# **Clothing Manager**

# **Usability Evaluation**

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Interactive Computational Media

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Low-Fidelity Prototype

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#### Overview

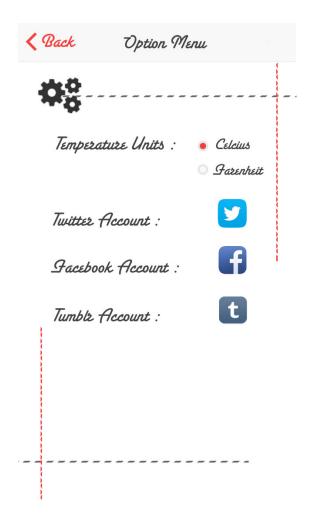
#### Main Screen

The main screen contains buttons that the users can press to go to different pages.



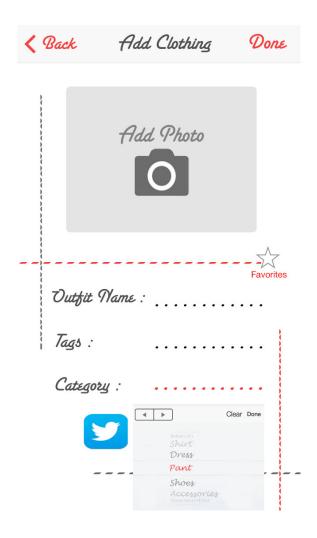
#### **Options**

The options menu contains three items. The first being the temperature display where the user can choose between celsius and fahrenheit display. The other two items are facebook and twitter account settings for this app, this includes login info and any other related function settings those social media platform has that this app use.



### **Add Clothing**

The add clothing screen lets the user add a piece of clothing to the wardrobe. The user must use a photo from their device or take a new photo. The user can then specify the tags for the piece of clothing which can be used in all the lists to search.



#### Remove Clothing

The remove clothing page allows the user to remove an item from their wardrobe permanently.

On this page the user can select the category on the left hand side list, and after selecting a category a list of all clothing in the category will be displayed on the right hand side of the screen, letting users select the article of clothing the user wish to remove.



#### Selection

In the selection screen the user gets a list of items belonging to the category at the bottom of the screen in a side scrolling list. Darken articles of clothing means that the user cannot select that piece of clothing as it is in the laundry basket. Items with a border means that the piece of clothing has been worn in the past but not put into the laundry yet, and the user can select worn clothing for the current outfit. The user can add clothing in the current category to the layers, the layer list is located at the top right and it allows the user have multiple articles of clothing for the section, an example of this is a t-shirt and a jacket. On the top left of the screen the user gets to preview the clothing they chosen so far, it will display clothing that are listed first in the layer list as the top layer in the preview. The user can zoom out the preview to get a view of the rest of

the outfit while they choose.



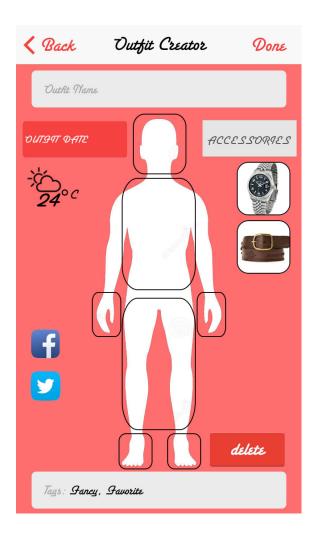
# View Clothing

The view clothing screen lets the user select the clothing category on the left sidebar. After selecting a category, all items of that category will be displayed to the user on the right side of the screen. The user can then select the piece of clothing for viewing.



#### View Edit Outfit

On this screen, the user can click on the boxes located on the human stick figure to go to the corresponding selection screen for that body part. On the top left corner of the screen, the user can set the date that this outfit is for, the user can choose to delete this outfit (the combination, not the actual pieces of clothing), and can check the weather for the selected date (forecast may not be accurate). The user can also share the outfit by clicking on the facebook or twitter icon. Clicking on the save button saves the current outfit to the selected date and all items selected will be highlighted as worn when the selected date arrives.



# View Outfits

The view Outfits screen displays a list of outfits the user created in the past, clicking on any of the outfits will bring the user to the edit outfit screen with the boxes on the human figure filled with the items that belonged on the outfit.



# **Laundry Basket**

The laundry basket screen contains a list of the entire wardrobe. Darken items are in the laundry and items with a border are worn. Tapping on a clean or worn item will put the item in the laundry state (darken), tapping on an darken item in the laundry will clean the item.



#### **Usability Evaluation Protocol**

#### Determine the Goal

In order to gather data about the usability of our application, we conducted evaluations of user behavior when given several tasks based on fundamental features of our application. We want to evaluate the real-world feasibility of our project.

#### **Explore the Questions**

With this evaluation, we hoped to determine several metrics of usability: time spent on certain screens, total time to complete tasks and number of errors committed. Ultimately, we want to find out whether this application actually helps users with their daily outfit planning.

#### Choose the Techniques

For this evaluation, we observe our users as they navigate through the application in a series of tasks given to them from the outset. In addition, after the session, the user is asked to complete a short survey asking for their thoughts, especially what they found easy and what challenges they faced.

Throughout this process, the observer discreetly records the time spent on each screen, as well as the number of times the user presses the "back" button after a mistake. These will be our primary metrics of usability.

#### Identify the Practical Issues

#### Tasks:

Upon beginning the session, the user, in the presence of an observer, is told to open the "view clothes" browser and add a single shirt to the collection. Then, they are asked to create and save a simple everyday outfit consisting of a shirt, pants, shoes and outerwear. After that is complete, the user is asked to return to the main menu, and then load the previously saved outfit from the saved outfits. The session terminates on the outfit preview page.

#### Users:

We poll users at random from postsecondary students around the U of T campus. Although this sample is not representative of all of society, it fits the demographic that is most likely to use smartphones (other than for making phone calls and SMS) on a regular basis. However, it does not imply "tech-savviness," owing to the relative accessibility of smartphone technology today; therefore, our sample should span across all levels of familiarity with technology.

#### Testing conditions:

Our tests are conducted in the informal environment of the Bahen Center. While our application is mainly targeted toward mobile phone users, the test program will be run on a PC to facilitate observation of the user. As we did not implement any complicated multitouch gestures in the application, navigation with the mouse should be solid and simple enough.

#### **Dealing with Ethical Factors**

As with all studies involving members of the public, the utmost care was taken so as to protect their identity and well-being. All participants were informed of the purpose of this study (to design and test an application that would help with outfit planning), and recorded their confirmation of their consent to participate. All personal information is kept confidential, and participants were informed of their right to withdraw from the study at any time without repercussion. The study poses no risk to the physical or mental well-being of anyone.

#### 3. Describe how your evaluation sessions were conducted

The participants were observed on how they interact with the high-fidelity prototype and we collect data on the side for each metric we are measuring. After the participant finish interacting with the prototype, we followed up with a questionnaire on how the user feels about using the prototype. It consisted with two simple questions, asking the user to briefly describe their difficulties (if any) with the interface in completing the requested tasks, and any other impressions they may have had of the application.

#### 4- Analysis, interpretation, and presentation of data

Before we conducted the evaluation on users, we took a test run through the application ourselves to get a sense of an advanced user's experience of the program, and an idea of how long each interface object should take.

#### Data:

Person 1

Abnormal time spent on screen: Spent a bit longer than usual on the laundry basket screen.

Number of errors made: None

he wasn't sure what it was supposed to do. A lot of questions popped up, like when do items get

What difficulties did you come across? He spent a while on the laundry basket screen, because

added to this basket, how do I remove items, and what does an item in the laundry basket do.

Overall experience: Overall, it was good, except the laundry basket part. Laundry basket is not

clear.

Person 2

Abnormal time spent on screen: Spent a bit longer on the wardrobe section, and the laundry

basket

Number of errors made: None

What difficulties did you come across? Not sure on what the laundry basket is supposed to do.

Needs more info on what the laundry basket is for.

Wardrobe screen: Do I have to add all clothing I have by adding them one at a time? Time

consuming.

Overall experience: Okay, but I don't want to add all the clothing I have one by one. Should be a

faster way to add clothing to wardrobe.

Person 3

Number of errors made: None

What difficulties did you come across: What's the laundry basket for.

Overall experience: Okay. Would like to change the background colour, and personalize it more.

Person 4

Abnormal time spent on screen: no abnormal time spent on any screen.

Number of errors made: 1

What difficulties did you come across?: No idea what the laundry basket is

Overall experience: fairly solid, need a guide for this. Should move the delete button next to the

save button instead of putting it near the date and weather

Person 5

Abnormal time spent on screen: Spent a lot of time on the edit outfit screen

Number of errors made: None

What difficulties did you come across?: Not sure about the difference between edit outfit and

create outfit is.

Overall experience: Very nice app, looks nice

Person 6

Abnormal time spent on screen: none

Number of errors made: None

What difficulties did you come across?: why isn't there a create button in view outfits as well?

Overall experience: it was alright

Person 7

Abnormal time spent on screen: Laundry basket screen

Number of errors made: None

What difficulties did you come across?: Laundry basket item status needs to be explained

otherwise very ambiguous

Overall experience: everything was good if some explanations were given

Person 8

Abnormal time spent on screen: None

Number of errors made: None

What difficulties did you come across?: Lack of instructions

Overall experience: Pretty good app, but the option screen lacks useful options, maybe put a

tutorial button on that screen?

Person 9

Abnormal time spent on screen: None

Number of errors made: 1

What difficulties did you come across?: None

Overall experience: Great app, very intuitive. Maybe add a home button.

Person 10

Abnormal time spent on screen: None

Number of errors made: 3

What difficulties did you come across?: got lost because edit and create screen looks similar

Overall experience: Not going to use the laundry functions, I will uncheck them all every time.

Maybe add an option to not use the laundry basket?

Conclusion:

A key issue that almost everyone found was the use of the laundry basket. People weren't sure

on what the laundry basket did or what it was for.

Some people found that making the wardrobe was tedious. They have a lot of clothing, and

adding each one to their wardrobe would take a very long time.

A tutorial may be needed to show all the functionality of the app. It would clear up confusion with

the laundry basket.

5- Conclusion and future work

The first thing we will have to work on is stylizing the interface if we are asked to continue

developing this product. We would like to add the option to change the theme of the app, like

the colour scheme of the buttons, and the background. In addition we will allow the user to use

an image for their background instead of a plain color. We want the user to be able to customize

how their wardrobe manager looks like to tailor their personal wardrobe. We will also expand

our social media offering by creating a network for users to share their outfit design with other users; this functionality will be very similar to Instagram.

Another feature we would like to implement in the future is a login system, which would allow us to seamless integrate different devices into the user experience. The proliferation of larger-screen tablets nowadays provides us with much potential to augment the core functionality of the program.