Project Part 3: Improving When2Meet

An even better way to schedule meetings & events

Human-Computer Interaction
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Abstract

The group has been able to generate and select key users to consider when looking to improve when2meet.com, a website that helps people find the best time for a group to meet. The focus will be on students, workers, and hobbyists; all groups that have a need for collaboration and without access or need for large scale project management scheduling tools. A task analysis of When2Meet helps determine that When2Meet most follows the manipulation conceptual model, where users mark up a virtual calendar that mimics similar actions that they perform regularly in the real world. Through these interactions, usability goals emerge: 1) ease of interaction, with regards to our planned improvement & conversion from website to mobile, 2) learnability, by maintaining a small set of core functions, 3) visual clarity, by minimizing user memory load, 4) ease of sharing, and 5) safety. These five usability goals will help the team create usability requirements centered around time efficiency. These five goals have been determined to be important and relevant through internal evaluation methods such as usability and heuristic evaluations.

Overview of the System

When2meet.com, provides a simple and effective method for groups to arrange a time to meet. It allows for individuals to present a detailed range of options to plan for a specific event. As it stands currently, while it is possible to access the product through a mobile device, it is by no means optimized for mobile use. The purpose of this project is to address the mobile functionality of when2meet. A user is first tasked with creating an event by choosing the appropriate dates then sharing the event link with other users so that they are able to edit the same shared virtual calendar. Once on the event page, new users are prompted to enter their

name to display on the shared calendar and prompted for a password if they want to ensure the integrity of their calendar selections. Users then manipulate a virtual calendar by touching and dragging their finger across the screen to select and deselect available times in their schedules. The system then updates the shared calendar with color shading and name listings to indicate the times in which most event users are available.

Overview of the User Base

With our mobile website for When2meet, we expect all our of users to be heavy users of smartphones. Of the many users, they may be separated into three distinct categories, but a few may have overlap with more than one category. The first category would be students. We expect a majority of them to be college students, but when2meet is also used by high schoolers although it is not as popular as the in the college setting. These individuals primary use when2meet in order to schedule group meetings for projects or council meetings for clubs. They also use when2meet for the best time to have an event or plan casual hangouts among peers. The second group of people would be workers. These people will strictly use the mobile site in order to schedule office meetings. The formality of the meetings will generally provide high response rates. The final group of people would be hobbyist that would use when2meet informally for casual hangouts with other hobbyists or peers. Based on these categories, is it safe to say that when2meet is predominantly used by young adults. In terms of distribution, 9% of all users are under the age of, and 68% of all users are between ages 18 to 22, which is usual age for college students. The age group of 23 to 26 makes up 20% of our users, and that age group represents college students who recently graduation and found jobs. The final age group for our distribution

are user that are over 27, and they make up 3% of the age group. Going by this information, when2meet's most important users are young adults.

User Roles

The two user roles for when2meet are the planners and the participants of an event. The planner is the person in charge of creating the event, making sure the link for the when2meet is sent to all the right people, and assessing the final when2meet calendar to decide the best time to meet. The participants are the other people in the group that are involved in the event. They just need to fill out the when2meet when it is sent out by the planner.

The user distribution among the two roles is probably close to 10% planners and 90% participants as there only needs to be one planner for a group and group sizes can vary. However within the distribution of the roles, the user distribution is typically the same as the general populous user distribution as similar aged people will tend to hang out with that age group and the distributions were grouped in such a way that is was essentially broken down into high school, college, and beyond.

User Personas

Jackie (Under 18)

Jackie is a 17 year old high school student who is NHS president and captain of the girls swim team. She is often planning and juggling various tasks from homework to officer meetings to swim practice. As a leader clubs and a busy person, she needs to be able to quickly find the best times to meet for various events especially smaller groups (group projects, officer meetings). She

has grown up with technology, getting her first phone in elementary school and uses it all the time (except in class!).

Patrick (18-22)

Patrick is a 19 year old lazy college student who does not want to participate in a group project - he aims to do the very minimum required amount of work. He was had a phone since middle school and uses it everyday. When sent a link to when2meet to fill out, he just want to quickly fill out the form to show his availability. He doesn't want to spend much time on it.

Billy (18-22)

Billy is a hard-working 21 year old. He generally takes up the role of group leader, taking initiative of group projects and tries his best to include everyone as he hates making people feel left out. He is also vice-president of student council and often has to find best times for groups of people to meet, ranging from three others or to 20+ people. He has a phone but prefers to do most of his work on his laptop. As people's schedule vary a lot more in college, there is a wider range of times that are options as to when to meet.

Catherine (23-26)

Catherine is a 23 year old software engineer, who just recently graduated college and is proficient in a variety of technology. She wants to create an event for a board game night with her friends and colleagues. Because she sparsely used when2meet in college, she is familiar with the interface for when2meet. Most events have a more limited time frame as they have to be after work or on the weekends.

John (26+)

John is a 35 year old accountant living in the city who, although uses his phone quite a bit these days, is not the expert at it. He uses his phone mainly for reading the news, checking email, messaging, but not much for games or other things. His coworkers are trying to find the best time to celebrate an office mate's birthday. He is not familiar with when2meet and does a lot of smaller, mobile-friendly tasks on the subway, to and from work.

These personas show the wide range of people who could be using when2meet, in age group, based on the user distribution and the different events that it could be used for. As our group is improving on the mobile version of when2meet, we assume that the personas will be using when2meet on their phones and have focused on that aspect. While users have varying levels of proficiency in technology, the majority of the users are in high school or college (under 22) and have been using mobile phones for a good chunk of their lives and depend on it to some degree. However, regardless of who uses it, when2meet should have an easy-to-pickup intuitive design that allows for quick use, especially on-the-go, when a laptop may not be accessible. The interface should be able to handle wide variety of time slots and days that is still easily understandable and has good flow.

Task Analysis

As mentioned above, the two roles of the users are either being the planner or the participant, with a large majority of the users being the participants. The steps for completing the tasks for both roles are very similar in nature, except that the planners have to take more action in order to properly plan their event.

To complete the task of the planner, the user must first create the event. To create the Sevent, the users must fill out a few parameters such as the event name, and select time

constraints with a list scrolling mechanic. They must also interact with the calendar to determine whether or not the schedule will be for specific dates or specific days. Once all the options are filled out properly, the user must select the "Create Event" button to create the event. Once that has been done, the user must then "Sign In" with a name and password in order to fill out the calendar as a distinctive users. Once the user has signed in, they must carefully look at the schedule and click and drag the times they are most available. Once that has been done, the users will finally share the link to the other participants of the event through the emailing option, Facebook messaging option, or just from copying and pasting the link into another form of social media. The planner will then wait for all participants to finish filling out their schedule and then carefully select the time most convenient to hold the event. The planner will then contact all the participants and inform them about the time selected and finally have the event.

The task of the participant first includes receiving the link in some form from the planner or another participant. Once the users accesses the link, they must "Sign In" with their name and password(optional) in order to register as a distinctive user. Similarly to the planner, they must carefully decide which times they are available and touch and drag the respective times on the schedule. Once this is done, the users will wait for all the other participants to fill out their schedules and the planner will select the best time for everyone. The participants will then be contacted by the planner, and will finally meet up with everyone at the event.

Usability Goals

The system has a few high-level requirements that it must qualify under to be considered usable by the targeted users to do the projected tasks. One of the main goals is "Ease of

Interaction". Dealing with both effectiveness and efficiency, user(s) must be able to upload their schedule and compare their respective schedule with ease. Users already familiar with the website version of when2meet should have no issues interacting with the mobile version. If they have no familiarity at all, it should not take more than a couple attempts to fully learn the core functions.

This leads to the second usability goal: "Ease of Learning". The mobile system should be intuitive for users. When the users see the system, they should already have a good grasp on what they have to do. The product should also not be overloaded with functions -the large user base that when2meet has will suffer if it has too many functions. By keeping the core functions to a minimum and implementing intuitive structure, the system should have high memorability.

We also concern ourselves with the "Safety" of the product. Not in the more practical, hazard-prevention sense, but more in line with error-prevention. There should be clear cut limits to the program that the user can identify. For instance, there are time and name constraints set in place so that users cannot compromise the visual display of the product. It is a hard limit, meaning users should not be able to break this rule, but it is also very fixable. If the user wishes to revise their schedule or take back their action in whatever sense, they need only go back to their temporarily generated account and address the section they want to revise. Restarting the schedule planning is also an option, though the product should be intuitive and easy enough that multiple re-planning should not be a necessary step.

The final product must also have good utility, especially regarding the core concept of "Sharing". Sharing is one of the core functionality in when2meet that does not directly deal with how the website or mobile version is structured. Users should be able to upload and update their

schedule, but if the link or other methods reach the product is cumbersome the product will ultimately be useless. In similar manner, constructing a mobile version should not completely be about the site, but rather an attempt to support the users in completing their desired tasks.

Finally, the product should be visually pleasing. This first has to do with the layout of the product. It should be a more mobile-friendly, scroll-based, layout. It also should have fonts and weekly calendars that can be read by users without much difficulty. If most users have to use zoom in/out frequently, it would have been a failure to address the layout issue. The final product should also be aesthetically pleasing. It should not be clunky and the design, while not sacrificing the readability of information, should be pleasant to look at.

Usability Requirements

- Planner should be able to fill out the form (name the event, select up to five consecutive dates, fill out one's own schedule) and share the link to when2meet to other users in under 3 minutes.
- Planner and user should be able to identify the optimal time(s) to meet (when maximum number of people are free) in under 25 seconds.
- Participants should be able to access the mobile version of when2meet from at least two social media platforms (e.g. Facebook, Twitter) and at least three different messaging platforms (e.g. Messenger, Text, Email).
- Planner should be able to share the link to the desired when2meet across different platforms in under 45 seconds and with less than three purpose-specific clicks. (i.e. it

should not take more than three clicks to share the link from the moment that the planner desires to share it)

- Participants should be able to upload their scheduling information under 2 minutes, and if they desire to make an account, it should not take any more than 1 additional minute to do so.

Conceptual Model

The group is best able to describe the conceptual model for When2Meet as a virtual calendar that is shared with other users to mark up and collaborate on. Of the four most common interaction types, our conceptual model best follows the idea of manipulating, where users interact with objects in a virtual or physical space by manipulating them, e.g. opening, holding, closing, placing. When2Meet users can hone in on their familiar knowledge of how to interact with calendars in the real world**.** Similarly to marking a calendar with a pen or pencil, users are able to easily understand how to mark virtual calendar by clicking and dragging their mouse pointer over the available time slots. 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.

The user base is familiar with the concept of links and how pages on the internet can be viewed by multiple people who have the correct address. Users currently understand the relationship between links and the internet in that they need internet access and the correct link to their corresponding event to efficiently make use of When2Meet. Regarding the interaction and user expectations, it is expected that the system is compact and available to anyone with an

internet connection. As it relates to compactness, the When2Meet interface is also an example of WYSIWYG (What You See Is What You Get), the calendar is clearly marked and maps directly to physical calendars that are often marked up in the real world.

With a clear understanding of the system and identification of a conceptual model, we are able to focus our prototyping efforts on ensuring the calendar interaction is intuitive and inline with user expectations and goals. 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.

Conclusions

With the launch of a 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. The specific goals that our team targets are ease of interaction, learnability for users, visual clarity, ease of sharing, and safety from errors. Many of the problems with the current site stems from the fact that mobile devices poorly adapt to it and requires extra effort to complete the otherwise simple task but with a mobile site, utility will greatly be enhanced, especially in terms of interaction and visual clarity. In addition to improving efficiency, by understanding the users and their tasks at hand in scheduling an event, a higher sense of overall user satisfaction will be reached.