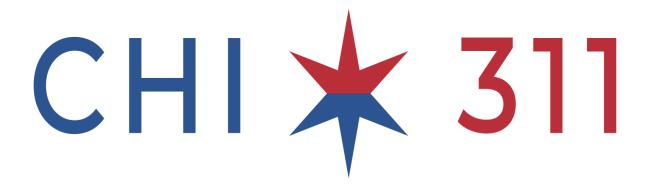
P2: User-Centered Evaluation



Shelby Robinson, Adam Babin, Sumra Iqbal

Executive Summary

CHI 311 is an application that allows Chicago residents to request city services. Residents of the city are able to submit request forms for potholes, repairing a street light, and have the option of reporting building or restaurant code violations. This is the City of Chicago's first mobile application to hit the App Store or on Google Play. Users of the application can navigate through menus of various city services available through the city's 311 system. When users create an account on the app, they have the ability to track the status of their request, how long the request will take, and view other requests in their residential area. Users can also submit a request anonymously. The application offers other features such as locating the nearest CTA/ Metra station, police departments, post offices, and libraries.

The purpose and goal of our research on the CHI 311 application are to learn about the users of this application and the problems they come across. We will build on our results from our heuristic evaluations and cognitive walkthroughs to get a user's perspective on the usability problems they faced on the CHI 311 application. We focused on interviewing users who live in Chicago, rent or own a home or apartment in the city of Chicago and are looking for better ways to improve the community around them. Overall, we want to find out how CHI 311 can improve their application for users.

Method

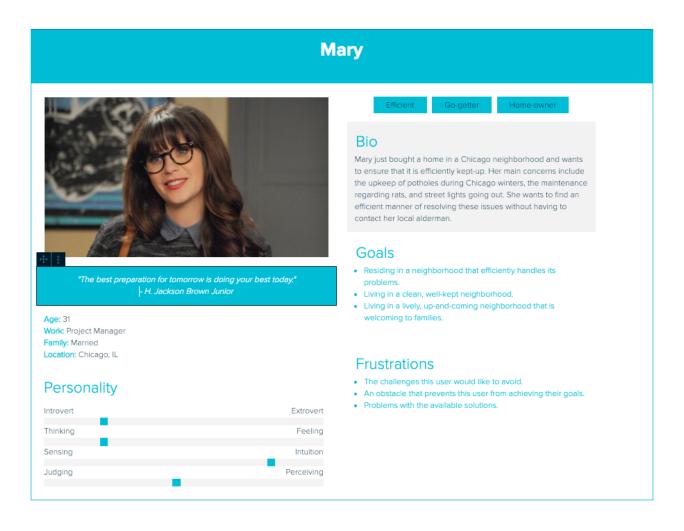
We began our user research by developing screener questions to ensure the people we interviewed were a good representation of the app's target audience. It is important to develop screeners in order to make sure the data gathered during interviews is valuable. Our focus on the screener questions was finding people who lived in the city and had a smartphone. Beyond the two main points, we wanted to look at whether or not someone rented or owned their apartment or home. We felt that people who owned their residence would be more likely to care about the future of the area as they have made a capital investment in the area. Our goal was to find people who are active in their community or looking for ways to become more active. The screener questions are in Appendix A.

After we developed our screener questions, we began the process of doing interviews. Our team completed six interviews in total, covering a range of people in the target audience. To record data for the interviews, we had the interview subjects sign an informed consent form allowing us to record audio. Recording audio was necessary so we could focus on observing the user and not writing down everything they said. The form also allowed the interview participant the opportunity to understand how long they would be needed and that they could leave at any time. One of the big focuses for the interview was observing the user interact with the app for the first time. Watching a first-time user interact with an interface offers many insights that designers may have overlooked. One of the focuses for our interview questions was seeing how well users could complete a key task. The first task we choose asked users to submit a service request. This is the fundamental goal of the app: provide users with a way to contact the city about specific non-emergency problems, so it was essential to ask the users to test this. Once the users had submitted a request, we wanted to explore the app's community aspects. We had the users see if they could find the map and see requests that had been sent in by other users. The informed consent document is in Appendix B.

Once we gathered all our interview data, we shifted focus to analyzing our findings. We created affinity diagrams to see how we could organize what we found and try to draw out common issues. After we created the diagrams, we made a Stormboard to organize our findings in a more visually organized way. Affinity diagrams are in Appendix C. Through our affinity mapping, we were able to focus our attention to the issues our user participants had in common. This process is a collaborative effort that allowed us to see some of the bigger picture trends that are hard to see when looking at individual interview notes.

Findings

To organize our findings, our group created user personas to represent our target audience. With the personas, we were able to create scenarios to help get an idea of how the users would be using the app. User personas allow us to create stories around users and get a more realistic idea of who would be using the app and for what reasons. According to Elizabeth Goodman in her book, *Observing the User Experience: A Practitioner's Guide to User Experience*, "by creating these characters and taking them through scenarios, you and your stakeholders can gain a sense of familiarity and empathy with your users" (Goodman 482). This sense of empathy is one of the key aspects of user experience design, so we wanted to ensure that the assumptions about what the user needed didn't overtake what the users actually needed. The scenarios allow us to communicate the way our user personas would use the app in the real world.



Cole





Age: 22 Work: Student Family: Single Location: Chicago, IL

Personality



Efficient Impatient Tech-savvy

Goals

- To be more immersed in his local neighborhood
- . To be an effective "Chicago resident"
- To effectively resolve common problems within his neighborhood with minimal effort

Frustrations

- · The challenges this user would like to avoid.
- · An obstacle that prevents this user from achieving their goals.
- · Problems with the available solutions.

Bio

Cole is originally from the suburbs and moved to Chicago for undergrad. He lives in an apartment building in northern Chicago, and has been negatively affected by maintenance issues in his neighborhood. These issues include potholes, un-shoveled sidewalks, street lights being out, and rats. Cole wants these issues to be resolved, but only recently became a Chicago resident and is unsure of what to do in order to address these problems. He also does not like spending too much time on one task and despises speaking on the phone, therefore the idea of calling the city in order to report a problem is not preferred.

Group Contributions

Each team member contributed to the project by conducting their two interviews, submitting their results, showing up to team meetings to write up the report, showing up to class to work on our Affinity Diagram and being available to make any changes to the document before submitting. In class, all of us worked on composing the screener questions to be sent out. Sumra posted the survey on a Facebook Babysitting Group page and Adam and Shelby sent the survey to individuals they knew. Also in class, we collected data from our interviews in order to make our Affinity Diagram. After creating our diagram, Sumra and Adam took photos of the diagram and added it on Google Drive. From there, Shelby created a stormboard so that it can be easily read and viewed for this document. Our entire team communicated through iMessage to schedule meetings and to make sure we are completing our work in the time frame we assigned. Our team decided to meet in person to complete the P2 report because this way we were able to collaborate more efficiently.

Appendix

A.Planning for User Interviews for Evaluation

Planning for User Interviews for Evaluation of CHI 311

Software product

1. Identify a target audience.

Behavioral criteria

We want to find people who do (or want to do) the following:

- Live in the city of Chicago
- Familiar with what services 311 offers
- People who are active in their community
- People who travel around the city, not just in their neighborhood

Technological profile

Are there important aspects the user's technology use (or non-use) that define our target audience?

- Can download an app from the app store
- Basic knowledge of a mobile device
- Can jump right in to a new app and is willing to explore and learn it
- Owns a smartphone

Demographics

What demographic characteristics are important?

- Chicago residents
- Adults 18+
- Restaurant/ Business owners
- Lives independently (not with their parents)
- 2. Find your audience. Brainstorm some ways you might find participants to interview.
 - Posting it in neighborhood online groups
 - Asking neighbors
 - Posting flyers on boards in Café's
 - Asking business owners/ managers
 - People we know who live in Chicago
 - DePaul students
 - Craigslist ad for people in Chicago
 - Find people looking to become more active in their community
 - People who have lived in the city for a long time
- **3. Create a screener.** What are some ways you might recruit participants to interview? Create a short survey to screen participants.

Question	Answers	Instructions
Are you willing to submit online forms for current city issues?	Yes, No	If no- terminate survey
Are you aware of issues 311 deals with?	Yes, No, 'Unsure, Please tell me a few examples'	Proceed with interview regardless of answer
Have you ever contacted the city of Chicago a service?	Yes, No	If yes, proceed with next question

If you answered the above question, how did you contact the city of Chicago for your service?	Phone Call, Online Request	Proceed with interview regardless of answer
Do you rent or own a home?	Yes, no	If yes, answer this question: 'If you answered the above question, have you ever had to contact the city?'
Are you a resident of Chicago?	Yes, No	If 'No', terminate survey
Do you own a smartphone?	Yes, No	If 'No', terminate survey

B.Informed Consent

Investigators: Adam Babin, Sumra Igbal, and Shelby Robinson

OVERVIEW AND PURPOSE: These interviews will provide information for researchers to learn about the users and the tasks they will perform with the CHI 311 App. The goal of this study is to gather information about how effective CHI 311 could be and how people would use it to report city issues.

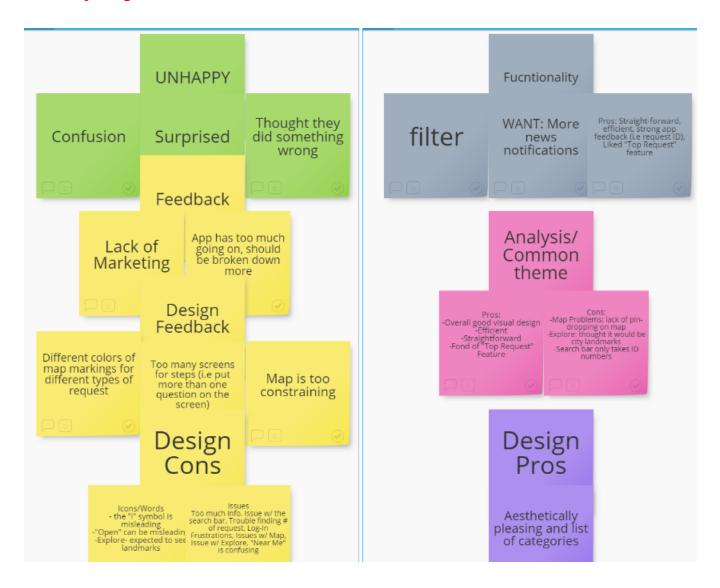
RISK, STRESS, OR DISCOMFORT: This study will not expose its participants to risk, stress, or discomfort beyond that normally encountered while conducting the interview.

OTHER INFORMATION: Once the results of these interviews have been tabulated and reported, the names of individual participants will be destroyed in order to ensure confidentiality. The principal investigators will retain data for no more than one year following the date on which the study is administered.

OPTION TO REFUSE PARTICIPATION: You are free to refuse to participate in the study and may withdraw at any time without penalty.

Signatures of Principal Investigators	Signatures of Principal Investigators
Date	
-	me, and I voluntarily consent to participate in it. I hav and that the investigators named above will answer about my rights.
Printed Name of Participant	Signature of Participant

C.Affinity Diagram



D.Interview Protocol

Intro	Hi, I'm a DePaul student part of a group studying how you interact with the CHI 311 application. We are interested in learning your perspective on the application. There are no right or wrong answers; I just want to hear what you have to say. I'd like to audio record this interview. Is that okay with you? If you are uncomfortable, please say something and we can stop at any time.
Warm-up and build rapport	 How long have you lived in the city of Chicago? have you lived in different neighborhoods or stayed in one place? What are some issues/problems you would like to see 311 fix/solve? Have you ever found yourself wanting to help fix something in your neighborhood but didn't know how?
General issues	 What do you expect out of an application geared toward city issues? Tell me about the last time you contacted the city about a service request? Tell me about the last time you noticed maintenance problems in the city? How much of a common occurrence in your area is this? When was the last time you wanted to do more to improve the quality of the area around you? What do you think the city could do to increase the quality of life for its residents?
Deep focus	 Create a profile Put in a service request for a 'Street light out complaint' in your neighborhood. Find out how to see how many 'Snow/Uncleared sidewalk' complaints there are in your area. Access the CTA map and figure out the nearest bus stop. Check to see if someone has already made a request for 'Snow/Uncleared sidewalk' in your area.
Retro-spe ctive	 How can CHI 311 fix these frustrations you have with the app? (Make sure to take note of interviewee's frustrations!!) Explain your thought process while you submitted a request? Were there any moments you were confused while submitting a request? What were some of the biggest struggles did you face while using the app? Which elements of the app did you find most useful? Have you ever seen an app or website do the same things as CHI 311?
Wrap-Up	Do you have any other thoughts, concerns, or questions about CHI 311? Thank you for participating!

E.Interview Notes

Adam's Interview Notes

Intro	Hi, I'm a DePaul student part of a group studying how you interact with the CHI 311 application. We are interested in learning your perspective on the application. There are no right or wrong answers; I just want to hear what you have to say. I'd like to audio record this interview. Is that okay with you? If you are uncomfortable, please say something and we can stop at any time.
Warm-up and build rapport	 How long have you lived in the city of Chicago? Around 3 years Have you lived in different neighborhoods or stayed in one place? Moved from Lincoln Park to Lakeview, but stayed in Lakeview the majority of the the time What are some issues/problems you would like to see 311 fix/solve? Have you ever found yourself wanting to help fix something in your neighborhood but didn't know how? Not really, I have grown used to seeing issues that need to be fixed There are a lot of problems that I consider part of the city that I just grew accustomed to
General	 What do you expect out of an application geared toward city issues? Efficiency, it should be a quick process. There should be a quick response time for these issues I'd expect it to have good location services; it should know where I am in the city Tell me about the last time you contacted the city about a service request? I haven't contacted the city about a service Tell me about the last time you noticed maintenance problems in the city? The last time I noticed a major maintenance problem was last month, I noticed an issue with the streetlights on our street. It was just one, but it had gone out for a few days and I didn't know when it was going to get fixed. It's pretty important for the lights to be working in my area especially when I come home late at night and it's dark outside How much of a common occurrence in your area is this? It is a pretty common occurrence but like I said I've grown used to seeing issues that need to be fixed When was the last time you wanted to do more to improve the quality of the area around you? What do you think the city could do to increase the quality of life for its residents?

	o I think the city should reach out to the people more. There should be increased communication between the city and residents about issues.
Deep focus	 Put in a service request for a 'Street light out complaint' in your neighborhood. I like how straightforward the process is I never got stuck or was lost on where to go Simple I like the location part where the app asks for your address and completes it once you've typed enough of it in I like how you can choose to submit the request anonymously, too many apps have you create an account to Find out how to see how many 'Snow/Uncleared sidewalk' complaints there are in your area. Explore is a great feature, it's really easy to use and see where all the other requests come from Check to see if someone has already made a request for 'Snow/Uncleared sidewalk' in your area. Same as above
Retro-spe ctive	 How can CHI 311 fix these frustrations you have with the app? (Make sure to take note of interviewee's frustrations!!) The map doesn't move like it appears it should It should work like Uber or Google Maps where you can click an area and get the address. I don't like how the map doesn't move Explain your thought process while you submitted a request? Were there any moments you were confused while submitting a request? It was a simple process I liked the step by step way of submitting a request Which elements of the app did you find most useful? The 'Top Requests' feature is really interesting, I like seeing what has been requested already. Have you ever seen an app or website do the same things as CHI 311? No
Wrap-Up	 Do you have any other thoughts, concerns, or questions about CHI 311? Thank you for participating!

Intro

Hi, I'm a DePaul student part of a group studying how you interact with the CHI 311 application. We are interested in learning your perspective on the application. There are no right or wrong answers; I just want to hear what you have to say. I'd like to audio record this interview. Is that okay with you? If you are uncomfortable, please say something and we can stop at any time.

Warm-up • How long have you lived in the city of Chicago? and build o 2.5 years rapport have you lived in different neighborhoods or stayed in one place? o Moved around two neighborhoods What are some issues/problems you would like to see 311 fix/solve? General maintenance issues and other non-emergency issues Have you ever found yourself wanting to help fix something in your neighborhood but didn't know how? No, I have used 311 in the past. I called them for an incident that I didn't think was worth calling 911 General What do you expect out of an application geared toward city issues? issues Tailored hotline where you pick a certain category Expect to be similar to the CTA app Tell me about the last time you contacted the city about a service request? Last year I saw someone who I thought looked suspicious holding what I thought was a weapon going into a bar so I called the 311 hotline and they said they'd send a squad car Tell me about the last time you noticed maintenance problems in the city? O How much of a common occurrence in your area is this? 3 weeks ago, I saw a light post down but it already had a sign saying it was being worked on Most common would probably be on the CTA When was the last time you wanted to do more to improve the quality of the area around you? What do you think the city could do to increase the quality of life for its residents? No, there are always things I think could be fixed up. But I don't think that there are too many things to be done about a lot of them Deep Put in a service request for a 'Street light out complaint' in your neighborhood. focus Clicked 'create request' and entered address The address auto-completed which i like Chose the 'submit anonymously' option when submitting the requested Submitted the request successfully in just 1-2 minutes Find out how to see how many 'Snow/Uncleared sidewalk' complaints there are in vour area. First clicked on the tab with the name Tried to click 'Open' on the screen where the request had already been Didn't realize he could exit out of the request screen Confused by the 'Explore' button and didn't realize what it did at first Access the CTA map and figure out the nearest bus stop. Thought the 'Near me' for the CTA would be a place to submit requests pertaining to the CTA I.e. a service request for a broken seat on the red line

Check to see if someone has already made a request for 'Snow/Uncleared sidewalk' in your area. Didn't expect the information to exist on the app Thought it would be considered confidential/sensitive information Clicked on the 'Near me' option by the CTA map to open requests Was confused as to whether he could submit requests about the CTA Retro-spe How can CHI 311 fix these frustrations you have with the app? (Make sure to ctive take note of interviewee's frustrations!!) Liked the fact that an app doesn't burden a city employee like a phone call does. When calling 311, you are taking up the time of a city employee while the app has requests that can be addressed as the city has time Explain your thought process while you submitted a request? Were there any moments you were confused while submitting a request? The request was simple, the process was not difficult at all The three main tabs at the bottom are all about requests so it was clear to me what to do What were some of the biggest struggles did you face while using the app? The 'Near me' option was confusing. Thought it would be more requests, because everything else on the app is about submitting requests why wouldn't the CTA part I think it's a nice addition, but it is confusing especially because other apps have this as a feature Which elements of the app did you find most useful? Visual design, logo, the layout is professional It had a simple way to submit requests Like the Request ID that is shown after the request is submitted, gave me confidence that the request would be handled by the city Have you ever seen an app or website do the same things as CHI 311? No, I've never tried to download a 311 app before Wrap-Up Do you have any other thoughts, concerns, or questions about CHI 311? Thank you for participating!

Shelby's Interview Notes

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Intro	Hi, I'm a DePaul student part of a group studying how you interact with the CHI 311 application. We are interested in learning your perspective on the application. There are no right or wrong answers; I just want to hear what you have to say. I'd like to audio record this interview. Is that okay with you? If you are uncomfortable, please say something and we can stop at any time. Yes
Warm-up and build rapport	 How long have you lived in the city of Chicago? [01:52] Three and a half years. have you lived in different neighborhoods or stayed in one place? Um, I've lived in different neighborhoods. Um, two of them, but they both been on the north side of Chicago. What neighborhoods are those? Lincoln Park and uptown. What are some issues/problems you would like to see 311 fix/solve? [02:18] the 7-11 by my apartment. They never shovel their damn snow, ever. I read it recently in my aldermen's email newsletter that I can call 311 on them, but like, I dunno, I just don't want to, whenever I'm reminded of it is when I'm outside and I don't want to talk on the phone when I'm outside. So, um, I don't, I've never, is it okay I've never used the app before? (Yes). So I've never used the APP, but it would be great if I could report the 7-11 on the corner of Broadway for never shoveling their sidewalks. They shovel their parking lot. I dunno, we just live by like a retirement home and like an assisted living home, living home with like people with disabilities and knowing that they don't shovel their snow. Have you ever found yourself wanting to help fix something in your neighborhood but didn't know how? [03:12] Yeah, I mean there's a lot of dog poop in my neighborhood. I, I don't know what can be done about that, but like I wish there could be something done about it. And there's a few like properties that, um, cause I've been in the neighborhood for like two, two years, two and a half years. Um, so I just sort of know the vibe at this point. Um, there are a few properties that vacant and there's a lot of litter around them. Uh, I wish that could be fixed. [03:44] The sidewalks are uneven, so when it rains, a lot of huge, huge, huge puddles. Like ones that I can't even walk through, so I have to go out onto the street and like walk around and that's annoying. And I wish I could fix that. [04:06] She

side.

General issues

- What do you expect out of an application geared toward city issues?
 - [04:34] Expected it to be usable. Like I come from like a multilingual families, so, um, not only usable for like me, a native English speaker, but somebody like my grandma who may not speak English as well because no matter what, we all have the same problems. Um, and if it could be usable by those different groups, I think that eliminates the barriers that it takes to report these problems or whatever else. Um, it'd be cool to, am I speaking too fast? Okay. It'd be cool to learn about city resources. Like I recycle, but I don't actually know how to recycle. So if there was like a place where I know for sure where I'm taking my recycling is like proper and actually being recycled, then that would be cool. Um, the question is what would I expect out of this APP? Out of the application. (Shelby-Not just CHI-311, but like if the application was made for city issues.) Oh, okay. [05:41] I mean I would want them to look nice, but my expectation is that they won't. Like the design would be nice. But my expectation for like government sponsored applications, you know, like Cyber Drive Illinois or um, I dunno, like the Illinois government website. Those are all fugly. (Shelby- [06:03] How do you think they could fix that?) I mean I would want them to look nice, but my expectation is that they won't. Like the design would be nice. But my expectation for like government sponsored applications, you know, like Cyber Drive Illinois or um, I dunno, like the Illinois government website. Those are all fugly. How do you think they could fix that? They can do more user testing. I guess I'm getting more into like usability problems. I even think about like the Ventra app is not exactly like a city app, but it has a lot to do with the city and there's a lot of usability problems with that one. it's really buggy, when I want to add money to my Ventra card. I can only do it in increments of five, which is infuriating. When I like went to look up certain trains that go back to the suburbs and I'm trying to search for trains that are like after 5:00 PM on a different day, it's like I have to change the time first and then go back and change the day. And I think that's dumb and I wish that was different too. Um, I think it would be cool if also like on my home screen I could just save different components of the APP that I might need reminders up, but then that's more for like public. Um, yeah, I would expect it to be an iPhone, android, and even windows phones if that's possible. Just because if you choose only one operating system, you basically choose your audience. I think it'd be cool to have like sharing capabilities. Again, like if I wanted to share something, I wouldn't share anything with my friends. But if I wanted to share something with like my family and be like, grandma, just go here and stop calling the freaking people like, you know, stop bothering them on the line. It's fine. You can just go to this thing
- Tell me about the last time you contacted the city about a service request?
- Tell me about the last time you noticed maintenance problems in the city?

- o [10:00] But um, I mean in my neighborhood they're pretty good about like dumpsters and keeping them out of the way. Like I was in west loop a few weeks ago and I noticed that even if I was just walking down the like down like a busy street or pedestrians walking really often there are just dumpsters lining the street, which is weird because it's like usually that kind of stuff is an alleys or they're like, if further out than I feel like I'm going to be New York. Um, but in Chicago, I mean, like I praise the city for, they keep trash out of the way. From the most part. It was surprising to me when I saw in West sleep all that trash out there.
- How much of a common occurrence in your area is this?
- When was the last time you wanted to do more to improve the quality of the area around you?
 - o [08:20] I guess when I was at the beach, I was on Montrose beach. It was dirty, so I wanted to, I just want it to make it clean. I mean everyday when I walk around my sidewalk and see like dog poop dog. Im just like please like clean it up. Oh, sometimes our trashes, like on the streets, I mean in general they're pretty good about emptying them out. But particularly after like, like when we had that like polar vortex thing or like bad weather, it will pile up super high and then the trash would fall everywhere around it. That's pretty gross. I would love for that to be changed. Um, more consistently salted sidewalks after it snows and then, you know, less puddles, less potholes maybe. I hate Broadway street. I hate going south on Parkway Street. It's like such a big thing. But I wish those streets were wider. So it's like either that their wider or they stop allowing park the street parking because it like, it essentially creates one lane when there street parking and it's a narrow street.
- What do you think the city could do to increase the quality of life for its residents?
 - o [11:10] Good question. I mean, one thing that I'm bothered by often is at night I live by a lot of parking lots and a lot of people's car alarms are going off. There's a study out there that says there's not even a point to have car alarms that don't do anything unless they're in front of your house. But like I don't understand why you have your car alarm on when you're not even going to care. Like it will be on for like eight hours. So if there could be some kind of rule that allowed me to like throw a chair, I think God damn car alarm is on in front of my apartment, that'd be great.

Deep focus

- Create a profile
- Put in a service request for a 'Street light out complaint' in your neighborhood.
 - o [12:18] So I see that it's on the top request. I'm skipping, I like the type that they chosen. So I'm just reading, I'm report a street light outage. All right, that looks like it applies to me. Um, this, I makes me think that I can click on it. Oh, it ca. Okay. Estimated completion times. That's not really what I thought that, that button would do. I, I thought it would be more about the service level agreement, but it's nice. I mean

they have room underneath to put that there. So I don't really know why this is necessary and it's weird that I can't like, some apps will let you click out of um, dialogue boxes like this, but I have to press okay. But I will go ahead and hit request. Ooh. Okay. So I see the map, I see that it's Geo located to where I am right now, which is pretty cool. Um, and I like these steps down here so I know it's not going to be super long, but up here I'm going to just type in my address. Tap the map shows more precise location, whatever. Um, it's where I want it to be. I don't know what to do now. Tap the map. Oh, okay. I thought I could drag this, but I can't, but so it looks like I just have to drop a pin. I guess it's like what if I know there's one by my apartment, but it's like down the street. What am I supposed to do? Cause if I don't remember the addresses like of places over here. More to the east. Are All the street lights out in my block? Do I just said yes just because this is part of the test? yeah. Okay. That was easy. All right. Sometimes the checks. No, no, that's fine. I'm trying to think when I, when I see check marks, I think that you can pick more than one and more of like a radio button of just a filled in circle would've made more there. But this still makes sense because I like click on it and it occurs and it's not like on a desktop. Okay. Is the light located in my alley or my street? This is easy. I mean it's nice that these are like separated so I can see the amount of stuff, but I don't see any reason why all of these questions since they're very short and concise, aren't just stacked on top of each other. All right. Submit. [15:51] That's, that's really easy. Like, I like that. That's pretty, and I like this Um, this submit anonymously. And this dialogue box that prompts me to make sure that I want to cancel is helpful too. Just in case I hit that by accident, I'm going to cancel it. All right. That's not too bad. Okay.

- Find out how to see how many 'Snow/Uncleared sidewalk' complaints there are in your area.
 - [16:29] Complaints. Um, so I don't see anything up here, so I go down to this navigation bar, um, for complaints. I mean, I'm looking for something that maybe might say like message board or stats or, um, unclear streets. My Chicago. [16:56] All right. So there's nothing that tells me that I can look at the amount of complaints submitted by other people. Like the, the impression that gives me right now, it's just like an individual view. Like we're only, I can submit things. So I'm just going to go through these, um, these tab buttons and see what's going on. Explore maybe. Okay. That's not what I thought it was. I was expecting maybe exploring complaints or exploring like different aspects of the APP. Um, I did not know that this APP would allow me to explore landmarks in Chicago. That's kind of cool, but I don't think it's totally necessary. I like, it's nothing that, I mean this is powered by Google maps. Do you think these are landmarks? I do. They look like landmarks. Maybe I'm going to click them. Oh No, no, no. They are actually. Oh, okay. So when I hear the word explore, I think of like exploring the city to like look at things. But instead it looks like different complaints that are around the city. All right. I guess this is where you

can do it, right? I don't know if I can, that's specific tasks. Yeah, I dunno, if I could like filter by complaints like that, would, that might be helpful but all right, if I just wanted to see all right. It's Kinda cool. It's cool cause it's like I know I'm not alone. Let me see what's like up in my neighborhood. -Access the CTA map and figure out the nearest bus stop. Check to see if someone has already made a request for 'Snow/Uncleared sidewalk' in your area. Retro-spe How can CHI 311 fix these frustrations you have with the app? (Make sure to ctive take note of interviewee's frustrations!!) [19:00] It was, it was really the label. I mean I know the icon is trying to denote something different because it's a pin plus the x at the bottom. And that makes me think that's maybe not traditional for like, um, like I look at our landmarks thing, um, but I feel like it, I dunno like a dialogue like, uh, this, this like text box here at first can say, look at, look at what's going on in your city. Like, look at where the, where things have been submitted. Um, and then what was the first task? [19:34] That was pretty easy, right? First task. Yeah. That was, um, putting us service requests. Okay. So no issues with that. No issues in doing that. I liked that it was right on top as like a top request thing that I could find easily. Once I started to tapping around, it was pretty apparent what it was. So it's not too bad. I sorta like this. Yeah. Explain your thought process while you submitted a request? Were there any moments you were confused while submitting a request? Nope What were some of the biggest struggles did you face while using the app? [20:18] Like in create, I think that maybe in create, I can create like a request and then your request, it's like, well then what do I do?[20:25] Um, and then, you know, home is home, whatever. So yeah, so create requests and I guess, Oh, okay, request is my requests. So some, maybe a little bit more description. Which elements of the app did you find most useful? o [20:46] Um, the homepage. I like this top requests part of requests. Yeah. I like this near me. Um, and like the search bars seem to function pretty well for what I need. Have you ever seen an app or website do the same things as CHI 311? o [21:06] No, not one that is like connected to the city as much. Wrap-Up Do you have any other thoughts, concerns, or questions about CHI 311? Thank you for participating!

DANIELLE: 12

Intro

Hi, I'm a DePaul student part of a group studying how you interact with the CHI 311 application. We are interested in learning your perspective on the application. There are no right or wrong answers; I just want to hear what you have to say. I'd like to audio record this interview. **Is that okay with you?** If you are uncomfortable, please say something and we can stop at any time.

[01:41] Yes.

Warm-up and build rapport

- How long have you lived in the city of Chicago?
 - o [<u>01:55</u>] two years
- have you lived in different neighborhoods or stayed in one place?
 - o [02:10] south loop
- What are some issues/problems you would like to see 311 fix/solve?
 - o [02:22] What does 311 do? (Shelby- [02:25] They handle nonemergency issues in the city- like potholes, street lights, individuals that are acting questionably on the street.) [02:38] The trash especially right by like on the sidewalks, especially by like the State & Roosevelt, I don't know if I should be giving specifics- (Shelby-no it's fine) -like the State & Roosevelt section is like, you know, there's trash. Um, I think they're doing a great job right now, you know, with officers patrolling. But I don't know if that's 311 or not.
- Have you ever found yourself wanting to help fix something in your neighborhood but didn't know how?
 - o [03:20] Okay, so picking up the trash, but then maybe like on, on the west side of State Street, north of Roosevelt, like during the summertime, the bushes and stuff get a little crazy, like out of control and no one really, and they're not just bushes, they're like wild flowers. It's just not like kept. Yeah. (Shelby-It's just not kept) I meant to also say there's like a sidewalk that I usually take under, like a bridge and that wasn't shoveled or iced. And I was like, what? Because a lot of people use us to go under the bridge because you can't go over it. So for pedestrians, but I don't know if that's what you want to know, (Shelby-There's no right or wrong answer.) Okay. (Shelby-Okay.)

General issues

- What do you expect out of an application geared toward city issues?
 - [04:16] What's considered city issues? [04:21] Shelby- the city camera lights, how many police officers you see on the street. Like anything that like could go wrong in the city. [04:30] And what do I expect from an APP? Yeah. Yeah, if I had, if there was an app where I could report stuff or just like comment on stuff or just like make a, okay. Like say if there was like a feed and I just say, okay, Hey, stay in Roosevelt, there's this going on. Or Hey, there's been a lot of this going on. Or [04:56] um, yeah. [05:02] Or like say I never seen rats, but what if there was a rat problem or just like, I noticed there's like rats, so it'd be great. So yeah, maybe like a, a feed where you could just post and then you kind of post your general location or you want to post like specific intersections. Um,

that could be a thing. Maybe if there was notifications, but I mean, yeah. Yeah. I mean there's already apps like neighborhood places where it's like your neighborhood area. So it's like, hey, someone stole my this. But like maybe if there was a general thing and then like you had just say, okay, you know how like DePaul has those notifications out of just like, hey, someone got robbed, Blah Blah, blah blah. What does that was like, you kind of put like your designated area south loop or you know, Edgewater or whatever and you get those notifications of like, Hey, this is going on. (Shelby-so when like either it's like anything going on or like something like particular, meaning of that like if there was like a streetlight was out on state and Roosevelt, is that the type of notification you were thinking about?) More emergency, you know, robberies or stuff, emergency type notification. There's road closures or if there's a fire and so this road is closed or um, the bears game, I live, I live right there at the corner. So knowing that it's like, okay, you know the bears game is coming out or it's going to be packed today cause it's a bears game, like crap. Okay. Good to know. Not to go outside or take the other way. So. Okay.

- Tell me about the last time you contacted the city about a service request? o [06:42] I've never, I didn't know I could do that.
- Tell me about the last time you noticed maintenance problems in the city?
 - O How much of a common occurrence in your area is this?
 - [07:01] What does maintenance problems? (Shelby-Trash, sewer wasn't like collecting water.) Well, I mean like if you want to talk about like flooding or something. Um, right here in front of the DePaul school over by the CDM, it's like really hard. Like when the, when the snow is like melted, it's like puddles and it's like, you think that would go somewhere, especially since it's like a heavy, like walking, it's like right there in the intersection where people walk. Right there in Wabash and Jackson. (Shelby-So for like the puddles, how much of a common occurrence in your area?) Seasonal.
- When was the last time you wanted to do more to improve the quality of the area around you?
 - [08:04] I mean, thinking about it, I always want to just be like, oh man, if I had like a garbage picker upper like one of those little claw things and I had a bag, I could just like boop, boop, boop. I think about that a lot, but I don't actually do it. Or like I think about how like, and this is weird, it's a weird idea, but like, okay, we give the homeless people those things and a garbage bag and for every like bag of garbage they get like a dollar or \$5 or whatever. That'd be cool. Cause then it's an incentive for them to clean up what they're already doing. But I mean, I dunno, I dunno. That was just like, yeah. So how, how often do I think about it? Um, whenever I see trash. So like maybe like once every two weeks. That's a thing. So rarely biweekly.
- What do you think the city could do to increase the quality of life for its residents?

o [08:54] Wow, they do. I feel like they do a lot of patrols. The quality of, I mean I guess just like helping the homeless, but is that really like, that's being mean because then I'm saying, well, "the homeless makes me uncomfortable and like my life would be better if the homeless running around." So do something about the homeless people. But that's not what you should say. You should be like, you know, try and try and help the homeless, get them to more shelters or you're not, you know, sitting next to a stinky people on the train. Cleaning the trains. I guess those, those main, and I think they do, but like do it more often or cleaning like the stations, especially the outside stations. But they do that. But I feel like they could do it more. (Shelby-So just the outside or like and inside the trains. Well no like the, you said the station.) So like when I say outside stations, I mean more just like the ones above the tracks as well as the ones underground. But like not outside like on the actual like sidewalk but more like you know the platforms.

Deep focus

• Create a profile

- o [18:15] So I'll go back to the home page. Um, and at the bottom is just says get started. Log into, create an account to get information, tailor to your neighborhood. Sweet. Get started. Create account. Type in my name. Danielle. That was the first name. Next Bar, last name. Morin. Email. I'll type in my, my junk email if that's okay. Password, 10 characters or more. Hm. Hm. Hm. Hm. Hm. Hm. I like that there's a button with the little eyeball that shows me like, okay, well maybe I'm just a terrible user. Oh okay. Sometimes like especially on the, on your phone, you never really know, I'm confirming my iPhone or my password. Do I have to put all this in. Oh all of this is optional. Okay. Press create account, create an account. Password must be at least here. Okay. Thank you for signing up your email for a link to verify your account. Then come back here in Login. Okay. So I did it.
- Put in a service request for a 'Street light out complaint' in your neighborhood.
 - So feel free to like talk out loud what you're thinking. That helps me understand where you're at. So I'm going to ask you to put in a service request for a street light out a complaint in your neighborhood. Okay, well I see requests look up. So that's not it. Top request, garbage can, maintenance, rodent. Oh, requests, service requests. So maybe that, maybe that is the lookup. Okay. So I'm going to go to the request, look up and go to a streetlight. I'm going to type in streetlight just street light to see. Let's see how good. Okay. Well I'm trying to type in the t and the t is not working. Is that your phone or is it the APP? Um Oh. Did they give me a maximum. Oh, maybe I should be putting in numbers. Okay. Well request number. I don't have a request number, so that was a bad idea. So let me get outta here. Um, how do I get back? Okay. Um, top requests. Oh, streetlight out complaint. There it goes. I'm going to click that. I'm going to read it. [inaudible] complaint report. A street light outage on a residential service level agreement typically completed in 10 days. So, oh, I didn't know I could do actually do this. Okay, I'll click

this. Oh, oh, I guess I was just telling me what it's about. Okay. Then I'm going to create the request and then pick a location. Provide this, the address of your requests. It'd be really cool if this map was interactive. What your fingers that something, you know, I'm, I'm trying to move the map. Cause I'm used to maps. You know, you, you use your fingers to move around but I have to actually put the address in. So I'm going to put one Easter Jackson. I Dunno. Should they actually put one in? Yeah. Okay. Well I dunno. Any addresses the one I know is 14 east Jackson or if you want to do your home address. Well I'll do 14 east Jackson. I don't want no one come to my place. Yeah. And you can't even tap the map to show us more precise location. Oh, you tap what? Um, the map is not very responsive. I read the directions, have the map to show us more precise. Locate. I mean, oh, tap it like this. My bad. I'll just throw it right here. It meant like moving the dot. And I thought it meant zooming in. Moving this? No, this one. Oh, okay. Um, the red, the red marker. But when I, yeah, so I'm going to click next step. One of six. Damn. Okay. Are All the street lights on a new block? No. Next is the light located in your alley or street street? Next. Is the light completely off or does it go on and off? Let's go on and off. Next contact information. Submit an honest man anonymously. I like that option. Provide picture. If I had a picture I would next. Is this a real app? Yes. Dope.

- Find out how to see how many 'Snow/Uncleared sidewalk' complaints there are in your area.
 - Um, well it's not under top request like the first one was and I don't have a request number like, so I can't use the search bar at the top. Um, the near me is stuff that I don't really care about. Well, I'm going to create an account. I shouldn't have to do that. Can I explore? OooOOoh. Okay. So I click on explore it and it opens up a map. This map. I can't, oh, I like this map a lot. It's definitely something that, you know, it works like a normal map showed on like the other one did. I can zoom in and zoom out with my fingers. I'm zooming into my area and all these like red dots pop up, which I'm assuming means complaints that were made just by assumption. Um, I guess I'll just click on a complaint. Traffic signal out complaint. Okay. Ride sharing complaint. Okay. Streetlight out complaint. That was probably me. Another one that was probably probably me. Pothole in street complaint. Cool. So I'm just going to keep clicking on all these different ones. Okay. Again, the snow, slush and cleared the site. It might not even be in there, but I have to find it. Well it's if somebody you like sent to them so it might not, but that's the end of the task. Like that's cool.
- Access the CTA map and figure out the nearest bus stop.
 - o [16:09] Shelby-Okay, so the next one is from that screen. Since you're on explorer, can you access the CTA map and figuring out the nearest bus stop? Um, well since I'm on explorer, I saw earlier on the, I saw early on the homepage that it had like a CTA thing near me, so I'm going to go back to the homepage by clicking the home button at the bottom. Then looking at the homepage I see near me, I clicked the CTA button

and it takes me back to a different map or the same map, but with the red buttons I can zoom in. Ooh, okay. That's cool. That's good. Shelby-What are you able to see? That I can see those red dots and then if I click on the dots they tell me Jackson and state red line? The library. Van Buren Street, Brown, orange, pink line, so I can see like the different lines, the CTA lines that are worth near me.

- Check to see if someone has already made a request for 'Snow/Uncleared sidewalk' in your area.
 - [17:09] Shelby-we're going to change it to a streetlight out complaint in your area. From this page(homepage). I think I'll click on the request button at the bottom. Okay. That just shows me I'm not going to see your own requests. So I guess I just go back to the explore and the explore button takes me to a map. I click search here in my area. And I see all these dots pop up and I clicked on the dots to see if like, right. Is that what I'm supposed to do? Shelby-Check to see if someone has already made a request where a street light out complaint in your area. Yeah. And I found it. Yeah. Okay.

Retro-spe ctive

- How can CHI 311 fix these frustrations you have with the app? (Make sure to take note of interviewee's frustrations!!)
 - [20:23] When I think and I said this, um, when placing the placing the complaint, if I was able to move the map like I could. But then if you think about it, then it just, it allows people to kind of like place complaints randomly if they wanted to, to abuse the system, like to place a complaint in your area, you'd have to know the address, which is, you know, for homeowners or renters, they know their own address versus, you know, me if I wanted to place it. Well, I mean, right. Do you see my point? Like then they, like if I had the option to just scroll around anywhere without putting an address in, I could place a complaint anywhere. But then again, and I'm a very flip floppy person. Say you were out on the town and you notice that hey, this trash we picked up or hey, this light is out or this street light is out. You know, you really don't know where you are to put in an address. Having that option to roam around. So it's, it varies. It depends, the way it is right now, I don't hate it. I just, I was just commenting and how the map system wasn't what I was used to. Um, but it, I mean the maps and the other place were, okay, So just a scrolling around the map, like be able to move the map around. Yes. Okay.
 - o [21:47] I mean the top search bar, I thought I could like search, you know, the type of complaint I wanted to put in, but it needed numbers. So if we could take both that'd be cool. So I could just Google search or if I could just search bar street light out and then it brings me, you know complaint options like- streetlight out, street light down or you know, crossing laid out or something.
 - o [22:14] Shelby-So how can CHI-311 fix these frustrations you have with the map? So you said like with the map, just to be able to scroll around?

So if it movable, yeah. Picked up you fix for you. And then the search bar, you said taking both words and numbers into account? Yeah. Explain your thought process while you submitted a request? Were there any moments you were confused while submitting a request? [22:41] No, very straight forward. What were some of the biggest struggles did you face while using the app? [22:55] Oh, you know what if the dots, you know what it would, um, if the dots were different colors for different complaints, you know, if the snow plow was blue but the lights down were yellow, then I could tell because I was looking for the snow, the snow being plowed, and I was just clicking through them, that means I'd have to click through like 20 of them to try and find if someone complained about snow plow. Um, so if they oh and then you could, you could then have a filter on your map to then just be like, okay, only show me the snowplow complaints, you know, and then they're all the, all the blue ones stay on, but all the other colors are closed down. So being able to filter or be able to distinguish them on just like a whole map, because there were all just red dots. They were all just red marker. So if the markers were in different color, that'd be nice. Which elements of the app did you find most useful? [23:52] the easiness of submitting a request complaint. [23:59] The CTA thing was pretty cool. [24:04] It just looked nice. Overall, very intuitive and easy to use Have you ever seen an app or website do the same things as CHI 311? Wrap-Up Do you have any other thoughts, concerns, or questions about CHI 311? No. Thank you for participating!

Sumra's Interview Notes

ľ	1	:	Saarah	

Intro	Hi, I'm a DePaul student part of a group studying how you interact with the CHI 311 application. We are interested in learning your perspective on the application. There are no right or wrong answers; I just want to hear what you have to say. I'd like to audio record this interview. Is that okay with you? If you are uncomfortable, please say something and we can stop at any time.
Warm-up and build rapport	 How long have you lived in the city of Chicago? 10 and a half years. have you lived in different neighborhoods or stayed in one place? I've lived in different neighborhoods What are some issues/problems you would like to see 311 fix/solve? Parking issues parking zone issues Street repaving potholes Snow removal / snow plowing Have you ever found yourself wanting to help fix something in your neighborhood but didn't know how?
General	 What do you expect out of an application geared toward city issues? Easy to follow for everybody regardless of how involved people are in the government / city easy to understand language Follow-up process if a request is made, a follow-up should occur with the citizen Categories streets vs parking vs snow removal to keep requests more organized; if a request is made, the right person should receive it Tell me about the last time you contacted the city about a service request? Contacted alderman via email prior to moving to a new neighborhood and becoming a new home owner Asked about improvements on the streets she would live on and what the process would be if she were to move to that neighborhood and made requests Good experience because a response was given rather quickly, however, the improvements have not been made Tell me about the last time you noticed maintenance problems in the city? Everyday How much of a common occurrence in your area is this? Street issues; prolonged construction going on on local street Dislikes that certain areas have more investment to them and streets are clean / paved When was the last time you wanted to do more to improve the quality of the area around you? When was the last time you wanted to do more to improve the quality of the area around you?

What do you think the city could do to increase the quality of life for its residents? o infrastructure projects that target certain demographics; "bike lanes" "kid friendly areas in downtown" are nice for the city to implement o CTA contains old carts, population boomed in certain areas and trains are too packed -- safety hazard Deep Create a profile focus Effectively made profile without having issues Put in a service request for a 'Street light out complaint' in your neighborhood. Took 2-3 minutes to figure out how to enter request for street light out complaint Find out how to see how many 'Snow/Uncleared sidewalk' complaints there are in your area. • Was unable to find this feature within the app; took 3-5 minutes looking, but ultimately couldn't find it Kept going on "Explore" page User profile was logged out due to application fault Access the CTA map and figure out the nearest bus stop. o Easily found it. Merchandise Mart was nearest L. Check to see if someone has already made a request for 'Snow/Uncleared sidewalk' in your area. Unable to find this feature Retro-spe How can CHI 311 fix these frustrations you have with the app? (Make sure to ctive take note of interviewee's frustrations!!) o Primary issue was finding "previous requests that have been made"-wasn't sure if she should "go through snow removal requests and then my neighborhood? or go through my neighborhood and then snow removal requests?" Explain your thought process while you submitted a request? Pretty straightforward; homepage -- easy to find, app walked her through Liked that the app offered anonymous request feature • Were there any moments you were confused while submitting a request? What were some of the biggest struggles did you face while using the app? Too much content in one application / too complicated for one app Which elements of the app did you find most useful? o Tracking request in requests section Have you ever seen an app or website do the same things as CHI 311? o No, but user hasn't "looked" for an application like this either. User is familiar with Chicago 311 but this app was unknown Would you download this application onto your phone and utilize it? • Yes! As a new homeowner, I like that this app is available Wrap-Up Do you have any other thoughts, concerns, or questions about CHI 311? If there were fewer options, the app would be simpler to use

- App features overlap with many existing applications -- CTA locator is unnecessary and overlaps with Google Maps
- o Too many options in one app
- Thank you for participating!

Sumra Interview 2: Michelle Intro Hi, I'm a DePaul student part of a group studying how you interact with the CHI 311 application. We are interested in learning your perspective on the application. There are no right or wrong answers; I just want to hear what you have to say. I'd like to audio record this interview. Is that okay with you? If you are uncomfortable, please say something and we can stop at any time. Warm-up How long have you lived in the city of Chicago? and build o Entire life, 25 years rapport have you lived in different neighborhoods or stayed in one place? Different neighborhoods What are some issues/problems you would like to see 311 fix/solve? Too dark in many neighborhoods Potholes Violence o Litter / Garbage o Prostitutes on streets Drug addicts roaming streets Pollution Have you ever found yourself wanting to help fix something in your neighborhood but didn't know how? o Picked up garbage "here and there" o Interviewee doesn't know how to help solve these problems General What do you expect out of an application geared toward city issues? issues O Submit Issues / get response back in timely manner with steps / updates on status on order o Self solutions to help resolve problems more quickly o Dates of possible resolutions Tell me about the last time you contacted the city about a service request? Never contacted city of Chicago Tell me about the last time you noticed maintenance problems in the city? o Today; streets are bad and tons of construction going on How much of a common occurrence in your area is this? • Very common; entire street by interviewee's house is messed up Nails on streets o Prostitution common in interviewee's neighborhood

Drug addicts in streets

around you?

When was the last time you wanted to do more to improve the quality of the area

	 What do you think the city could do to increase the quality of life for its residents? Fix things in timely manner not focusing on one problem for too long Keeping people updated when resolving a problem
Deep focus	 Create a profile User did not struggle with doing this request Put in a service request for a 'Street light out complaint' in your neighborhood. User easily made request without struggling Find out how to see how many 'Snow/Uncleared sidewalk' complaints there are in your area. User unable to find # of snow / uncleared sidewalk complaints First navigated to "Requests" but requests page did not list number of snow / uncleared sidewalk complaints Access the CTA map and figure out the nearest bus stop. User easily found CTA map / nearest bus stop Check to see if someone has already made a request for 'Snow/Uncleared sidewalk' in your area. User took time with this task Kept navigating through Explore tab of the app Found the "snow / uncleared sidewalk" by searching for "snow / uncleared sidewalk" in "Requests" tab of the app
Retro-spe ctive	 How can CHI 311 fix these frustrations you have with the app? (Make sure to take note of interviewee's frustrations!!) Log-in frustrations Elaborate more on "explore" tab, too vague / general Explain your thought process while you submitted a request? Straightforward → "create" option based on category; Were there any moments you were confused while submitting a request? No, user thought that submitting requests was easy and straightforward What were some of the biggest struggles you faced while using the app? Not knowing what "explore" meant; login frustrations Which elements of the app did you find most useful? different types of requests that users can submit variety of options liked the fact that this type of app even exists more efficient manner of handling problems in the city Have you ever seen an app or website do the same things as CHI 311? No
Wrap-Up	 Do you have any other thoughts, concerns, or questions about CHI 311? This app should be marketed more user was unknown that an application like this even existed user was interested in downloaded this application onto her phone post-interview Thank you for participating!