

Roadmember Usability Report

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Introduction

Roadmember is an app that blurs industry boundaries by allowing travelers to plan routes, document stops, and share their notes and photos in one convenient place. At the end of a trip, it presents users with an interactive, shareable, visual representation of their journey. Made for artistic and inartistic travelers alike, this blend between a travel planner and travel journal uses memory science, metadata, and design techniques to help adventurers visualize where they've been and where they're going.

A usability test will determine the ease of use of the main pages in the app by observing the users ability to complete a list of tasks. These sessions are recorded and analyzed so that we as designers can identify where we can improve our app.

Roadmember designers Natalie, Aldo, and Luis conducted in-person usability test using MarvelApp prototyping software. Videos of participants going through the app and commenting were captured using video recording software. The sessions collected data on how many participants could successfully complete the given task and the comments they said along the way. It also captured their choices, satisfaction, and feedback.

Executive Summary

Roadmember design team conducted three sets of in person usability test at the University of Colorado Denver as well as users' houses. Roadmember is a road trip app created by a group of design students for their travel company Getaway Graphix. The purpose of this usability report was to assess the usability of the prototype app to see what could be improved and what is working well.

Six participants in total were tested. A few of the usability tests were conducted at the University of Colorado Denver, since the tested users fit our target demographics for the application. Additionally, some tests were conducted at home to test an older, well-traveled demographic. The tests were aimed at testing the usability of a road trip app and finding out if it was something that could be useful to a travel experience. All participants averaged about five to eight minutes going through the app.

While using the app, users pretended they were an avid traveler wishing to accomplish a collection of tasks by using the application. Following the testing would be the interviewing process in which users would be asked how their experiences were with the application in terms of what was useful, confusing, great, or what could be improved. Most of the users completed the tasks with ease, only stopping at a few points to look at the screens and talk through them. The test environment was the same for each test, and all participants were all asked the same follow up questions after.

Some of the results for our testing found that users were a bit confused by some of the functions in the application, following the tasks given, they would mistake some visuals of the application as touchable icons or actions to take them to other screens. The results also included enjoyment of the community feature along with approval of images used in the application and overall design.

In general all users had positive reactions to the app and found it to be self explanatory and straightforward to use. The users have all road tripped previously so they felt the app would be something they would use. A few users brought up the ease of having your entire trip in one place being a huge pro to the app.

A few things the users struggled with during the test, and suggestions for improvement:

- Desire for more features in the application.
- Lack of clarity on where the profile is, some had the urge to go home and find it versus looking at the info tab.
- Confused about finding where the map was, minor confusion though they were still able to find it. As well as including a bigger map that can be seen and can be expanded for more clarity.
- Adding a screen that says your photo upload is complete after you upload photos, two users brought up that it would be a nice feature so you know they were uploaded.

This document contains the results of Roadmember user tests. A highlight video, screenshots of high fidelity design, task questions, project press release, and user signed consent forms are included in the attachment section.

Methodology

Sessions

The Roadmember designers in charge of user testing contacted and recruited participants in person from the University of Colorado Denver and their own homes. They then informed the attendees with a brief overview of what the app was and what testing would entail. After signing a consent form they were then tested at an appropriate date and time according to their availability.

Two of the participants included a few members of the office for student services at the University of Colorado Denver. One of the participants lasted about seven minutes for the interviewing and user testing process. The participant was primarily asked their thoughts on how the application usability was for them in terms of effectiveness such as aspects that may have been confusing or made better for the overall goal of the app.

Three of the other participants were older adults who have experience planning a roadtrip, and the other was a student that uses a wide variety of social media apps daily. Before the test they were read a brief summary of the app and had printed user tasks next to them. They were asked to complete 5 user tasks, each test lasted around 3-5 minutes with questions after.

For our user test we had them complete the following 5 tasks:

- Add a photo to your page
- Find day 2 of your upcoming highway 1 road trip
- Locate the map of your itinerary from the same trip
- View your feed
- View your profile

The participants were then asked questions after they completed the last task. We felt it was important to see if they had any suggestions about the app and take time to reflect on it. See attachment A for the task questions and scenario given to each participant.

Participants

Two of the Test subjects were college students between nineteen to twenty years of age and have been on road trips before. They were of varying majors and were both female. Both went through our usability test on November 18th, 2019.

Two of the other participants were older adults, who grew up taking trips and have traveled around the globe. The other is a student who has been on multiple road trips and has planned several trips of her own. All three completed the test with 3-5 minutes and most confidently completed their tasks with little to no confusion. Two tests were on Friday November 22 and the other was on Monday November 25, 2019

Finally, another CU Denver Student performed the test. The user took two minutes to complete the tasks and was able to navigate the app. This participant has traveled by car in the United States and has completed multiple trips abroad. A few things came up on the session. Such as the desire to click on the map to expand it and make the map to cover the full screen. They participated in the test on November 21st, 2019.

Roadmember in the Community

Most of the participants varied in age and background. Participants were selected at random, some users were UCD students, and some were UCD staff and family.

Table Role

<i>UCD Students</i>	<i>UCD Staff</i>	<i>Family</i>
<i>1</i>	<i>3</i>	<i>3</i>

Evaluation Tasks/Scenarios

As a group we came up with a list of tasks that our test participants attempted to complete in order to study how easy it was for them to navigate the app. The tasks were as follows:

1. Add a photo to your page.
2. Find day 2 of your upcoming highway 1 road trip.
3. Locate the map of your itinerary from the same trip.
4. View your feed.
5. View your profile.

Results

Task Completion Success Rate

Roadmember designers Aldo, Natalie, and Luis recorded the participants' ability to complete each task without help. The task success rates were then calculated using the results from the test.

All participants successfully completed Task 4 (view feed) and Task 5 (view profile). Four of the six participants (66%) completed Task 1 (add a photo to page). For Task 2 (find day two of upcoming highway 1 roadtrip) and Task 3 (locate the map of itinerary) five of six (83%) participants were able to complete it successfully.

Task Completion Rates

Participant	Task 1	Task 2	Task 3	Task 4	Task 5
1	✓	✓	/	✓	✓
2	✓	✓	✓	✓	✓
3	✓	✓	✓	✓	✓
4	/	✓	✓	✓	✓
5	/	/	✓	✓	✓
6	✓	✓	✓	✓	✓
Success	4	5	5	6	6
Success Rates	66.6%	83.3%	83.3%	100%	100%

Ease of Finding Information

All participants liked the feel and look of the app, most user tests went smoothly and the users were able to navigate efficiently through all the tasks.

Based on the statistics above, we are able to conclude that the participants had the most trouble doing task 1 (adding a photo) and the least trouble doing tasks 4 and 5 (viewing feed and viewing profile, respectively.)

Keeping Track of Location in Site

All the participants found it easy to keep track of their location the the site while finding information about the trip and their feed.

However, the task completion rates don't reflect the full extent of the user experience. Even though tasks 4 and 5 eventually had 100% completion, some users did try to go to the home page to find the profile.

Time on Task

Task 3 locating the map of your itinerary from the same trip took the longest time to complete at around 5-35 seconds. Although everyone found it and completed the task most users had the urge to look in other places for it, which made it take the longest.

Time on Task (all times are in seconds)

	P1	P2	P3	P4	P5	P6	Avg. TOT*
Task 1	6	11	16	7	9	8	9.5
Task 2	19	6	6	20	15	10	12.6

Task 3	35	19	5	9	10	12	15
Task 4	5	7	10	10	7	8	7.8
Task 5	5	10	7	9	10	7	8

Errors

Errors were recorded by both the person giving the test and a second designer watching each test. As test went on less and less errors appeared. On the first test we found that the user zoomed in way to close to the prototype causing parts of the app to go off screen. This caused it to become more difficult for the user to find and complete some tasks. Another error like this happened during test number three. This user tested the app on an Iphone when the app was specifically designed for Google/Android. So this caused the bottom navigation bar to become hidden making it harder for the user to see as they had to scroll down in order to see it. The app was tested on a Samsung Galaxy s9 and the navigation bar was visible there. So if user 3 had tested it on there they probably would have had less difficulty navigating through the app. However, after those two test we keep all testing on a similar screen to reduce errors.

The task in which participants made the most errors was task number 3 (Locate the map of your itinerary from the same trip). Even though some participants seemed to have no difficulty at all completing the task. Some thought they should navigate back to the home screen to find the map for their current itinerary, leaving the itinerary page in which it was located. On the other hand, the task that was completed with the least amount of errors was task number 4 (View your feed). Most errors were non-critical.

Four major takeaways

1. The first aspect of our findings that we consider to be a major takeaway is the fact that users very successful in the last tasks of doing in the app which were to view some parts of the application which were either to view the feed or the profile feature in the app. This is letting us know that users know how to view their own information and the information or post of others which can be argued is the strongest aspect of the application in building community through the shared interests of travel all in one existing platform, a success.
2. The second part of the application which would be qualitative findings are the fact that the application is very visually appealing in its use of photography for locations or stunning photos used as the place for user profile pictures. The overall design of the app is well done and consistent throughout which is a great aspect to have in that many designers created the screens separately but following typography and colour guidelines we were able to create a united piece. Another win on our end in terms of visuals which isn't the highest priority, but allows for users to not be distracted by horrible visuals.
3. In terms of the least successful aspects of the application, we found that the success rate for tasks 1 through 3 were pretty consistent with users in that they there were people who had difficulty navigating through the application in order to accomplish their tasks. Task 1 with a 66% completion rate consisted of asking the users to "Add a photo to your page" which means there is something very confusing in the application that needs to be adjusted. The next two tasks included the same completion rate of 66% but task 2 asked "Find day 2 of your upcoming highway 1 road trip" and task 3 "Locate the map of your itinerary from the same trip" concluding that users are having a hard time due to the

redundancy, or the lack of clarity with the interface which would be adjusted in future iterations.

4. A final takeaway can be considered that users might want more specification and or clarity on the purpose of the application in terms of its functions and use. Not only that, users are interested in seeing more aspects of the application to be clickable or able to interact with because in user test 1, the user showed interest in wanting to explore all the application's features. This qualitative finding was also found in user testing 2 which during the test, the participant moved away from the task to "explore a bit" which is a phenomenon that seemed constant in the curiosity of participants wanting to know more about the app, concluding that it may be due to the lack of clarity on the application's purpose.

Summary of Data

The table below displays a summary of the test data.

Summary of Completion, and Time on Task.

Task	Task Completion	Time on Task
1	4	9.5
2	5	12.6
3	5	15
4	6	7.8
5	6	8

Overall Metrics

Overall Ratings

4.6.2 Likes, Dislikes, Participant Recommendations

Upon completion of the tasks, participants provided feedback on what they liked most and least about the website, and recommendations for improving the website.

Liked Most

- Pictures and imagery used throughout the application giving it a clean look.
- Consistency with the screens and colours of the application
- The purpose of the application seemed to relate to the overall goal of travel

Liked Least

- Difficulty and redundancy in some of the screens or task such as exploring the map feature
- The non-touchable aspects of the application even though it is a working prototype, users expressed wanting to go into more of the application
- Tasks making them go through a lot of screens in order to find or accomplish something.

Recommendations for Improvement

- Recommendation of improving the map aspect of the application and making it far more accessible.
- Offering more options to users such as recommended aspects of the trip and options while on the road, such as food, gas, or other things that may appear on the map as you travel.
- Adding a confirmation message after the photos are uploaded

Recommendations

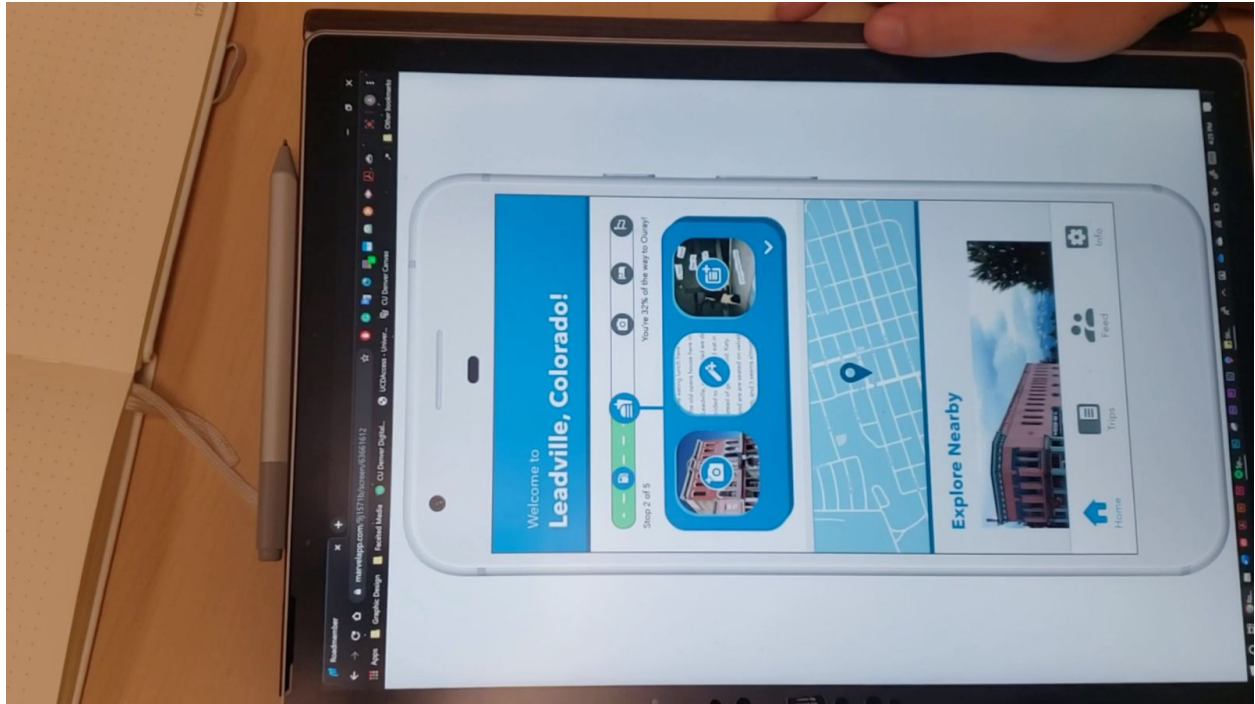
Change	Justification	Severity
Recommendation of improving the map aspect of the application and making it far more accessible.	Participants across tests mentioned that the map could be improved. The current map makes it harder for user to view their current trip and where they are located. Even though five of the six participants in the testing were able to complete the task of finding the map for their itinerary, this task caused confusion and aroused questions among the participants.	High
Offering more options to users such as recommended aspects of the trip and options while on the road, such as food, gas, or other things that may appear on the map as you travel.	Participants from our testing also found themselves looking for more options and tools that Roadmember does not have. Some of them looked at this app as a diary or journal. Our goal is to make road trips easier and to give a platform for people to share their trips. So adding more tools would make the app feel more complete and useful for all users.	Medium
Adding a message that confirms you have	Participants from our testings were unsure after they added a photo, they spent a considerable amount of time being confused on this task. They	Low

successfully added photos	were still able to move on but it would be a minor appearance change that would make the task more clear.	
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Conclusion

Most participants found roadmember to be easy to use, an interesting concept and be a useful app to use. Roadmember is a road trip planning app that has key features like photo uploading, community feed, route planning and a personalized profile. Having an app that organizes and helps plan road trips was something most, if not all users found to be a great concept and an app they would use when planning a trip. Adding the user feedback like improving the map aspect, offering more support options along the trip and making the photo upload screen clearer will continue to improve the app moving forward in the future.

Appendix

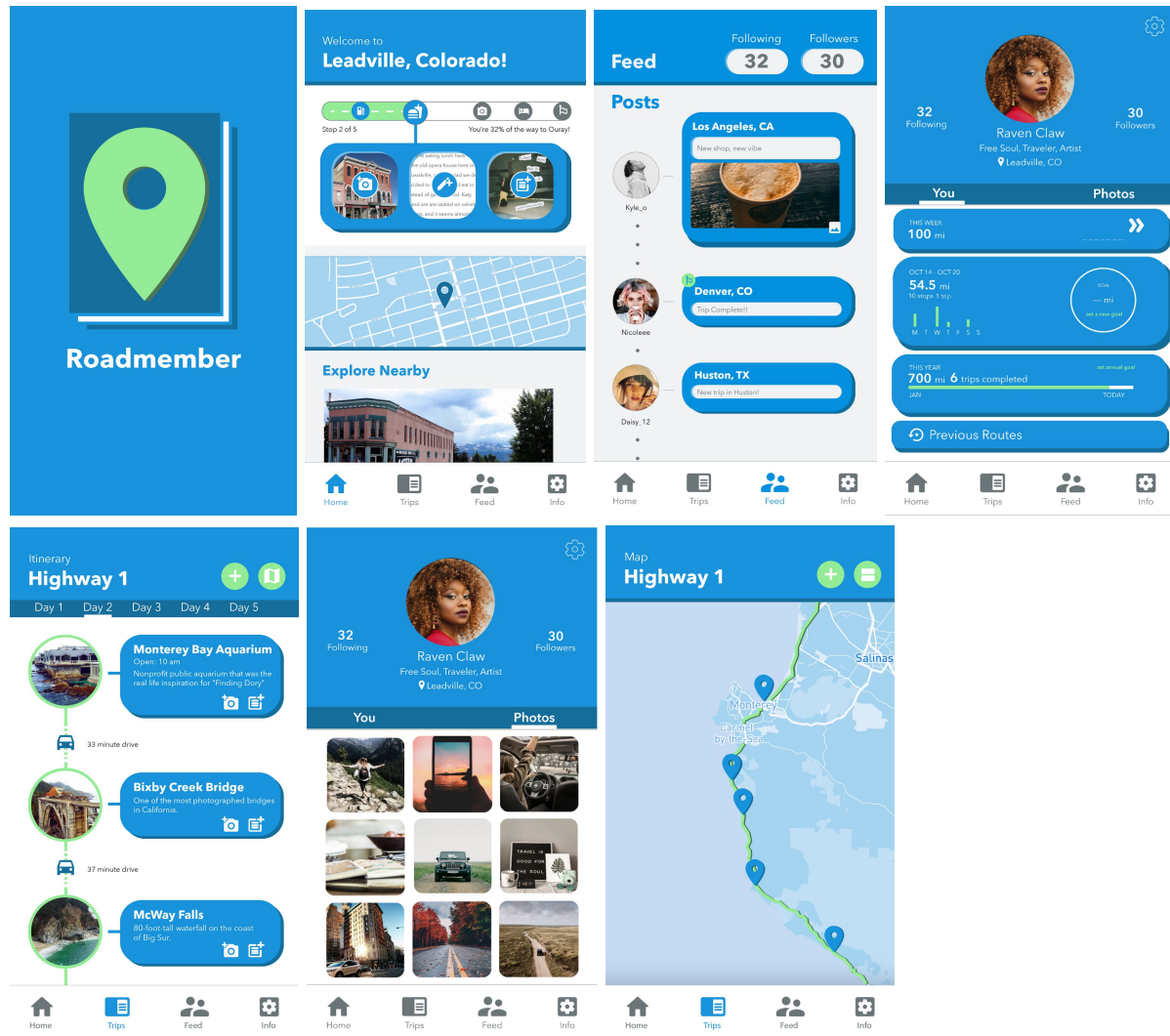


Link to highlight reel: tiny.cc/roadmember-highlight

Attachment A - Task Questions

<https://drive.google.com/file/d/1LluUTiRp-gIy8ltL8bokKUNkULne97DW/view?usp=sharing>

Attachment B - High Fidelity Screenshots



Attachment C - Press Release

<https://drive.google.com/file/d/1XDmY8Rf2tVpR0xWu92MXH9cDN5lRM4A9/view?usp=sharing>

Attachment D - Signed Consent Forms

https://drive.google.com/file/d/1F8JNpfr-SBVC4xwPH_qTQ7xmpAgGJ8Tc/view?usp=sharing