P2 Report
Group 9

Introduction

The goal of this phase of the project was to get a deeper insight into our problem space, emphasize our potential users and find out their key needs. We first fixed a target group, took the interviews of the diverse population from the group, and then tried to learn from their experiences. Then, we analyzed the interview information and tried to identify the key insights from the user study.

Section 1

This section presents information on the interviews, followed by the analysis of the data collected from the interviews. First, we describe our plan for the interview, i.e., the target user group, the preamble of the interview, and the main questions asked in the interviews. Then we introduce the interviewees and briefly describe the discussions from the interviews. The third subsection contains the empathy map constructed on the interviews. We also enlisted tensions, contradictions, surprises, and inferences from the interviews presented in the last subsection.

1.1 Interview Plan

1.1.1 Target User Group
The young generation, especially young adults, often face problems finding like-minded people to connect with and perform certain group activities with. That's why they often feel alone or discouraged from pursuing exciting activities. Keeping those in mind, we selected young adults as our target user group.

1.1.2 Introduction Blurb
Hello, Good morning/afternoon/evening. I am ____, and this is____. We are graduate/undergraduate students studying Computer Science at Dartmouth College. As part of the Human-Computer Interaction course project, we want to build an effective and usable system for young adults. For this purpose, we want to learn from our potential users. That would help us get valuable information and guide us toward the system that would eventually provide a better user experience. As a potential user of our system, we want to interview you briefly and ask you a few questions regarding your daily life experience. If you consent, we want to record your interview.

1.1.3 Interview Questions
We made a backbone of the question structure for a natural, free-flowing, and information-finding interview. In addition, we planned to ask several relevant follow-up questions based on the answers of our interviewees. For brevity, we are presenting only the key questions here.
- Are you a student currently?
- What do you do currently? What is/was your area of study in college?
- Can you walk me through a typical day?
- What do you do in your free time?

- What other non-academic/work-related activities are you interested in?
- Amongst these - which ones do you prefer to do solo, and which ones with other people/in a group or solo?
- [For the solo activities] - Have you always done it solo? Why?
- How do you feel doing solo pursuits?
- [For the group activities] - Who do you usually do _____ with? And how often?
- How did you start doing ____?
- How do you feel doing group activities?
- Does the thought of doing an activity solo dissuade you from doing it at all?
- How do you currently coordinate with your friends to do _____?
- How do you feel about these methods/tools/current state of things?
- How do you currently find people when starting a new activity?
- How do you feel about these methods/tools/current state of things?
- How do you handle stress currently?
- Do you have someone to talk to about it?
- Does talking about it help?

1.2 Description of the interviewees
1.2.1 Summary description of the interviewees

Name	Age	Gender	Demographic	Designation	Affiliation	Current City
Eric C.	24	Male	Asian American	Former Graduate Student in Computer and Electrical Engineering	Dartmouth College	San Francisco, CA
Hannah K.	21	Female	Asian American	Undergrad Student in Biomedical Engineering and Music	Dartmouth College	Hanover, NH
Kate W	Late 20s	Female	-	Custodial Services Employee	Dartmouth College	Hanover, NH
Josh M	21	Male	South African	Undergrad Student in Electrical Engineering	Dartmouth College	-
Ravi	25	Male	Latin American	Ph.D. Student in Computer Science	Dartmouth College	Hanover, NH
Tishya	24	Female	Indian	Former MEM graduate'23, Current Product Manager	Dartmouth College	San Francisco, CA
Mounika	24	Female	Indian	Master's student	Dartmouth College	Hanover, NH

Table 1: Brief description of the interviewees

It is worth mentioning that we wanted to be diverse in selecting the population from our target user group since we were curious to see if the scope of this problem expands further than just undergrad/ college students. Moreover, we took the interviews in the place and/or using the medium the interviewees were comfortable with.

1.2.2 Highlights of the interviews
<u>Eric C</u>: Eric C's interview provided us with valuable insights into how this problem impacts the young adult (but post-grad) population. During our interview, Eric mentioned that he mainly relies on text messages to coordinate activities with his friends and doesn't seem to mind the current methods. He also mentioned that he relies on his friends and their friends to meet new people and do activities with. It's worth noting that Eric likes doing things solo, as it serves as self-care for him and gives him some "me time," especially when he's busy with work.

However, Eric did mention that when he first moved to San Francisco, he had a little trouble finding people to do activities with other than his roommates. While Eric seems to be managing well in coordinating activities on his own, it's important to acknowledge that when he moved to San Fran, he already knew a handful of Dartmouth graduates with similar interests who lived there. Therefore, while this process may seem easy for him, it might not be the case for someone moving to a completely new city where they don't know anyone. Eric's responses helped us understand that this problem is more prevalent among individuals immediately after post-graduation than those who have already settled in a new place and have a routine in place.

<u>Hannah K.</u>: Hannah K's interview was both interesting and informative. As an undergraduate student, her responses confirmed some of our hypotheses about the problem space. Hannah expressed her frustration with the current methods she uses to coordinate activities with her friends, noting the excessive number of group chats, text message chains, and individual contacts involved in planning activities. She finds it overwhelming to manage all of these tasks and sometimes avoids doing certain activities, such as going to the gym, if she cannot find anyone to go with her. Hannah believes that activities are almost always more enjoyable to do as a group rather than alone.

When asked how she would like to change the current process, Hannah emphasized the need for it to be "more streamlined." Her interview helped confirm that this is a real problem among undergraduate students. We can conclude that the most disliked aspects of this process were having to reach out to multiple people/group chats and the disorganization of current methods. These insights will guide us in implementing and designing a potential solution.

<u>Kate W</u>: Kate W's interview gave an enlightening perspective of non-Dartmouth students in the community and how they undergo planning and participating in activities differently. As a Dartmouth employee, Kate relayed her typical day to us, stating that she enjoyed activities such as basketball, camping, and hiking. She expressed that she loves to go with family and/or friends, but not having anyone to go with does not deter her from doing the activity solo. She didn't explicitly state any difficulty with finding people to go with; rather, she revealed that she has a large pool of family and friends to tag along with her on these activities. However, she mentioned that her primary methods of coordinating schedules were texts and phone calls. Although she doesn't seem to mind these methods, she did acknowledge that it might take some

time to eventually find someone whose schedule matches hers. She also expressed interest in getting to meet new people through the activities she already participates in but strongly emphasized a way to maintain safety.

Josh M: Josh M's interview revealed important deliberations and actions that Dartmouth students might make when trying to go for an activity with others or try out a new activity. Josh stated that his favorite activity to do was running, and he usually does that solo. However, he enjoys going out to different places and trying new things with his friends. He has not been able to try out as much as he would like due to clashes in his and his friends' schedules. He also feels that he is less likely to do an activity if there is no one to do it with. For running specifically, he notes that he has to consider the schedule and, preferably the person's pace. He is open to meeting new people to try new activities with but feels more comfortable going with friends or people introduced to him by friends. He also thinks utilizing some sort of shared calendar capability would be helpful in coordinating schedules.

Ravi: In the interview, Ravi first described to us his daily schedule. Since he is a graduate student, he gives most of his day time on a weekday to research and classes. During his free time, he likes to play games and go to the Gym, watch TV, and read literature books. Among all the activities, he likes reading books entirely solo. He believes reading books is meant to be done solo as it needs concentration, and solitude provides the perfect environment for reading books. On the other hand, playing and watching games are the most group activities liked by him. Among the games, he likes playing squash most. Since it is a two-player game, he needs another person as an opponent. Meanwhile, football is the game that Ravi prefers to watch with friends. He thinks watching football with friends gives him more pleasure since some of them support the same team while some of them support the opposite team, which generates a lot of discussions and fun. He does not mind watching football alone if he finds none available then. Between the solo and group activities, he prefers solo activities more. The reason is that he was the only child of his parents, so he used to spend most of his time alone. That's why he finds more interest in solo activities. He likes to do group activities if the group members are affable. He gets nervous and anxious doing group activities with unknown people since he does not know which type of person they are. Ravi likes to create new friends and do activities together only if the other person has some relations with him, e.g., working in the same company, having a mutual friend, or being from the same country, etc. To coordinate the existing group activities, Ravi and his group partners use the text messaging system. However, he often faces problems in coordination as the schedule of different persons is often fickle, and some often change their decision at the last minute. He also shared his experience of this last internship, where the community members used Discord to coordinate among themselves for different types of group activities, like going to a movie together. One problem he faced in such a system was that people often called for such activities at the last moment. So he feels that an advanced planning mechanism would be great for such coordination. In response to our question regarding handling the stress, Ravi informs us that during the stressful situation, he firsts persuades himself that the situation is temporary and will be relieved very soon. He also shares his situation with his friends and parents while in stress. He finds talking about the stress helpful, especially with his parents, who have more life experiences and can provide better advice. If he sometimes feels alone in a new environment, he concentrates more on the phone.

Tishya S: Tishya S's interview brought us the interesting perspective of a fresh graduate student in the industry. After completing her MEM at Dartmouth, she recently moved to SF 4 months ago and is working as a Product Manager in a tech company. As she works out of her office most of the week, she likes to indulge in indoor sports in the office with her colleagues, which as an activity isn't difficult for her to manage primarily because her colleagues have almost the same working hours as her and are physically present in the space. To contrast this, she finds it more difficult to make plans on the weekend with her friends as people have many different interests and schedules. Her primary way of coordinating group activities is using text messaging/Whatsapp groups where her friends talk about things they are interested in doing over the weekend. This method does work out many times, but Tishya has also faced some challenges lately where none of her friends have been responsive about an activity she wanted to do. Not having a group has kept her from pursuing that activity, although she does mention that this is not true for every activity. While she feels comfortable pursuing many of her activities of interest alone, there are somewhere she prefers/wants to have company. Another interesting insight from her interview was that she prefers doing activities with other people because of the social aspect - where she gets to have conversations with people and learn new things from them.

Tishya also mentioned that moving to a new city has made it more difficult to plan activities since most of the people she knows in the city have their own core friend circles, which has made it hard for her to form her own. This points us toward the social problems that young adults are prone to face in new cities. Finally, she expressed interest in meeting new people through shared interests in activities and even as a way of exploring new activities, as long as the people are verified through a standard process that ensures the safety of all parties.

Mounika V: Mounika V's interview shed light on the busy life of a Master's student at Dartmouth. As a first-year MEM student, Mounika's daily schedule is filled with classes, assignments, and networking for career opportunities. This often doesn't give her a lot of time to try new activities or pursue her old hobbies. When asked about some activities that she has been doing recently, she mentioned that she did snowboarding last term but hasn't been able to get out much this term. We also got to know that she doesn't mind doing an activity alone if no one around her is interested in it but would generally prefer doing it with people. She talked about how it can be challenging and frustrating to coordinate with a big group of friends, especially when people have different interests. This brought us to an interesting discovery where Mounika mentioned how "signing up" for an activity like weekly snowboarding lessons together as a group makes it easy for friends to have fun together without constant scheduling issues. She believes that this is because when people sign up for an activity, they make time in their schedules to do it.

A key insight from Mounika's interview was that grad students can often get overwhelmed during their term, which takes away their will to pursue other hobbies of interest. For Mounika, this has been true for the last two terms where she wanted to learn a new musical instrument but "couldn't find the time or mental space" to start. Another insight from our interview was that doing activities in a group can also help novices get over their fears, especially when there are intermediates in the group.

1.3 Empathy Map

Our next step was to organize the data collected from the interviews. For this purpose, we wanted to visualize the learned experiences from our interviewees using their empathy map. The four quadrants of Figure 1(a) portray the four constituent parts of the empathy map - 1) what the interviewee says, 2) what the interviewee does, 3) what the interviewee thinks, and 4) what the interviewee feels. We used different colored virtual sticky notes for different users. Figure 1 (b) shows which color was used for which user.

(a) Empathy Map
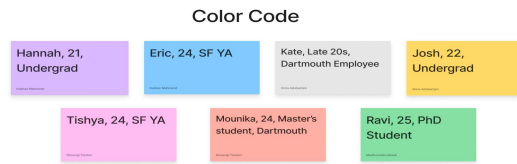
Color Code

(b) Color Code

Figure 1: (a) Empathy map generated using the interview information. (b) Each color code representing a distinct interviewee.

To see the Zoom sale version of the empathy map click here.

1.4 Tensions, contradictions, surprises and inferences

Tensions:
- Too many platforms/group chats to consider when making plans
- Hard to coordinate with friends with different schedules
- Difficult to find like-minded people in a new city
- Finding a suitable activity during the free time
- Feeling uncomfortable doing a group activity with unknown people
- Last-minute changes of plans are frustrating

Contradictions
- Feels that they can do new activities on their own while also mentioning how they haven't been able to pick up a new musical instrument that they've wanted for a long time.
- Hannah preferred doing most activities in groups, while Eric liked solo activities.
- Feels that they have no difficulty finding a partner for activities due to a large pool of friends and family available but end up doing most activities solo as it is difficult to coordinate and organize with others.

Surprises:
- Didn't have trouble finding people to do activities with when he moved to SF (Eric)
- Has Dartmouth friends and colleagues in SF, yet finds it challenging to form a 'friend group' (Tishya)
- Likes group activities as it gives them a chance to learn things from people and get better (Hannah and Mounika)
- Prefers solo activities more than group activities (Ravi, Eric)
- Prefers their current tools of coordination (Ravi, Eric, Josh)

Inferences:
- People sometimes avoid doing activities if they cannot find someone to do them with.
- It's often easier to get into some new activities with friends/other people.
- Some feel uncomfortable seeking out new people to do activities with.
- People would like to meet new people as long as they are verified (to feel safe).

- Most people use WhatsApp/groupme/text messaging to coordinate with friends for any activity.
- People feel tired/frustrated while scheduling activities with a larger group of friends using current tools.

Section 2

This section further synthesizes the interview and identifies the key needs. In the first subsection, we sort out the "Points of View"'s. The following section develops the "How Might We"'s. And finally, in the last subsection, we present the key needs we identified from the interviews.

2.1 Point of views (POVs)

Sl.	Point of Views
1	**We met** Eric (24), who is a Dartmouth grad living in SF. **We were amazed to realize that** he currently uses many platforms in order to coordinate activities with his friends. **It would be game-changing to** provide Eric with a way that makes it easier for him to coordinate activities with his friends.
2	**We met** Eric (24), who is a Dartmouth grad living in SF. **We were amazed to realize that** he currently is limited to people he knows and his friends know to do activities with. **It would be game-changing to** provide Eric with a platform that helps him find new people with similar interests with whom he could do new/ his current activities.
3	**We met** Hannah (22), who is a Dartmouth undergrad majoring in Biomedical Engineering and music. **We were amazed to realize that** she sometimes avoids activities if she can't find someone to do them with. **It would be game-changing to** provide an an easy-to-use platform that allows Hannah to find new people to do activities with.
4	**We met** Hannah (22), who is a Dartmouth undergrad majoring in Biomedical Engineering and music. **We were amazed to realize that** she feels overwhelmed by having to navigate many group chats and groupmes in addition to texting friends individually in order to coordinate activities. **It would be game-changing to** provide Hannah with a central platform so she isn't overwhelmed by the many tasks she has to do to coordinate activities.
5	**We met** Kate, who is a Dartmouth Custodial Services employee. **We were amazed to realize that** she is comfortable doing activities solo but is also willing to meet new people through these activities as long as they can be vouched for as safe.

Sl.	Point of Views
	It would be game-changing to connect Kate with screened and vouched for members of the community that she can go out with.
6	**We met** Kate, a Dartmouth Custodial Services employee. **We were amazed to realize that** she doesn't find it hard to get a partner for activities as she has a large pool of family and friends to choose from. However, it might take her a long time through texts and calls to reach each of them and coordinate schedules. **It would be game-changing to** offer Kate an easier way to match schedules and find someone available at the same time as her.
7	**We met** Josh, who is an international Dartmouth undergraduate major. **We were amazed to realize that** he has not really ventured out to new activities because it is difficult and stressful to find someone to go with. **It would be game-changing to** reduce the burden of finding a group to try a new activity with.
8	**We met** Ravi (25), an international CS Ph.D. student at Dartmouth College. **We were amazed to realize that** Ravi feels uncomfortable doing a group activity if the partner has no relations (e.g., working in the same company, having a mutual friend, or from the same country) with him. **It would be game-changing to** help Ravi find a partner for performing group activities so that the partner can have some similarity or relation with him.
9	**We met** Ravi (25), an international CS Ph.D. student at Dartmouth College. **We were amazed to realize that** Ravi often finds a problem coordinating the group activity since people often call for the group activity very late just before doing it and/or change their schedule at the last minute. **It would be game-changing to** design a scheduler for Ravi so that he can plan and schedule the activities with his group effectively.
10	**We met** Tishya, a recent MEM graduate working as a Product Manager in SF. **We were amazed to realize that** she couldn't go to a Bollywood night because none of her new-found friends showed interest. **It would be game-changing to** provide Tishya with an easy way to find people interested in the same activity as her in the new city.
11	**We met** Tishya, a recent MEM graduate working as a Product Manager in SF. **We were amazed to realize that** despite being an extrovert, she is having a tough time making a friend circle in the new city. **It would be game-changing to** provide Tishya with a platform to find like-minded people that can help her make her own friend circle as she moves cities.
12	**We met** Mounika, a first-year Master's student at Dartmouth studying Engineering Management. **We were amazed to realize that** she has been wanting to learn a musical instrument but

Sl.	Point of Views
	is overwhelmed with the term and couldn't allocate time for it. **It would be game-changing to** connect Mounika to like-minded Music enthusiasts with whom she can share her learning journey and feel encouraged to pursue her interest.
13	**We met** Mounika, a first-year Master's student at Dartmouth studying Engineering Management. **We were amazed to realize that** she is comfortable doing activities with new people as it allows her to learn from them. **It would be game-changing to** provide Mounika with a platform where she can find new activities happening around her and people to do those activities with.

Table 2: "Point of View" statements identified from the interviews

2.2 How might we (HMW)

1. How might we connect young adults with new people who have similar interests in activities?
2. How might we make it easier for college students to coordinate/ plan activities with their friends or new people?
3. How might we streamline the process of coordinating activities for undergrads?
4. How might we make it easier for young adults to pursue their activities of interest in a new city?
5. How might we help young adults in new cities find a new friend circle to share common interests with?
6. How might we encourage and support overwhelmed college students to pursue activities that they like or are interested in trying?
7. How might we provide safe ways to connect community members to one another to participate in activities together and form new connections?
8. How might we reduce the stress of finding partners for people to try out new activities with?
9. How might we help international students to find a way to adjust to the new community and the new environment easily?
10. How might we give young adults a way to find the activities happening around them?

2.3 Key Needs

- A better/ more streamlined way of coordinating activities with a large group of people to make scheduling less overwhelming
- Connecting people with similar interests in activities
- Helping young adults in new cities find friends / a friend group
- Connecting beginners in activities with more experienced people to foster new skill learning
- Encouraging busy college students to pursue new activities of interest