User Research, Analysis & Personas

By Team UXX

Photo Credit : Benjamin Child

Design Question

Is there a way to use mobile technology to create a more engaging and personal experience when exploring a place?

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The Stakeholder Analysis

Primary
New residents or long term visitors of Seattle.

People who are new to the Seattle area and want to know more about what the city offers. It is assumed they have an interest/stake in exploring Seattle to learn about new places to eat, drink, learn, play and have fun.

Primary
Locals of Seattle.

Locals of Seattle who still want to explore the city. It is assumed that they know parts of the city and have an interest for rediscovering places or finding new locations to enjoy.

Primary
Groups of individuals.

Groups of individuals who have social ties (due to family, work, or hobbies) that might come together to explore Seattle to bond. It is assumed they have a stake in how they explore and bond.

Secondary
Corporate Businesses of Seattle.

Small and large businesses of Seattle. It is assumed they want to present their business in the best light and will have a stake in maintaining their brand and generating new business.

Secondary
Seattle Tourist Industry.

City of Seattle (and possibly state of Washington) will have an interest in attracting visitors and locals to visit areas of Seattle that are iconic to the tourist industry (parks, museums, historical sites etc) to generate revenue.

Extreme User Interviews

Photo Credit : Negative Space

Why Extreme User Interviews :

Extreme user interviews was chosen as a primary research method for this project because of its strengths in illuminating qualitative observations into areas of opportunity and discovery. Not only are behavioral patterns amongst our target demographic further illustrated in this method, but it also gave the team the opportunity to ask "why"s to solidify understanding of the subject matter. Due to the time investment in recruiting, scheduling, interviewing and analyzing notes, the extreme user interviews were intended to be used in conjunction to the survey to collect a wider array of data to support further decision making.

The Implementation :

Four individuals were recruited using a snowball method of selection who were willing to participate and had time to do so given our scheduling constraints. Our criteria in selection was any individual who lived in the Seattle area (as a long term visitor, new resident, or existing resident) who liked to sometimes explore the city. Due to the informal nature of recruitment, a formal pre-screening interview was skipped. Each interview was scheduled for an hour time period, with one primary interviewer, a note taker and the interviewee. A formal script was written that targeted different themes of the design question. The script included an introduction, outline and each primary category question was divided into sub-questions that could be tailored to meet the context of the interview. Notation styles differed amongst the note takers (computer, handwritten, script, third person versus first person) but at the end of the interview process they were synthesized into a primary excel document. From this document, all members of the group practiced an affinity exercise to identify patterns, pain points, areas of opportunity and to creatively explore different ideas.
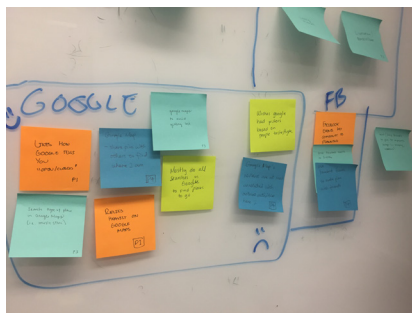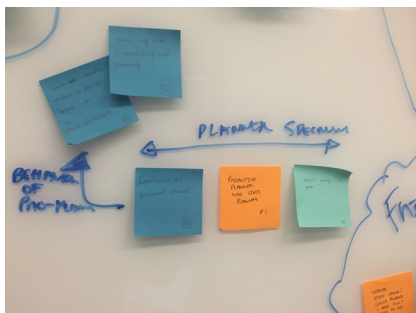
Images from the affinity task.

Summary of Findings :

1. Word of mouth or social influence is an important factor in inspiring what places to visit and see. *Design implications* : The concept of credibility—especially, social credibility—is important to consider when designing as it will impact a user's perception of the recommendation.

2. Reviews (on Yelp, Google etc) serve as supplemental knowledge gathering source with caution. *Design implications* : Users tend to be critical of reviews without social context or knowledge of the individual.

3. All participants engaged in a process of triangulation (multiple resources to get an overall opinion of a place or event). *Design implications* : The workflow must be situated in context of multiple sources of information (web searches, social media recommendation, word of mouth) and how the product could interact or disrupt this pattern.

4. All participants found the process of discovery appealing, but time, mood and place mattered. *Design implications* : The act of discovery isn't always appealing—but generally appealing. The product will need to take into account time, mood and place of the user. Constant bombardment of notifications, etc. won't be appropriate.

5. Transportation decisions rely on money, ease of use, and perceived reliability of chosen transportation. *Design implications* : When designing, transportation recommendations (if any) will need to take money, ease of use and perceived reliability into account.

6. Imagery is a big motivating factor. *Design implications* : People relate well to imagery and like seeing places of interests. Consider using large or appealing imagery when describing a place or recommendation.

7. All participants tended to think of Seattle in terms of neighborhoods. *Design implications* : Consider filters and maps in terms of the cognitive map of the user—in terms of neighborhoods.

8. Shared experiences is an appealing reason to visit places. *Design implications* : Social sharing (text, social updates, photo/video sharing) are all appealing methods in sharing experience.

Points of Friction :

1. Most participants articulated a sense of social pressure when planning; fear of disappointing or not meeting certain people's expectations.. *Design implications* : Take into account this social pressure when designing. Different contexts will have different social expectations.

2. Different technical knowledge base for each individual and their friend/family group, meant juggling different methods of communication and planning. *Design implications* : We can't assume every user will have the same familiarity with certain applications or devices.

03 | Research Method 2 :
Survey

Photo Credit : Pirkkla Suomi

Why a Survey :

We chose to administer a survey because they can help us gather comprehensive data efficiently and generate well-found analysis effectively. With just one survey, we can collect information from each group of target users to know different opinions for every aspect of our project. Also, since the answers to survey questions are usually explicit and quantitative, we will not only get an intuitive feeling of our findings, but find solutions based on accurate quantitative analysis. Due to the constraint of time and investment, the amount of interviews we can conduct is very limited. Using the method of a survey can help us acquire more data points than the from interview. Where the interview method focuses on "deep" learning, the method of a survey focuses on "broad". So we chose both to complement each other and bring us a more comprehensive understanding of user requirements.

The Implementation :

We designed survey questions according to our research questions and design questions. Survey questions were designed to know people's behavior patterns when they plan to visit new places and when they are in visit. Generally, we want to get four parts of information: demographic information, behavior patterns of people when they make plans and visit new places, preferences and experiences of technology usage, and social desires. We delivered the survey online and asked people who are our potential users to answer the survey questions. People who responded to our survey included new residents, like first year international students at UW, and people who have lived in Seattle for many years, like Seattle locals people who worked in Seattle for long time. Subjected to the time restraints, we got 25 valid responses for our survey.

Summary of Findings :

Demographics:
We found that the age of our participants ranged from 21 to 33; the mean being 25.32. In terms of occupation, 68% of them were students, the others included engineers, sales, and analysts. Sixteen of the 25 survey participants were new residents—those who have lived in Seattle for less than one year; the remaining nine are long term residents having lived in Seattle for more than five years.

Planning Information:
When planning to visit new places, 72% of our participants do research by themselves and have a list of their own "must see" spots before leaving for the trip, but they'll decide when these happen during the trip. 92% of people use travel websites and mobile applications as references to make plans. A little more than half of the people responded that they like planning; the remainder replied that it depends on the situation and who the companions they were planning for were. Significantly, 84% of people mentioned that in the past they have had troubles figuring out what to do or where to go when planning for outings. This means that in our design we need to consider easing the process of finding something to do. Further, as the majority of people do use websites and application, it is reasonable that our final design be something similar to help people explore a city.

Points of Interest:
For attractions, new residents focus more on tourist spots, while long-time residents focus more on local restaurants and special local events, like sports, concerts, and plays.

Transportation:
For transportations, most of people use public transportation and walking when traveling. New residents prefer public transportations, while long-time residents prefer driving cars or using UBER.

Existing Technology:
The top three applications people use for travel and exploring are: Google Maps, Yelp, and TripAdvisor. Google Maps focuses on navigation—something important when exploring a city. Yelp and TripAdvisor are based upon reviews, ratings and finding recommendations within one's current context. We can assume that all of these aspects are factors people use to plan where to go in a city.

Social Network:
96% of people said that they like to share the places they like with friends, and 72% of people consider recommendations from friends a good source of information. As such, integrating a system within one's social network should be highly considered in the design of our project. The top two factors that people take into account when planning what to do are personal interests and companion interests. As such, designing to be able to get information regarding individual users and grouped users would be beneficial.

Literature Review

Why a Lit Review :

One of our objectives that we wanted to accomplish from our research was to find out what mobile applications are currently being used in the exploration and travel industry. We wanted to discover what existing applications are they used for, what are their features and what are some areas for opportunities. We chose lit review because our other two methods—interviews and surveys—were focused on participants and their experiences. We wanted to become more aware of some of of the other applications out there and perform our own analysis of the tools and features.

In addition to analyzing existing technology, we also wanted to learn more about the research regarding two important areas of our project: recommendations and gamifications. In the interviews we found out that recommendations, both those given by friends and by recommendation systems, were really important when deciding a place to go. This is also an area where much research has been done, so we wanted to explore some of the existing research in this field to gain a better understanding of how we could implement a successful and potentially novel recommendation system. Gamification, on the other hand, was another area of focus because we are interested in ways to make our application both interactive and engaging when exploring a city, and we thought a game-like experience might help us accomplish that.

The Implementation :

To execute this method, we first began by brainstorming all the existing applications within the traveling or exploring industry—these included any application that was a typical travel app in addition to applications that were used as an auxiliary tool when traveling such as map applications. We ended up with a list of approximately 35 applications. Due to the time constraint we decided to narrow our search and focus only on five applications—a mix between the most prevalent apps in the industry and a couple that were similar to interactive concepts we had considered. Each member of our group selected one or two of these and analyzed it deeply, gathering information such as an overview of the product, a feature list, strengths, and areas of opportunities. These in depth analyses can be found in Appendix 3.

Additionally, we also looked into various research papers that covered the areas of gamifications and recommendations. We read the abstract of each option to determine if it would be useful for our research intent. After curating a list of relevant research articles, three members of our group selected one to analyze. For each paper we read we annotate the following information: the reason we selected that particular article, an overview of the article, key points, and some questions that the article provoked. These analyses can also be found in Appendix 3.

Summary of Findings :

Methods that applications can use to engage people:

Adding competitive goals. Applications can use social networks and competitive goals to motivate the user to keep using the application. Earning points somehow and being able to compare with friends or other people is attractive for some users. (refer to Swarm by Foursquare and Stray Boots, in Appendix 3)

Using games. Using a game-like experience can also be used to engage people in using an application. One of the applications we analyzed was based around the process of using a scavenger hunt to explore a city, and we found that it has been very well received. This gamification model also combined aspects of the competitive goals discussed above. (refer to Stray boots, in Appendix 3).

Attractive pictures. Having pictures can attract people to visit a certain place. Some applications, rely in the pictures taken by the users to motivate other people to go (refer to HeyLets, in Appendix 3). Other reason that we think pictures are important, is that all the applications that we reviewed included them of what was being reviewed.

Corroborate how important reviews and recommendations are.

For the large online communities, such as TripAdvisor and Yelp, the reviews are the core of their system. The ratings and reviews written about a place greatly affected the decision of subsequent people decided to go to a place. To be successful, applications need to be able to analyze and present the user with ways to digest this information quickly while allowing the user to get more in depth with the reviews if necessary.

People value recommendations based on who is giving it

People highly value recommendations given from trusted individuals—either subject experts, influential friends or acquaintances, or individuals who have similar interests and tastes.

Gamification is a popular trend in the industry

Gamification methods are getting very popular in different industries. People are adopting this approach to motivate people to do work or activities that are not usually enjoyed for the users or to change a specific behavior.

Comprehensive Design Requirements

Photo Credit : Viktor Hanacek

Platform Requirements :

1. The solution should be designed to work on mobile application as users will use it on the go.

2. The solution should be mindful of context to provide notifications when appropriate and provide location and time based support.

3. The solution should have an elegant offline mode to account for spotty internet connections.

Feature Requirements :

1. The solution should include a map of Seattle as users need to locate where points of interest are.

2. The solution should allow the user to search and filter points of interest in Seattle for users to tailor locations.

3. The solution should allow users to add ratings, reviews, and images to build up a history of personal interests and to share their experiences with others.

Social Requirements :

1. The solution should be able to save information about a user (i.e. interests, pinned locations) to better tailor recommendations for the future.

2. The solution should be able to recommend places to a user.

Design Requirements :

1. The design should be easy to use and intuitive for our demographic.

Primary Persona 1

Primary
Tina

Age : 26
Occupation : Software Engineer
Seattle Local

Goal : To find what's new in Seattle and share amazing exploration experience with friends.

"I always want to share awesome experiences with my friends."

Technical background :

Owns : Computer, smartphone
Frequents : Travel websites, food blogs, Yelp, Google Maps
Social Apps : Facebook, Twitter, Yelp, Instagram

Tina's Story

As a Seattle local, Tina knows almost every aspect of this city, but she also knows that there are new and interesting things happening everyday that she would never want to miss. She keeps keenly up-to-date on new things in Seattle, especially new restaurants and stores. When a hot, new restaurant opens in Seattle, she is the first to visit. She likes sharing these experiences whenever possible. When she finds an awesome place to go, she immediately shares with her friends via Facebook and Twitter to start organizing a group outing. When out and about she will often post her experiences on Instagram, check-in at local venues etc. She likes to stay up-to-date on the latest trends, and the Seattle nightlife "pulse" of events. She worries about missing unique events, and sometimes finds it stressful to organize a large group of people.

Primary Persona 2

Primary

Joy

Age : 19
Occupation : Student
First year international student in Seattle

Goals : To know more about Seattle with guidance and tailored recommendations.

"There are so many attractions and activities in Seattle! Which one is the best for me to start with?"

Technical background :

Owns : Computer, smartphone
Frequents : Travel websites, Google Maps
Social Apps : Facebook

Joy's Story

Joy started her brand new Seattle life two months ago. Since everything is new to her, she is eager to know all aspects of the city and to become more involved in her new community. Like many new residents, Joy doesn't have many local friends so she usually explores the city by herself. Her main source of information is travel websites, but she finds it hard to sort through the multitude of recommendations to find the best choice. When wandering on the streets of Seattle, she frequently uses Google Maps and Yelp to find out if there is something interesting nearby to explore. She loves discovery but still wants some guidance during the trip to lead her to the new areas she would be interested in.

Primary Persona 3

Primary

Thomas

Age : 33
Occupation : Marketing Specialist
New resident in Seattle

Goals : To explore Seattle through local experiences.

"I want to explore Seattle as a local and make more friends here."

Technical background :

Owns : Computer, smartphone
Frequents : Google Maps, Meetup
Social Apps : Facebook, Twitter

Thomas's Story

Thomas works as a marketing specialist and moved to Seattle for work a year ago. He once tried to explore Seattle using preplanned routes offered by travel websites, but quickly found that these plans were too touristy and he felt like he wasn't getting to know the real Seattle. He yearns to find and enjoy the authentic local experiences. As a social, active person, he loves to attend local events such as concerts, sports games, and special local festivals in order to meet new people and get access to locals. When deciding what to do and where to go for leisure, he relies on recommendations from local friends more than online reviews. Sometimes he feels it is hard to find companions who share the same interests with him.

The Design Question

Original Design Question

Is there a way to use interactive technology to create a more engaging and personal experience when exploring a place?

New Design Question

Is there a way to use **mobile** technology to create a more engaging and personal experience when exploring a place?

Why the Change? :

Before conducting our research methods we were unsure of what type of technology we wanted to move forward with. Afterwards, we have decided that a mobile application would be the most effective as we want to ensure our users have access to our design on-the-go anywhere in Seattle.

08 | Appendix

Appendix I - Interview

UXX
Interview Script

Last Updated : October 27th, 2015 by Lauren Wheelwright

Design Question

Is there a way to use interactive technology to create a more engaging and personal experience when exploring Seattle?

Goals of the Study

Overall, the research goals are centered around our design question and to identify patterns of behavior, as well as areas of opportunity, in how individuals currently explore Seattle.

- What are the various reasons each individual has in exploring Seattle? (social, utilitarian, knowledge driven, experience collecting etc)
- What are the different types of areas people like to explore?
- What type of technologies do individuals use to find new places?
- Do people engage in this behavior as an individual, group or both?
- What level of communication is involved?
- What current pain points can be identified in how individuals find out about new places?
- What current pain points can be identified in how groups plan to explore places?

Target Audience

- 4-6 Individuals
  ○ Who live in Seattle area (new resident, long term visitor or local) who like to explore the city

Method

Interview

Script

Introduction

Thanks for taking the time to talk with us today. We're **very excited** to learn more about you and **your experiences** in Seattle. Our goal in doing this study is to better understand how individuals use technology to explore the city they are in.

Our focus will be in learning as much about your experience, **even if it might differ from the standard**. There are **no wrong answers** to any of the questions and we will not be offended by anything you say. Feel free to **elaborate** as much as possible and, if applicable, feel free to show us examples. No detail is insignificant.

Outline

- This chat will be about 40 minutes.
- All information will be private and used solely for this research.
- I will be asking most of the questions. My research partner <introduce> is here as a note taker. **Is it okay is she takes notes on the rest of the interview?**
- We will **start simple** – with questions about you, how long you've been in Seattle etc.
- We will then go into some **more detailed questions** regarding how you like to find new places, the technology you use etc. **We encourage you in this time to elaborate with examples if possible.**
- The session will finish with a small summary on what I have taken away, I'll ask you to fill in anything I missed or go over anything I didn't fully understand.

Introduction Questions

1. INTRODUCTION: To begin, can you tell me a little about yourself and how long you've been in Seattle?
   - What neighborhood do you live in?
   - Roughly, how long have you lived there?
   - What areas of Seattle are you most familiar with?
   - Alternatively—what areas of Seattle are you least familiar with?
   - What types of places in Seattle do you frequently visit?
   - Are there areas of Seattle that you intentionally avoid?

2A. IF A NON-LOCAL RESIDENT: In your first few months in Seattle, how did you find out about new places?

- When you first moved here, what were your favorite places? Why were they your favorite? How did you find these?
- Has this changed over time?
- What were your "must see" places? Tell me about how you found them.
- What areas of Seattle do you wish you knew more about?

2B. IF LONG TERM VISITOR OF SEATTLE: **In your time in Seattle, how did you find out about new places?**
- What are your favorite places so far? Why are they your favorite? How did you find these?
- What were/are "must see" places? Tell me about how you found them.
- What areas of Seattle do you wish you knew more about?

2C. IF LOCAL: **Over time, how have you found out about new places in Seattle?**
- What are your favorite places? Why are they your favorite? How did you find these?
- Has this changed over time?
- What areas of the city do you consider "must see"?
- What areas of Seattle do you wish you knew more about?

3. SOCIAL: **Do you consider yourself proactive in planning outings with friends and family?**
- If NOT- who would you consider that to be?
  - Have you ever tried to plan group things before? If so— how did that go? If not — why not?
- IF SO - what types of planning do you do? She doesn't like it, but she does it, but she doesn't enjoy it.
- She doesn't like the pressure, if she is by herself is just lazy.

  - Are they hobby based—like a sport? Or more social—like dinner?
  - What type of factors or types of information are important when planning for you? How do you research this information?
  - What is your most memorable/successful thing you've planned? Tell me about the planning experience?
  - What is the least favorite thing you've planned? Why was that?
- Do you ever struggle in finding activities or places to visit with friends?
  - What type of thing is harder to plan or discover for you?
  - What do you wish was easier about this experience?

4. REFERENCE: **Have you ever relied on any guidebooks, websites, blogs or apps to learn about new places?**
- What did you use? Why did you select these tools?

- How was your experience?
- Did it help you get what you want?
- Was there anything frustrating about that experience?
- What was your favorite part of using that tool?
- If they use any review/recommendation websites— Do you add ratings and/or reviews for places you have been to? Why or why not?
- Are there other sources of inspiration you look to in finding about a new place?

5. MOBILE: Do you rely on your phone when exploring Seattle?
- If yes—how so?
- Do you have any apps that you frequently use for finding or learning about new places?
- If yes—when is the last time you used it and for what purpose?
- Do you ever refer to digital maps or apps of that nature?
- Do you ever send location pins to friends?
- Is there anything else that you use your phone for that is important when planning your activities in Seattle?

6. GAMES: Do you play any digital games with your friends?
- If yes—what types?
- Do you enjoy this experience?
- Have you ever participated in a scavenger hunt? How was that?

7. TRANSPORTATION: What types of transportation do you most frequently rely on in Seattle?
- Do you use the bus?
- Do you own a bike or car?
- Do you use cabs/Lyfts/Ubers?
- Is there a type of transportation that you avoid?

Summary of What You've Learned

I'm going to review some of what I've learned from talking with you. Let me know if I've missed anything you think is important or haven't described accurately.
[Look back at the questions and describe the answers that stand out for you; ask the notetaker if they have any questions/observations they'd like to add]

Questions	Interview 1	Interview 2	Interview 3	Interview 4
How long have you been in seattle?	15th of august – moved back up here. Lived here in 2008-2011. Came back up here in school. Grew up in Atlanta Georgia. Seattle is a little different. Spent some time in calirofnia before coming back to Seattle.	I've been in seattle a month and a half. I was born in mexico, but moved to USA at 3 to San Diego. In CA worked in accounting and finance. Likes watching tv, roller skating, going out, running, outside preferable..	About a month and a half. Since I started studying at UW.	full time job for 2years 3months, intern for 3 months, almost total for 3 years
Where in Seattle do you live?	I live in mapleleaf – north of Udistrict- a lot of food and stuff around – pretty relaxed neighborhood.	On Campus, on U-District, Mercer	Far away from campus — Sand Point. It's really sad when the bus is delayed and it takes me forever to get to campus. But most of the time it is okay.	currently capitol hill, lived in downtown before
What areas are you most familiar with?	Most familiar with udistrict, cap hill, downtown and greenlake.	U-District because it the closest, capitol and ballard a couple of times, freemont a little, I run in the cannal through Freemont.	U District, U Village; a little bit of Downtown, International District and Wallingford	capitol hill , center district areas, madison valley, fremont, downtown, green lake
What areas are you least familiar with?	Least familiar with – not that familiar with first hill, queen anne magnolia,

….freemont I go there sometimes and I don't know my way around that well. | South, Downtown, not in east, nothing north, basically bubble Seattle | Everywhere else | something between the north Seattle and the north shoreline is a big gap that I am not familiar with |
| **What places do you like visiting?** | I like visiting places where I do work- web design – different resturarants. And going to bars and cool stores that have something interesting. | Bars in the Ave, restaurants when people visit, preferibly new to me | Campus, restaurants, supermarket, live house (for concerts), bookstores | parks, restaurants, the international district for food and grocery (but I don't stay there for a long time, I just get in, get what i want and get out) |
| **What places do you avoid?** | Rainer beach. South of cap hill- I don't know anybody there- why would I go there? | | Why? I don't find any place in downtown too dangerous. | Belltown - for safety reasons |

Questions	Interview 1	Interview 2	Interview 3	Interview 4
How do you find out about new places?	I find out about new places through friends, some web searches, shows that kind of stuff. Social networking.	Internet, Yelp and look a lot in reviews to see if is worth it, also hear what people recommend, she takes a combination of both	I have several apps — GoStart (?), LiveNation, SeattleTimes, SeattleTraffic, UW Ceremony, Seattle, Yolo, SpaceScout, WeChat daily feed. Sometimes I use the apps, but my friends also give me recommendations (My friends told me about a lot of good restaurants in Bellevue) Also attended some events for International Students that I went to — such as Gas Works Park 2. Search in GoogleMaps — want to find some vintage shops or music instrument stores and saw they were in Fremont and went there and found it was a really cool neighborhood!	1.On that time there was no yelp and even no smart cell phones! I browsed web like TripAdvisor, asked my coworkers and friends, dropped myself in a place and wandered around to see where is crowded and go for it. 2.When I got a smartphone,I used a lot of Yelp, Zagat, The Stranger, read food magazines, newspaper. Magazine reviews catch my attention and I bookmark those places on Yelp. See differences between Yelp review, what actual people are saying, and the magazine/ expert reviews. 3. Go to WA state park web to find out what parks can go to, why do people go there, what is the highlight there, get information. 4. Some mall parks in seattle are easy to go for an hour or two, and I can find good parts of them and then come back on other time. 5. Instagram, great photos as motivation for going specific parks and places 6. Talk with people. i.e. If my friends went to some bars, I can know their experience with details 7. Read online reviews about dance class, if there are many good reviews, I will go and try it to see it in myself. A large amount of reviews will motivate me to go for
What areas did you like when first moving to Seattle?	I liked the ave and udistrict. Gasworks park…kind of exploring the same places-nostalgic then also – once a week going to someplace. Found the first places through friends – I went to startup hall via UW- found that through the website –	Like Gas Works Park and a park you oversees Seattle, anything with a view, when running I just stop to see.	Pike Place Market and EMP and UW (of course). Fremont is a really cool neighborhood.	The first year I came to Seattle I was not 21 yet, so I couldn't go for bars or something like that. Most are asian things, because I had stayed in IN for so long, there were very few asian stores. In Seattle I go for asian grocery, restaurant, seafood, and bookstores.
What was your favorite places?	Trabant on 45th and the ave was the must see. Had a great aesthetic, have really good chai. And super sad when closed. Walked around and walked around the udistrict.	EMP Museum, 3 times in the last year, she likes that is interactive, that is modern and that they change the themes often.	Nuemos - the live house	My favorite is seafood - crab restaurant, and sushi place. Love parks and ocean/ waterfront/ ferry/ water taxi. WHY - When I lived in IN, there is not much lakes & water. When I lived in Japan I could get easy access to ocean.
Any places that you wish you knew better?	I wish I knew downtown , sodo and cap hill- I could aways know it better. Belltown. The nightlife – in cap hill – drink and play video games and know if there are places like that.	ballard, freemont	I don't really know North or South Seattle, or really any part of Seattle	Bellevue - for workout classes, don't know where to go, where I should go. Don't know the gym and studio part very well.

Questions	Interview 1	Interview 2	Interview 3	Interview 4
Do you consider yourself a proactive planner?	Usually yes- im the proactive one. Not tonight but usually. Social events- what various friends are mine are doing – getting to the same party and bars. Sometimes ill meet with people for website stuff . side projects going along with the. Healthy mix of social and business.	Yes.She doesn't like it, but she does it, but she doesn't enjoy it. She doesn't like the pressure, if she is by herself is just lazy and rarely go out by herself, except running.	Maybe — I'm not a very social person and I don't have family here. I have tried before. Often it's you want to go shopping and you just message some of your friends and see if anyone wants to join you. Or someone gets a flyer and you find people to go with you. Or people want to go to a concert they will forward the Facebook link or event to you to get you to attend.	Yes. Because: 1. I always want to share awesome experience with friends. Having conversation with somebody is an easy mechanism for me to know more about someone. I like to plan for both big things and small things (grab a dinner) 2. I can imagine experiences in these place, what I could do, what experiences I hope to get out, I love daydreaming.
What type of factors or types of information are important when planning for you? How do you research this information?	other peoples schedules, times and punctionality. Im big on punctionality and coordination. Whose going, and then if anything to contribute whose bringing what.ill talk to people- facebook event- compare that time- how can I make a run there. Facebook, text messages.	I google the best things to do in seattle, the best ambiance, preferable places, looks google and she takes into account the reviews a lot I usually review 3 or 4 reviews, usually ones that are good and ones that are not good, for instance in a restaurant, if the waiter is bad but food good, she goes.		1.The season and weather cuz it's seattle, and what the other people's feelings about the weather. Weather factor depends on activity, summer - park, winter - food and concert. 2. Whom I want to hang out with - for food, no specific person, just go with those who are available; -for hobby based events, go with those who are really interested in it; -for social, do things together can know more about each other and build mutual understanding, and it may not be intentionally for social purpose. 3. Price - I focus on cost/benefit, it is not about how expensive the cost is, it's about how much we can get out from it. 4. My companion's preference - i.e. restaurant, if my friends don't value spending money on food I won't pick super nice restaurants. - i.e. concert event

Questions	Interview 1	Interview 2	Interview 3	Interview 4
What was the most successful thing youve planned?	a few years ago I worked with someone at UW and we put together a flash mob at redsquare- 50-75 people get together …..promotional piece put together. Wrote in chalk all over campus. 150 people just watching. 50-75 participating. That's the most successful thing ive ever organized. 12000 hits on youtube. How did you start with idea? My friend benji was in the enterpreruship at UW- he did gorilla marketing- he needed somebody to do something for – a chance for me to get free marketing- worked for everybody. We planned it for about 3 weeks- there in charge for the actual flash mob etc and I was in charge of the site.	She made a map with nice places for a friend that came to visit, she divided it by area, allowing to do more things when going there		Trips to Ireland with 9 people, to make sure everybody is ok is hard. HOW I PLANNED: I searched for what events will be there, search info before i go, because I don't want to miss interesting things. I have a list of things I am aware of, and know the distances between each other, and then I will group these events by day and separate them into several sections, i.e. in morning/ afternoon/ eve we can do this. So I can get several options for different section. My plan is not nice and neat information. It is more like a web. I get all things together. My brain goes faster than i can put out. WHERE DID I GET THE INFORMATION: 1. Online forums, there are no guidebooks show exact information about how to do this and that 2. Get information from preplanned plans from travel agency 3. Google the first 15 pages 4. APP/webs for researching cost-benifit: yelp, kayak, expedia, airbnb, etc. THE PROCESS OF PLANNING: 1. For flights: plan 5 -6 hours; focus on price, nonstop or breakup a long trip, etc.
What is the least favorite thing you've planned?	can we come back to the least favorite thing. Group projects- my least favorite thing.	In China, to buy tickets to another city, but didn't buy it on the website because she didn't trust it. When in the train station she couldn't communicate, and got commuter train 30 hrs instead of 8 hrs, stuck in a wagon very tight	Sometimes I don't go places because I can't find someone to go with	Plan with other person or a big group, I wanna figure out the details about convenience, cost effectiveness, etc. Some people just don't care, but I wanna get it finalized right away.
Do you ever struggle in finding activities or places to visit with friends?	I feel like I enjoy doing things enough by myself- that I can do something- I usually have some scoop on something going on.	Sometimes, it depends in the friends, because some are just ok, and some are expecting something more, and feels pressure. But doesn't struggle looking things to do, because in the city there is always things to do. Depends on the audience		Struggle with "there are too many things to do", not "I don't know what to do". I struggle with "Is this one the best option? anything better?" I hope to be great!

Questions	Interview 1	Interview 2	Interview 3	Interview 4
				HOW YOU DO WITH IMPROMPTU THINGS When I hang out with somebody and we have known what to do, and if we still have time we wil end up in doing impromptu things. i.e. If my friends feel bored, we can meet and go for some places, but I am not good at planning for impromptu things. It is easy for me to have a plan to see somebody, and if we have time we can find something to do in the end.
What types of things are harder to plan or discover?	I guess it would be like student things – like group projects- oh and that's my least favorite thing. Sometimes you have someone who doesn't give a shit or really conflicting schedules. If its not- why are you going to modify your busy schedule for something you don't			Group plans
What do you wish was easier about those things?	I guess I like to foster- take something fun to do and incorporate into the boring things we have to do. If we have to get together late at night- can we make it less miserable – have a beer or smoke a joint- just make it fun.	She would like a pre planned itinerary, giving info, i.e. I will be a day, no car and have the day ready to go.		For group trip, some say it's okay and they will wait for my final decision. I'm happy with that because I get control.

Questions	Interview 1	Interview 2	Interview 3	Interview 4
Have you ever relied on any guidebooks, websites, blogs or apps to learn about new places?	Ill look at yelp, google maps, facebook- socially facebook is really important. There are definitely some sites I use more frequently. Facebook is a social platform – its intergral – people you want to go to a party with you can- there is not really a better one. Yelp and google maps – ill check out the food around me- I know most of the places- im not too big into reading reviews – how can anyone be qualified enough to rate that? I feel like they take it and run with it.	Trip Advisor,- Travel international Locally, just google things. Google Maps, when she already knows where to go.	I use a bunch of them, but not in Seattle just when I'm traveling somewhere else. I've used LonelyPlanet. Although the book is not always up to date so you go to a restaurant and it's a little outdated. Like learning about culture and demographic and geography about a place.	Yelp- Help me set expectations. Tripadvisor- Trust the "things to do" part, because I am not an expert on museums. Japanese site/ blogs- for reviews in different perspectives Blogs- not limited to one certain person's blogs, I just Google for relevant blogs to browse. Expedia, kayak, airbnb- for cost effectiveness, check accommodation, compare price, locations, go further rather than city center. i.e. places near both the places I want to visit and transportation station, so I can get easy access to anywhere. Trust certain friends for certain topics- Trust certain friends to ask for detailed information.They have educated reasoning about why it is amazing, why it great. Good reasoning, not just "it's great".
	do you feel like you get what you want? Sometimes – its out of curiousity – before im hungry for dinner- im thinking about dinner- I had thai food last night- whats something I didn't experience.			
Was there anything frustrating about that experience?	on google maps and sometimes yelp- when businesses close down and they don't know update the profile on there. Tub subs they were closed when they should have been open. Didn't like.	Overwhelming, a lot pages, some saying different recommendations. Would be nice to filter the audience that the list go to, for instance coffees and museums, should not be recommended to the people that like exploring.	I don't like the Yelp reviews where it says it is really good but it's really not. But after reading hundreds of reviews you can get an overall idea of what a place is like	Yelp- Not everyone add reviews on Yelp, only for people who really love it for really hate it may add reviews. The results may be too extreme to be trustworthy. If I get to real person, I can know their detailed experiences, which parts are good - I don't care much about service so I only want to focus on reviews on certain parts, why you think this part is good, etc.
What is your favorite part of using those apps or websites?	The ease- the ease with which you can find some many things you could have never found before- if I could drove around in circles- but I can lay in my bed and do the exact same thing.		Everything is prepared for you, where to go, what events to attend, who you should meet.	Yelp- rating, tips, look what people say with actual detailed review. Using search bars can search for specific reviews, i.e. search for asian parts

Questions	Interview 1	Interview 2	Interview 3	Interview 4
Do you add ratings or reviews to places you've been?	I will if I feel strongly about things- I feel like too many people leave reviews with really high standards- I will leave reviews- if I feel very strongly in a positive way. If I don't leave reviews- mediocre restaurant. if its really bad- food poisioning.		If it is exactly what the other reviews said, then no. But if it is a lot better or a lot worse then I will.	Never. There are already lots of review here, so my review is unnecessary. My credibility has few influences for online stranges. Prefer to tell my friends and co-workers about my experiences, because they know how often I eat out, cook, and how I am interested in food things. They will be more motivated by my suggestions.
Are there any other sources of inspiration when looking for a new place?	Word of mouth. Id say its an interesting combination between information I get from social network of friends- synthesis of that with technology- ill hear a friend talk about a restaurant or venue – verified with technology and then acted upon. It won't help you find everything but it does serve to verify.	Used to use pinrest, but she didn't like the format, that is why she left it. But she needed to go out to research somewhere else about the place. (To keep her in the app) Better description, how close , a little more description of the place if using Pinrest. For planning there is not much time, so having one tool is better.	If I know some local people they are definitely my resources. I always try to use local but it is hard	I use everything available. I'd check more detailed travel books
Do you rely on your phone when exploring?	I rely on my phone when exploring seattle. I use google maps when driving. Phone just take me there.	Yes	YES — or else I will get lost and have no idea where I am. Sometimes I will just take the bus and get off at a destination — get off, explore, get back on	Yes. Use mobile only in the moment, on the spot; since i plan before i go, I make plans on computer. Use Yelp bookmarks, save into my account (sort by distance)
Do you use apps when discovering new places?	Google maps, yelp, eat24- aaron recommended it to me because nate uses it – weed maps – I don't use it up here but in California – weed maps to find the pot stores…	Google Maps, Yelp for eating. Google, to search places and to get info from the place	BandsInTown (find concerts); Google Maps (better than Apples Maps UI)	Yelp, Google Maps
When was the last time you used x app?	I used google maps- last night to verify the hours of a bar I was going to – what I really like about google maps- when you go to a website and look through a list of hours – pull up a business and it will say open/closed.	Google maps, This morning to get to the interview, didn't where was it.		
Do you ever send location pins to friends?		Through whats app, with other apps I don't know how to do it. I rely more in instructions and directions from people	yes because my friends always get lost, send to help find out where you are or how to get to one place	Help my friends to find me in unfamiliar places, to know how far actually I from you.

Questions	Interview 1	Interview 2	Interview 3	Interview 4
				HOW TO SHARE GOOD PLACES WITH FRIENDS: Focus on consistency i.e. -restaurants, if i go back again but find it not that good, won't recommend to friends. I will go there couple of times to make sure the place has good consistency and then recommend to my friends. 1. For people who are new here or visiting and ask me for suggestions about where I should go, I give a list of 10-15 places to go. 2. For friends who have been here for a while, I share my recommendation through conversation, "what you did last week…" 3. For people I know who will be really into XX related topics, I will recommend certain places/ events for them. 4. I will give people recommendations based on different categories of food. If you like this kind of food, I will bring 3 options for this and that, or 1 for each style.
	I downloaded the Coachella app. First time there. Coachella has a pretty good app that they make for the music festival. You can see all the different stages and what bands play at different times. Really well organized- just for the festival.			FOR DIGITAL MAPS: Use Google map. It has many reviews but I don't trust them. Opentable sometimes is a bad thing, it is not focused. Some Google reviews have nothing to do with the actual activities/ content (i.e. reviews for bad experience there but not relevant with the food there) in that place.
Are there any other features of your phone you use when planning?	text messaging, calling, esp if there are multiple moving pieces- like somebody driving up from Wallingford to south seattle- coordinating people.	Save the itinerary, and have it handy. Somewhere to check it out the list. She would like, an app, that when you already have a plan, it would give you more options, if is in between.	EDictionary because sometimes I can't understand all the places. Also I use some apps to buy movie tickets or find restaurants (Michelin restaurant reviews)	
Do you play any digital games with friends?	not on my phone- no phone games- ps3, about to get ps4. I do enjoy the experience playing the game- hard to coordinate- my brother is in Atlanta- ill probably game with him out here- but virtually we are kicking ass.	I used to play words, but after forgot about it. (did you enjoy) Yes initially, but gets distracted, nice to interact people you don't know Trivia Crack, a game that discarded later because she got bored	Yes, but not always with my friends. Most of the time by myslef	Two Dots - connect with FB, see who else is playing, but mostly play in my own. Why connect with FB - connect my tablet and phone - cross platform for more lives, not for social Monument Valley - not for social
Have you ever played a scavanger hunt?	yes- it was in the marine corp. that particular scvanager hunt was not fun. Could be fun in the future.	I don't think so, well maybe a long time ago, when kids. She enjoyed it. She has a friend, that in her work they used it and she wanted to look into that.	No	NO

Questions	Interview 1	Interview 2	Interview 3	Interview 4
				FOR GAMES I don't want to learn the rules. For those need certain skills and rules, I have no patience to learn if the game is not very interesting. Love games that can play right away. Don't like games with high learning curve. I don't want spend too much time on weekend to play/ learn games, especially have no patience in playing story games.
What type of transportation do you rely on?	The bus – I have a car- when I lived up here before I could get anywhere walking or bus. Now I have a car – I drive it maybe 2-3 times a week – I take the bus every morning 8 am- and when im done I just get back. I don't own a bike.	Order - car - uber - bus	Bus, Uber	Bus, walk, firends' car, carpool, uber, lyfts
How about cabs/lyfts/ubers?	Yes a couple times- on the 7th of nov- im going to a show and ill probably take an uber to that.	Using Uber or lyf she likes it, but sometimes gets expensive.	Uber	uber is cheaper than lyfts, uber can search
Any transportation you avoid?	I hate driving.	Taxis because they are expensive.		

Appendix II - Survey

Initial Report

Last Modified: 11/02/2015

1. Age

Text Response
33
26
25
21
31
30
23
24
24
25
23
23
23
24
29
27
25
22
26
22
24
25
26
25
27

Statistic	Value
Total Responses	25

2. Gender

#	Answer	Bar	Response	%
1	Male		8	33%
2	Female		16	67%
	Total		24	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.67
Variance	0.23
Standard Deviation	0.48
Total Responses	24

3. Occupation

Text Response
Student
student
Student
student
Software Engineer
Student
student
Student
Student
Research analyst (political science)
Student
Software engineer
student
student
Student
Engineer
civil engineer
Student
student
Student
Student
B2B Sales
student / bartender
Caregiver

Statistic	Value
Total Responses	24

4. Where are you from?

#	Answer	Bar	Response	%
1	Seattle		7	28%
2	Outside Seattle		18	72%
	Total		25	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.72
Variance	0.21
Standard Deviation	0.46
Total Responses	25

5. How long have you been in Seattle?

#	Answer	Bar	Response	%
1	Less than a year		17	68%
2	One to five years		1	4%
3	More than five years		7	28%
	Total		25	

Statistic	Value
Min Value	1
Max Value	3
Mean	1.60
Variance	0.83
Standard Deviation	0.91
Total Responses	25

6. When you plan for visiting new places, which sounds most like you?

#	Answer	Bar	Response	%
1	I like to have everything planned out. I never travel without an itinerary listing what I'm doing, when and where!		7	28%
2	I do my research and have a list of my "must see" spots and some recommended restaurants, but I'll decide when these happen during the trip		18	72%
3	I wing it! Serendipity take hold		0	0%
	Total		25	

Statistic	Value
Min Value	1
Max Value	2
Mean	1.72
Variance	0.21
Standard Deviation	0.46
Total Responses	25

7. When planning for visiting new places, what kinds of references do you use?
(*multiple choice)

#	Answer	Bar	Response	%
1	Guidebooks		8	32%
2	Travel magazines		2	8%
3	Travel blogs		9	36%
4	Travel websites/ apps		23	92%
5	Recommendations from friends		18	72%

Statistic	Value
Min Value	1
Max Value	5
Total Responses	25

8. If you use travel websites or apps, which of the following websites or applications have you used in the past year? (*multiple choice)

#	Answer	Bar	Response	%
1	TripAdvisor		22	88%
2	Google Maps		23	92%
3	Apple Maps		5	20%
4	Yelp		17	68%
5	UrbanSpoon		2	8%
6	Roadtrippers		3	12%
7	Meetup		0	0%
8	Foursquare		2	8%
9	Tripso		1	4%
10	Geneo		0	0%
11	Life 360		0	0%
12	One Bus Away		7	28%
13	Transit App		1	4%
14	Eventseeker		2	8%
15	Foursquare		3	12%
16	Google Places		2	8%
17	AroundMe		0	0%
18	Eventbrite		5	20%
19	Moovit		0	0%

Statistic	Value
Min Value	1
Max Value	18
Total Responses	25

9. What kinds of places do you like to visit? (*multiple choice)

#	Answer	Bar	Response	%
1	Scenic spots		24	96%
2	Cultural attractions (i.e. museums, historic landmarks, architectures)		21	84%
3	City trails and paths		17	68%
4	Restaurants		18	72%
5	Local stores		11	44%
6	Special Events (i.e. Sports, Concerts, Plays)		15	60%
7	Local Hot Spots		11	44%
8	Other		0	0%

Other

Statistic	Value
Min Value	1
Max Value	7
Total Responses	25

10. On average, how many times do you visit these places in Seattle per month?

#	Answer	Bar	Response	%
1	1-5		17	68%
2	6-10		5	20%
3	more than 10		3	12%
	Total		25	

Statistic	Value
Min Value	1
Max Value	3
Mean	1.44
Variance	0.51
Standard Deviation	0.71
Total Responses	25

11. Rate the following based on how important they are when planning something

#	Question	Very Important	Somewhat Important	Neutral	Somewhat Unimportant	Very Unimportant	Total Responses	Mean
1	Time of visit	14	8	3	0	0	25	1.56
2	Weather	7	12	4	2	0	25	2.04
3	Method of transportation	8	11	6	0	0	25	1.92
4	Budgets	13	9	3	0	0	25	1.60
5	Personal interests	19	6	0	0	0	25	1.24
6	Companion interests	14	8	2	1	0	25	1.60
7	Friend/family recommendations	7	12	4	2	0	25	2.04
8	Internet reviews/recommendations	6	14	5	0	0	25	1.96
9	Other	2	2	1	0	0	5	1.80

Other
Vídeo reviews (i.e. Youtube)
Duration of visit
Mood

Statistic	Time of visit	Weather	Method of transportation	Budgets	Personal interests	Companion interests	Friend/family recommendations	Internet reviews/recommendations	Other
Min Value	1	1	1	1	1	1	1	1	1
Max Value	3	4	3	3	2	4	4	3	3
Mean	1.56	2.04	1.92	1.60	1.24	1.60	2.04	1.96	1.80
Variance	0.51	0.79	0.58	0.50	0.19	0.67	0.79	0.46	0.70
Standard Deviation	0.71	0.89	0.76	0.71	0.44	0.82	0.89	0.68	0.84
Total Responses	25	25	25	25	25	25	25	25	5

12. What types of transportation do you use to travel around Seattle? (*multiple choice)

#	Answer	Bar	Response	%
1	Walking		16	64%
2	Public Transportation		20	80%
3	Biking		2	8%
4	Driving a car		13	52%
5	Using Cabs/Lyft/Uber		15	60%

Statistic	Value
Min Value	1
Max Value	5
Total Responses	25

13. Do you like to share the places you like with friends?

#	Answer	Bar	Response	%
1	Yes	████████████	24	96%
2	No		0	0%
3	It depends (*please explain)	▪	1	4%
	Total		25	

It depends (*please explain)

depends if I look good in pictures :P

Statistic	Value
Min Value	1
Max Value	3
Mean	1.08
Variance	0.16
Standard Deviation	0.40
Total Responses	25

14. How often do you plan outings with your friends and family?

#	Answer	Bar	Response	%
1	Never		0	0%
2	Less than Once a Month		5	20%
3	Once a Month		3	12%
4	2-3 Times a Month		9	36%
5	Once a Week		4	16%
6	2-3 Times a Week		4	16%
7	Almost Daily		0	0%
	Total		25	

Statistic	Value
Min Value	2
Max Value	6
Mean	3.96
Variance	1.79
Standard Deviation	1.34
Total Responses	25

15. Would you rather do the planning or let someone else take on that responsibility?

#	Answer	Bar	Response	%
1	I like to make plans		14	56%
2	I wanna someone else to plan		6	24%
3	It depends (* please explain)		5	20%
	Total		25	

It depends (* please explain)
I would depende on someone el se only if I couldn't do a proper research on the city point of interests
I don't make plan when travel with reliable people
Depends on who has time
If I have a plan I'll choose otherwise it is always cool yo learn about new cool places
I like to work together on plans

Statistic	Value
Min Value	1
Max Value	3
Mean	1.64
Variance	0.66
Standard Deviation	0.81
Total Responses	25

16. How often do you and your friends find troubles figuring out what to do or where to go?

#	Answer	Bar	Response	%
1	Very often		2	8%
2	Sometimes		21	84%
3	Almost never		2	8%
	Total		25	

Statistic	Value
Min Value	1
Max Value	3
Mean	2.00
Variance	0.17
Standard Deviation	0.41
Total Responses	25

17. What's your ideal way to travel?

#	Answer	Bar	Response	%
1	I love traveling by myself		7	28%
2	I'd rather travel with a group of friends or family, but if they can't join, I'd rather travel alone than with strangers		13	52%
3	I need company! I'd rather meet and explore with strangers than have to travel alone		5	20%
	Total		25	

Statistic	Value
Min Value	1
Max Value	3
Mean	1.92
Variance	0.49
Standard Deviation	0.70
Total Responses	25

Appendix III - Literature Review

TABLE OF CONTENTS

ACADEMIC RESOURCES

ACADEMIC ARTICLE 1: SOCIAL NETWORK-BASED SERVICE RECOMMENDATION WITH TRUST ENHANCEMENT

Quick Info:

Why this Article:

"Word of mouth" and the importance of social circles to generate trusted recommendations was a reoccurring theme in the survey and expert interview research. Including research on how this sense of trust in social networks influences recommendations will be a valuable tool for better understanding our design question.

Article Overview:

This research investigates the relationship of trust between users in social networks and the ramifications of incorporating such relational data into web service recommendation systems. The introduction begins by highlighting the explosion of data in the recent years and the struggle of users to parse through this information to find relevant and trustworthy recommendations. Deng et al, highlight the gap of service listings with service recommendations, citing social networks are a source of opportunity to data-mine individual preferences and provide better service recommendations (Deng, Huang and Xu 41:).

What Makes this Research Unique?:

Plenty of research has been done on how to better incorporate data-mining techniques to provide more relevant content. In fact, many companies like Amazon and various ad agencies excel at just this. However, this research is unique in that is takes into account more than just search terms, but the relationship of interactions (feedback of likes, dislikes, engagement in social networks towards a product) into account.

Key points:

1. **They introduce a concept of "trust relevancy" - "which measures the trustworthiness weight of neighbors in social network"** (Deng, Huang and Xu 41:).
   a. This assists with individuals who have little or sparse activity in social networks, allowing associates/friends to take weight in providing service recommendations.
   b. This relationship does not predict rather "...can only be considered reliable; such recommendations do not absolutely affect the target user's rating because the target

Further questions:

1. How does this trust relationship (and trust relevancy) vary in different social circles (business applications like Linkedin, versus social like Facebook?)
2. How could trust relationships (and trust relevancy) vary over time?
3. How could trust relationships surface in UI to allow users to tailor their recommendations?
4. What ethical concerns of privacy does this research overlook? How could this impact our design question?

Source:

Deng, Shuiguang, Longtao Huang, and Guandong Xu. 'Social Network-Based Service Recommendation with Trust Enhancement'. *Expert Systems with Applications* 41.18 (1 Jan. 8075): 8075–8084. 5 Nov. 2015.

ACADEMIC ARTICLE 2: IS IT ALL A GAME? UNDERSTANDING THE PRINCIPLES OF GAMIFICATION

Quick Info:

> Source: ScienceDirect
> Date of publication: Available online 7 April 2015
> Keywords: Gamification, Experience, Mechanics, Dynamics, Emotions, Behavior change, Motivation

Why this Article:

Our project idea is to allow people exploring places in an interactive way. One of the options we are considering for doing it through a game-like experience. There is an area that covers adding game design principles into non-gaming context, which is gamification. We wanted to know more about what gamification is, how is currently used, advantages or disadvantages, know about game design and this article covered some of those areas.

Article Overview:

The article describes what gamification is and how some organizations have been taking advantage of it. It gives a very interesting example of how adding a game-like feeling can change completely how you enjoy an activity that sometimes is not that appealing. It gives the example of the show American Idol, comparing how sometimes looking for talent can be long, tiring and not engaging, however, when making it look like a game turn that work into a fun activity. It also covers three gamification principles that are mechanics, dynamics, and emotions (MDE).

In the article is discussed how much impact gamification has currently in the business industries, Robson et al, presents the following predictions "70% of the world's largest public companies will have at least one gamified application in the next 2 years, there are warnings that about 80% of current gamified applications will fail to meet business objectives, primarily because processes have been inappropriately gamified."

Key points:

- One reason an application using this approach might fail is because of the lack of understanding how gamification really works and to find what can really inspire the players.
- Gamification can help to attract people in the first place, but if is not designed correctly can fail to meet objectives.
-

Further questions:

- Is it really gamification what are looking for? Or we are looking for an actual game?
- How can we be sure the gamification for a certain process has been designed correctly?

Source:

Robson, Plangger, Kietzmann, Mccarthy, and Pitt. "Is It All a Game? Understanding the Principles of Gamification." *Business Horizons* 58.4 (2015): 411-20. Web.

ACADEMIC ARTICLE 3: PERSONALIZED RECOMMENDATION COMBINING USER INTEREST AND SOCIAL CIRCLE

Quick Info:

Source: IEEE Xplore
Date of publication: Available online 7 July 2014
Keywords: Interpersonal influence, personal interest, recommender system, social networks

Why this Article:

"Word of mouth" and the importance of social circles to generate trusted recommendations was a reoccurring theme in the survey and expert interview research. Including research on how social circle can influence and improve personalized recommendation.

Article Overview:

This research investigates the use of three factors in performing personalized recommendations: personal interest, interpersonal interest similarity, and interpersonal influence. Personal interest is based upon the types of places that they have rated in the past. Interpersonal interest similarity was based upon members of one's social network whose interests are similar. The last factor, interpersonal influence, was based upon members in one's social network who were trusted for certain items. Combining these three factors improved the quality of recommendations compared to current models.

What Makes this Research Unique:

Recommendation systems are currently based on social networks and personal interests, but this research included new aspects to the social network connections that result in better recommendations. Further, this research also discussed how users in the "cold start" period of usage—new users in the recommendation system with little historical behavior—were able to start getting quality recommendations immediately by looking at their social network's interests and influencers.

Key points:

1. **They introduce a concept of trust influence in combination with shared interest to measure the weight of a connection's review.**

Source:

Qian, Xueming, et al. 'Personalized recommendation combining user interest and social circle'.*Knowledge and Data Engineering, IEEE Transactions on*. IEEE, Jul. 2014. 5 Nov. 2015.

MOBILE APPLICATIONS

INDUSTRY AUDIT 1: TRIPADVISOR

Quick Info

> Source: http: //www.tripadvisor.com/
> Product Type: App on Apple Store, Google Play and Windows Store (the last only for tablets)
> Category: Travel
> Seller: TripAdvisor, Inc.

Product Overview:

TripAdvisor is a travel site designed to cover most of the aspects of a trip. Starting from how to get there (flights), where to sleep (hotels or vacation rentals), where to eat (restaurants) and what to do (landmarks, parks, shopping, museums). TripAdvisor claims to be the largest travel site in the world, which is supported by comScore, which also points in a recent case study that "50% of travel researchers who went on to make a travel purchase visited TripAdvisor at some point during their online journey" ('Path to Purchase: A TripAdvisor Case Study'). When trying to book a flight or hotel, you are not able to make reservations directly with TripAdvisor, but it gives you the price and availability, linking to the actual retailer when you are ready to buy.

This travel site focuses on reviews, which helps to rank all its different items. People that base their decision on reviews can very easily find what are the most recommended places to see.

Feature List:

1. Provides reviews of touristic attractions, hotels and restaurants.
2. Allow people to add their own review.
3. It is an intermediary to book hotels, vacation rentals, tours and flights.
4. Ranks the things to do in a location
5. Provides travel guides.
6. Allows people to add their own travel guide
7. Has a section dedicated to photos and other digital media from a location categorized into. The categories are: All, Photos, Videos, Hotels, Attractions, Landmarks, Sporting Events, Views, Restaurants, Other.

Strengths:

1. **The reviews are categorized which can help to get a better understanding of the quality of a place.**

a. Different people base their decision if different aspects. For instance, when choosing a hotel some people might base their decision on location, others in service or cleanliness. TripAdvisor, breaks a rating in different aspects you the user can focus in the average rating or a specific section if desired.
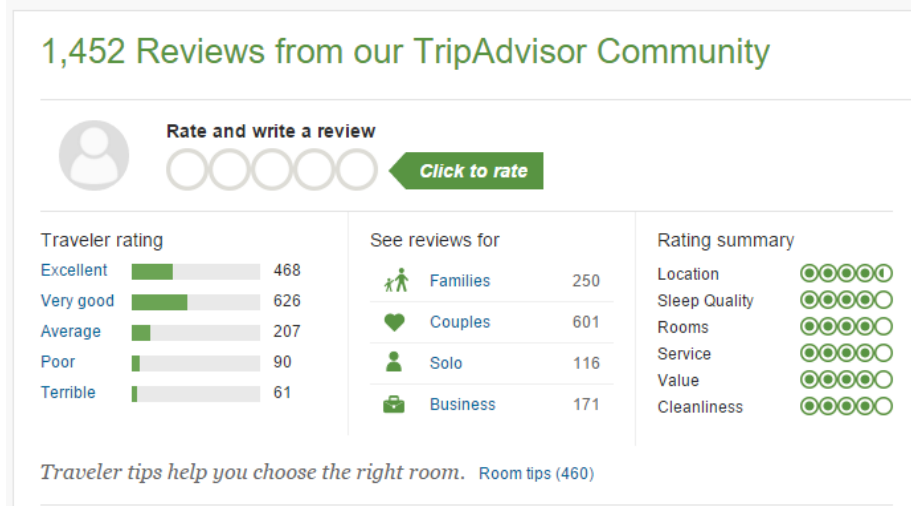

Example of review of the Warwick Seattle Hotel showing how tripadvisor breaks the rating into sections.

Source: Print screen from tripadvisor.com

2. **Lets you check some aspects of a reviewer, which can help to know how trustworthy a review could be.**

a. When reading a specific review in TripAdvisor you can see who the contributor is, where is he from, how many reviews has he made in the past, what kind of reviews has he made.

b. You can also check how many people have said that a certain reviewer comments had been actually been helpful.
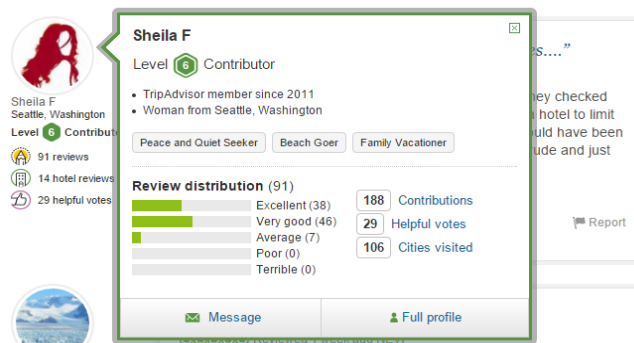
Example of the information you can see related to a reviewer.

Source: Print screen from tripadvisor.com

c. Contributors has levels (from 1 to 6) to show how active are they as reviewers.

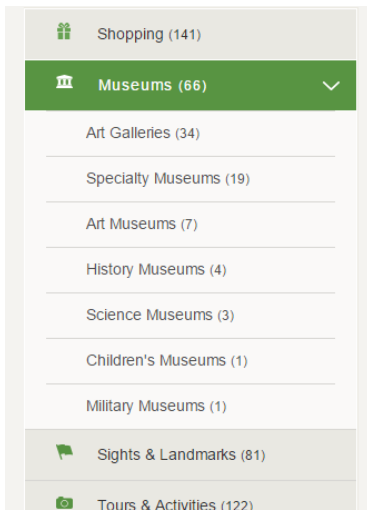3. **Provides categories letting the user focus in their preferred aspect of a city.**

   a. When reviewing the things to do in a city, TripAdvisor lets you filter by type which allows people to focus in certain things.
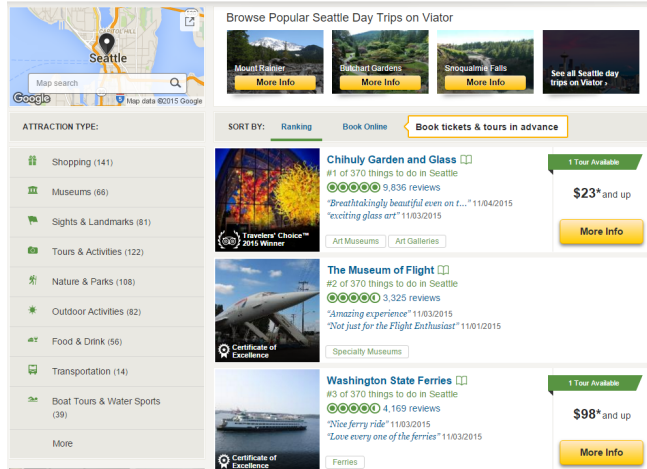
In the right side bar are the different categories for the Things to Do in Seattle

Source: Print screen from tripadvisor.com

   b. When you have selected a category you can even get subcategories, for people with very specific needs or desires.

   Example of the subcategories when selecting Museums from the first filter.

   Source. tripadvisor.com

4. **Includes a list of the best things from a certain year.**
   a. TripAdvisor provides a list of award winners in Hotels, Destinations, Beaches, Landmarks, Attractions, Museums and Restaurants, based in their reviews from a certain year.
   b. If a user is not sure where to go, this could be a good place to get ideas.

Areas of Opportunity:

1) **You have to navigate different sections of the site to plan a full trip.**
   a) The site could add a "Package" section where you could add what are you interested on accomplish, giving you options of flights, hotel, things to do, etc. Then giving only once you trip dates will go through a wizard step by step depending on the options you chose originally

Cost:

- The website is free to use
- The applications are free to use

Sources:

'TripAdvisor: Read reviews, compare prices & book'. TripAdvisor. 2015. Web. 4 Nov. 2015.
'Path to Purchase: A TripAdvisor Case Study'. comScore. 25 Jun. 2015. Website. Nov. 2015 http://www.comscore.com/Insights/Case-Studies/Path-to-Purchase-A-TripAdvisor-Case-Study

INDUSTRY AUDIT 2: STRAYBOOTS

Quick Info

Source: https://www.strayboots.com/
Product Type: App on Apple Store and Google Play
Category: Exploring/Game
Seller: Stray Boots Inc, based on New York, NY

Product Overview:

Stray Boots is a mobile application that has walking tours to explore a city through a scavenger hunt game. It can be played by a group or as an individual. StrayBoots promotes in their site the use of the application for events such as: team building, orientations, school groups, college clubs or special occasions. Avi Millman, founder & CEO of Stray Boots, commented in an interview with Dailitekk that he started this project, when finishing a trip to Rome and he realized the guidebook experience was far too passive for the digital era, he stated "We're not just creating a new feature or a way to make money; rather, we're giving people a way to have fun together and actually do something in the real world that adds value to their lives". Stray Boots has the intention of allowing people explore places while having fun, by playing the scavenger game. You earn points each time you complete a challenge.

Feature List:

1. It's a scavenger game that can be played individually or in groups. In both modes you earn points when completing a challenge.

2. You can buy a individual tour or a package from all the tours in a city
3. After completing a challenge besides getting points you will get facts about the area.
4. It gives recommended times of when to play based on where stops are open but you can play any time.
5. Lets people add their own map with points of interests.

Strengths:

1. **Turns exploring into a game, which can motivate gamers.**
   a. Exploring with this application involves participation from the user, turning the experience into a game makes the user a player in a competition.
   b. This might attract people that enjoy to compete and the people that enjoy playing in general without worrying about the results.
   c. The game includes riddles and trivia among other games which could be attractive to people that enjoys those types of games.

Example of a challenge on the tour game

Soruce: strayboots.com

Example of the application when completing the challenge

Soruce: strayboots.com

2. **Learn about the city while playing.**
   a. The game might include trivia questions that is are not useful, however, because after completing the challenge you get facts about the place you are, you will start learning interesting things about the city.

Example of the fact related to Chinatown in NYC after completing a challenge in that area.

Source: strayboots.com

3. **Useful information for the user to enjoy the game.**
   a. It includes information that might impact in the user experience of the user, for instance including the recommended times to play is important because some questions might include going inside a particular place that is closed at certain time. The recommended times consider when the places are open.
   b. When leading you to a places, it gives you enough information to get to the place to avoid frustration.
   c. Tells you an approximation of how much time it should take to complete the tour, so the user can plan things accordingly.

4. **Aesthetically engaging.**
   a. The interface is attractive and is good accommodating much information in a small screen.

Source: strayboots.com

5. **Has the option of creating your own map in the website**
   a. It lets you share recommendations with your friends
   b. Keep track of your favorite spots or bookmark places you want to go

Areas of Opportunity:

1. **Really hard when creating your own map.**
   a. The interface to create a personal map is hard to use. The tools available are not self explanatory and does not include any kind of guide. It could include some basic instructions or make the interface easy to follow

2. **Include a small tour for free.**

    a. All the tours offered have a cost. People might want to try the product before making a purchase. It could be a good idea to give a small tour for free so people can actually see what type of product they would be buying.

Costs:

- The application is free to download
- Each game is sold separately. Doesn't have a fixed priced. For instance in Seattle the tour of Pike Market Place is $5 and Pioneer Square $12 ('StrayBoots'). The prices are per person.

Sources:

'Stray Boots'. Stray Boots. n.d. Website 3 Nov. 2015

'Innovators: Co-Funder and CEO of Stray Boots, Avi Millan' Dailytekk. n.d. Website. 3 Nov 2015 http://dailytekk.com/2012/12/26/innovators-co-founder-and-ceo-of-stray-boots-avi-millman/

INDUSTRY AUDIT 3: HEYLETS

Quick Info

Source: http://heylets.com/#home
Product Type: App on Apple Store and Google Play
Category: Travel
Seller: HeyLets Inc

Product Overview:

HeyLets markets itself as a "social city guide" ('HeyLets'), intended to create a community of individuals to share their adventures with a like-minded group. The app is designed intentionally to be a community based feed of recommendations driven by an image asset, a 200 character description, location details, and reviewer information. The description of the App on the Apple store makes it clear that they want to "forget lengthy, negative reviews" ('HeyLets') and instead create a positive, inspirational feed to encourage positive experiences.

Feature List:

1. Discovery feed

2. Profile page (supports photo, facebook integration, email integration)
3. Search (neighborhood, place name and keyword)
4. Experience review (photo upload, location, 200 character review)
5. Private messaging between users

Strengths:

1. **HeyLets leverages social influence and credibility to generate a sense of trust and connectivity.**
   a. Individuals can follow others with similar interests or friend group- generating a sense of trust in recommendations.
   b. "Influencers" are individuals active in the community who have a good reputation (with likes and reviews). These influencers are essentially curators who hand pick location and share their experience. This allows content creation to be user driven.
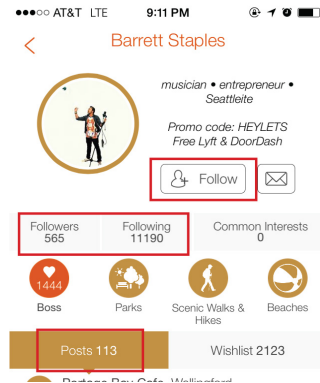
Example of an "influencer" page that allows you to follow, email, check their posts and see their social credibility throw reviews and followers.

Source: HeyLets App

2. **Good use of integrated services and utilities.**

   a. The app integrates uber buttons into each review (or "experience") so that you can quickly go to the place you are looking at.
   b. Google maps is integrated into the location, allowing the user to look in more detail about how far it is from you.
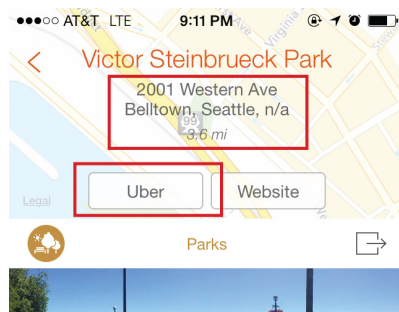
Example of an experience page that shows the location (linking to Google Maps), and Uber C2A and website link.

Source: HeyLets App

  c. Facebook is an optional integration- allowing you to increase your social following or share plans with friends.

3. **Aesthetically engaging.**

  a. Video and photo support coupled with large thumbnails make the app aesthetically engaging.

4. **The filters are robust, allowing an individual to tailor based on interest, location, trending or their following.**

Areas of Opportunity:

1. **Events are hard to capture.**
  a. Individuals are encouraged to review "experiences" which sometimes has overlap of locations with particular events. This is harder to capture as event title is different than location, and important information like dates etc have to be buried in the description of the experience (if the curator remembers to report this).

2. **Planning support is minimal to none.**
  a. An area of growth could be a shared calendar where influencers you follow or friends who follow you back could share calendar of events or plans to make.

Sources: '

HeyLets'. HeyLets. n.d. Website 3 Nov. 2015

INDUSTRY AUDIT 4: SWARM BY FOURSQUARE

Quick Info

  Source: https://www.swarmapp.com/
  Product Type: App on Apple Store, Google Play and Windows Phone Store
  Category: Social
 Seller: Foursquare Labs, Inc

Product Overview:

Swarm by Foursquare is a social app intended to turn exploration in your daily life into a game through "check-ins", "mayorships" and competitive goals ('Swarm by Foursquare'). Individuals are encouraged to sign up via Facebook or phone number to connect with individuals they know. The app is largely gamified, giving user points as they "check-in" to a location, badges when they get a certain amount of points and stickers.

Feature List:

1. Profile page (name, photo and coin balance overview)
2. GPS check in
3. Private messaging to friends
4. Games
5. Sticker challenges
6. Notifications of comments, likes and new friend requests
7. Ability to like check-ins of friends
8. Ability to comment on check-ins

Strengths:

1. **Swarm leverages competitive gamification to generate appeal.**
   a. Notifications on the "leaderboard", coupled with sticker challenges and games give a competitive appeal to those interested in competition.

2. **Playful marketing and voice to create a sense of a game rather than task.**

   a. Colors, marketing messages, iconography, and visual style align to a playful voice that resonates with the overall brand and tone.

3. **Good "empty states" for the onboarding process.**

   a. As a new user, no page is left blank. Calls to action on messages, notifications, followers page and games have clear intent to prompt the user into the next stage.
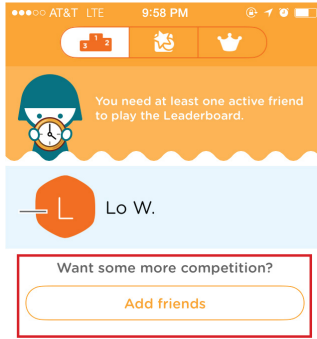
Example of the onboarding process that guides the user to add friends to create a competitive pool of people to compete with for Leaderboard, Mayorships and coins.

Source: Swarm

Areas of Opportunity:

1. **Hard to create buy-in for user engagement without friends.**
   a. Without any friends, there is no motivation for the "check-in" process. Virtual coins mean relatively nothing. The stickers are more of a competitive collection. Without the competition there is no motivating factor for the user base. This is a huge area of opportunity to improve the app, but it's unclear what steps would be needed to correct for this.

2. **No discovery platform.**
   a. The app is hyper focused on gaming and recording your activity that it doesn't offer anything inspirationally motivating to visit new places or discovery based on interests. Integrating near-by new places to check in might help this, or a feed of trending places.

Sources:

Swarm by Foursquare. 'Swarm is the app that turns every day into a game'. *Swarm App*. n.d. 3 Nov. 2015.

INDUSTRY AUDIT 5: YELP

Quick Info

Source: http: //www.yelp.com/
Product Type: App on Apple Store, Google Play and Windows Store
Category: Travel
Seller: Yelp, Inc.

Product Overview:

Yelp is a ratings and review website designed around crowdsourcing reviews about local businesses to provide information and recommendations to user. Yelp currently hosts more than 57 million reviews.

While TripAdvisor claims the traveling industry, Yelp gets many local users.

This travel site focus on reviews, which helps to rank all its different items. People that base their decision on reviews can very easily find what is the most recommended places to see.

Feature List:

1. Profile page to collect bookmarks, reviews, and photos by person
2. Businesses can update contact information, hours, and basic listing information
3. People add their own review, ratings, or pictures
4. Ability to rate others reviews
5. Ability to make restaurant reservations or order a food delivery
6. Search based on filters, ratings, and location

Strengths:

1. **Yelp aggregates all the reviews for a certain place and highlights aspects that appear most often.**

    a. There can often be thousands of reviews for some popular restaurants, that is extremely difficult for any user to be able to digest. Yelp searches through all of these reviews and will pull out exhibits, menu options, high points, or low points that are most often mentioned to help readers see a few trends within the data.

Example of review highlights of Paseo in Seattle.

Source: Print screen from yelp.com

2. **Review searching capabilities**

    a. People write reviews on various aspects—service, food quality, atmosphere,etc. Yelp allows uses to search through reviews to find out about specific topics. This helps focus what reviews you read based on what you are actually interested in.

Example of reviews of Paseo in Seattle showing how a user can search for only reviews mentioning the word "vegetarian".

3. **57 million reviews. Ratings and reviews for a myriad of places.**

   a. Yelp's largest strength is the magnitude of information that they have been able to crowd-source. With over 57 million reviews, any restaurants or place you are thinking of going will likely have someone who has entered feedback in the past. Here are the main categories of types of places reviewed:


Example of categories and number of places reviewed in each one in Seattle.

Source: Print screen from yelp.com

4. **Mobile App focuses on in-the-moment features**

    a. The mobile app has features to emphasize proximity and time of day. Mobile apps are oftentimes used on-the-go when you need to make a decision about your next step. Yelp's default "Best Match" list order puts a lot of weight on proximity as the user likely wants to know what is closeby. It can also filter based on what is open now, or what will be open in an hour to help you gather information on other limiting factors. Their mobile app also makes time-sensitive recommendations.
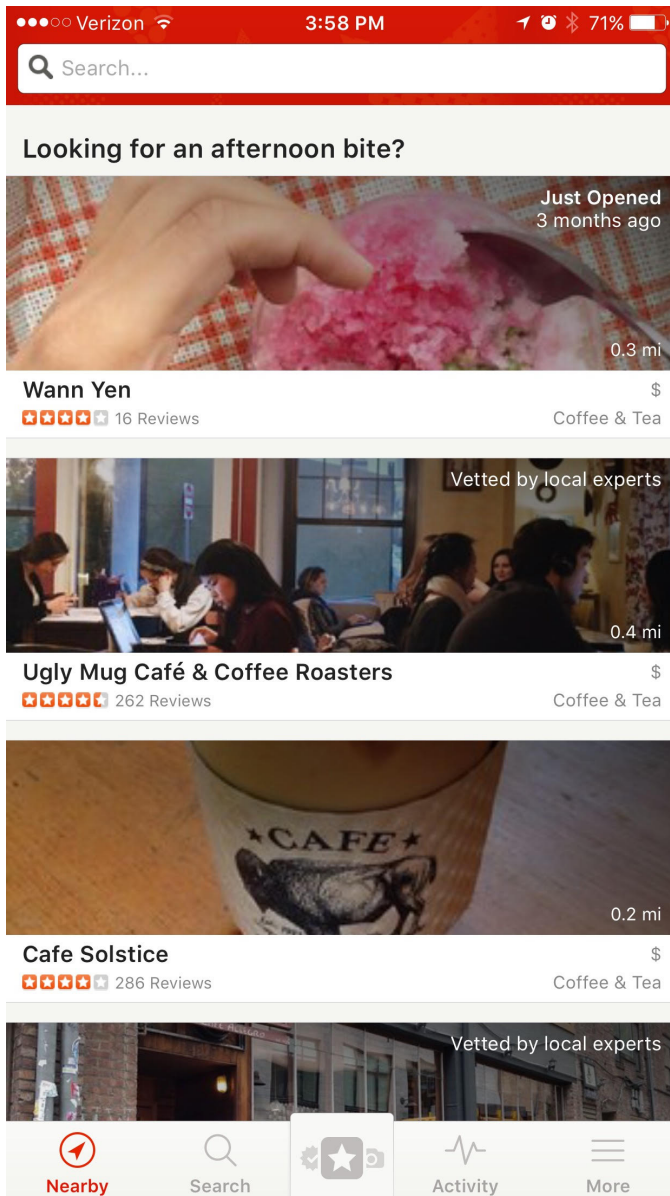
Example of time and location sensitive recommendations. It is currently 3: 58 in the afternoon so Yelp is presenting the User with places close by to stop to get an afternoon bite to eat.

Source: Print screen from Yelp's iOS application

Areas of Opportunity:

1. **Data mining rating and reviews**
    a. One of Yelp's largest strengths is also a major area for improvement. The reviews that are shown on a business' page are ones that Yelp believes best reflect the overall opinion, but there is no way to dive down deeper into the ratings. A rating is just a rating, you can't rate food with 5 stars but service with 3. There needs to be a better way to digest all of the available information quickly and easily, as well as getting a more personal touch into it.

Cost:

-   The website is free to use
-   The applications are free to use

Sources:

'Yelp. Yelp. n.d. Website 3 Nov. 2015