Project Part 4: Improving When2Meet

An even better way to schedule meetings & events

Human-Computer Interaction
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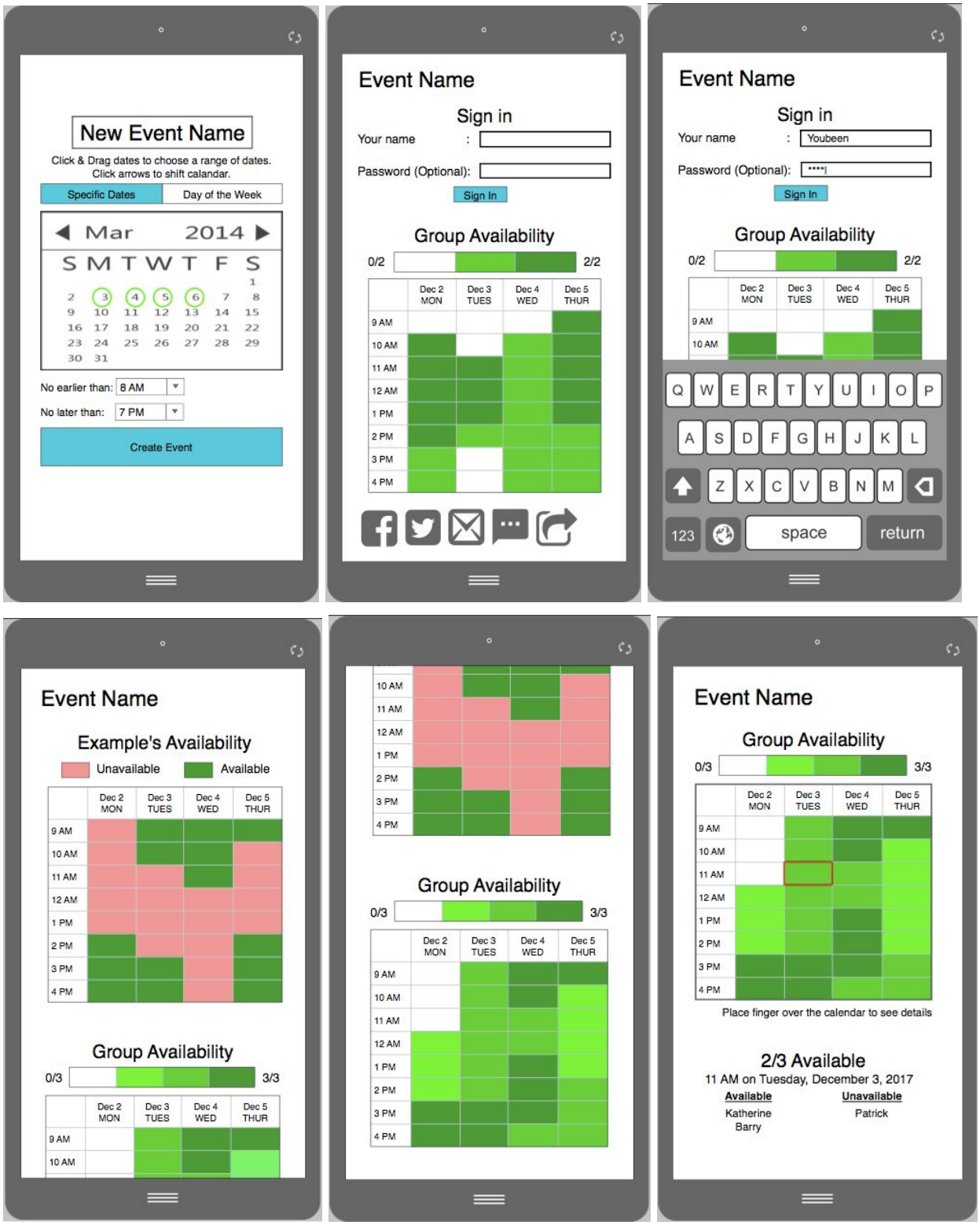
Youbeen Shim (ys3ep@virginia.edu)

Abstract

When2Meet's conceptual model is best described as a virtual calendar that is shared with other users to mark up and collaborate on, following the idea of manipulating, where users interact with objects in a virtual space by manipulating them. When2Meet users can hone in on their familiar knowledge of how to interact with calendars through actions such as clicking and dragging over available time slots in the calendar mirroring blocking out times that users are busy in a physical calendar. At a more abstract level, When2Meet helps streamline the idea of two or more people together in the same space looking at a calendar and deciding when they are next able to meet, then coordinating the best time to meet between multiple people.

While when2meet is simply designed as a website for everyone to quickly pick up and use, it is currently not tailored for mobile devices that have smaller screens and emphasize quick-use. Thus, in prototyping, we have focused our efforts on ensuring the calendar interaction is intuitive and inline with user expectations and goals for both when2meet and mobile use. The mobile page will agree with the compact nature of the overall system design, and the mapping between a real world calendar will be further emphasized.

Prototype 1: Vertical Mobile When2Meet (SCROLLING ENABLED)



In a high-level sense, the goal of the prototype is to suggest an alternative design for the current mobile version of when2meet.com -which is riddled with design and implementation flaws. On one hand, the design should not deviate significantly from the original design of the website. Deviating so would create confusion for the users and cause frustration at having to learn a new interface. On the other hand, we want to suggest a significant enough design change that can improve the user's interaction with when2meet and provide a smooth scheduling process so that the users will be motivated to reuse the product at a later date.

This prototype aims to cover a number of usability requirement and is meant to determine the overall streamline nature of the complete product. The detailed requirements that are being addressed, among others, are as follows: planners are able to fill out out the first page (creating event) in under three minutes, planners are able to find optimal time(s) to meet in under 25 seconds, participants are able to share/access through at least 5 platforms, users are able to share under 45 seconds in under 3 clicks, and participants are able to include their information in under 2 minutes. These requirements are built on top of the natural limitation of the mobile device -screen size. There will be a hard limit of 5 days for scheduling, as adding any more days will compromise the visibility and interactivity of the screen.

The first screen, the "Create Event" screen, pertains only to the group leader (i.e. Planner) and as the name suggests is intended for the creation of the scheduling process. Note that all of the elements found in the original when2meet website still exists, and uses the same interactive items such as the calendar to choose dates or the combobox to choose the range of time. The layout simply gathered these elements to a mobile-friendly, scroll-free and zoom-free page.

The second and thirds screens, the “Log-in” and “Scheduling” screens, are for both planners and participants (planners is a special type of participant). For “Log-in”, icons/buttons at the bottom that allows ease of sharing the link to others. The user needs to only scroll to the bottom of the page (in any page but the “Create Event” page), tab on the social media/messaging tool of their choice, and the link should be automatically copied and the user should be taken to the application of their choice. The sign-in portion of the screen is a fairly standard log-in screen, and users can interact with it by tapping on it, which will prompt the mobile keyboard to pop up.

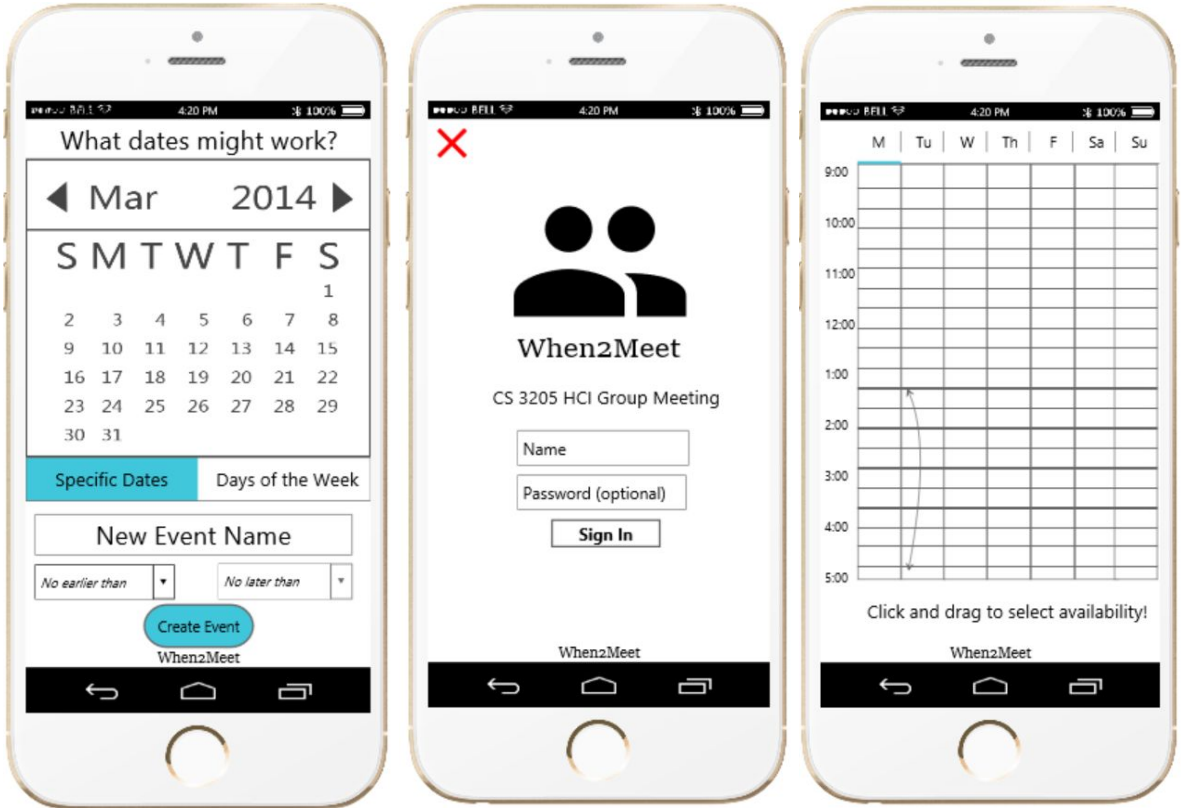
For “Scheduling”, similar to the previous screens, elements in the respective when2meet website screen are found here. Users can easily tab and swipe while holding to simulate the click-and-drag of the mouse that the website version deals with. The vertical orientation allows for easier scrolling and cuts out the need for zooming in to interact with the scheduling table.

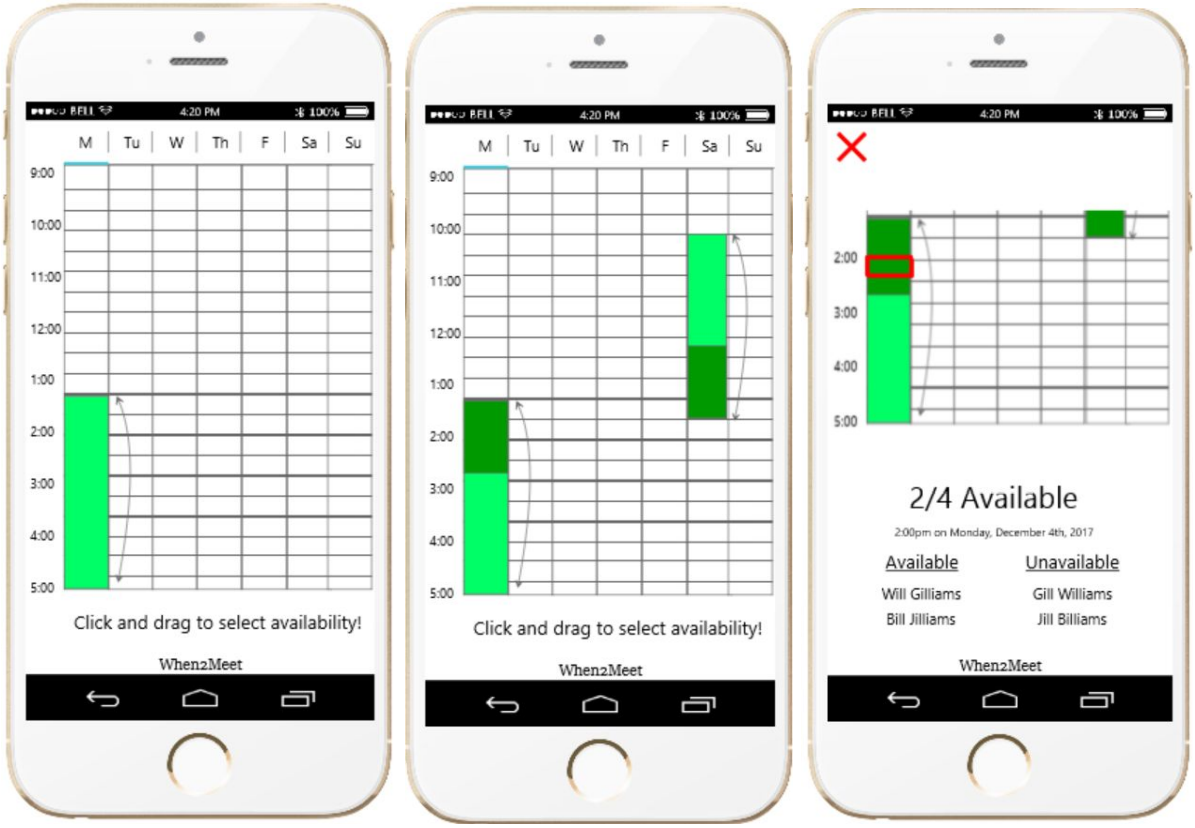
The final screen, the “Hoos Available” screen, is a deviation of the “Log-in” screen. Instead of logging in, if the scheduling information for all group members are already uploaded, participants can instead opt to interact with the “Group Availability” portion to see which individuals are available at what times. The red box is used to indicate for which time the availability information is displayed for.

We chose a somewhat med-high fidelity to better measure how the user might interact with the product yet remain flexible towards design changes. In today’s world, almost every individual has a mobile device, and scheduling remains just as important. If we were to build a mobile version, not only does it have to provide the same core functions, we would also have to be prepared for a wider user base. This was done by cutting out most of the unnecessary design elements found in the website version, creating a time-aware layout meant to shave the critical

seconds required to plan an event, and an easy to learn functionality that can easily be recalled in the next use.

Prototype 2: Vertical Mobile When2Meet (NO SCROLLING)





As with the other designs, this vertical, non-scrolling, digital prototype is meant to deal with intuitive mobile interaction and replication of the experience provided in the when2meet website. The main issue found in the mobile version was that as of right now, the mobile version considers the mobile devices as computers with very small screens -meaning there is no change between mobile and desktop versions of the website. In order to better conceptualize the different experience that scheduling on a mobile device provided, number of usability requirements were set, and are as follows: planners are able to fill out out the first page (creating event) in under three minutes, planners are able to find optimal time(s) to meet in under 25 seconds, participants are able to share/access through at least 5 platforms, users are able to share under 45 seconds in under 3 clicks, and participants are able to include their information in under 2 minutes. If the prototype is able to clear all the usability requirements, we will know that we

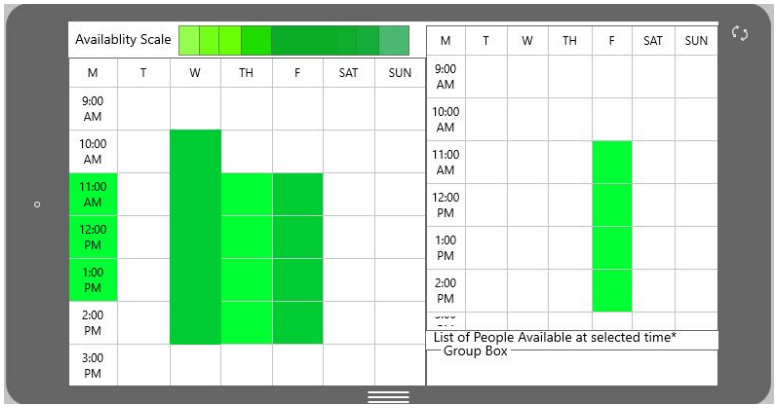
have created a successful design that can better address the issues that we have found. Also, by comparing the prototypes, we will be able to gauge the best design that boasts both its efficiency and reusability.

The main feature that this prototype boasts is that all elements are neatly sorted into a single screen that does not require scrolling. While scrolling is a great feature that allows the addition of more space for more features without compromising the other elements in the design, mobile device is best left scroll-less. In order to achieve this goal, slight alterations to the original website was made. The original website always displayed two main elements at once, be it the date and time, log-in and scheduling table, scheduling table and group availability, or group availability and individuals available. This allowed some interaction between the elements where interacting with one element also cause a change in the other element. While that was a useful feature, it was ultimately unnecessary and possibly disruptive in a mobile setting. Thus, what resulted is the prototype displayed above. Each main element was given its own screen, which allows a more natural progression of workflow. Note that all of the minor elements are all elements that are frequently found in a mobile setting and can be simply interacted with using just one finger.

While in the current era, everybody carries a mobile device, the size and specs of the mobile device varies from person to person. If so, how can a design be created that is truly for a diverse user base that we expect to see? We do so by cutting out any features that are not necessary. The dual-element display is convenient and neat, but ultimately a luxury that can be afforded with desktops (which are assumed to have a higher computing power on average). By cutting this out, the prototype better address phones with lower processing powers. Not only that,

but this also allows a faster interaction with the product and faster development process. Everything within one screen means less searching and that we need to worry less about how each display will change with different screen sizes on phones. The discussed factors that was considered during the designing process results in an extremely efficient design that is quick to learn and motivates the use of the service.

Prototype 3: Horizontal Mobile When2Meet (NO SCROLLING)



This horizontal, digital prototype of the mobile when2meet website aims to test the ease and satisfaction of creating an event and filling out a schedule. The original site had many obstacles such as a poor screen adaptation to mobile devices and requiring to zoom in, so this prototype is geared towards becoming more mobile friendly to the users. The time it takes for the user to complete the task of creating an event and filling in their schedule can be measured to test whether or not there is an improvement in efficiency and to what extent. The goal for this prototype is for the user to be able to create an event and share the event to other users within 3 minutes. Another goal is for other users to be able to successfully fill their schedule in under two minutes. Satisfaction can also be measured by introducing survey on a scale of one to ten after the task has been completed. By comparing the results of this prototype to other prototype, an optimal design that maximizes both efficiency and user satisfaction may be concluded.

This digital prototype is of med-high and created digitally with software from MockPlus. A digital prototype was of best fit for this design because it was easily doable with MockPlus and simulated what the final product could actually look like as well as get real reactions from testers. For this prototype, a landscape view point was selected as a foil to the traditional vertical orientation of most mobile websites, including the current website and the other prototypes. The prototyping strategy used was quantity instead of quality in order to come up numerous different prototypes which could then be compared to each other. This approach also accounts for the variety of users by having a variety of designs. A landscape website is also able to display more content without scrolling in contrast to a vertical orientation. The weakness of a horizontal orientation is that most users are not accustomed to it.

Landscape view also allows room for the calendar/schedule to be consistently placed onto the page. In the prototype, the calendar or schedule is always on the left half of the screen. This is because the user base usually reads left to right ,so this side can always be used as a reference for times that are available. The right side consists of input fields that the user inputs such as event name, time constraints, confirmation buttons, and etc. The input fields are either type-in text areas for personal information or a scrolling time selection mechanism for time constraints. The right side eventually switches into a schedule for the user to fill in and displays the members that are available at a specific time. The schedule utilizes a click and drag mechanism to select times that the user is available. Finally, the final screen consists of sharing options of popular social media such as Facebook and Gmail. The choice in linking popular social media is due to the general user base being consisted of college students and young adults and the various options ensures that almost all users will be able to share their when2meet events.

Prototype 4: Horizontal Mobile When2Meet (SCROLLING ENABLED)

This prototype version is aimed at creating a better experience with when2meet when mobile devices are in the horizontal orientation.This prototype contains a couple interaction features.but there is not full customization/interaction as dates are pre-picked and coloring of availability merely mocks a sample event. As such, this is a medium-to-high fidelity prototype.

As with the other prototypes, this prototype aims to cover a number of usability requirement: planners are able to fill out out the first page (creating event) in under three minutes, planners are able to find optimal time(s) to meet in under 25 seconds, participants are able to share/access through at least 5 platforms (social media + messaging), users are able to share under 45 seconds in under 3 clicks, and participants are able to include their information in

under 2 minutes. These requirements and the pages in the prototype follow that the planner and participants needs to create/fill out an event that has up to five dates.

While some layouts follow that on the original when2meet website, some diverge for a supposedly more intuitive layout. By observing how long it takes for (returning) users to get accustomed to the new layout or for new users to take in the layout, and similarly across all prototypes, we can see which one allows for most comfortable and quick pick-up. In addition, open ended, dual-sided questions such as “what did you like about the prototype?” and “what didn’t you like?” can highlight the advantages and disadvantages of each prototype.

Even though mobile users might usually access when2meet in the vertical orientation, the horizontal orientation could still be used and the layout must still be taken under consideration. The scrolling feature was used to fit more into one page while also maintaining good spacing and preventing crowding of features. The first screen (creating the event) mirrors the layout of the website, but spaced more closely together so that there isn’t a need for zooming in/out or scrolling side to side. There is a tabbed menu from which planners can choose which format of dates they want and the time of day has a drop down menu. This allows for uniform and quick choosing. In addition, the points of user interaction have a good amount of space between each to minimize accidentally touching the wrong item (minimize mistakes).

The next page has all possible sharing methods at the top in big, spaced out buttons, current state of the calendar on the left and underneath sharing. As users tend to read left to right, it gives users a quick overview/look of what is on the calendar. Users tend to next, look to the right, and so details on specific times and corresponding availability and sign-in are on the right. Using different sized-fonts (contrast) and proximity (CRAP principles), users can quickly

process the important information and understand the text. The other tab on the right has the login and take the user to individual filling out of the calendar. Following flow of users, as the main task after signing in is to fill out the calendar, that one is on the left while the compiled current state of all responses are on the right. There is also the select and deselect option to reduce frustration for lack of precision on mobile devices.

All these combined aim to create a short time investment into filling out/creating events with when2meet, as that is what many mobile users tend to expect. In addition, a variety of measures have been taken to reduce frustration and minimize errors (e.g. spacing of buttons). Regardless of the category that users fall into, this should allow for easy use and learning, regardless of experience with when2meet or skill level with mobile devices.

Conclusion

By redesigning the mobile website for when2meet, we hope to improve the efficiency and usability of the site so that smart phone heavy users have an even better way of scheduling meetings and events.We provided four prototypes, two for each orientation to cover all possible cases with a mobile device. While the specific design across all four prototypes differ, it is important to have consistent designs that enhance both orientations' experiences. The user requirements that the prototypes aim to test highlight efficiency and quick, ease-of-use that is often expected when using a mobile device.

Another critical issue was how the elements were laid out. Prototype 3, for instance, focuses on the consistency of the layout. The left side is left almost exclusively for the scheduling table while the right side displays different elements that adopts based on the prioritized task at hand. In comparison, Prototype 2 instead opts to give each element its own

unique screen, focusing on flow over consistency. The impact of this difference remains as the single greatest mystery that remains to be tested. Will the consistency of design and the dual-element layout provide enough benefit to the user to outweigh the benefit of efficient and flow-oriented layout? This is left for further exploration.

Apart from orientation and element layout, one significant difference between the prototypes are that each orientation versions have a scrolling enabled prototype and one without scrolling. While we attempted to maintain core layout of when2meet, certain features differed by what is displayed on each screen, how each feature is displayed (on seperate screens vs. in a tabbed menu vs. displayed on top of each other), and smaller, specific details. These differences, combined, all effect what the user takes away from the experience. By having multiple prototypes with different layouts and features, we will be able to see which layouts users prefer, how users interact with the system, how users respond to new layouts (esp. for those who are used the current when2meet and comparing performance between new and old users), how different layouts affect interaction, and find specific pros and cons within each prototype. By combining the feedback across all prototypes, we will be able to consolidate ideas to create a mobile when2meet that best enhances the user experience.