Project Part 3: User Interface Prototypes

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Part 1: Horizontal Prototype

Our horizontal prototype consists of a new improved interface where users can find all of the available resources needed to have an engaging online user experience. When evaluating our previous prototypes, we sought to improve our designs by making sure that our core values of online engagement and accessiblity was incorporated in our user interface. We made several changes to the base design from our previous prototypes. One example is that we revamped our homepage to be more vibrant and easy to use. Through various group discussions, we wanted to incorporate the heuristic of recognition rather than recall by creating identifiable icons on our sidebar so that users can recognize which tab to choose from. Our new homepage now reflects the design and user interface we had envisioned. Looking at our paper prototypes, we noticed that some of our designs had areas where things were cluttered and hard to understand. For example, our previous prototype of the video meeting page had too many features on the page. We agreed to change up our design by only focusing on the core features. We removed the "participant tab" feature and focused on creating a page that promoted our online engagement features such as the notes, slides and anonymous mode features. In our horizontal prototype, we added a whole new page for recordings so that users can find easier ways to study and be engaged in an online class environment. We made sure that the video layout was easily identifiable. Our group also discussed how to improve the confusing design of the discussion forum and course content pages. We evaluated our paper prototypes of our discussion forum to be a bit bland and confusing for users to understand. We wanted our discussion forum to reflect the idea of being an easy way to get help online. As a group, we decided to change the layout to be more user friendly by placing each feature in easy to find places and make the overall layout similar to other discussion board designs.That way, users can easily navigate through the page and make the right moves to access all the features in our discussion forum. For our course content page, we wanted the design to be easier for users to navigate and read their course content without difficulty. Our new design allows users to move across their courses and get specific content from their courses when clicking on a button. We used our previous design of the messaging page and implemented it to our horizontal prototype. We also decided to add a notes page to promote online participation activities.

Part 2 : Vertical Prototype

Our vertical prototype improved on our previous prototypes by incorporating the core parts of our application including the functionality of the notes, slides, anonymous and discussion forum features. As a group, we wanted to highlight the unique differences our application offered compared to many other competing applications in the industry. When we designed the anonymous mode feature in our second prototype, we didn't know how we were going to display the functionality. During many iterations, we wanted to have a robust version where you can type a message and change your user icon to an anonymous icon. Unfortunately we couldn't implement the full functionality of our design. We would like to improve the capabilities of our anonymous feature in further iterations. With the notes feature, we were able to implement the functionality of writing and deleting notes. We also added functionality to the slides feature by flipping slides during a video meeting. We believe the functionality of these features will help make users engaged in an online environment. The last important feature that we added functionality was the discussion forum. In our previous prototypes, we came up with many mock designs and tried to come up with a way to incorporate the functionality of the discussion forum while keeping the design simple and easy to use. We had lots of trouble making the discussion forum unique from previous competitors. For example, we wanted our discussion forum to be a place where students can get help easily and in a timely manner. We eventually settled on a design where users can easily make a discussion post and can access the contents by clicking on the selected post. From there, users can chat and talk to other people to get help. We believed that adding the functionality of voice chatting in a discussion forum would help users have a better way in accessing online help. We believe that our discussion forum will provide the necessary space for users to get help. Overall, we can see that our system will struggle if not many users like our main features. In many cases, people have other external programs or applications to take notes. We also realized that many users may have trouble setting up their own slides in our slides features and would be better off downloading a pdf.

Part 3: Cognitive Walkthrough

Task description:

Your next class needs to be attended through an online teaching software. While taking the class, you need to write some important information. While you are in the middle of writing your notes, the professor answers a student's question and moves to the next slide of the lecture. You have missed the question and need to check the previous slide. You go into the chat window and type a message. You send a message in anonymous mode because you do not want to reveal your username. After a student or professor answers your question, you finish up your notes and save them.

Action List:

1. User find and click "Meeting" button from the side bar
2. User open the notes window by clicking the plus sign
3. User open the slides window by clicking on the plus sign
4. User types some text in the note window
5. User clicks the arrow button on slides window to previous slide
6. User types some text in the chat window
7. User clicks on the anonymous button to send chat in anonymous mode.
8. User clicks on the airplane icon in the notes window to save notes.

Summary and Results:

Throughout the cognitive walkthrough, we tested whether our prototype had any underlying design issues. For our task, we decided to test the features of our meeting page and whether the overall design meets the criteria of users being able to navigate our interface without any prior experience. We came up with a task where users have to interact with our notes, slides and anonymous mode features to complete the task. Looking at the results, our overall design met the criteria for the cognitive walkthrough. When evaluating our major features, we found that the design of our notes, slides and anonymous mode features were simple and provided reasonable feedback when users interacted with it. Many of the buttons on our main features were placed in an area where users can easily identify them. Most of the buttons provided the intended action when users interacted with it. For example, if a user sends a message through the chat interface, they can expect the message to appear on the screen. Furthermore, the chat window provides the correct mental layout that many potential users would have been familiar with. Although our overall design passed some of our checks in the cognitive walkthrough, we encountered some problems. One of the problems that we found while conducting the cognitive walkthrough was

that in order to access the functionality of the slides and notes feature, you must press the “+” sign. For many new potential users who expect to interact with these features, this extra step was not clear which can cause users to think that the feature is not working correctly. Some solutions that we can use to correct this problem are to have the functionality of the slides and notes feature already working without the user having to press a button or creating a one time tutorial on how to use our features. Another problem we encountered was that the “save” button in our notes feature does not provide the required feedback that a user may expect. In our current prototype, the save button will provide a popup message in the next window letting the user know the notes have been saved successfully. In many cases, users will expect a popup in the same window when having the option to save the file. One solution to improve on this problem is to create a responsive popup message providing the option of whether the file is saved successfully or not. The last problem we encountered while conducting the cognitive walkthrough is that many of the icons on our notes and slides feature can cause confusion for users. We noticed that users may not be familiar with the “save” button or “arrow” buttons on the notes and slides features and users may confuse it for something else. One solution is to have labels underneath the button to illustrate what each button does. Overall the cognitive walkthrough provided insight on how our potential users will interact with our system and identify areas of our design that we can improve on.