Group Heuristic Evaluation for Team Eiffel65

Overview Evaluation
Overall, we were impressed with the proposed interface. The general look-and-feel was very good. The idea of adding fares instead of monetary values is good. Most of our issues were related to recovering from errors and/or providing users with more control. In addition, a common action with a CharlieCard - merely checking the value on it without any other transaction - appears to have been completely neglected.

Usability Violations

<table>
<thead>
<tr>
<th>Heuristic</th>
<th>Severity</th>
<th>Number Reporting Problem</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Control and Freedom/Help users recover from errors</td>
<td>3.5</td>
<td>1</td>
<td>No back button on “Add value to Charlie card/ticket” screen.</td>
</tr>
<tr>
<td>User Control and Freedom</td>
<td>3</td>
<td>3</td>
<td>It is difficult to get back to the main scroll screen from most screens without clicking back a lot, especially from the directions page.</td>
</tr>
<tr>
<td>User Control and Freedom</td>
<td>2</td>
<td>2</td>
<td>There is no cancel button from the main scroll screen. This could especially be an issue if the user taps a Charlie card, then decides not to add a value and wants to cancel the transaction.</td>
</tr>
<tr>
<td>Visibility of System Status</td>
<td>4</td>
<td>4</td>
<td>There is no way for the user to tell how much money is currently on their Charlie Card or Ticket.</td>
</tr>
<tr>
<td>Recognition rather than recall</td>
<td>1</td>
<td>2</td>
<td>Icons for options on main scroll screen are all very similar, which makes it difficult for the user to quickly tell the difference between them.</td>
</tr>
<tr>
<td>Visibility of System Status</td>
<td>1</td>
<td>3</td>
<td>Text size on text field for directions screen and text size showing cost of tickets about to be bought too small.</td>
</tr>
<tr>
<td>Match between System and real world</td>
<td>2</td>
<td>3</td>
<td>Is purchasing a ticket the next logical option once you get directions? Does the “Next” button make sense as “Next” or possibly “Purchase Tickets” or something similar?</td>
</tr>
<tr>
<td>Match between System and real world</td>
<td>0</td>
<td>1</td>
<td>It would be nice if there were a map next to the directions given on the directions screen so that users could see what the directions mean.</td>
</tr>
<tr>
<td>Consistency and Standards</td>
<td>3</td>
<td>2</td>
<td>Charlie cards and tickets are treated inherently differently. One only allows adding fares, the other dollar amounts.</td>
</tr>
<tr>
<td>Aesthetic and Minimalist</td>
<td>2</td>
<td>3</td>
<td>The number of tickets listed on the side of the purchase/add to CharlieTicket screen in redundant. Those values are</td>
</tr>
</tbody>
</table>
Design already much larger in the center of the screen.

Aesthetic and minimalist design

<p>| | | |</p>
<table>
<thead>
<tr>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>The button “Purchase Charlie Ticket” is the same size and color as “Back” and “more fare info”, which could be confusing since users will most likely want to hit the purchase button.</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>Would be nice to be able to wrap around on main scroll screen. That is, from the far right screen, be able to go back to the start by clicking the right button.</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>“Add Value to CharlieCard” and “Add Custom Value to CharlieCard” go to the same spot. What is the difference? Is Custom Value necessary?</td>
</tr>
</tbody>
</table>

Suggestions for Improvements

- Add back button to “Tap CharlieCard” and “Insert CharlieTicket” screens when adding value
- Add custom amount button for adding money to Charlie ticket screen
- Add map to directions screen
- Use icons on scroll bar that are clearly different from one another
- Allow the scroll screen to wrap around
- Consistency in the treatment of CharlieCards and CharlieTickets - fares vs. values

Individual Evaluations

Kate Swift-Spong

1. [H3 User Control and Freedom] (severity 2)

There is no way for users to cancel what they have done so far. For example if a user taps a Charlie Card and then decides not to add any money to that card, there is no way to cancel the interaction and return to the main screen.

2. [H1 Visibility of system status] (severity 3)

There is currently no place where the current value of a Charlie Card or Ticket is displayed after the user has inserted the ticket or tapped the card on the card reader. This information is important if the user is to make an informed decision about how much money to add.

3. [H5 Error prevention] (severity 3)

The user could encounter some problems on the page for adding value to a Charlie ticket if the system does not take the current value of the ticket into account. For example if the ticket has $0.30 on it, adding 2 subway rides will add $4 to the ticket resulting in a total of $4.30 on the ticket. It would be good if the current amount was taken into account when calculating how much to add for the card to be good for a certain number of rides.
4. [H6 Recognition rather than recall] (severity 2)

The icons on the main scroll screen are fairly similar to each other. It may not be easy for the user to quickly decide which button to press. For example the “Add value to Charlie Ticket” and “Add Value to Charlie card” options are almost identical.

5. [H8 Aesthetic and minimalist design] (severity 2)

After taping a Charlie card, there is a button called “Add value to Charlie card” and another “Add custom value to Charlie card.” These both go to the same adding value screen, so two buttons are not necessary. There are also two separate buttons for purchasing a monthly bus pass.

6. [H1 Visibility of system status] (severity 1)

Because the buttons for “back”, “more fare info”, and “purchase Charlie ticket” on the Charlie ticket purchasing page are all the same color and about the same size, it may not be obvious to the user which one is the one to push for the next logical step in the process.

7. [H2 Match between system and the real world] (severity 3)

The directions page only lists the directions from getting to one place to another. A map on this page as well illustrating these directions would add to their clarity.

John Harley

1. Price doesn't update
   HE: Visibility of System Status
   Severity: 1.5

2. No "Back" from "Add value to Charlie Card"
   HE: User Control and Freedom
   Severity: 2

3. Allow Scroll Screen to Wrap
   HE: Aesthetics
   Severity: 0

Zach Brass

1. [H5 Error prevention] (Severity 3) On the screen to select number of subway and bus fares, there may be some confusion as to whether the large numbers indicate the number of fares or the number of dollars the user is paying for. While there is a label for total cost, there are also labels for total subway fares and total bus fares. If there are large numbers in the middle of the screen, then why do there need to be smaller numbers on the side of the screen indicating the same thing. Also, the default value for the number of subway fares is 2, which may cause confusion, since a single subway fare is $2
2. [H1 Visibility of system status] (Severity 3) On the payment screen, the text indicating the total cost of the transaction is extremely small. There is a lot of screen real estate that is free which could be used for larger text. This is also the case on the directions screen.

3. [H4 Consistency and standards] (Severity 1) On the directions screen, the "Next" button goes to a screen that allows the user to purchase tickets for the entire trip. But if the term "Next" is used, the contents of the screen may be ambiguous to a first time user.

4. [H4 Visibility of system status] (Severity 1) On the payment screen, the only information displayed is the cost on the pass, card, or ticket. Though it may be redundant, the users should know beyond a shadow of a doubt what they are buying.

5. [H3 User control and freedom] (Severity 2) On the screen for adding an amount to a Charlie Ticket, there is no way to add a custom amount like there is for the Charlie Card (only by fare), and vice versa.

Keerthik Omanakuttan

The overall idea is good.

Lack of indication how much on the charlie card/ticket
Visibility of system status
Severity: 4

Possible to get stuck trying to tap charlie card if that is not the option you want, due to lack of back button
Error prevention
Severity: 3

Lack of a home button to get back to the main screen
User control and freedom
Severity: 3

Other Concerns:
How much does this directly improve the current experience? Consolidating is good, but otherwise, I find myself doing almost the same number of actions to accomplish an objective.