Report

Introduction:

We chose Student Center as the website we study for our project. As far as we know, every student in UW-Madison are forced to use Student Center. We notice most students think it should be made more user-friendly. There have been complaints about the back buttons, the poor search function, dated interface and more. With that we see great opportunity for redesign. Among several activities that a student does in Student Center, we chose to study how adding a class is performed. Adding a class is one of the most common activities students do in Student Center. And it is not an easy task, it includes and not limited to going to Student Center, search for class, get information about the class and add class.

Summary of Contextual Inquiries:

For the contextual inquiry, we carefully chose and invited three undergraduate UW-Madison students to be interviewed. Two of them are more experienced with Student Center, senior and junior standing respectively, and the other is a second-semester-transferred student. Their majors also varied, one in computer science (and tech-savvy), one is from business school, and one is undeclared. We believe they represent three groups of students both in terms of experience with Student Center and knowledge to computer science, and collectively, our data would be more comprehensive. Since Student Center is a web application it can be accessed from any computer, laptop, or smartphone from anywhere the user wants. With that in mind we let our interviewee's choose the location which ended up being either their home or a UW-Madison building.

When going into our contextual inquiries we weren't worried about not getting enough data since Student Center is widely used across all UW-Madison students and is highly criticized for being such a poorly designed website. In fact, as soon as we described the premise of the project and what website we were working on, our interviewee's were not shy at all. They instantly began describing aspects of the website that they disliked and already had new improvements that could be made to the site. This was a good Master-Apprentice application of our interview that we took where we let the interviewee take lead and critique the website as we annotated their observations. To get more information from the interviewee we had them do a think-aloud as they added a class to their current schedule. This was the most successful part of the interview because it is where we really saw the breakdowns of the website and the frustration of the user.

Whether it was the slow loading of each page or the many clicks it took to do a simple task, the interviewee was not afraid to point it out to us. Since all three of us were very familiar

with Student Center we already knew its major flaws so going into the contextual inquiries we weren't certain that we would get much more out of them; but we were proven wrong almost immediately. Yes, each interviewee pointed out the obvious design errors of the website that we already knew such as: no back button functionality, poor use of the entire screen, slow transitions between pages, and the hard to navigate menu. We also discovered so many new things, for example our biggest discovery is that each user has their own way of choosing their classes and they all were different. We didn't even know there were so many ways to choose classes but each user would use a different service or website to find their classes each with their own motive. Some would use the Student Center since it is in the same website, when others would use the course guide because it has a better search function and better layout of classes, and finally even some users would first go to websites to find the best class and see what past students would say about each class. This pointed out the amount of redundancies the Student Center has as well as the thing we need to improve the most; the class search function. There should be no reason a user has to use multiple websites to search for a class, all of these features should all be incorporated into the Student Center.

Work Models:

From the data we gathered during our contextual inquiries we were able to form these five work models highlighting important workflow of users as well as important breakdowns and workarounds.

1. Flow Model:

Through the flow model we are able to see how each user interacts with Student Center as well as other websites to gather enough information about classes. It really shows how the user is dependent on using multiple other websites besides the Student Center in order to make a decision about what classes they should take. A large breakdown we noticed was that students are using another UW-Madison website called Course Guide just to search for the classes they need. This feature is in the Student Center itself but it is so poorly implemented that it is rarely used by students. With a redesign of the Student Center we can reduce these breakdowns in flow by providing the user with all the information they need within the Student Center.

2. Sequence Model:

The sequence model is a step by step process of what students need to do in order to enroll in a course. The intents are what actions the user needs to do, while the triggers are how the user is going to accomplish those actions, and the breakdowns are areas where the user may run into problems. The user first needs to log in to their MyUW account and launch Student Center. Then the students need to find a course, add it to their shopping cart, and actually enroll in the course. The first noticeable breakdown is encountered when students make sure their search criteria is correct. There are multiple places users could type in wrong information or

clicked the wrong drop down options. In addition to those possible errors, every time the student changes a drop down menus option, the student has to wait for the system to save before the student can continue. The second breakdown happens after the user adds the course to their shopping cart. Student Center's constant refreshing of pages attempts to inform the user if they wish to be waitlisted, are not eligible to enroll, or it is added to cart but they are not yet enrolled. However, these pages can easily be overlooked by new students because they look very similar and have little useful course information.

3. Artifact Model:

Artifact model is about the interface of the website to the users. Among the countless pages a user has to go through to add a class, we chose the first official page of Adding Classes, which has the subtitle of "Select a Term." Upon first look, one would easily notice that the content is squeezed to the left side of the window. That is the first breakdown, we think the right side of the page could also be utilized so more information can be presented to a user in a page. The breakdown directly causes another breakdown: the two buttons located at the upper right part of the page is hardly noticeable, because people do not usually look at right side of the page. This breakdown is universal across all other pages in Student Center. Three other breakdowns occur on this page when users try to select a term. Firstly, it does not have a default selection even though students usually only add class to the this or following semester depends on the time of the semester. Secondly, the box for checking is so small that a user has to be carefully enough to not click else where. Thirdly, after checking the box, the page does not jump, it waits until user to click continue. Two other breakdowns that we noticed are two buttons. Back buttons don't always work as expected. And help button is easily ignored. As for the other parts, we noticed users just simply ignore them as they think they are irrelevant to adding a class.

4. Cultural Model:

An important thing that stood out to us during our contextual interviews is that every student wants to succeed and do well throughout their college career so they will go through a lot of work to make sure they are choosing the best classes and professors. There is a whole culture of people who will take time to help other students out by giving advice online. Students will go to multiple websites online to read testimonials left by other students who have previously taken a certain class. A breakdown we noticed is that this information is not always very easy to find online and is limited by the amount of information posted online as well as how credible the information could be.

5. Physical Model:

The physical model is one representation of where a user could access Student Center to add a class. Students have the ability to access Student Center from the libraries, their workplace, home, and even while on the bus. Since Student Center is on the web, it can be accessed from any computing device such as a desktop, laptop, tablet, or smartphone. The UW assigns different

enrollment times for each student, the user needs the ability to login and enroll in their courses before the classes they want to add fill up. Because students can choose from multiple computing devices, have time constraints, and also have the ability to be mobile; many UW students access Student Center from many different locations and various times. Our physical model depicts a user's studio apartment.

Problem Areas of Focus and Speculations:

Since Student Center has many problems, we thought that we would focus on one of it's main functions, adding and enrolling in a course. At first glance, we already noticed that it is slow and there appears to be hundreds of clicks and pages needed to find a course, then more to actually enroll in it.

Through our contextual inquiries, we realized that Student Center seemed slow because there are so many drop down menus in the Class Search page and after a student changes a drop down option the current page has to reload before the user can move on to the next step. There are 23 drop down menus and multiple blank boxes for optional user input. Most of the drop down menus can be simplified or deleted and add a search bar with auto fill and predictive text to enhance the search page.

After the student builds their query, a new page loads with all the courses that fit the criteria. Depending on the search criteria, it could take over 10 minutes or a few seconds, all while leaving the user with no indication of how long it may take. By adding a better loading page with possible a progress bar, students would be happier knowing how long their queries will take. While the Course List page does show all available courses during the term, it doesn't filter anything for you based on past semesters and prerequisites and has links that many students almost never click on. By eliminating things student rarely click, filtering classes, adding more course information like required textbooks and exam dates students would be more informed and happier knowing their schedule and how much each class may cost.

After the user selects which course they would like to view and add to their schedule, the student then needs to switch to the Course Enrollment tab and then select which semester they would like to access. Once the student arrives at their wish list they have to select the course they just added and once again wait for the page to refresh before they can click on another course, begin validating, or enrolling. The Course Enrollment tab also has eight other sub-tabs (my class schedule/grid, add/wish list, drop swap, edit, term information, exam schedule, term withdrawal) which requires the user to reselect which semester they would like to access. We feel that Student Center should default to the same semester the user was just in.

Aside from a completely redone Student Center, changing the appearance of little things here and there could improve the way users interact with Student Center. We thought by using Bootstrap framework we could make Student Center more aesthetically pleasing and improve

navigation by the addition of a back button. Bootstrap is an open-source collection of tools that is used in websites and web applications. It also supports responsive web design, which means it can dynamically adjust the layouts of web pages by taking into account which type of device is being used, has adopted a mobile first design philosophy, which emphasizes responsive design, and has other helpful tools to shape the user interface.

Reflection of Contextual Inquiries:

Going into the contextual inquiries we initially thought that we would have to lead most of the interview and ask many questions in order to get enough data about Student Center. However, while performing the contextual inquiry we found that our interviewees felt comfortable enough to voice their opinions and talk through their actions with us. Since our interviewees were all experienced users, they sometimes overlooked some actions, but on the other hand, they had information as to why they omitted a step. In conclusion, we thoroughly enjoyed the contextual inquiry process more than we expected and learned a lot.