

# **Human-Computer Interaction**

Res

Final Report

Group - 404 Error

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## Project Summary

“We've started by identifying a phenomenon that technology could intervene in: students generally have no school-based social network when they start college. But what's the problem? We want to make the process of forming a social network in college...easier.”

We were tasked with identifying a problem faced by college students related to the lack and difficulty of social networking in this environment. Our first step was to identify a particular group amongst Montclair State University students who had a problem with social networking. Initially we concluded that introverts were an obvious group and further narrowed it down to introverted freshmen or those in their first year on this campus, however many of our solutions were not solving the issue for introverted people but rather extroverted people who had difficulty establishing relationship or finding the right manner to network. For our project we decided to stick with extroverted students who have to juggle time for attending events with their friends.

### **Our problem statement was:**

“As college students, one of the biggest issues is struggling with time management; especially freshmen with heavy schedules and minimal free time. Since college is a new experience for them, freshman typically have a tough time balancing school, work, and a social life. Although, many of these freshman students in particular could be social; due to non-matching schedules with their friends, many opportunities to spend time are cancelled or missed out.”

We created three personas with names: James, Jenna, and Maria. These three personas shows realistic portrayals of typical users to help us stay grounded and have a tangible idea of what we were doing. Through iteration we established the best versions of these personas. We constructed a day in the life story for our persona to identify where exactly our intervention was needed.

We realized early on that it'd be impossible to reorganize people's schedules to make them available for events. Everyone is burdened with busy schedules in college and nobody wants to waste their time at a bad party with lame people. We figured we could take the guess work out of finding worthwhile events by giving students the ability to meet other attendees before committing to an event. Our unique value proposition is the ability to plan and interact with other event-goers before an event (create groups of people to go with), during an event (live chat, DMs and stories), and after an event (add new friends to group and plan for the next one).

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## Understanding the Problem Space: Semi-structured Interviews

Interviews were conducted in order to identify common issues related to building a social network on campus. In an effort to develop solutions, interviews help designers to isolate and empathize with problems that people are experiencing. From these interviews, a pattern emerges that forms the basis of a problem statement.

We began the procedure by creating an outline with general questions. These questions helped us stay on task and made sure the information we retrieve from our interviews was something that helped us determine how they went about socializing. When the interview was taking place we would have one of our group member start the conversation, and eventually other members would jump in and out accordingly. The interviews were conducted by Mark, Parth, and Eli but Scott and Nick jumped in and out with questions of their own to make the interviewee feel comfortable and make the interview feel more like a conversation.

Our first interviewee was Brianna.

- Brianna was a girl that Parth met at the bus stop on his way home. Parth and Brianna knew each other since the start of the semester.

Our second interview was conducted by Eli to his freshman friend Roy.

- Roy is a friend of Eli from his high-school. During the week, Eli provides Roy with ride home incase Roy's bus was off schedule.

Our final interviewee was coordinated by Mark to his sorority friend Matt.

- Mark had been friends with Matt since the start of his college career. They met each other at a sorority meeting and became friends ever since.

Some of the questions that we included in our outline:

- ❖ Why did you come to Montclair State University?
- ❖ How is your day going?
- ❖ How often do you use social media?
- ❖ Have you been in contact with your high-school friends?
- ❖ Are you part of any clubs or sport groups on campus?
- ❖ Are you a conversation starter or let others start first?
- ❖ How has the ability to make connections changed?

From our data we found these denominators:

- ❑ Once students establish a group of friends they tend to depend on them and feel as they will always be there for them

- ❑ Students like the ease of communication of social media but find personal relationships more fulfilling
  - ❑ Students at times had difficulty finding the best way to make the first move on a connection with other students.
  - ❑ Once the first step was taken, students usually felt free to open up and create bonds.
  - ❑ Students typically used a common interest as the topic of an establishing conversation
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## Identifying a Target Demographic and Problem Statement

After we finished our interviews and came up with our findings on how students go on about socializing at a campus environment, the next step was to come up with a target demographic.

Our target demographic for this application is freshman students at Montclair State University.

Problem Statement: “As college students, one of the biggest issues is struggling with time management, especially freshmen with heavy schedules and minimal free time. Since college is a new experience for them, freshman typically have a tough time balancing school, work, and a social life. Although many of these freshman students could be social, due to non-matching schedules with their friends, many opportunities to spend time are cancelled or missed out.”

Everyone is burdened with busy schedules in college and nobody wants to waste their time at a bad event with lame people. We figured we could take the guess work out of finding worthwhile events by giving students the ability to meet other attendees before committing to an event. Our unique value proposition is the ability to plan and interact with other event-goers before an event (create groups of people to go with), during an event (live chat, DMs and stories), and after an event (add new friends to group and plan for the next one). By providing this solution to our target demographic they can fully take an advantage of their time and make sure the events that they attend are worth their time.

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## Personas

After we determined the target demographic our next goal was to create 3 personas. Personas are fictional characters that one creates based upon research to portray different types of users that might use our product. The reason why we created our personas is to identify a common problem amongst the three fictional characters. Not only a common problem, but also to keep us, the developers on track and remind us who we're producing this application for.

### James Gira (Persona 1)

#### Main Points

- Tech Savvy
- Spends a lot of time on Youtube and reddit.
- Life centered around his phone
- Working on becoming a pro-gamer!
- Die hard anime fan
- Small group of 5-8 Super Smash friends.



#### Goals

- To be closer (friend) with his college roommate.
- Become a Super Smash Bros legend.
- To be accepted as an intern by a well-known company.
- Find his first girlfriend.

#### Frustrations

- Low self esteem/confidence.
- Trying to talk to his neighbour crush.
- Lack of attention to his fanfiction.
- Wasting time. (reddit, anime, video games)

### About James Gira

James Gira is a nerdy freshman who wants to make new friends in college, but still hasn't figured out balancing his social life and course load. He'd like to find people with a similar personality: a chilled, laid-back, gamer who's still trying to figure out what he's going to do with his life. James has attended one Super Smash Bros tournament and is planning on doing another soon. He's currently taking 18 credits and trying to get his Gen Ed requirements out of the way.

Back in high school, James was known to be one of the best Smash players in the school. During their Senior Study, students would 1v1 each other to see who was the best, and James always came out on top. The few friends James had in high school liked him for his laid-back attitude towards school and his dedication to the game. When it was time to go to college, James decided he was going to live away from home and try to meet new people. He would also major in information technology because he figured he knew enough about computers that it would be easy.

Because James is a resident, he's been exposed to tons of new faces. He met a few people that also like to play Smash in the Student Center and he goes there in his free time to play just like the old days. They play on one of the guy's gaming laptop running the Dolphin Emulator with James's GameCube controller adapter from the Wii U. He likes the guys he plays with, but they are often not around to do anything else but play Smash between classes.

James has yet to meet anyone with the same passion for collecting imported anime figurines, which he proudly displays on his desk. When it comes to cartoons and anime, James is a total elitist. He thinks his taste is superior because he only watches the classics. He also thinks that it takes a certain amount of intellect to watch Rick & Morty. He's met people who also watch anime but have only really seen Attack On Titan, which he claims is "entry-level pleb-tier shit". He thinks people should stop wasting their time with anime's equivalent to The Walking Dead and go watch Gurren Lagann instead, because Yoko is his waifu. James is also a big fan of superhero movies. He likes the Marvel Cinematic Universe and is happy they will keep making movies and TV shows of this caliber far into the future. Netflix is his preferred platform for all of his media needs.

James's roommate, Marcus, is a hard working lad. James believes that if his roommate could cut loose more often they could be good friends. Instead, Marcus busies himself with whatever work he can find. He's way too conscientious for James, but at least Marcus is a decent guy who can find the time to help him with his schoolwork. In exchange, James buys him lunch and helps him out with any computer needs. On the rare occasion that Marcus goes out, he will ask James if he is around. Often the answer is, "I've got tons of homework to do, dude. Maybe next time."

Despite James's best efforts, he often can't pay attention in class. He's willing to put the work in, but the classes he's taking now either bore him or aren't up his alley. In his Fundamentals Of Programming class, for example, he feels he already knows the material and instead browses the front page of Reddit or shitposts on 4chan's /v/ (Video Games) and /g/ (Technology) boards the whole lecture. The homework in that class is a breeze for him, and the professor doesn't require any student interaction during the lecture, so he's sure he'll get an A. However, in his English class, he's struggling immensely. Right now they're on the poetry unit and James has completely zoned out. He would ask his classmates for help, but the professor often pairs the class up into groups, making peer review into an assignment. This has had an inverse effect on James, as he is now frustrated by how everyone else in the class seems to just get it. When anyone in the class offers him criticism, he's confused by what they're trying to tell him and wants clarification. The other students, barely understanding it themselves, will say something unhelpful and uncertain like, "Uhh, maybe ask the professor?" He never does because he thinks the professor is kind of a douche. "I mean, what kind of professor vapes in the middle of class?" Combined with his inability to write well and not caring for the subject, English is one of the classes that take up a lot of his time.

Because of his easy classes, James does have some time to spend socializing, but it's very limited. He wishes he could sync up his schedules with everyone else's, but for now has to settle with his Smash friends in the Student Center.



## Jenna Chu (Persona 2)

### Main Points

- Loves to read
- Tennis athlete
- Poor english
- Learns American culture by sitcoms and dramas
- Unique artist
- Deeply loves her mother
- Career oriented

### Goals

- To be articulate in English
- To interact with Non-Korean students.
- Find a sustainable job.
- Move family to the United States.

### Frustrations

- Hard time understanding millennials
- ESL courses
- Not being able to graduate on time
- Missing her mom

### About Jenna Chu

Jenna is a South Korean foreign exchange student, she transferred to Montclair during the second half of her freshman year and is now a sophomore. She was one of the top students in her class in South Korea with an outstanding GPA of 3.8, but is frustrated with American education requirements. Before she can continue her pursuit in her Biology degree she must first finish her required ESL courses. After taking these ESL courses she must pass the TOEFL exam, and only then can she participate in her major classes. Although her English is weak, Jenna hates her ESL courses and the fact that she must spend another year in college because of them. In her spare time, Jenna loves to read fantasy books. She spends multiple hours in her 2008 Toyota Camry driving from library to library looking for Korean books, but recently due to college and managing her time, she's trying to read English books. Jenna is a confident student who is very independent, but recently she feels she needs a change in her friend circles. Jenna made friends immediately after moving to New Jersey — most were friends she met through her younger cousin who's now a freshman at MSU. The majority of her close friends are Korean and much younger than her. Jenna believes that her lack of understanding English properly is the biggest reason why she lacks non-Korean friends. Between her classes, Jenna mostly spends her time with her cousin and her Korean friends where they eat lunch, speak Korean and make fun of American male students' hairstyles. Although she doesn't like admitting it, Jenna hates the fact that all her friends are Korean which she believes lowers her chances of becoming Americanized and mastering English. She doesn't want to abandon her current Korean friends but needs to find a solution if she wants to continue her goal of becoming Americanized.



## Maria Calafiori (Persona 3)

### Main Points

- Transfer student from BCC.
- Piano enthusiastic.
- Family oriented.
- Loves to cook
- Writes songs and music



### Goals

- Hopes to get accepted in her music minor.
- Grow audience and followers in her music on SoundCloud.
- Learn to continue conversations.

### Frustrations

- Keeping up with her high school friends.
- Choosing between her father's restaurant or her music career.
- Too shy.

### About Maria

Maria is a transfer student to Montclair from Bergen Community College. While she sees herself as responsible, she has a hard time visualizing future goals and often avoids doing so. She feels that living in the present and not worrying about the future is the best thing a human can do. Maria used to play piano in high school. She was in their school's jazz band and would play in the pit for the musicals, and also played with a close knit group of friends. After their band practice they would always go to a nearby Quick Check to grab smoothies but after graduation, everyone decided to go their separate ways. When it was time to go to college, she didn't know exactly what she wanted to do. Her father was insistent that she go into business so that when he retired she can continue to run the family business. She went to BCC for a little while to explore some possibilities and got interested in computers, but quickly lost interest when her classes required programming knowledge. Finally, after 2 years at BCC she decided to take her father's advice and pursue a career in business at Montclair State University. At MSU, in her spare time between classes she enjoys watching Comedy Central, eating food, and occasionally playing the piano around campus. Maria's never had any formal training with the piano, but she's practiced it enough to play some of her favorite pop songs, a couple of easy classical pieces, and some songs from movies she likes. She'd like to join some sort of music club, but she can't find any clubs geared towards non-majors that fit her schedule.

Maria has no close friends on campus since this is her first semester and her shyness to continue conversations always takes over. On some weekends Maria goes back to her high school stadium where she watches her current band practice. She calls over her previous high school friends, but recently many of them are busy or making up excuses. Maria understands their busy lives but hopes they can still continue their friendship like in high-school.

She met a boy in one of her classes early on at BCC and he asked her out for dinner.

They dated for a little while before finding they weren't really a match for one another. While she was more interested in music, all he cared about was video games. She tried to negotiate possible date ideas such as jazz lounges, music festivals, and orchestras, with this boy. But instead of going to music related events, they spent their free time together at his house and he played Call of Duty, Halo, and Minecraft. She didn't really like his friends all that much, and they weren't into the same interests after truly getting to know each other. They broke up one chilly October morning. Spurred on by this, as well as the feeling of melancholy that accompanies the change in seasons, she started writing music in her free time throughout the autumn and winter months. From this experience she realized that running the business isn't the only thing she wants to do. She continues writing music on her spare time and is interested in becoming a music minor. She posts her music on Soundcloud but gets barely any attention. Maria hopes that one day her audience grows and her music can get more views. So far she has sent all her documents and her music samples and is waiting for an acceptance response from MSU's school of music.

After classes, Maria will usually head home. She's close with her family and has two younger siblings. She loved spending time with them when they were younger but now finds them to be rude and annoying after going through puberty. Her parents often work late hours, so she tends to spend a lot of time helping out around the house. Because of their restaurant, Maria knows how to cook really well and actually enjoys doing so. In today's date Maria has two options, either to take the easy way out and join her father's restaurant or expand her career in music. Either way, Maria hopes to become a respectful lady in the future making a lot of money.

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## Problem Scenarios

After creating our personas, the next process was to develop problem scenarios for the three fictional characters we created. A problem scenario is a story about a persona as they go through their everyday life and deal with our problem statement. In the problem scenario, our solution doesn't exist yet. Writing a scenario helps us to focus on the user's goals, rather than focusing on screen elements. The user doesn't care if the app has a dark theme if it doesn't actually do what they need it to do. Ultimately, we are trying to empathize with our users and help them overcome obstacles in the way of their goal.

### James Gira

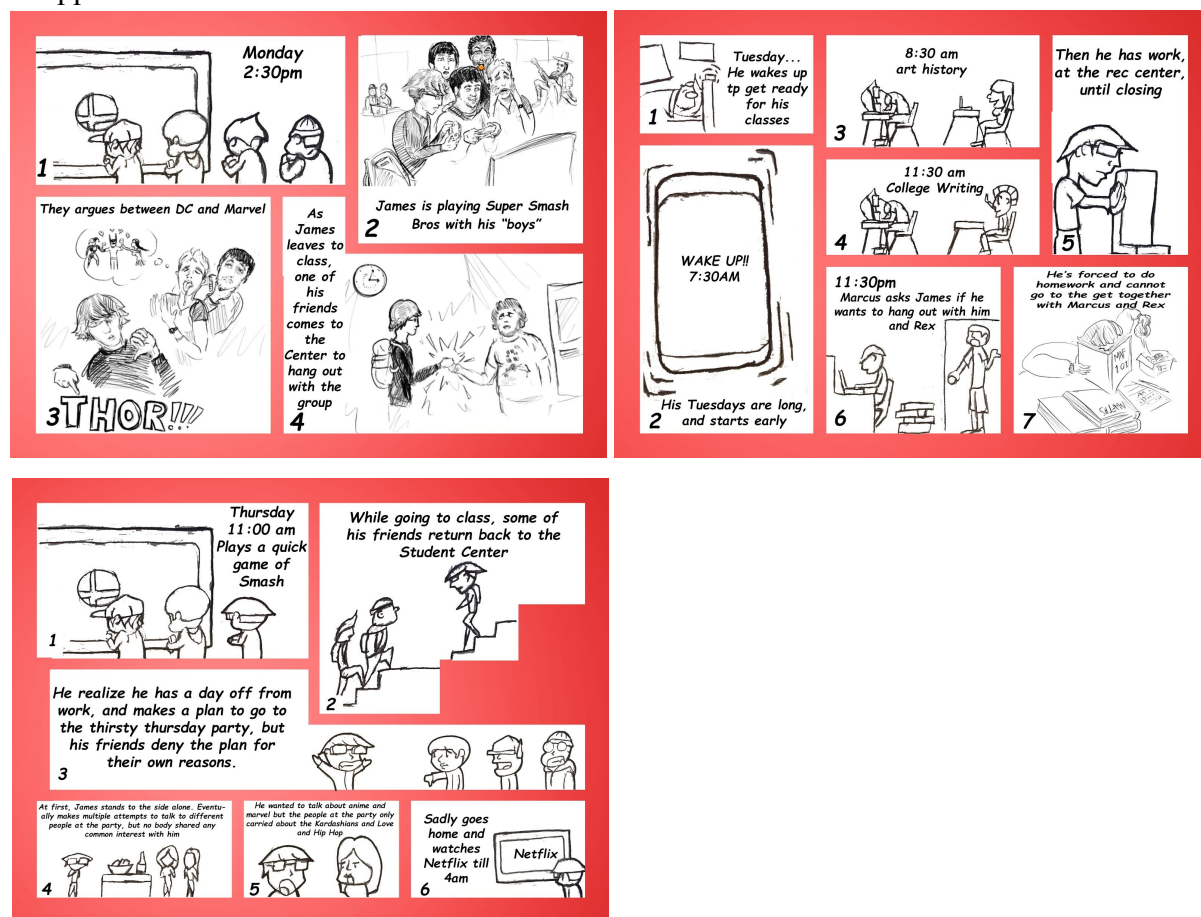
On a Monday afternoon, between his 2pm and 3:15pm classes, James and his couple of friends are at their usual location on the 3rd floor of the Student Center with their feet up on the chair, fingers caked with Doritos powder as they play their dearest love, Super Smash Bros. James lost the last round and had to give up his controller, so he waits for his turn. He joins a conversation about the upcoming Thor movie while his friends argue that the DC's Justice League is the real deal and that's where all the girls will be going. They laugh and continue to enjoy their \$0.50 brownies as they slurp down their Mountain Dews. James's friends usually rotate in the Student Center. While one show's up, another one leaves to class. His group of friends are close knit but their schedules are all over the place; and he wishes they can formulate their schedules and all hang out at the same time. He checks the clock and before he can get his turn in, realizes he needs to leave for class. As one of his friends comes back from class, James dabs his friend up and leaves.

On Tuesday and Wednesday, James's schedule is packed. He wakes up at 7am and gets ready for his first of two classes, and after that he goes to work at the Rec-Center till closing. When he gets home on Wednesday, his roommate Marcus invites him to his friend Rex's house for a small get together. James has met Rex a couple times and thinks they can become really good friends, but unfortunately he has to deny his roommate since he's stacked with homework from all of his classes. James brews a quick coffee and spends half of his night doing homework. He thought he knew what he was getting himself into when he signed up for 18 credits, but didn't realize just how badly it would cut into his social life.

James wakes up late on Thursday, since his first of three classes starts at 12pm. Before going to class he stops by the Student Center to see only two of his friends playing Smash. He gets in a quick game before heading to class and see some of his friends returning as he's leaving. After class, James remembers that he has off from work today. With excitement, he heads over to the Student Center and asks his friends if they're down to go to the "Thirsty Thursday party", but most of them were busy with homework, jobs, or simply weren't interested in going to a loud party filled with alcohol and girls. James tries his hardest to convince them to go with attempts like, "Come on Bro, you can finally get with a girl." Still, their busy schedules and no-desire to party gets James a "No". James knew he needed to take advantage of his day off as he doesn't get many of them. He decides to solo it, hoping to meet new people and have a good time.

The party is slow to start and not too many people show up. None of the people James meets are relatable and he feels like the odd one out. He tried striking up a conversation with a girl wearing a Harley Quinn shirt to talk about the upcoming DC movies but she only wore it

because it was trendy. Most of the time in the ballroom party, James walked around from one place to another hoping to see any familiar faces, but no recognizable faces were there. Also there was a small collection of Chads who had set up shop on the couches watching the Thursday night football game. James had enough dislike for sports that he didn't attempt to join in. This kills his mojo and he retreats back to his room. "If I had one of my Smash buddies with me," he thinks, "this night would have been much better. I wish I didn't have to waste my time at lame events like that." He tries to track down his friends, but they've all gone to bed already. At a loss and still not tired, James watches Netflix before passing out at 4am, underwhelmed and disappointed.



## Jenna Chu

On a Tuesday afternoon before her ESL course, Jenna heads to Einstein Bros. Bagels for a cup of coffee. As she's ordering, she struggles to pronounce "french vanilla" in her Korean accent. During class, Jenna sits all the way in the back hoping the professor won't pick on her like last time. She gets on her phone, opens up Instagram, and starts scrolling through her feed. She sees pictures of students from her other classes and gives them a like. She's never had an actual conversation with many of them, but from knowing their names she found their social media. She's especially interested in a boy named Ryan, whom she has the biggest crush on. While on his page, one of her Korean friends messages her and tells her to hurry up as they were eager to eat lunch.

After class, Jenna rushes to the usual spot in the business school where she finds 5 of her Korean friends. She walks toward them with an aloof smile and says in Korean, "You guys down for some pizza?" As if on command, they all hold up their lunchboxes. Jenna rolls her eyes, thinking, "Of course, same as everyday."

"I don't understand how these Americans waste \$20 a day on lunch. It's stupid," one of her friends says in Korean. They all giggle and start talking about how Americans waste money on food, makeup, and clothes while Jenna pretends to be busy on her phone.

Right before heading off to each other's respective classes, Jenna's friend Korra invites them all to her house tomorrow night for Korean food. She remembers all the times she went to Korra's house for dinner and how much she hated it. She recalls Korra's parents being extremely awkward and never failing to tell the same story about how they came to the United States. Jenna realizes she's looking for a change. She does the same things with the same people in the same places, speaking the same language about the same topics, every single day since she came to America six months ago. She tries to bring up the idea of going to a pizzeria with a bowling alley two blocks away from her house, but they all give excuses like, "I'll totally break out if I eat greasy food," and, "I'd rather eat food that I like at home." Korra gets defensive and asks, "Don't you like my mom's food?" Jenna doesn't want to disrespect Korra's mom and their invitation to dinner, so she decides to drop her idea. "Yeah, you guys are right," she says as the conversation fizzles out.

After her classes, Jenna drives home to her cousin's apartment. Like always, she calls her mom back in Korea and lies about all the fun she's having with her friends and how awesome America is. After hanging up the phone, Jenna feels really lonely even though she has ample Korean friends. Angrily, Jenna thinks, "I wish I wasn't Korean. I wish I had some American friends. I wish I had the courage to ask Ryan to go to lunch with me. What could help me break this daily life cycle?" Upset, Jenna sheds a tear before forcing herself to go to sleep. Nodding off, a single thought crosses her mind, "I'm sure tomorrow will be the same as today."

## Maria Calafiore

Maria wakes up on Monday morning at 9:04am, tired and drained from studying all weekend for a macroeconomics exam. She's certain her hard work will pay off, which gives her enough of a boost to get out of bed. She gets ready for the day: eggs and bacon for breakfast, brushes and flosses her teeth, shower, and puts on some nice jeans, a collared button down, and flats. Maria leaves her house at 11am, since class starts at 1pm. She likes to be punctual; she gets to campus at 11:40am.

Maria breezes through the exam, being the first one to hand it in. She leaves the classroom and thinks to herself, "I deserve a break after that. Maybe I'll go see a show nearby. I'll have to convince Jason to come along." Jason is Maria's boyfriend -- they started dating two months ago. At 3:45pm, Maria meets up with Jason on the patio outside of the fourth floor of the School of Business. They talk about classes and upcoming projects until Maria mentions her idea about going to a local gig, "We can go somewhere this weekend if you're free. It can be a date." Maria begins to get animated and talk with her hands. She's glad to have found someone that she can share her love of music with.

Jason would rather stay home and play his Xbox with his boys, but says he's open to the idea if, and only if, she can find an affordable event in the North Jersey area. Maria agrees to the deal, stoked and confident she'll find something. Later that night, Maria does some minor research on possible events they can attend. She would have done more, but she was exhausted from her classes. Maria knew she shouldn't have taken 18 credits this semester but the idea of finishing college 1 year early sounded too good to her. The rest of the week consists of attending long lectures, staying on top of homework, and working on a couple of projects. She barely has time to spend with her boyfriend on campus. They would meet up between each other's classes for small talks but that was about it.

On Wednesday, Maria finds some more time to research gigs. She finds a bunch of jazz lounges online, but they're all in New York City. She also finds a good band playing at MetLife Stadium, but the event is on Thursday -- she has a presentation on Friday and still needs to prepare for it. Plus, the cheapest tickets are \$80 per entry. Finally, she finds a small event near campus that started at 8pm that night. Unfortunately, she didn't find out about it until 10pm when she was home in her PJs. Disappointed and upset, Maria goes to sleep thinking about all the excuses she would tell Jason about not finding a gig.

On Friday, Maria and Jason meet up on the patio again. Disappointed, Maria tells Jason that she came up empty in her search for local, affordable events. Jason tells her that it's fine and they can always try again next weekend. In the meantime, he asks if she wants to come over with the boys and play Xbox -- he just got the new Call Of Duty WW2. She declines as she's never really been into video games and had a monster exam coming up next-week. Never one to be upset for too long, Maria figures she'll find something eventually.

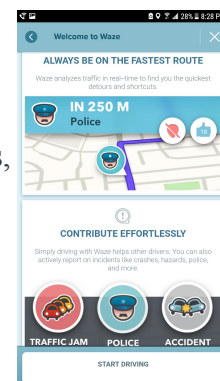
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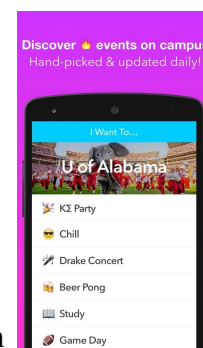
## Lightning Demos

The next step after creating 3 problem scenarios was to adapt ideas from other apps in a process called Lightning Demo. In the book *Sprint*, Jake Knapp defines lightning demos as quick, three-minute presentations about interesting functions and features from other products. The idea is to pull inspiration from those products to incorporate into your own solution. Lightning demos are about finding raw materials, not copying the competition's ideas outright. The reason for doing a lightning demo is to get the team thinking about solutions in a more "lateral" way. Like with Melitta Bentz and the coffee filter, innovation often comes in the form of remixing and improving what's already there. Instead of reengineering the filter, look at how other products in different domains have solved similar solutions.

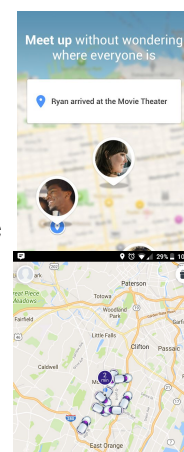
The first app in our lightning demo is Waze, a social navigation app that relies on crowdsourcing. Waze thinks for its users by telling them if they're speeding or helping them navigate around traffic. Users of the app, called Wazers, contribute to the app by reporting traffic conditions and other hazards. Other Wazers acknowledge these problems, which helps weed out false reports. In addition to simply reporting road conditions, users can also add comments and pictures to the report via the "Road Reports" feature. Using the search feature, a user can enter a general term such as, "food," and Waze will find nearby locations. Registered users can share their location with other Wazers and can communicate with each other via "Map Chat." The main takeaway from Waze was its ability to offer live, crowdsourced updates from its users.



The second app in our lightning demo was Chill. It markets itself as a new way to meet people, whether it's finding friends or a romantic hookup. Chill has users provide links to their other social media accounts. The app shows the user complete strangers, and if you find someone interesting or attractive you can add them on their provided social media. Chill can also help users find friends near them. Using locations services, the app will provide users with the distance from other users as well as links to other social media if they want to connect. A user can also give someone a like, which will notify them. Users can see who finds them interesting or attractive on Chill's likes and views page, but you need to unlock your likes by earning 5 points. Users earn those points from using the app or watching ads and downloading sponsored apps. Similar to Tinder, users are more likely to start conversations with their likes and matches. The big idea we got from Chill was the ability to instantly find people that interest or attract you by getting their social media accounts.



The third app we chose was Down To Lunch (DTL). With DTL, friends can easily post statuses and keep track of each other's whereabouts. Knowing a friend's location means you don't have to ask them where they are before inviting them out. Users can find events to attend in their area, as well as coordinate with a group of friends to go. Users can still coordinate with people who don't have the app, as well as send them an invite. It's easy to plan an event and invite friends to have a party or just get lunch. When you create an event, friends in the area are alerted of the it. The big idea we saw in DTL was the ability to find or start activities and events in your proximity, and instantly see who can go or who is going.



The fourth app we chose was Find My Friends. Users "check-in" to specific locations and their friends can be notified when they leave or arrive at a new location. Users also have the ability to chat individually or with a group of your contacts through the

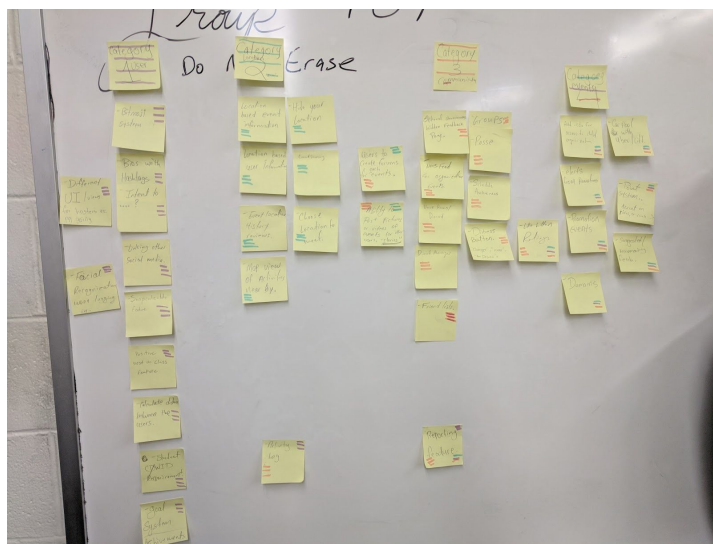


app. Users can send out alerts to make announcements or ask for help. The big idea we took from Find My Friends was the ability to interact with friends based on their locations.

The fifth and final app we chose was a combination of Uber and Lyft. They are on-demand taxi applications that rely on crowdsourcing. Uber and Lyft both have ability to invite other users to use the application. When friends sign up for the app using your code, you both get money off of a ride. On both the driver and rider sides of the application, Uber and Lyft show maps of where other drivers and riders are located. This helps drivers to find riders nearby and gives riders an idea of their likelihood of getting a close driver. The big idea we took from both Uber and Lyft was that the app learns from user's location data and let's them see who is around and the volume of people looking for a ride.

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## Card Sorting and Vision Statement



Now that we've seen features used in other popular applications, the next step was to organize our ideas in a process called card sorting. Card sorting is a way of grouping ideas and solutions together into more easily manageable categories. We first identified key concepts or ideas we wanted to implement, and then grouped them together based on how we thought each concept related to the other. This is in contrast to everyone suggesting solutions and at the same time critiquing them.

We organized our key concepts into 4 categories: user, location, communication, and events. The user category was for any feature that involved how the user directly interacted with the app. This includes the UI, having different views for if you're a user or a promoter, and linking other social media accounts. The location category deals with how a user's location or proximity to an event would affect what information the app would give them. This includes a map view, the ability to see where your "posse" is, and the ability to join and interact with events only when you are physically at that event. The communication category encompasses how a user interacts with other users and events pages within the app. This includes a direct messaging feature, event ratings, a live public chat, stories (like Snapchat), and more. Crowdsourcing functionality, such as the ability for regular users to host events, falls in between both the location and communication categories. The events category was for features that let the user discover events and well as how promoters could get their events onto the app. This includes having specific domains (add a college email to get access to college-exclusive events), a recommended events page, discounts from promoters for finding the event through the app, notifications from promoters about upcoming events, and so on.

We realized early on that it'd be impossible to reorganize people's schedules to make them available for events. Everyone is burdened with busy schedules in college and nobody wants to waste their time at a bad party with lame people. We figured we could take the guess work out of finding worthwhile events by giving students the ability to meet other attendees before committing to an event. Our unique value proposition is the ability to plan and interact with other event-goers before an event (create groups of people to go), during an event (live chat, DMs and stories), and after an event (add new friends to group and plan for the next one).

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## Context Scenarios

At this point, we had a minor idea of what our application would look like and the features that it would use from the card sorting exercise. The next step was to come up with a context scenario for our three personas. If a problem scenario highlights the key issue that our persona is facing, then a context scenario highlights how our persona uses our product to overcome that issue. A context scenario doesn't contain anything specific to the design of the product, only that the persona uses it in their daily life. The events of the context scenario are similar to the problem scenario with regards to it being snapshots of every life. Creating a context scenario helps the designer understand how and when a user would interact with their product.

### James Gira

On a early Thursday morning, James gets a call from his manager saying his shift was replaced by a new recruit student for the day. With excitement James wakes up and gets ready for his two classes. In his Anthropology class James overhears two students who seemed completely hungover. Student 1, "Man, I wish I didn't take all those shots yesterday night". Student 2, "Yeah me too, but that frat party was amazing bro, I am definitely going again". James was intrigued by their conversation and opens the app and selects list view and sets the filter for "social events" to finds the NJIT party in the area they were talking about. He selects the event and reads the comments about how amazing the party was. After always hearing students talk about awesome parties, James felt a-bit left out as his friends and him never attended a college party. Between his two classes James goes to the student center where he and his friends were munching on food and playing Super Smash. While they were waiting for their turns, James brings up the idea of going to an NJIT party he saw on the app that was taking place tonight.

Most of his friends didn't show much interest since they were busy with homework, jobs, or simply weren't interested in going to a loud party filled with alcohol and girls. James tries his hardest to convince them but their busy schedules and no-desire to party gets James a "No". James knows he needed to take advantage of his day off as he doesn't get many of them. James opened up the app and selects the NJIT party and marks he is interested in attending and extends his "companion" radius to 5 miles. During his next class James gets a notification from 2 users who were nearby him that were also interested in attending the party. He uses the app to check their social media accounts, they looked relatable, and seemed like nice guys. After conversing with each other through direct messaging in the app, they decide to go together and create their "posse". They decide on a time and a location where they would meet up on campus and take an uber to the party. Before it was time to get ready and meet the people he was going with, James once again checks the app. He selects the NJIT party that he flagged as an "interest" and it was filled with people commenting and down voting the event, with comments like: "No real alcohol, just a couple beers! I am out.", "Where the girls at? Lame.", "I think someone's grandma is here.", "Nope, just don't! save your time.", and much more.

With all the negative comments, James direct messages the two people he was going with. After explaining the situation they all agree to not go to the party. James thinks to himself, "It would've been a pain wasting my time on a sorry party." Not satisfied and still looking to make use of his night, he loads up the apps map view and notices a pin for a party in the village

that has multiple comments and users attending or interested. There are a lot of upvotes and great reviews such as, “Party is wild!”, “Just did my 3rd boob luge of the night”, “DJ Ridd needs to take notes from this DJ.” Intrigued, he checks out the event’s “story” and sees some pictures and wild videos posted by attending users that convince him that it’ll be a great time.

James once again hits up the guys he met on the app and they decide to check out the party. They meet up outside of James’s dorm and walk to the village. The party lived up to the reviews on the app and James and his new friends have a great time. Midway through the party, James notices a notification from the app asking if he was currently attending the village party, he selects “yes” and decides to upvote the party. While in the app he checks out the “attendee” page of the party and sees a “posse” of relatable girls attending. With all his courage he messages one of them and proposes they meet by the flip cup table. They openly agreed and by the end of the night he manages to get their personal app code and a kiss. Back at his dorm, with excitement he texts his friends about the party and tells them about the guys and girls he met through the app. He tells them to download the app and invites them to join his “posse” on Saturday either attending the concert on campus or dollar jello shots at wild bull.

## Jenna Chu

On Tuesday at 7pm, after her final class, Jenna drives to her cousin's house where she's currently living. She opens the door and immediately the scent of Korean food smacks her in the face. Jenna gives a secretly disgusted look to no one before greeting her aunt. She lies about having eaten at a friend's house already and goes straight to her room, which she shares with her cousin. She receives a call from her mother back in Korea and they talk for half an hour about Jenna's education, their sickly grandmother, and her friends.

After hanging up, Jenna opens up Instagram and scrolls through her feed. She comes across an ad about a new app, where she sees pictures and videos of individuals meeting new people. It catches her attention, so she decides to download it. She proceeds to make a profile and uploads the hottest picture of herself she could find. She also adds her other social media accounts to help verify that she's real, and her college email so that she can see events happening on campus. Once she's done with that, she lands on the app's map view and sees multiple events such as: Guy's Night Out, Hula Hoop Competition, First Time Buffet, and many more. Jenna decides instead of attending these events that she'd make her own. She goes to the event creation page and calls her event "Pizza and Bowling." She enters the event type, estimated size, location, and estimated duration of the event. She gives the event a description, saying how she's looking to try something different from her normal routine.

Since it was almost 9:30pm, Jenna decides to work on some homework and, in the meantime, charges her phone. A little while later at 9:50pm, Jenna checks her phone and sees two recent notifications from the app. When she opens them, she sees that a guy named Jacob Mits and a girl named Meera Guzma are conversing on her event thread. Jacob wants to take his girlfriend out for bowling and Meera just wants to get some drinks. At first, Jenna thinks they're joking and that they're not actually thinking about attending, but after jumping into the conversation Jenna learns they're serious about it. She decides to check both of their attached social media accounts to make sure they're not creeps. She finds that both Jacob and Meera seem like genuine people through their pictures and posts on Facebook. Jacob's a nice guy who truly loves his girlfriend and Meera seems really fun and shares a close bond with her mother, too. After her scouting, all three of them direct message each other and decide to meet up outside of the bowling alley. They describe to each other what they're wearing so they know who to look for.

Jenna is skeptical and nervous about going, since it's almost 10pm and she has never gone out with complete strangers before. However, the craving for a change in her life is enough to motivate her to get dressed and lie to her aunt about going to a friend's house for homework help. The bowling alley is nearby, so Jenna walks. She goes around the entrance, looking lost, and thinks, "I knew I shouldn't have come." Suddenly, she feels her phone vibrate and sees a notification from Jacob, saying that he's on his way. After a few minutes, Jacob shows up with his girlfriend and Meera comes in her car, blasting music. They meet up at the entrance and introduce themselves before going inside. They order a pizza, get a few rounds of bowling in, and Jenna even tries her first beer. She hates it and gives the rest to Meera, but she's glad to have tried something different.

It was almost 12am and the bowling alley was about to close. Before heading home, the

gang hop in Meera's car and get ice cream at a nearby Baskin-Robbins. They use the posse feature in the app to create a their own group and agree to hang out again soon. Meera drops Jenna off home at around 1am. She jumps into bed with a big smile on her face, glad that the night worked out so well.

## **Maria Calafiori**

On a Wednesday evening after her Ecology class Maria rushes to her car, quickly picks up a coffee, and drives home. As soon as she gets home, she says hi to her parents and heads straight up-stairs to her room where she threw her bag to the floor and began studying for the macroeconomic test that she struggled with last time. She was so serious about her study sessions that Maria switched off her phone. She knew her boyfriend Jason will call, but she decided that her homework and studying was way more important. Maria had her face hidden behind books for almost 3 hours. She knew she needed a break and a stretch. She walks around the house for a few, eats some of her favorite girl scout cookies and heads back up-stairs. Before she can go back to studying she checks her phone and decides to call Jason. They talk for a while and Jason reminds her about the music gig that they were so eager to go to this weekend.

After a pleasant talk with her boyfriend Maria decides to hang and look to gig events happening near her. She tries to google them but the closest one she found was all the way in Jersey City which was almost an hour and half away from her house. She continues her search on Facebook to see if she could find any gig events on the Facebook events page. Unfortunately, the events she found on Facebook were extremely expensive and all the way in New York. While on her search Maria comes across a website that directs her towards an app that helps users find events, and find people to go to those events with. Maria quickly downloads the app and creates an account.

After creating her account, Maria found herself on the map view of the application. The instructions at the start of the app gave her an idea of how to navigate throughout the application. She saw multiple events that were happening near her location that she had no idea about. She looked at the events for a few but eventually used the map's filter feature to narrow down her search. Maria chose to look for a music event with a media size that had 4 or more rating stars. After choosing her filters all the events disappeared except for only music gigs nearby her. There were multiple music events 20 minutes away from her house. Maria was extremely excited to see all these events that she was so eager to find. Some of the events were extremely expensive while some were really cheap. After checking almost all of the music events in the app near her location Maria came across an event that was close to her house and the cost was \$15 at the entrance. Maria's eyes popped when she saw this event. She knew she had to go to this music gig with her boyfriend Jason. The event was everything that Maria wanted, it was on the weekend, it was cheap, it had a medium size, and it was nearby her.

Before she can even get off the app, she called Jason. Even though it was almost 1am, Jason picked up as he was playing the new Call of Duty game. With excitement, Maria told Jason about the new app that she discovered and the music gig that she found for them to attend on the upcoming Saturday. After a really nice goodnight talk with Jason, Maria hangs up and adds the event to her calendar reminder. With a smile on her face Maria goes back to her homework looking forward to the weekend.

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## Key Path Scenario (Pre-Usability Test)

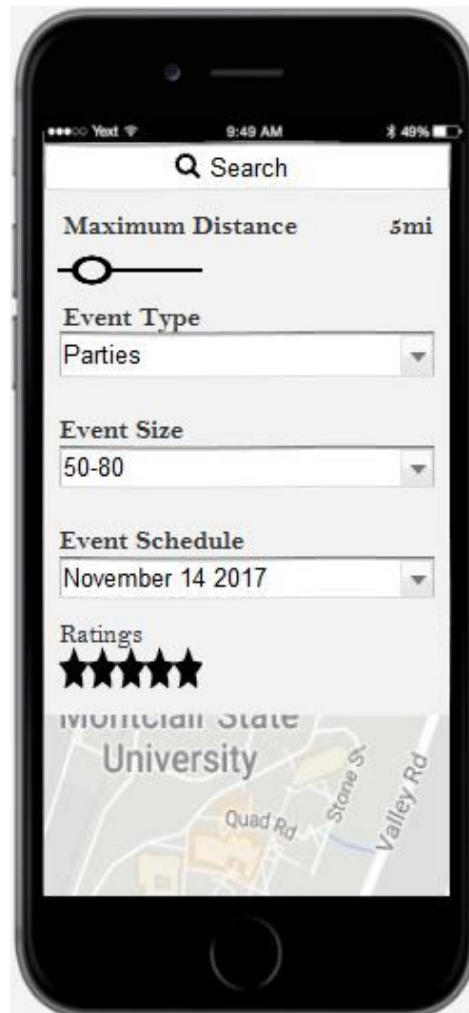
*\*Zip of interactive design is included with submission\**

A key path scenario describes how the persona interacts with the product. It focuses on how the persona interacts with the product day to day, not necessarily the configuration. In our key path scenario we have included how our persona would interact with the application after the application and preferences have been set up as that provides little value to the key path scenario. In our Key Path Scenario, our user is James. The reason why we use a key path scenario is to help us focus our design on the most appropriate solutions for our personas and their issues. In addition, a key path scenario let's the developers observe live user interaction of their product when the usability test is performed.



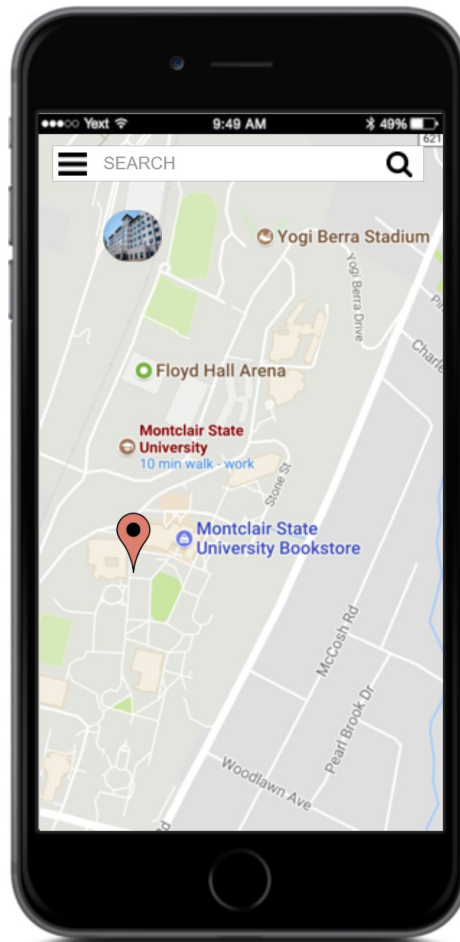
This is the screen that James will be presented with when opening the application. The default map view has various current events that are taking place in the area of the user. Marked on the map is the black pin that shows where James currently is and the small circle pictures

represent different location based events. On this screen the user selects search in order to filter out the events that he is actually interested in.

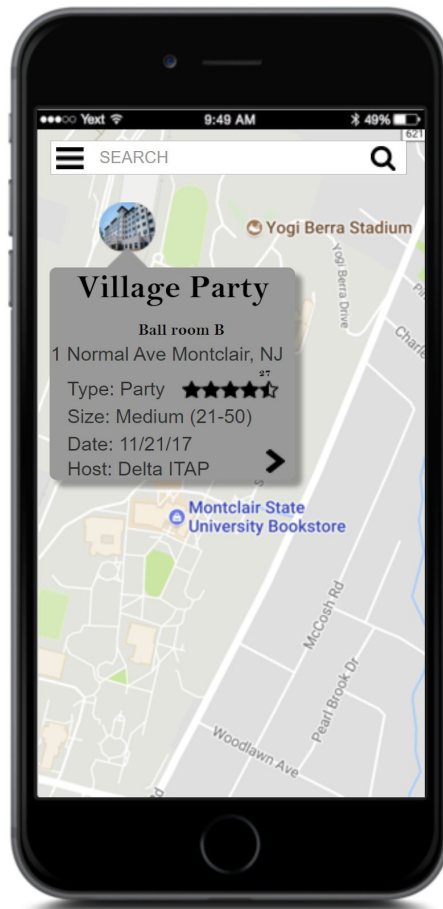


James sets his filters to search for what he is interested in. In this particular case, James is interested in attending a party. He selects the event type to be a party within 5 miles of his location with an even size to his liking and when the party's going to take place. In order to filter out poorly ranked parties, he selects the rating to be 5 stars.

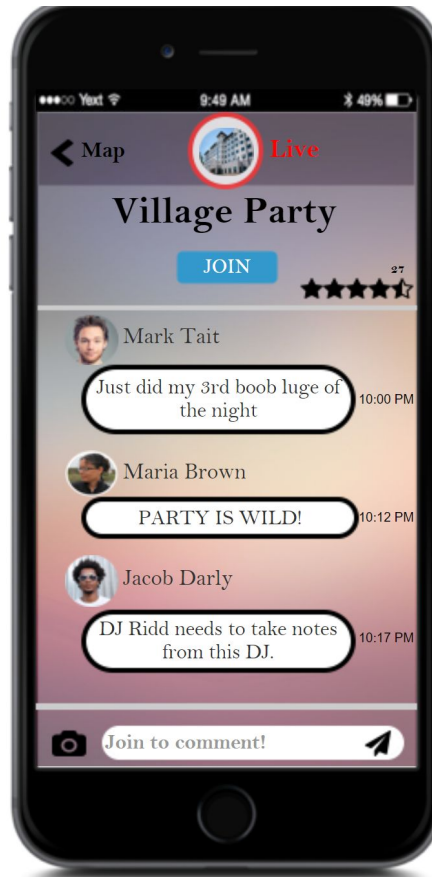




After filtering out the events that James is not interested in, he sees that there is an event in the village, he will now touch the image to view more information of the event.

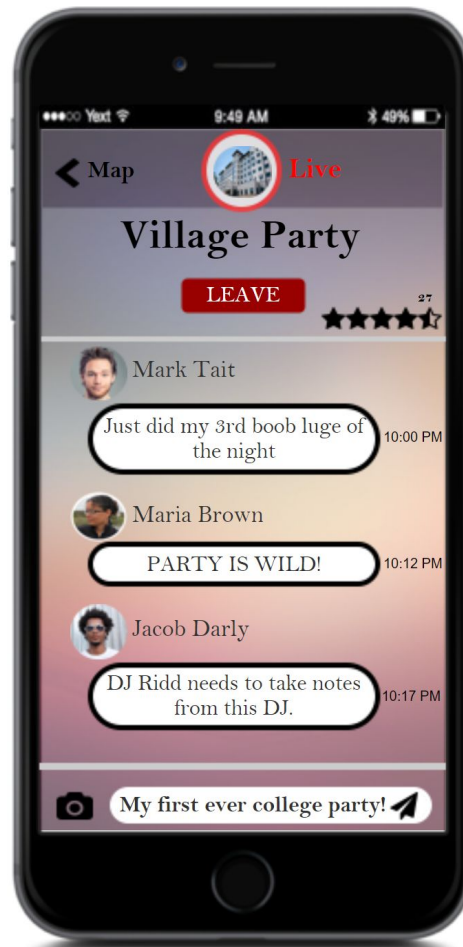


When selecting the village party location tag, James will be presented with quick information about the party. If he is interested further information about the party, he can select the black arrow to go to the event page.



The event page will show interactions between users at the event as a group message board. James may not join this page unless he is geographically at the event, however he is free to browse the messages. At the top of the page you will see the 'live' next to the circle of the photo of the event page. James can select this to see the event story of what is happening at the event. There will be videos and pictures of the actual party to give the user a look inside before deciding to attend.

Once James arrives at the location, the "Join" button will be enabled and the user can now join the event page and interact with users there.



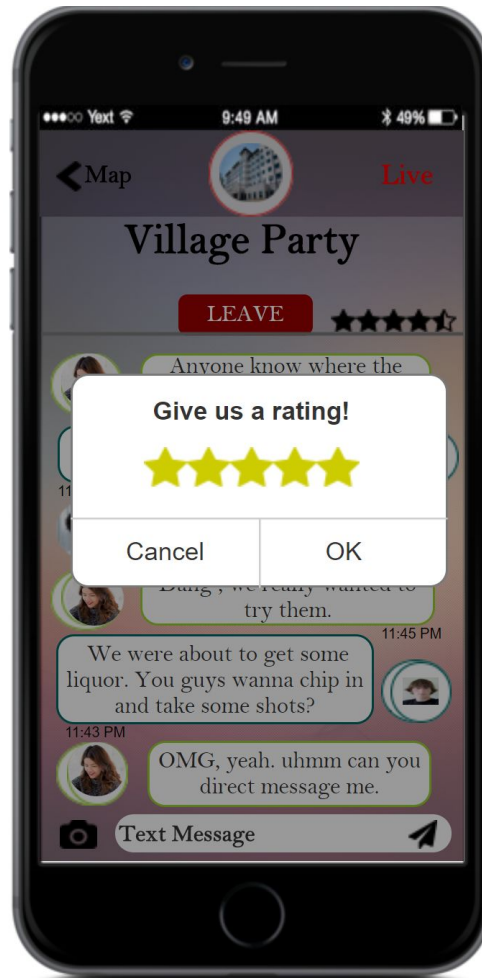
Now that James has joined the party, he is now interacting with the group and sending a message for the rest of the users to view.



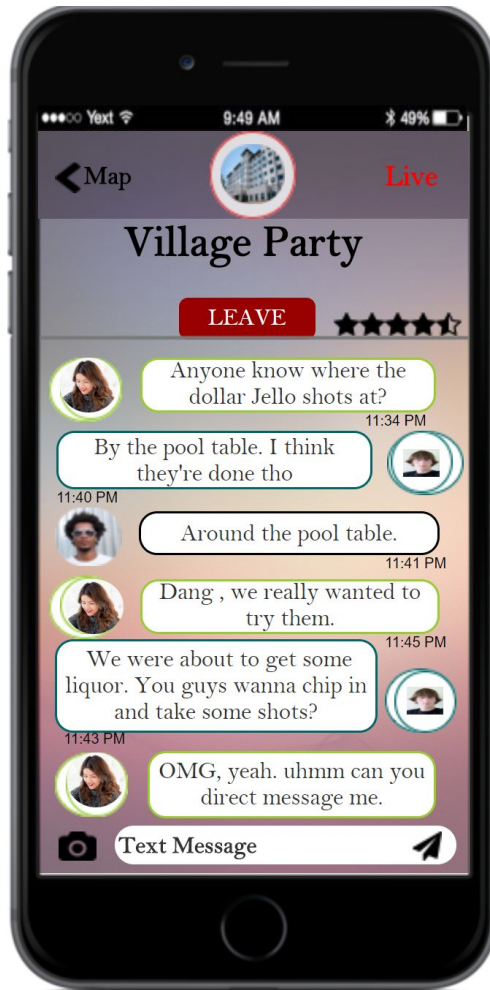
The user, James, now puts his phone away to enjoy the party.



A notification comes in and asks James if he is still attending the party and to rate it. He selects this and the application opens back up.



James gives the event a rating, in this case a 5 star rating and selects OK.



After posting the message, James, notices a girl he is attracted to and begins interacting via the group chat. In this screen one will notice that the girl posting and James have a second circle shadowing their profile picture. This shows that James and the girl he is interacting with are in a 'posse.' A posse is the group of the individuals that the particular user is attending an event with. James begins a direct message with the girl by selecting her profile picture.





After selecting Samantha's profile picture in the group message, James is redirected to Samantha's profile page. In here you will see that Samantha's profile unlocked for interaction and some information on her profile page. The options available are to add her to his posse, friends list, or message her. James then clicks message to direct message her.



James engages in a direct message conversation with Samantha that ends successfully. James meets up with the user after their interaction.

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## Usability Test

After creating a functioning prototype of our application, we performed usability tests with real users to evaluate any hypotheses we had about our key path scenario. A usability test is essentially an interview, where we try to learn from what a user is thinking when using our app. Usability tests are really useful for weeding out any biases from the developers about how their product should work. It's crucial to get feedback from the people who's problems you're trying to solve.

We designed our usability test by first preparing our mockup, then coming up with valid hypotheses to test on the users. Next, we found two users that closely matched the party scene from the key path scenario. The users, Sylvester Delvillar and Jim Dobson, both identified themselves as "party people", which fit into our scenario perfectly. Both users were people our group members were familiar with. We provided them with our interactive mock-up and asked them to explain what they were doing as they were using it.

These are Sylvester's remarks:

- Hypothesis: Users are likely to be swayed by reviews and comments found on the event page.

Sylvester believes that events with negative comments and reviews are more likely to be rejected by people seeking events nearby.

"Oh yeah it would be deff be influenced. I mean if its a party and none of my friends recommend it, and I'm going alone, and I read these things on the internet on how trash this party is, and I know random strangers will bash anything if they can. So yeah I would believe them, why waste my time?". (Video1, 6:10 - 6:35).

"I'd probably just look for the most positive thing on the app, with the most reviews". (Video1: 6:40 - 6:45).

- Hypothesis: It's normal for users to attend events with strangers they've met thought the app.

First, we asked if going to a party with a stranger that has the same intentions as you was something they thought could happen in real life. Sylvester believes the possibility of pairing up with a stranger and going to a party is unlikely.

"I don't see it happening right now because I feel like going to a party I could see it happening, but meeting a random stranger just so guys can coordinate to walking to a party together. I just can't picture it in my head ". (Video1, 3:52 - 4:25)

Next, we asked him if that would change if you had a conversation with them and checked them out on social media to see if you'd still be willing to hang out. Sylvester believes that it's more likely you'll attend a party with someone if you've familiarized yourselves a bit beforehand.

"Ohh, in that case then yeah definitely. Sure, why not". (Video1, 4:28 - 4:32).

- Hypothesis: Users would willingly give events an honest review.

Slyvester thinks that the rating system would be easy to abuse. A host and their friends will always give their own events a high rating. Most people's ratings generally slant negative, so bad events will most likely have a lot of bad reviews while a good event might have a couple of five stars.

“I feel like the only people who are going to rate the party are the people who host the party because they want their party to be on the map. Unless the party is terrible and people get mad and definitely give a bad rating so yeah I think the rating system would work decently well.” (Video1, 5:30 - 5:50).

- Hypothesis: People are likely to be using their phones at a party.

There's a good chance that someone has their phone out at a party, but Slyvester thinks it's unlikely that anyone would message someone when they could just walk right up to them and start a conversation.

“Nah, once your at the party if you wanna talk to people just talk to them. Why would you message them?” (Video1, 6:55 - 7:30).

“People take out their phones no matter what, but I don't think people would check this app. If I did check this app because why not, then I would help out if I could ... But I think, the person that needs help would just walk around and ask people for help, asking people for help on an app is just weird” (Video1, 6:55- 7:30).



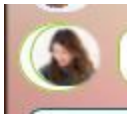
[Video1](#) (Click the link to open in YouTube)

These are Jim's remarks:

- Hypothesis: The map view is easy to navigate and find events.

Jim identified the map view page. He easily interpreted what it was going for as he had seen similar features from other apps.

- Hypothesis: It's clear what the purpose of the posse symbol is.



The posse symbol, having another circle underneath your profile picture, isn't obvious enough for new users to understand at first. Walking the user through a demonstration when they first start using the app should fix the issue.

- Hypothesis: Recognizable elements from other apps will be familiar to the user in this app.

Jim didn't think to check the event's story because it wasn't clear enough that event's could have stories. Jim also thought that the profile page was too crowded with information.



[Video2](#) (Click the link to open in YouTube)