

Prince Solutions (Ali Bhatti, Luke Gibson, Joshua May, Dennis Whitley)

Professor Rachael Bradley-Montgomery

INST 362

24 November 2019

## **Project 5: Evaluation**

### **System Concept Statement:**

Despite there being a permanent regular menu board displaying the different menu options a customer can order, this type of menu fails to allow customization and updates to the menu, as well as display the latest deals and what the food looks like. Our role is to create and design a digital menu that shows regular menu options, deals and specials, as well as pictures of the menu items. This is to be implemented via an application, allowing users to interact with the menu via a touch screen interface. This would ideally allow users to add, modify, and/or edit menu items as they wish based on real-time restaurant inventory, while also making the menu easily modified with different items or specials.

This menu system would also allow the restaurant employees on the back-end to update menu items and prices as needed. We are focusing on creating a system that is both user-friendly for customers that are ordering and for employees updating items on the digital menu. Our prototype derives elements from the design that incorporates a digital menu ordering system.

### **Focal Evaluation Process:**

Tasks:

1. New York Style Pizza
  - a. Navigate to the Pizza menu
  - b. Order a New York Style Pizza
  - c. Remove it from the order
2. Party Pack Special
  - a. Navigate to the Special Menu
  - b. Order a Party Pack Special with the following options
    - i. 1 - Pepperoni
    - ii. 2 - Mushrooms and Onions
    - iii. 3 - Ricotta Cheese
    - iv. 4 - Crab Meat
  - c. Edit the 4th pizza to add Shrimp
3. Checkout
  - a. Navigate to the order screen and checkout

All of the User tasks focus around the process of ordering items from the menu, which is the main functionality to be tested. There are many steps to the ordering process, meaning that

each task has various subtasks. The second user task is the most complex, while checking out is the easiest as it includes the least subtasks. We wanted to make sure the tasks were distinct and not dependent on each other. Since we had a limited number of screens, we decided to make our last task checking out since it includes the least subtasks and represents an endpoint (less dependent on other tasks than something occurring between tasks). We decided a check-out task would fit the suggested criteria for implementation as something easy, and added one at the end of our prototype.

For our test, we chose to use a part-time employee of the restaurant. We thought he would be a good representative user since he has a basic understanding of the menu, and are a somewhat frequent customer themselves also. We figured people who use the tablet may be people more familiar with the menu. For our contextual inquiry, we used a part-time employee of King's Pizza, so our representative wasn't too far off.

### **Data Collection Procedures:**

To collect our data, we had participants attempt the tasks previously described. Ali had sat with the employee with the balsamiq link open on a laptop. Ali also had a laptop and recorded the process the user went through when asked to complete the tasks.

#### **Task 1 Data**

The user clicked on the full menu, but clicked on the other options too fast and Ali couldn't keep track of what was clicked on so the user was asked to start over. When asked to start over, the user asked "how do I go back" and "where is the back button", before seeing the button in the top left. The user then clicked on view the full menu, then clicked Pizza, then clicked New York Style. The user tried clicking on the customization options for the NY Style Pizza page and using the scroll bar, but those features weren't activated yet in the design. The user eventually clicked "add to order" after trying to play around with the dormant customization Pizza options. The user then quickly clicked check out as an instinct, even though that wasn't prompted in the task. The user was then asked that they were supposed to remove the item from the order confirmation screen. The user then tried removing the NY Style Pizza from the order but the user said "it is not letting me remove it", however the user had clicked outside the remove button realm. The user eventually clicked the button in the right place and was able to successfully remove the item.

#### **Task 2 Data**

The user started by clicking "look at our specials." Then the user browsed the different menu options with their cursor, eventually settling on and finding the "Party Pack" option at the bottom of the screen. The user then clicked on "Pepperoni" for the first pizza, and then clicked next pizza. The user clicked on "Mushrooms" and "Onions" for the second pizza, and then clicked next pizza. The user clicked on "Ricotta cheese" for the third pizza, and then clicked next pizza. The user clicked on "Crab meat" for the fourth pizza, and then clicked add to order. The user then automatically clicked on check out, even though they were supposed to edit the order. After being told to edit the 4th pizza, the user asked "how do I edit it." The user eventually

started the order over again since they were stuck in the check out screen and got confused. The user then went through the same process described previously to add the Party Pack Special to the order. The user then clicked “edit” in the order confirmation page. The user then clicked “Shrimp” to change the order.

### **Task 3 Data**

The user tried clicking “Go to order” on the “Item Options screen”, however, that link doesn’t link to check out screen. The user then said “I am confused.” The user then ordered the Party pack. The user then added the item to the cart and clicked check out.

### **Thoughts and feedback from User:**

Some “color in the design would be nice.” The user found the big arrows provided by balsamiq to navigate tasks weird to work with. The user said the design was nice and relatively easy to follow.

### **Data Evaluation (Data Analysis, Discuss Success and Tensions):**

The user was pretty successful in the tasks. Once the user learned the layout of the menu, they were successfully able to complete every user task. Little assistance was required, as when they were confused, they were able to figure it out for themselves. The user was also very fast when ordering items, such as customizing pizza, when they learned the layout. This meant that our customization menu seems to be intuitive, but could also lead to errors when users click something they don’t intend to. The user was however a little frustrated initially when they couldn’t find certain buttons, like the back button for example. We think in general more pop-up messages or messages that communicate with the user would be beneficial. This would help boost the user’s confidence that everything is going smooth.

Also, there was no way to go back to the main menu ordering screen when the user landed on the check out screen (an idle screen with no buttons). It would be beneficial if the user could make a new order from this screen (or if a new customer comes and wants to make an order). It would also be beneficial if the user could cancel their order from the checkout screen if they decided to change their mind. Perhaps adding a pop-up saying “are you sure you want to check out?”, with options to say “Yes” or “No” before the user clicks the check out button would be useful since the user won’t accidentally check out.

### **Future Steps:**

Based on the test, it seems like it would be beneficial to have a back button that is more noticeable. Perhaps including a back arrow and some distinct underlining and color to make the button stand out to the user. All buttons look and are emphasized the same, so differentiating them by importance could assist users.

A second design iteration may offer more helpful contextual analysis data for collection. For example, we could collect data to see how employees find a menu item on the SoftTouch POS system and compare that system and its menu options to our design at hand. We could assign a task for the POS order taking system and then compare the item finding process to the

process on the tablet design. This data could be used in making the design more efficient and familiar to users.

**Updated Website:**

**[Link to group website](#)**