about where they eat. It's nice to have options for her children and it would be fun to find new places, but she never tries to because it is far too much work and is usually unsuccessful because menus are rarely specific enough.

Find two different restaurants (one Asian and one Mexican) with a few _____ items on the menu in Portland with a price range of $10 - $25.

Josh is a 20 year old college student studying Business at UW. He's in a fraternity and is prone to crazy nights every now and then. He recently road-tripped to Pullman with some of his friends for a weekend of partying. Before they leave for home, everyone wants to go out for food. This is a bit difficult because Josh can't have gluten or dairy products. If he were home, he would know some places off the top of his head, but he has no idea where to go in Portland. He doesn't want to hold up the group, so he needs a quick way to find a couple of restaurants he can eat at that everyone will enjoy.
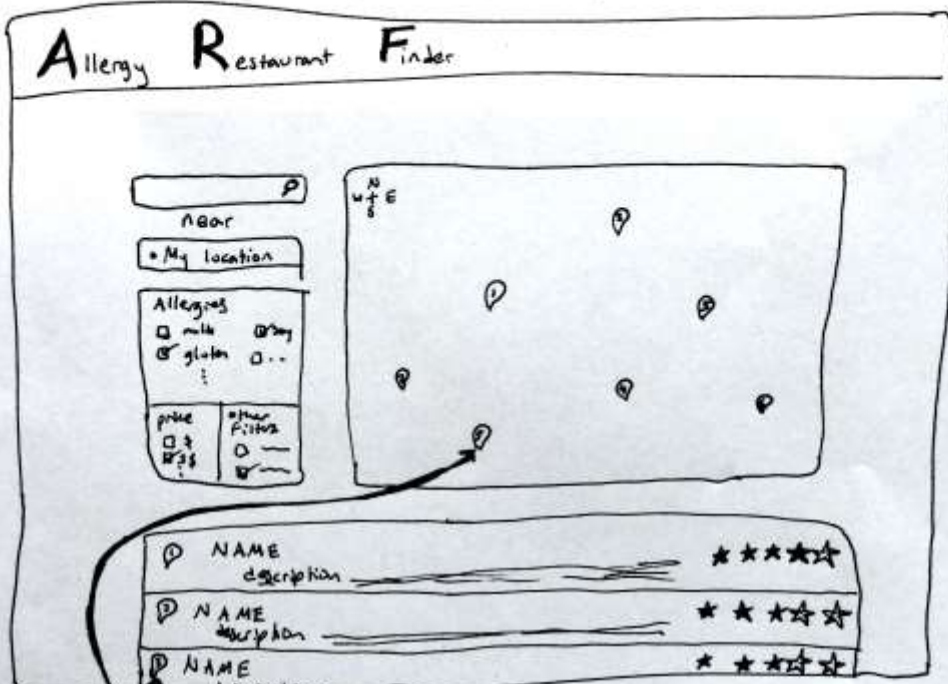
This task really applied to Mandi, who is also a college student. While she may or may not end up in various cities for parties, she is a college student with spontaneous plans and needs a way to find places to eat in new cities. Mandi tends to stick to chains, such as Starbucks, because their menus are so specific and she knows them well, but it would be nice to find different, unique places to eat, especially in a new city.
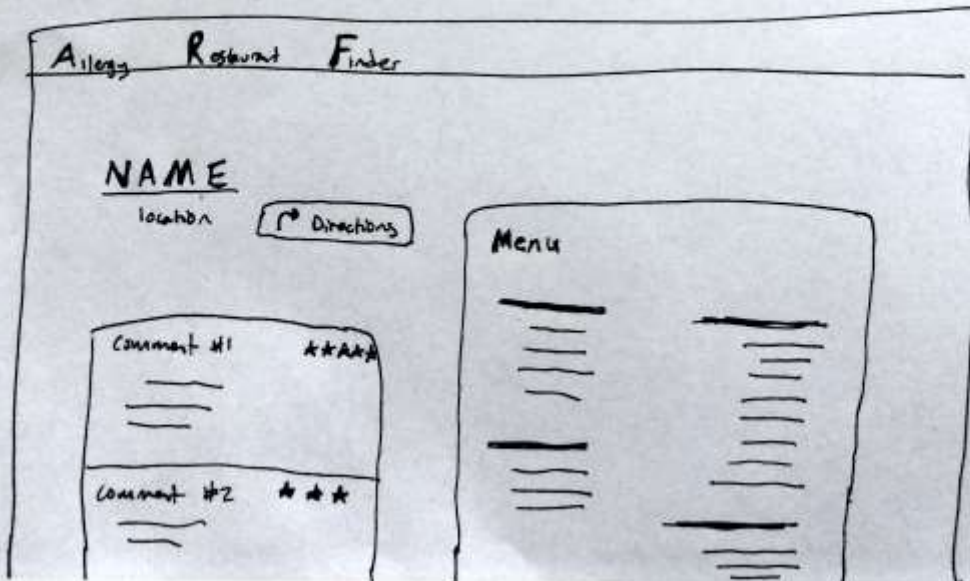
Website with a map-based design:
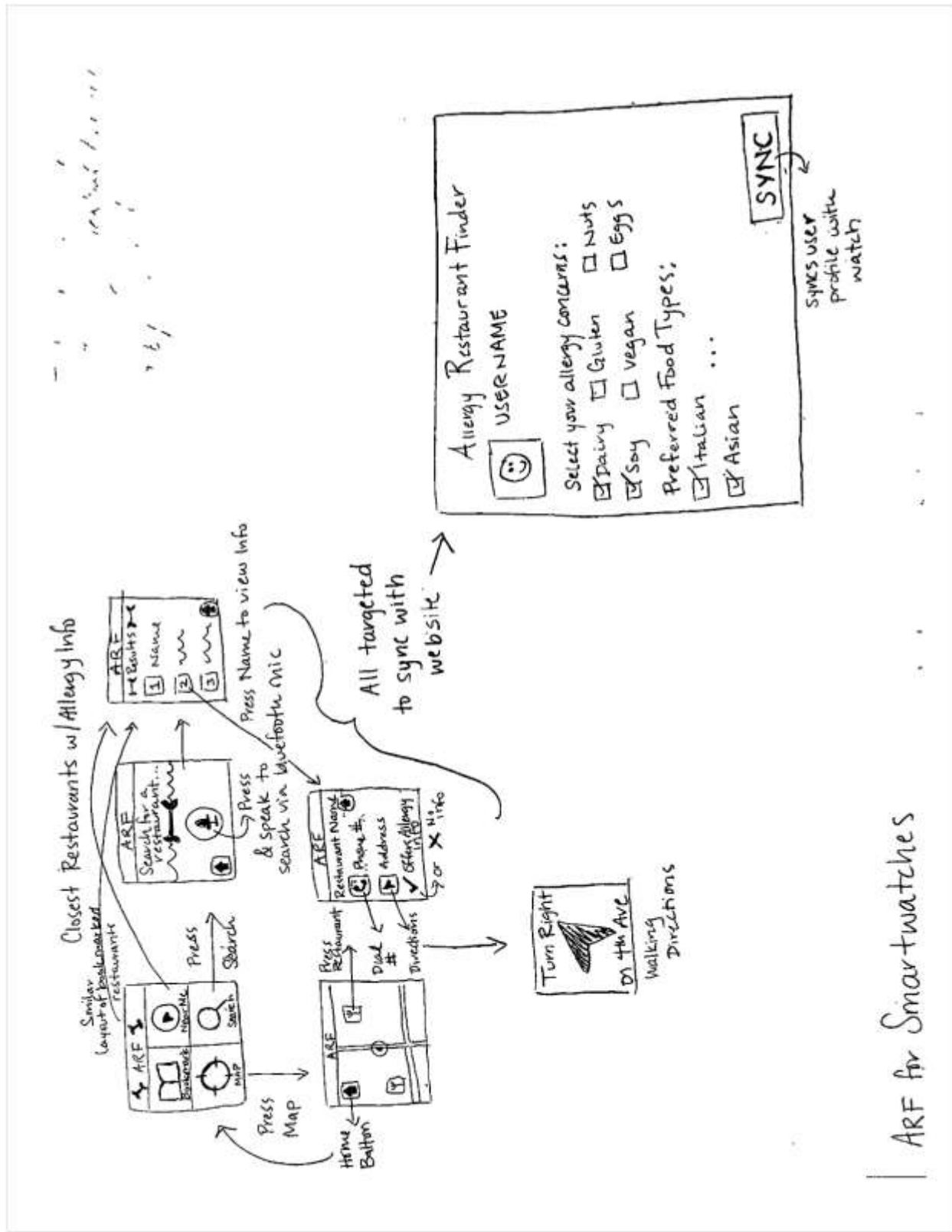dynamic map that responds to the filters the user applies, the search term, and the location specified.

Closest Restaurants w/ Allergy Info

ARF for Smartwatches

Allergy Restaurant Finder
USER NAME

Select your allergy concerns:
☑ Dairy ☐ Gluten ☐ Nuts
☑ Soy ☐ vegan ☐ Eggs

Preferred Food Types:
☑ Italian
☑ Asian

SYNC

syncs user profile with watch

All targeted to sync with website →

Press Name to view Info

Press & speak to search via bluetooth mic

Similar Layout of bookmarked restaurants

Press Search

Press Map

Home Button

Press Restaurant Dial # Directions

Turn Right on 4th Ave
Walking Directions

Design 3 – Mobile Application