

2. Data Analysis

Insight: Users tend to look at pictures of their pet or talk about their pet with family and friends when they miss their pet.

Out of eight participants, seven interact with their pets multiple times a week, whether it be through calls or pictures. Common themes include asking parents to see pets when on the phone and scrolling through pictures of one's pet. "Anna" likes "to say hi...when calling family". "Person2" also does this, and mentioned that "Jamie doesn't recognize her over the phone so it's mostly for her". As "Gigi" explicitly says, these actions make her and likely the other users "happy to see the updates". While some users look at pictures they already have of their dog, others receive pictures from their family. Some do both. In particular, "Gigi" would "sometimes ask for funny photos of the pets when really sad" which implies that these photos provide emotional support, as well as help alleviate the feeling of missing one's pet.

Insight: Users tend to feel a personal connection to their specific pet that cannot be replaced.

Seven of the eight participants expressed thinking about their specific pet they left back at home in the time apart from that pet. While the last time and frequency each person thought of their pet back at home varied, with as much as twice a day for "Anna", these seven participants collectively mentioned how they missed their pet or felt feelings of longing to see their pet again. Both "Gigi" and "person2" mentioned looking forward to the next break in the academic school year to see their pet. "Person2" and "emma" both mentioned feelings of sadness or depression when leaving their pet before returning to college, showing that the separation is a difficult one.

These pets can be very important parts of these people's lives and connections. "Person2" mentioned how "whenever she thinks of her family she thinks about her dog because she is part of the family", showing how special her connection with her pet is, as it's on the same level as family members. "Gigi" additionally mentioned how her current emotional coping methods do not replace the presence of her pet and "Anna" mentioned how she misses the presence of her pet. In fact, for "Anna", seeing other dogs on campus made her miss her pet more. This showed the importance of people connecting with their specific pet at home. Additionally, "Gigi" would look at the dog toys and blankets left in her room as physical reminders of her pet, reminding her of the memories of her that they built together, as shown in the picture below.



Insight: Users tend to feel positive emotions when their pet is present, involved in their routine, or whenever the user is caring for the pet.

All 8 participants stated that they feel better when they're around their pet. Some seem to have stronger feelings, like "Gigi," who had her pet emotionally support her after her parent's divorce.

Other people like “Thomas,” mentions that he does feel good being with his pets, but gets his main comfort from his hobbies. Despite these different levels of importance these pets have to their owners, it is reasonable to conclude that their pets bring at least some sense of belonging, happiness, comfort or peace. Another common pattern is how some people feel more responsible being with their pet like “Anna,” since she grew up raising her dog. This feeling of responsibility is mainly positive, as “Thomas” would still want to get a pet in the future for companionship and responsibility. Having a pet for these people can set discipline and maturity, as they are aware it can take a lot of work and energy to care for one.

Insight: Users tend to have busy schedules with school work that hinders their ability to have a pet at school, especially due to the attention demanded by pets such as dogs.

Many participants stated that having a pet with them on campus would be too much work for them. They noted that it would involve a significant change in their schedule. “Anna” and “person 2” both mentioned that they would have stricter routines while Thomas said it would involve having to deal with adjustment of living. The participants also noted that they are busy with school and social activities, and that having a pet would distract them when studying for exams and working on hard projects. “Gigi” stated that she now goes to the gym and does more social activities without her pet here on campus. Other factors arising from the attention demanded by pets include having to find pet-friendly housing and looking for good vet emergency services around campus.

Insight: Users appreciate the interaction with other animals on campus, which includes friends or other people who have pets and random sightings of strays.

The participants stated that they interact with other animals while on campus. For instance, “person2” interacts with a friend’s dog and “Bella” regularly interacts with pets as an animal science major. Other interactions are rather random, for instance, “person 1” interacted with a puppy earlier that day and petted her; however, she explained that active interaction does not always happen with pets she meets. This is something that is important to them because, as Thomas stated he wouldn’t mind if his friend had a pet that he could see. This is however not a replacement for the pets they own as “person2” and “Bella” show. It is more of an alternative for them.

3. Problem Statement

An undergraduate student who owns a pet at home yet is unable to bring them on campus due to logistical reasons (such as housing, care-taking, and scheduling) needs to engage in higher quality interactions with their pets because students wish to continue deriving comfort from their connection to their pet despite physical distance.

4. Persona

May is an undergraduate student at Cornell University studying Biological Sciences. At 20 years old, one of her life goals is to be financially secure with a good job while also being able to support her family. May loves spending time with her family back at home, but most importantly, she loves spending time with her dog, Rocky. Rocky is a 3-year-old Border Collie and has been in May's possession since he was a puppy. Although May's family takes care of Rocky while May is away, May believes she has the closest relationship with him, causing her to feel responsible for him.

May misses Rocky a lot, and is waiting for Thanksgiving break to see him. May enjoys walking and playing with Rocky when she is at home. She receives a feeling of belonging when caring for him and doesn't feel as lonely as she is on campus. Occasionally, she asks family members about Rocky if she's on the phone or messaging them. This happens around twice a month, usually during weekends before any exams. May and her family also have a group chat where people spontaneously send funny photos of Rocky at least every week. Having this connection with her family provides her with accessible updates on her pets, and she values knowing that Rocky is doing well and hearing what he's up to back home. In the future, May would like to feel the relief of knowing her pet is doing well and alleviate any feelings of longing. She would like to be present in her life away from home while still having a spot in her pet's life from afar.

At times, May misses Rocky and feels terrible for leaving him back at home. She has a photo album on her phone dedicated to Rocky and looks through it to make her feel a little better. She also sleeps with a stuffed dog, which reminds her of Rocky. May's friend owns a pet on

campus, and she enjoys interacting with it when she visits. Whenever May comes across another animal on campus, she always goes to pet it since she feels happy when interacting with animals. She has thought about having Rocky with her at Cornell but is hesitant because of the stress and disruption to her college life. She would also feel guilty knowing she would not be able to provide the best care to her beloved pet. May is overwhelmed with school and social activities, so she would like to be able to interact with animals in a non-demanding way. However, she still loves Rocky and wishes she was with him every day.

5. Requirements

- Title: Specific to Pet
 - Description: Users should be able to engage with their specific pet that they have an emotional connection with.
 - Rationale: Users have formed this emotional bond with their pet from the time (often years) that this pet was under their care. Thus, connecting with their pet invokes stronger feelings and is more meaningful than interacting with any other animal.
- Title: Consistent Engagement
 - Description: Users should be able to engage with their pets as regularly as their schedule allows and as desired by the user.
 - Rationale: Users have expressed needing to hear about their pet within a certain time range to feel relaxed, such as once a week. Users feel relieved that their pets are doing okay and feel comforted by this knowledge despite being apart from them physically. Many users also expressed that when they were less busy, they

thought of their pet more. Thus, being able to increase their engagement with their pet to match their schedule is important. Some users think about their pets several times a week, so being able to engage with their pet consistently and when desired would also be important.

- Title: No Responsibility Required

- Description: Users should not need to be responsible for taking care of a pet on campus.
- Rationale: While many have thought about it, users don't feel as though they have the means to take care of a pet properly in college. Users would feel bad for leaving the pet alone. However, having a pet that they're responsible for would negatively affect the user's freedom. Having to take care of and be responsible for a pet also has the potential to impact users' academic and/or social lives negatively.

- Title: High-Quality Bonding Interactions

- Description: Users should have high quality experiences that bridge the issue of not being able to have physical interactions with their pet.
- Rationale: At college, users cannot physically pet their pets. Most users are limited to interaction with their pet through calls or pictures. On these calls, the pets are rarely aware of what's going on. This can make interactions one-sided and less positive for the user. Users should have some sort of high quality interaction that helps alleviate this issue, or at least substitutes the experience of being able to physically interact with one's pet.

- Title: Easily Accessible

- Description: Users should not have to significantly go out of their way.
- Rationale: The solution should be easy to access when desired so it doesn't create stress, as users have mentioned being too busy in college.
- Title: Flexible To Schedule
 - Description: It should be flexible to the student's current schedule
 - Rationale: Users are already extremely busy. They shouldn't have to adjust their schedule to accommodate.
- Title: Fulfilling/Energizing Experience
 - Description: Users should feel a sense of stability and comfort in their interaction with their pets that encourages them to continue their studies and goals even while apart.
 - Rationale: Some users have mentioned that seeing other animals on campus can be a sad experience or reminder of how their pet is not there. For other users, it's the opposite and being able to interact with other animals on campus brings them happiness. With this in mind, it is important to ensure that users walk away from these experiences with that sense of fulfillment rather than an unmet longing.
- Title: Reinforce Pet's Wellbeing
 - Description: Users should be able to get updates on how their pet is being taken care of at home. Users should feel like this care is appropriate.
 - Rationale: Many of the users expressed how they were the main caretaker of their pet when at home and how they managed most of the responsibilities of their pet. Some users also believed that they know how to take care of their pet the best. It

is important for users to feel like their pet is still getting the best care and attention back at home so that they do not continuously worry and check in on their pets.

- Title: Connecting Family, Pet, and User
 - Description: Users, their families, and their pets should all maintain a strong connection.
 - Rationale: Many users talk to their families about their pets. All of the users interviewed had their pets back at home with their family, making their family the main bridge between them and the pet. Pets may also serve as a bridge between the user and their family. It's important to ensure that bonds between all three groups remain strong.