Team Manatee Group Heuristic Evaluation

by Andy Barry, Greg Marra, Brad Powers, Will Yarak.

Identified Issues

Team Manatee's prototype performs well in the given scenarios but still has a number of major usability problems. We are concerned that, while the system performs well in a web browser with a mouse, the buttons are too small to be usable on a real kiosk touchscreen system. The team has done a good job of keeping the system's status always visible with the shopping list pane. However, the icons chosen to distinguish between recipes and items are extremely important to the interaction, yet left unexplained. While search is the main interaction with the interface, the search boxes are small and easy to miss. With these problems solved we feel that the system would perform better, although we question the scale of the scope covered by the team's scenarios.

Table of Problems

[ MENTALLY INSERT APPENDIX A HERE ]

Suggested Revisions

The three major problems that we identified were the use of icons for categories, search as the central navigation element, and an interface not optimized for chubby fingers on a touch screen. By standardizing the use of the different types of icons - particularly eliminating the "search" icon from the shopping cart - and explaining what the different types of icons mean, the user experience would be much smoother. Moreover, the search box should be emphasized more on the home page, rather than the "ads" for certain meals that currently visually dominate the page. Finally, if implemented on a real touch screen, many UI elements are too small to be accurately touched. The UI should be tweaked to have larger touch zones and reduce errors from touching mistakes. Addressing the interactions surrounding these three identified problems will significantly improve the overall user experience.
<table>
<thead>
<tr>
<th>Category</th>
<th>Severity</th>
<th>Description</th>
<th>Number of Times Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4 Consistency and standards</td>
<td>4</td>
<td>What is the difference between the different food type icons? How come sometimes recipe ingredients are Apples and sometimes Magnifying Glasses? Is a key of what all this means ever visible?</td>
<td>4</td>
</tr>
<tr>
<td>H3 User control and freedom</td>
<td>4</td>
<td>The system appears designed for a web browser, not a touchscreen. The buttons are too far to small to press accurately if I was actually using a touchscreen.</td>
<td>1</td>
</tr>
<tr>
<td>H2 Match between system and the real world</td>
<td>4</td>
<td>It is not at all clear that Search is the primary interface to the system. The home screen tucks it up in the title bar, and puts a menu of 3 items as the primary elements to select.</td>
<td>2</td>
</tr>
<tr>
<td>H2: Match Between System and the Real World</td>
<td>3</td>
<td>Why would you scan a shopping list to make a shopping list if you have a shopping list? This is silly</td>
<td>1</td>
</tr>
<tr>
<td>H2: Match Between System and the Real World</td>
<td>3</td>
<td>When the shopping list gets to be fairly long and you have a scrollbar, it is possible to make the add item box go away. This would cause massive confusion, and the user would probably get very frustrated. I did.</td>
<td>1</td>
</tr>
<tr>
<td>H3 User control and freedom</td>
<td>3</td>
<td>&quot;Undo&quot; without &quot;Redo&quot; means I can ruin an action and not have any way to undo my undo. Add redo if you are going to keep undo.</td>
<td>2</td>
</tr>
<tr>
<td>H6 Recognition rather than recall</td>
<td>3</td>
<td>When &quot;adding criteria&quot; to a search, I have no idea what criteria are possible. I should probably be selecting from a list instead of memorizing what the machine knows about.</td>
<td>3</td>
</tr>
<tr>
<td>H8 Aesthetic and minimalist design</td>
<td>3</td>
<td>Why put &quot;other related searches&quot; above the search results? I think most of the time I am going to pick a search result instead of a new search. Move &quot;Related Searches&quot; into the sidebar, or to below the search results. Related Searches are only useful when my query didn't get me what I wanted.</td>
<td>3</td>
</tr>
<tr>
<td>H2 Match between system and the real world</td>
<td>3</td>
<td>Sometimes I want to buy more than one of the same thing. There is no &quot;quantity&quot; concept. What if I need to buy 12 apples?</td>
<td>2</td>
</tr>
<tr>
<td>H7 Flexibility and efficiency of use</td>
<td>3</td>
<td>If I search for &quot;eggs&quot;, I am suggested 5 recipes before actual eggs. If I was looking for eggs, all those recipes are useless to me, and push my real search results down.</td>
<td>2</td>
</tr>
<tr>
<td>H4 Consistency and standards</td>
<td>3</td>
<td>Chrome changes when in &quot;View on Map&quot; mode. Disorienting, removes some actions.</td>
<td>1</td>
</tr>
<tr>
<td>H8 Aesthetic and minimalist design</td>
<td>3</td>
<td>&quot;Home&quot; button is hard to discover.</td>
<td>3</td>
</tr>
<tr>
<td>H8 Aesthetic and minimalist design</td>
<td>3</td>
<td>1. Magnifying glass next to search box does nothing. If it is just to indicate that it is a search box, move it inside the box, ala Firefox or ITunes.</td>
<td>2</td>
</tr>
<tr>
<td>H8 Aesthetic and Minimalist Design</td>
<td>3</td>
<td>The Home screen includes directions prompting the user to use the search bar above. However, the directions are dwarfed by advertisements for products below them and end up sandwiched between the search bar and the advertisements – the directions are hard to notice and hard to read. The directions or the search bar should be the first thing that pops out to the user, as they are essential to operation.</td>
<td>2</td>
</tr>
<tr>
<td>H4 Consistency and standards</td>
<td>3</td>
<td>It is confusing to have two text-input fields. Not sure how to fix it, but the interface might be able to be simplified if only one text field was present.</td>
<td>1</td>
</tr>
<tr>
<td>H2: Match Between System and the Real World</td>
<td>3</td>
<td>When entering a new item in the shopping list, a red x shows up next to it to no matter what is typed. This could indicate to a user that what is being typed is invalid, and the user would be confused.</td>
<td>2</td>
</tr>
<tr>
<td>H2: Match Between System and the Real World</td>
<td>3</td>
<td>If you press the + Button in the shopping list, nothing happens, betraying a common notion about what a plus button should do</td>
<td>1</td>
</tr>
<tr>
<td>H8 Aesthetic and minimalist design</td>
<td>2</td>
<td>The &quot;Forward&quot; button seems unneeded. If retained, it should grey out when there is nowhere to go forward to</td>
<td>1</td>
</tr>
<tr>
<td>H6 Help and documentation</td>
<td>2</td>
<td>The &quot;Search&quot; box does not display a hint upon initially viewing the Home screen. It does display a hint if a search is executed and then deleted.</td>
<td>1</td>
</tr>
<tr>
<td>Category</td>
<td>Severity</td>
<td>Description</td>
<td>Number of Times Found</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>----------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>H7 Flexibility and efficiency of use</td>
<td>2</td>
<td>If an item is directly entered into the shopping list, clicking the &quot;magnifying class&quot; icon does not trigger any action. Clicking the item directly executes a search.</td>
<td>1</td>
</tr>
<tr>
<td>H2 Match between system and the real world</td>
<td>2</td>
<td>Why do items entered directly into the list appear with Magnifying glass icons. I think the Apple icon is used for atomic food items, maybe use it again here?</td>
<td>1</td>
</tr>
<tr>
<td>H1 Visibility of system status</td>
<td>2</td>
<td>Unchecking subitems from meals &quot;greys them out&quot; in such a way that actually makes them more prominent than before they were greyed out. They should be made more subtle, not less.</td>
<td>1</td>
</tr>
<tr>
<td>H10 Help and Documentation</td>
<td>2</td>
<td>The startup screen suggests two options: scan a shopping list or swipe your card. There is a large button saying “tap me to begin” which draws the user’s attention but doesn’t explain at all how you execute the first two advertised actions.</td>
<td>1</td>
</tr>
<tr>
<td>H2 Match Between System and Real World</td>
<td>2</td>
<td>The advertisements include nice looking pictures to go along with the description, however the only part of the advertisement you can click on to reach the information screen for the advertised item is the title, picture should be clickable to get the same action as the title.</td>
<td>2</td>
</tr>
<tr>
<td>H5 Error prevention</td>
<td>2</td>
<td>There is no confirmation or way to undo a system reset. I’d be really annoyed if I bumped that by mistake and lost my entire list.</td>
<td>1</td>
</tr>
<tr>
<td>H1 Visibility and system status</td>
<td>2</td>
<td>The &quot;X&quot; and check marks on the right of the shopping list are unclear. It looks like I did something wrong instead of just a &quot;remove&quot; button. Moreover, the check marks that appear when I add a whole recipe have no explanation behind them. It is unclear what pressing those will do.</td>
<td>2</td>
</tr>
<tr>
<td>H7 Flexibility and efficiency of use</td>
<td>2</td>
<td>Once I’ve searched for an item and added it to my list, I’m still at the item’s page. I don’t want to be here anymore—I’ve already added the item. Speedup seems possible.</td>
<td>1</td>
</tr>
<tr>
<td>H2: Match Between System and the Real World</td>
<td>2</td>
<td>When searching for an item from the shopping list (say fish), once the item you are looking for is found (say, tilapia fillet) and you select add to shopping list, I don’t think that the item should just show up on the list, I think it should actually replace the word fish, or be added as a sub-item.</td>
<td>1</td>
</tr>
<tr>
<td>H3 User control and freedom</td>
<td>2</td>
<td>I want to be able to change the number of people a recipe is serving and have it auto-update everything.</td>
<td>1</td>
</tr>
<tr>
<td>H1 Visibility of system status</td>
<td>1</td>
<td>&quot;Total Price&quot; does not update.</td>
<td>3</td>
</tr>
<tr>
<td>H1 Visibility of system status</td>
<td>1</td>
<td>&quot;View on Map&quot; doesn’t actually show dynamic information.</td>
<td>3</td>
</tr>
<tr>
<td>H1 Visibility of system status</td>
<td>1</td>
<td>&quot;Edit Settings&quot; and &quot;Finish and Print&quot; have no action, nor do they indicate that nothing is going to happen.</td>
<td>3</td>
</tr>
<tr>
<td>H8 Aesthetic and minimalist design</td>
<td>1</td>
<td>&quot;fruit&quot; is a related search for &quot;fruit.&quot;</td>
<td>1</td>
</tr>
<tr>
<td>H1 Visibility of system status</td>
<td>1</td>
<td>Search for &quot;asdf&quot;. Search results don’t indicate what I searched for. Change message to &quot;No results found for 'asdf'&quot;.</td>
<td>1</td>
</tr>
<tr>
<td>H7 Flexibility and efficiency of use</td>
<td>1</td>
<td>&quot;Search for recipes that contain &lt;item&gt;&quot; on item detail pages?</td>
<td>1</td>
</tr>
<tr>
<td>H7 Flexibility and efficiency of use</td>
<td>1</td>
<td>Add &quot;Home&quot; button to empty search result pages?</td>
<td>1</td>
</tr>
<tr>
<td>H8 Aesthetic and Minimalist Design</td>
<td></td>
<td>When a search term is entered into the search bar and the queried term is longer than the bar can display, the text and the X icon to clear text overlap and become ugly and hard to read.</td>
<td>2</td>
</tr>
<tr>
<td>H4 Consistency and Standards</td>
<td></td>
<td>The button below the &quot;Shopping List&quot; in the left frame reads &quot;View on Map&quot; whereas the map related to an item displayed in the right frame is labeled &quot;Locate Items.&quot; Essentially the same function is named two different things.</td>
<td>1</td>
</tr>
<tr>
<td>H7 Flexibility and efficiency of use</td>
<td>1</td>
<td>If the kiosk has a keyboard, seems silly to not have typing always do something.</td>
<td>1</td>
</tr>
<tr>
<td>H4 Consistency and standards</td>
<td>1</td>
<td>Keep cursor focus in a search box always.</td>
<td>1</td>
</tr>
<tr>
<td>H4 Consistency and standards</td>
<td>1</td>
<td>On the home screen I should be able to tap anywhere on an ad, not just the title.</td>
<td>1</td>
</tr>
<tr>
<td>Category</td>
<td>Severity</td>
<td>Description</td>
<td>Number of Times Found</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>H4 Consistency and standards</td>
<td>1</td>
<td>On the search screen I should be able to tap anywhere on the left sidebar</td>
<td>1</td>
</tr>
<tr>
<td>Not really a heuristic, just fix it.</td>
<td>1</td>
<td>Your text goes outside of your text boxes, leading to random floating phrases like</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 dozen</td>
<td></td>
</tr>
</tbody>
</table>
Team Manatee Heuristic Evaluation

Andy Barry

April 5, 2009

1. [H5—Error prevention] (Severity 2)
   There is no confirmation or way to undo a system reset. I’d be really annoyed if I bumped that by mistake and lost my entire list.

2. [H3—User control and freedom] (Severity 3)
   The system appears designed for a web browser, not a touchscreen. The buttons are far too small to press accurately if I was actually using a touchscreen.

3. [H1—Visibility and system status] (Severity 2)
   The “X” and check marks on the right of the shopping list are unclear. It looks like I did something wrong instead of just a “remove” button. Moreover, the check marks that appear when I add a whole recipe have no explanation behind them. It is unclear what pressing those will do.

4. [H7—Flexibility and efficiency of use] (Severity 2)
   Once I’ve searched for an item and added it to my list, I’m still at the item’s page. I don’t want to be here anymore—I’ve already added the item. Speedup seems possible.

5. [H7—Flexibility and efficiency of use] (Severity 1)
   If the kiosk has a keyboard, seems silly to not have typing always do something. Keep cursor focus in a search box always.

6. [H4—Consistency and standards] (Severity 2)
   It is confusing to have two text-input fields. Not sure how to fix it, but the interface might be able to be simplified if only one text field was present.

7. [H2—Match between system and the real world] (Severity 2)
   The “recipe” vs. “item” icons are difficult to understand. Things happen very different based on the item, but it is not self-explanatory or particularly emphasized.

8. [H4—Consistency and standards] (Severity 1)
   On the home screen I should be able to tap anywhere on an ad, not just the title.

9. [H4—Consistency and standards] (Severity 1)
   On the search screen I should be able to tap anywhere on the left sidebar “Items,” “Recipes,” etc. buttons.

10. [H1—Visibility of system status] (Severity 2)
    It is unclear to me what the list on the left of the search screen (“Items,” “Recipes,” etc.) does. Are they exclusive? Inclusive?
Comments

• The visibility of the system is good. I like that I can always see my shopping list.

• I want to be able to change the number of people a recipe is serving and have it auto-update everything.

• Your interface performs pretty well in your scenarios, but I’m not sure your scenarios cover the entire space. How often do I need to find a recipe in the store? If the kiosk is at the front, will I walk back to find it?
1. [H8 Aesthetic and minimalist design] - Severity 2
   1. The "Forward" button seems unneeded. If retained, it should grey out when there is nowhere to go forward to.

2. [H6 Help and documentation] - Severity 2
   1. The "Search" box does not display a hint upon initially viewing the Home screen. It does display a hint if a search is executed and then deleted.

3. [H2 Match between system and the real world] - Severity 3
   1. It is not at all clear that Search is the primary interface to the system. The home screen tucks it up in the title bar, and puts a menu of 3 items as the primary elements to select.

4. [H3 User control and freedom] - Severity 3
   1. "Undo" without "Redo" means I can ruin an action and not have any way to undo my undo. Add redo if you are going to keep undo.

5. [H7 Flexibility and efficiency of use] - Severity 2
   1. If an item is directly entered into the shopping list, clicking the "magnifying class" icon does not trigger any action. Clicking the item directly executes a search. Clicking the magnifying glass should also execute a search.

6. [H2 Match between system and the real world] - Severity 2
   1. Why do items entered directly into the list appear with Magnifying glass icons. I think the Apple icon is used for atomic food items, maybe use it again here?

7. [H6 Recognition rather than recall] - Severity 3
   1. When "adding criteria" to a search, I have no idea what criteria are possible. I should probably be selecting from a list instead of memorizing what the machine knows about.

8. [H8 Aesthetic and minimalist design] - Severity 3
   1. Why put "other related searches" above the search results? I think most of the time I am going to pick a search result instead of a new search. Move "Related Searches" into the sidebar, or to below the search results. Related Searches are only useful when my query didn't get me what I wanted.

9. [H4 Consistency and standards] - Severity 3
   1. What is the difference between the different food type icons? How come sometimes recipe ingredients are Apples and sometimes Magnifying Glasses? Is a key of what all this means ever visable?

10. [H8 Aesthetic and minimalist design] - Severity 2
    1. "fruit" is a related search for "fruit."

11. [H1 Visibility of system status] - Severity 2
    1. Unchecking subitems from meals "greys them out" in such a way that actually makes them more prominent than before they were greyed out. They should be made more subtle, not less.

12. [H2 Match between system and the real world] - Severity 3
    1. Sometimes I want to buy more than one of the same thing. There is no "quantity" concept. What if I need to buy 12 apples?

13. [H1 Visibility of system status] - Severity 2
    1. Search for "asdf". Search results don't indicate what I searched for. Change message to "No results found for 'asdf'."

14. [H7 Flexibility and efficiency of use] - Severity 3
    1. If I search for "eggs", I am suggested 5 recipes before actual eggs. If I was looking for eggs, all those recipes are useless to me, and push my real search results down.

15. [H7 Flexibility and efficiency of use] - Severity 2
    1. "Search for recipes that contain <item>" on item detail pages?
16. [H1 Visibility of system status] - Severity 4
   1. "Total Price" does not update.
17. [H1 Visibility of system status] - Severity 4
   1. "View on Map" doesn't actually show dynamic information.
18. [H1 Visibility of system status] - Severity 4
   1. "Edit Settings" and "Finish and Print" have no action, nor do they indicate that nothing is going to happen.
19. [H4 Consistency and standards] - Severity 3
   1. Chrome changes when in "View on Map" mode. Disorienting, removes some actions.
20. [H7 Flexibility and efficiency of use] - Severity 2
    1. Add "Home" button to empty search result pages?
21. [H8 Aesthetic and minimalist design] - Severity 3
    1. "Home" button is hard to discover.
22. [H8 Aesthetic and minimalist design] - Severity 3
    1. Magnifying glass next to search box does nothing. If it is just to indicate that it is a search box, move it inside the box, ala Firefox or iTunes.
1. [Heuristic 2: Match Between System and the real world] (Severity 3)
   When entering a new item in the shopping list, a red x shows up next to it no matter what is typed. This could indicate to a user that what is being typed is invalid, and would be confused.

2. [Heuristic 2: Match Between System and the real world] (Severity 2)
   When searching for an item from the shopping list (say fish), once the item you are looking for is found (say, tilapia fillet) and you select add to shopping list, I don’t think that the item should just show up on the list, I think it should actually replace the word fish, or be added as a sub-item.

3. [Heuristic 2: Match Between System and the real world] (Severity 3)
   If you press the + Button in the shopping list, nothing happens, betraying a common notion about what a plus button should do.

4. [Heuristic 4: Consistency and Standards] (Severity 3)
   Items that are ingredients for a recipe show up with checkboxes already checked. Items that are freestanding show up with x’s. How does a user indicate that they have obtained the “freestanding” item that is on their list?

5. [Heuristic 2: Match Between System and the real world] (Severity 2)
   Probably just a bug, but your view larger button for the map doesn’t work.

6. [Heuristic 2: Match Between System and the real world] (Severity 4)
   When the shopping list gets to be fairly long and you have a scrollbar, it is possible to make the add item box go away. This would cause massive confusion, and the user would probably get very frustrated. I did.
7. [Not really a heuristic, but still important to fix](Severity 1)

Your text often runs outside your text boxes, leading to random floating phrases like 1 dozen.

8. [Heuristic 4: Consistency and Standards](Severity 4)

There are 4 different types of list item, the grayed out item, the item with an apple next to it, the item with the plate next to it, and the “sub-item” although they all mean the same things, one item can be a sub-item and an item with an apple next to it, and IRL, these are all items someone is looking to buy, but they show up and even behave differently, for reasons I don't understand
Will Yarak
Heuristic Evaluation, Team Manatee

1. [H10 Help and Documentation] (Severity 2)    Startup Screen
   The startup screen suggests two options: scan a shopping list or swipe your card. There is a large button saying “tap me to begin” which draws the user’s attention but doesn’t explain at all how you execute the first two advertised actions.

2. [H8 Aesthetic and Minimalist Design] (Severity 3)    Home Screen
   The Home screen includes directions prompting the user to use the search bar above. However, the directions are dwarfed by advertisements for products below them and end up sandwiched between the search bar and the advertisements – the directions are hard to notice and hard to read. The directions or the search bar should be the first thing that pops out to the user, as they are essential to operation.

3. [H2 Match Between System and Real World] (Severity 2)    Home Screen
   The advertisements include nice looking pictures to go along with the description, however the only part of the advertisement you can click on to reach the information screen for the advertised item is the title, picture should be clickable to get the same action as the title.

4. [H8 Aesthetic and Minimalist Design] (Severity 1)    Search Bar
   When a search term is entered into the search bar and the queried term is longer than the bar can display, the text and the X icon to clear text overlap and become ugly and hard to read.

5. [H7 Flexibility and Efficiency of Use] (Severity 4)    Ingredients List for Recipes
   After clicking on a recipe, a list of ingredients pops up with neat little icons next to the ingredients. At first, it is not clear why these are there, after clicking an item with a magnifying glass next to it and then going back and then clicking on an item with an apple next to it, it becomes clear that these signify whether the link is to a search term or an item page. However, it is extremely frustrating that the user has no control over whether the item has a search associated or an item page associated. For instance, “eggs” only links to a search whereas “Locally Grown Basil” links only to an item page. It may make sense if there is only one brand or type of the item to link directly to the item page, but it would be far more enjoyable to use if there was more consistency – maybe link to a search for all of them by default and have a little icon next to the item that links you directly the generic store brand of that item?

6. [H8 Aesthetic and Minimalist Design] (Severity 5)    Search Display
   Clicking on an item, for instance “Bread Crumbs” brings up a search for bread crumbs and returns two items which are bread crumbs, however they are buried amongst recipes in your general search return. Would be very nice to have separate search return lists for items that match your query and recipes that are related to your query.

7. [H2 Match Between System and Real World] (Severity 1)    Food Locator
It appears the map showing the location of food items has not yet been implemented and you most likely know that. Clicking on any map link brings up the same map, just a reminder that although this doesn’t effect the usability of the interface, it would kill the actual system and is a little bit disappointing when playing with your prototype.

8. [H2 Match Between System and Real World] (Severity 1)  
   Unimplemented Icons 
   The “Finish/Print” and “Edit Settings” icons aren’t implemented. Not a big deal as these aren’t used for your scenarios and walkthroughs.

9. [H2 Match Between System and Real World] (Severity 3)  
   Search Criteria 
   After a search is executed, a criteria list shows up. Trying to add something to the list does not work, and it is not really clear how the list acts. There should be an “update search” button or something here to update the results considering the new criteria.

10. [H8 Aesthetic and Minimalist Design] (Severity 3)  
    Search Layout 
    After executing a search, the search page displays related searches above the actual search results and the related searches are displayed in the same manner as the search results. The location and consistent display make the related searches more prominent than the actual search results.

11. [H3 User Control and Freedom] (Severity 2)  
    Undo/Redo 
    Undo action should have an associated Redo action.

12. [H1 Visibility of System Status] (Severity 5)  
    Price Updating 
    The “Total Price” calculation at the bottom of the “Shopping List” in the left frame does not update when items are added to the shopping list.

13. [H4 Consistency and Standards] (Severity 2)  
    Locate On Map Action 
    The button below the “Shopping List” in the left frame reads “View on Map” whereas the map related to an item displayed in the right frame is labeled “Locate Items.” Essentially the same function is named two different things.