Milestone 2

Group: Commuter Hub Team

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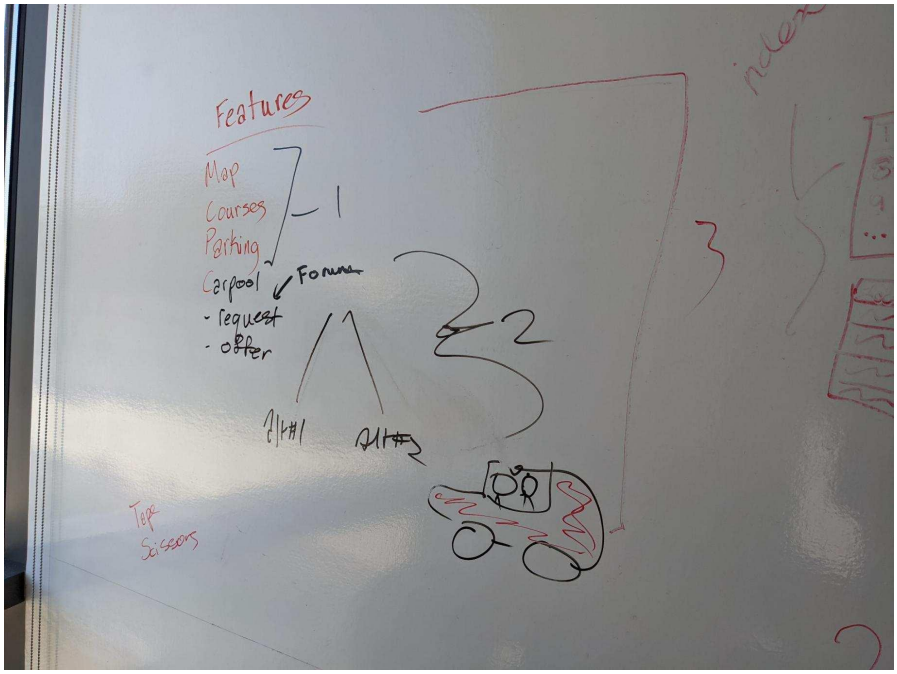
Interaction Design Milestone 2 Report

Our project is the compilation of information useful to student commuters in one easily accessible page. Our requirement for this milestone was to create at least two prototypes that present completely different user experiences. We already had an idea of what this would entail in our last milestone. In order to create two drastically different experiences, we decided in our first meeting that it would be easier to divide the project into modular sections. Each could have two alternative designs made for them. We had previously decided that the page is meant to be integrated with and accessed from the existing MyLMU site alongside the other important features of the main MyLMU page.

Feedback from our first milestone brought to our attention the existing LMU Park site that we overlooked when writing the previous report. This page is for managing registered vehicles to enter the LMU campus. While our Commuter Hub page would fit as an expansion of this site, we decided to keep the Commuter Hub separate as one of the larger links next on the MyLMU site as we had previously decided, as this would be easier to display as a paper prototype.

Dividing up the project, we saw the map and the rideshare forum as our two main features to create paper prototypes for. Since our page focuses on compiling this information into one section of the website, we decided to prototype two alternative layouts as well.



In total, we have three sections: the Layout, Map, and the Forum. Each section has two interchangeable prototypes.

Layout

We started working on the layout first. Both versions of the map retrieve a list of the student's courses from their account. This data is used differently in each prototype. The final design will likely combine both. The main question we had to answer for our layout was how to make the connection to the map or the forum stand out depending on what page the user is on. Later on, we realized that both of our map prototypes are going to include the user's course list as a part of the map section of the page. We decided on a different location for the course list on both of our layout prototypes.

Our first idea for the layout, Layout 1, was a generic system of two different pages with links to each other in the top corners. Another way we considered this could be done was if we start on the map and scroll down to the forum which are both separate areas that would take up the entire screen. The buttons that link the two could still exist and jump the user to that part of the page. We decided that the two ideas were too similar to justify creating separate prototypes for. Our prototype starts on the map, and has a button that links to the forum in the top right corner. The forum has a button that links to the map in the top left. We thought that this could prevent users from double clicking the button and being sent back to the page that they were on. However, we recognize that it could make it difficult for the user to recover from mistakenly pressing the button. Access to the carpool forum might not be as obvious. This would be especially true if our map is used by nonstudents as well, and if many students don't log in regularly before using the page. If the student is logged in, their course list on the map section would be located as a transparent dropdown menu in the top corner opposite the button that brings the user to the forum. This way the map could take up the entire rest of the screen. This design was easy to prototype as two sheets of paper stacked on top of each other that could be flipped to reveal the other page.

For our second layout, Layout 2, we wanted the forum and map to be sidebars on the other's page. The sidebars could slide out from the right and left sides of the screen when clicked. We thought that this layout would be more intuitive and allow for more information to exist on a page without being overcrowded. The sidebar on the map page that brings the user to the forum could have a count of requests or offer posts listed. Ideally, this could peak the user's curiosity to click to the forum to see what the posts say. The course list on the map page would be located on

the left side of the map, which is enclosed in a large box on the screen next to the sidebar. The additional whitespace on this layout could make the course list and sidebar more obvious to the user. Additionally, this layout could also work better on phones than our alternative. The mobile version of the existing LMU map scales the interface to be used on phones. Our project aims to similarly be accessible on phones, and our sidebars could maybe work as draggable tabs to pull the other page across the screen.

Map

Next we created prototypes for the map. Because the user is accessing the Commuter Hub from the MyLMU site, if the user is logged in, we should be able to get their course list from their account. Keeping this in mind, our map prototypes both use the user's course list, located somewhere on the page depending on the layout, in slightly different ways. The goal of the map is time optimization. The user should be able to find the closest parking areas to their classes and approximate the distance to walk across parts of the campus. Current, more generic maps allow users to estimate the walk time from location to location. Our map would serve the specific purpose of providing information on the LMU campus alone. Students should be able to find where their classes meet and where they can park at a glance.

Our first map prototype allows users to click on two different points and get the optimal walking path and approximate time to reach the second from the first. Clicking on one of your courses would act like clicking on the building with that course in it. The scenarios where this would be used are fairly intuitive, though it requires the user to focus on the application for a noticeable amount of time. An idea that we considered to make this map more useful with less work would

be to have clicking on a course instantly bring up the path from the nearest parking area to the course, rather than just selecting the course after another building or area that you click on the map. However, in order to remain consistent with that design, clicking the course from the list would override whatever the user had already selected on the map. Instead, we decided that the user should be able to click on any parking area or building that they choose, and then select the course that they are looking to get to. After two locations are selected, if another location is selected, the path from the previously clicked location to the last location that they just selected would be highlighted. This sort of "leapfrog" selection system would allow our walk time indicator to pop up right above the area that the user clicked last, making it more obvious to the user.

For our second map prototype, we wanted to come up with a way for the site to generate the optimal paths to classes without any user input. Small indicators along the routes should say the time each path would take to walk. The paths should be the distances from their closest parking area. Each path would be color coded, with an indicator next to the respective class showing the color to find the optimal parking and path for that class. This would mainly benefit the user who needs to rush to class after making it through traffic, especially at the beginning of the school year as the map will be quicker to use once open. Expanding on this idea, this system could also account for students with back-to-back classes, showing paths from class building to class building if the classes are within a small time frame of each other. The map could automatically find the best parking area to reach all of the classes grouped with start and end times within an hour of each other. This is a difficult system to create a paper prototype of, so we decided against showing this idea off.

Forum

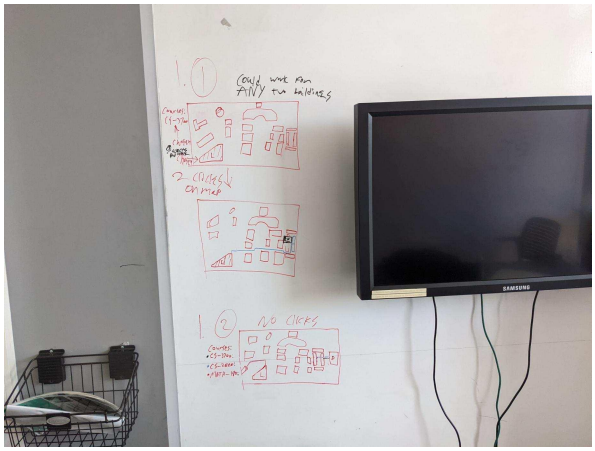
With our rideshare forums, the main concern came down to the messaging service. We can either have users submit an email to help consolidate their inboxes, or have a separate service contained in the application. It's possible to do both, but that would require either users to specify their preferences at the beginning, and backend designers to figure out how to parse messages into a good format given the different conventions of writing emails and direct messages, or force users to use two different systems for one app, both of which we disliked. We planned on having the person in charge of "ozzing" with our paper prototypes ask people directly to get feedback on which the users would prefer.

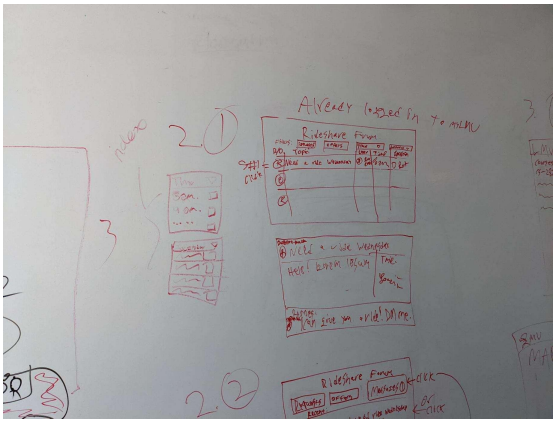
Our first forum prototype is very simple. We have a basic bulletin board-style forum with filters and tags for requests, offers, times to be at school, and locations the users are headed. The messaging system will be email based and addresses will be submitted by the user. This will be familiar for anyone involved in any one of many online communities. The general task flow would be: A user posts their request or offer, then people ask general clarifying questions in case they're needed, email chains are sent when someone is ready to answer, then the original poster marks the post as resolved. Posts could stay on this forum for long periods of time. This style is not particularly unique, but it would serve its purpose.

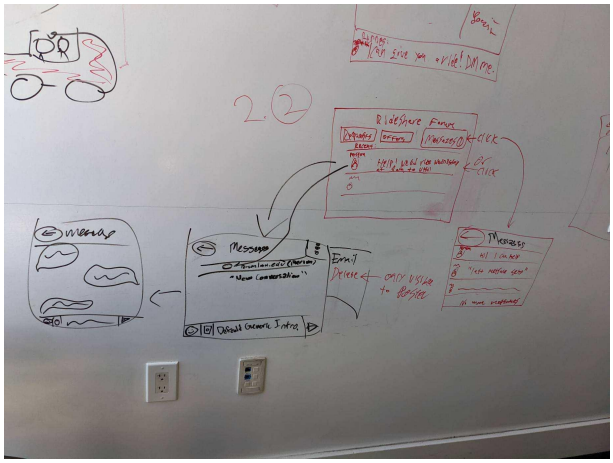
Our second forum option is a more modernized direct message-based forum: We wanted a live feed of requests and offers similar to social media websites like Twitter. Clicking one of these posts will bring up a message box to chat with them. Only the original poster can delete their

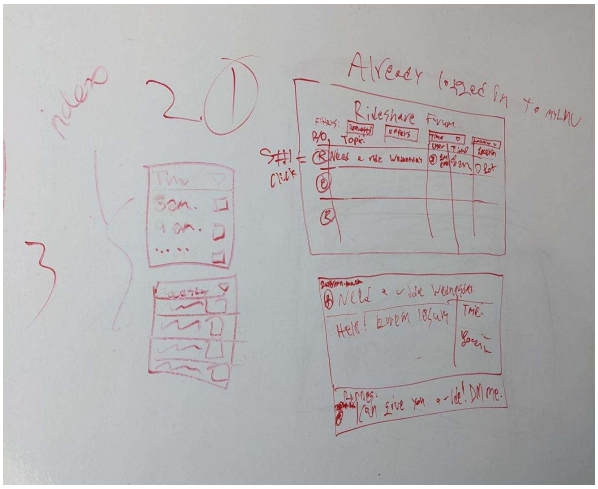
request or offer. Posts would stay up in the feed for a few days, before they are automatically removed. This would be to account for users receiving responses to a request or offer that they put up after their request or offer is no longer active. This would be ideal if wait times for carpools are exceptionally short.

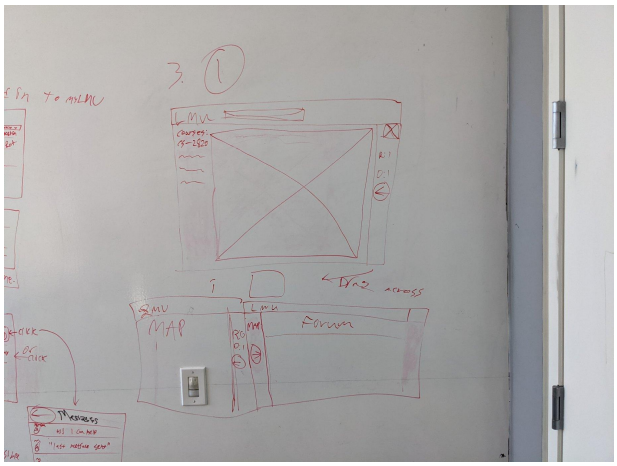
Original sketches

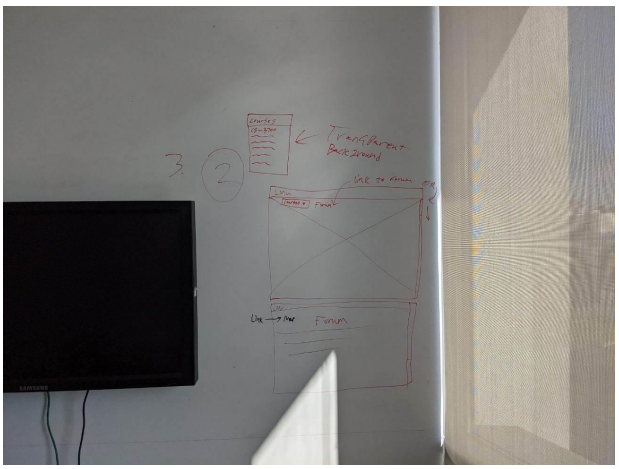












Gallery walk showcase