Instructor: James Landay

Heuristic Evaluation of Conejo

1. Problem

Conejo is an app that helps users with their style. It recommends products for the user to buy based on their current wardrobe, helps the user design and buy outfits that match, and helps the user find products that are the correct size for them.

2. Violations Found

1. H1. Visibility of System Status / Severity 2 / Found by: A, D

Problem: It's not clear whether the user is in the "Shop" or the wardrobe state at any given time.

<u>Fix:</u> On the bottom tab bar, highlight the selected option and fade the unselected option somehow.

2. H1. Visibility of System Status (could be H2) / Severity 2 / Found by: D

<u>Problem:</u> When the user hits the "x" after typing in the search bar, it isn't immediately obvious that they will return to the "Shop" page. In many searches, the "x" functions as a "clear" rather than "cancel the search." The reason I labeled this as **H1** is that some searches only partially cover the previous page, in which case, it is clear that the search is merely temporal and canceling will retract it, revealing the previous page.

<u>Fix:</u> Arrange the search to look like " < Search x" where '<' functions as a back and 'x' functions as a clear. See google maps for a good example of this.

3. H1. Visibility of system status / Severity 3 / Found by: C

<u>Problem:</u> The coloring on cards in the wardrobe section is super confusing. It is hard for the user to know which card something belongs to, and what cards are supposed to look like. This makes it confusing to know the operation of buttons like "buy now."

Fix: Uniform card design where the cards are white and the background is grey.

4. H1. Visibility of system status / Severity 2 / Found by: B, D

<u>Problem:</u> Since the "add" button is within the individual categories (i.e shoes), it isn't clear whether the user has to take a picture of that category. In reality, you would want the user to be able to take a picture of any item type and have it added to the wardrobe.

Fix: Move the "add" button from within the shoe section of wardrobe to inside of wardrobe

5. H2. Match between system and the real world / Severity 2 / Found by: A, B, C, D

Instructor: James Landay

<u>Problem:</u> Items do not show price when first displayed. In the "shop" tab, items just show brand name and item name, they do not show the price. Most people buy clothes within a budget or over a certain cost if they are ostentatious, and most sites show prices with every item.

Fix: Include price and brand on these cards

6. H2. Match between system and the real world / Severity 4 / Found by: C, B

<u>Problem:</u> Users may be unaware that you are giving them the "best" shoe size. They could think their assigned shoe size is wrong. In the wild, companies often mark AI with things like "our best guess for shoe size" or "your personal shoe size" or other phrases that make it abundantly clear that shoe size is predicted.

<u>Fix:</u> Instead of just writing "your size", maybe you should write "Conejo's Guess for Your Size", or something similar that conveys to the user that the app knows more than him about sizing.

7. H2. Match between system and the real world / Severity 0 / Found by: A, B, C, D<u>Problem:</u> The app has two main sections, shop and wardrobe. A user probably assumes she goes to shop to buy things, and wardrobe to look at her current clothing. The issue is that the wardrobe section also has a ton of shopping features. It is a bit confusing that to shop for new outfits, the user goes to wardrobe, not shop.

<u>Fix:</u> The tab bar should not just have "shop" and "wardrobe." Consider a structure that does not discriminate between the two so a user doesn't get confused.

8. H2. Match between system and the real world / Severity 1 / Found by: B

<u>Problem:</u> The language on adding an item to the wardrobe is confusing. "We'll take care of the rest" doesn't make much sense if you haven't used the app. What is the rest?

<u>Fix:</u> Remove this language. Just say "click to add item to wardrobe." This translates and doesn't sound as smug.

9. H2. Match between system and the real world / Severity 2 / Found by: A, C

<u>Problem:</u> A user's clothes may not fit into one of the neat categories on the wardrobe page, or at the very least the category names may not be expressive enough to capture all of the types of clothes they might contain. This might make it difficult for users to find certain articles of clothing, which could lead to frustration.

Fix: Add a global search option that can search across all categories.

10. H2. Match between system and the real world / Severity 2 / Found by: B

<u>Problem:</u> Buying an item through the search function (which would be the same through the wardrobe and recommendations per the readme) entails clicking a "Buy now" button. Typical

Instructor: James Landay

e-commerce functions typically have an "add to cart" and then "proceed to checkout" flow when purchasing items. Deviating from this norm might be confusing and unintuitive to users.

<u>Fix:</u> Follow e-commerce norms of "Add to cart" and "Checkout" taskflows when purchasing an item.

11. H2. Match between system and the real world / Severity 1 / Found by: B

<u>Problem:</u> Sizing of shoes that is presented is a little confusing and does not match conventions that exist in the real world. Shoe sizing varies depending on the sizing convention (UK, US, Europe, etc). Currently, the system does not show which convention is being used. Moreover, it is not apparent that the sizing presented is the sizing for that specific brand (which I presume is the case).

Fix: Clarify sizing by identifying sizing convention and by brand

12. H3. User control and freedom / Severity 3 / Found by: C

<u>Problem:</u> There is no way to delete items in the wardrobe. People get rid of clothes every so often, it would be annoying to never be able to clear out items in the wardrobe section.

<u>Fix:</u> Add a delete button (or swipe to delete)

13. H3: User Control & Freedom / Severity 2 / Found by: D

<u>Problem:</u> After selecting Vans from the Wardrobe, only the shirt and pants can be swapped out, because the user has already selected the Vans 80s. However, if a user wanted to move quickly, they might want to swap out the shoes for another pair in their wardrobe. This would require them to scroll up, hit back, search, select another pair, and scroll down.

<u>Fix:</u> It would be nice if you could specify which pair of the outfit comes from the wardrobe, and swap through those elements from this screen. For instance, you could have the shirt and shoes from the wardrobe, and the app would recommend the pants. You could then scroll through elements in your wardrobe for the shirt and shoes, perhaps generating new recommendations.

14. H4. Consistency and standards / Severity 1 / Found by: C, D

<u>Problem:</u> Purchase buttons are mismatched. Some say "buy now" and some say "buy this". This is issue is different than having them next to each other (described later). Purchase wording should be consistent or super different since users get frazzled by small changes in purchasing.

<u>Fix:</u> Have a purchase button for the card, and make wording consistent.

15. H4. Consistency and standards / Severity 1 / Found by: C

Instructor: James Landay

<u>Problem:</u> On the shopping page, there is a learn more button. On the wardrobe page, there is not. It seems unclear why you would need learn more in one case and not the other.

<u>Fix:</u> Keep learn more in both or neither.

16. H4. Consistency and standards / Severity 1 / Found by: B

<u>Problem:</u> Mainscreen recommendations layout is drastically different from that when accessing an item from the wardrobe. Mainscreen has similar items first before pairing suggestions, while wardrobe items display recommended outfits and then similar items.

<u>Fix:</u> Give both mainscreen recommendations page and item pages from the wardrobe the same hierarchy i.e. both have similar items first or have suggested pairings first.

17. H4. Consistency and standards / Severity 2 / Found by: D

<u>Problem:</u> After clicking an item in the wardrobe (arriving at the "Outfits" page), the bottom bar disappears. It is ok for menus to disappear when not needed, but in this case, I would still want access to the bottom bar. Additionally, it is a menu element that in all other screen, which would make it slightly concerning if it randomly disappeared.

Fix: Include the bottom bar on the "Outfits" page.

18. H4. Consistency and standards / Severity 1 / Found by: B

<u>Problem:</u> Search bars on shop screen and within wardrobe sections look the same and are located in the same place, but have significantly different search functions that may be confusing to the user when they are trying to accomplish different tasks.

<u>Fix:</u> Clearer instructions in search bar prior to fill. For example, "Search the web for items!" for the shop screen and "Search your wardrobe" for within wardrobe section.

19. H5. Error Prevention / Severity 1 / Found by: D

<u>Problem:</u> The search bar should not start out with the pressable 'x' button (before search is even tapped), since it can neither clear nor cancel a search that has not been made yet. Users will most likely tap the button to test functionality, but nothing will happen.

Fix: Ensure that the 'x' button only appears once the user has tapped "Search."

20. H5. Error Prevention / Severity 2 / Found by: A, C

<u>Problem:</u> When adding an item, users are not told whether or not the item they are taking a picture of has to belong to the section it is being added to. This can lead to either improper organization of an item or an inability to properly add an item to the wardrobe.

Instructor: James Landay

<u>Fix:</u> Give clear instructions on "Add Item" screen such as "Take a picture of the item you wish to add to the [section name] section of your wardrobe."

21. H6. Recognition rather than recall / Severity 2 / Found by: B, C

<u>Problem:</u> "Similar to this" section under outfits is a bit confusing. I had to scroll up to remember what it was similar to.

Fix: Call section "Similar to [product name]" so user doesn't have to look through

22. H6. Recognition rather than recall / Severity 2 / Found by: B

<u>Problem:</u> When adding an item, it is unclear what section of the wardrobe users are adding an item into. This requires users to remember which section of the wardrobe they are in.

<u>Fix:</u> Give clear instructions on "Add Item" screen such as "Take a picture of the item you wish to add to the [section name] section of your wardrobe."

23. H6. Recognition rather than recall / Severity 2 / Found by: A

<u>Problem:</u> In search, there's no indication as to whether or not I already own an item I'm searching for.

Fix: Add some indicator of "in my wardrobe" or not.

24. H6. Recognition rather than recall / Severity 2 / Found by: A, B

<u>Problem:</u> It is not clear whether "Outfits" presented in the wardrobe are recommended items to purchase or if they are from existing and current wardrobe items. This may be confusing to users.

<u>Fix:</u> Change "Outfits" label to "Recommended outfits for this item" or words to that effect. Personally think it would be really cool to create recommended outfits including items that are already in a person's wardrobe.

25. H6. Recognition rather than recall / Severity 2 / Found by: B

<u>Problem:</u> It is not clear from first glance what the user should do on the main screen of the "Shop" section. Presence of both search bar and recommendations makes it unclear to the user whether they should be searching or clicking through recommendations.

<u>Fix:</u> Give the "Shop" screen a clear call to action - if it is mainly about searching, then make the search bar the main feature of the screen. If it is about recommendations, then emphasize that.

26. H7. Flexibility and efficiency of use accelerators / Severity 3 / Found by: A, C

Instructor: James Landay

<u>Problem:</u> The best part of the app is the outfit matcher. I remember looking at it for the first time and wishing I had that. It is pretty sad that if I want to try out the outfit matcher, I have to move to the exact shoe I want. This should not be so hard to get to.

<u>Fix:</u> Make this a primary task and give it its own screen. Or, at least make it easy to reach if you know how to use the app.

27. H7. Flexibility and efficiency of use accelerators / Severity 3 / Found by: D

<u>Problem:</u> After searching for Vans and clicking on the model, the user can no longer click "Shop" to return to the pre-search screen by pressing the bottom bar. This may be an error in the prototype, but it could be a design decision with the logic that the user is already in "Shop" mode, so they should not be able to press the button again.

<u>Fix:</u> Ensuring that pressing either of the bottom bar buttons return the user to the original page for those menus, even if they are already within that menu.

28. H7. Flexibility and efficiency of use accelerators / Severity 2 / Found by: D

<u>Problem:</u> Users can only add items once they are in the specific section of the wardrobe. Advanced users might want the option to add entire outfits to their wardrobe at once, or different kinds of items without having to navigate through the different screens of their wardrobe.

Fix: Add a "Add Item" function to the main page of the wardrobe.

29. H7. Flexibility and efficiency of use accelerators / Severity 2 / Found by: A

<u>Problem:</u> I'm not sure if this is already a part of the system, but it looks to me now that when you select an item in your wardrobe, the system only recommends items that you need to buy to create an outfit. I personally think, however, that much of the value of your product stems from the fact that it can help you make outfits out of your current wardrobe as well.

<u>Fix:</u> Make it possible to create outfits out of both items to buy and items already in your wardrobe.

30. H7. Flexibility and efficiency of use accelerators / Severity 1 / Found by: A

<u>Problem:</u> The recommendation section isn't actually visible on the screen when you click on an item in your wardrobe.

<u>Fix:</u> Make it more prominent on the page.

31. H8. Aesthetic and minimalist design / Severity 1 / Found by: A, B, C, D

<u>Problem:</u> "Similar to" and "Looks like" titles for items under the shop section are poorly formatted and next to poorly sized cards. These should be formatted to look like a title section. This could also be characterized under H4 since the section header does not look like a classic title, and may disrupt users' work flow.

Instructor: James Landay

<u>Fix:</u> Reformat title and card to be same size and properly in line. Make gap shirt card smaller relative to rest of app, or the first thing you look at, and other options can be swiped through.

32. H8: Aesthetic & Minimalist Design / Severity 1 / Found by: A, D

<u>Problem:</u> In nearly all of the screens, color is only used for the clothing items. Even the back button or add item to wardrobe button are the "default blue" color for iPhones. A good example of this is the screen directly after pressing the "Wardrobe" button, where the entire screen is gray-scale. Feel free to use gray-scale as your primary scheme, but on screens such as wardrobe, it can lead to a dull user experience.

<u>Fix:</u> Pick some color scheme in order add excitement or emphasis to the application. We don't all agree completely on this problem, but we do think you should be deliberate about your color choice.

33. H8: Aesthetic & Minimalist Design / Severity 1 / Found by: D

<u>Problem:</u> After clicking the "Shoes" option in the "Wardrobe," the text for "Nike Pegasis" is too close to the image of the shoe. In addition, the text is not vertically centered within the cell.

<u>Fix:</u> Vertically center each name and ensure that long brand names are split into two lines. I would consider placing the name on the left and image on the right, allowing the text to be left aligned rather than right aligned.

34. H8: Aesthetic & Minimalist Design / Severity 1 / Found by: D

<u>Problem:</u> On the "Buy Now" page after searching for vans, the color scheme is slightly unsettling. There are three shades of blue / green that don't really complement each other, and the yellow button draws too much attention because of the contrast ("Learn More" is not the most important part of the page - you would rather keep users within your app, purchasing items).

<u>Fix:</u> Possibly tuck the "Learn More" underneath the product name in faded, underlined gray text to make it less intrusive. Unify the color scheme, and use contrast to emphasize "Buy Now" rather than "Learn More."

35. H8: Aesthetic & Minimalist Design / Severity 1 / Found by: B

<u>Problem:</u> When selecting an item from the wardrobe, the "best price" is listed alongside size. Price seems irrelevant if an item is in the wardrobe (i.e. it's been bought already) and therefore feels unnecessary in this screen. Similarly, "Buy Again" does not feel like a function that will be regularly used.

<u>Fix:</u> Remove price from the wardrobe item screen. If price is in fact relevant to the recommendations in some manner, this needs to be communicated clearly or made obvious in information about the functionality and utility of the interface.

Instructor: James Landay

36. H8: Aesthetic & Minimalist Design / Severity 1 / Found by: A

<u>Problem:</u> I don't love the way the search bar looks at the top of the home page. It seems clunky, and it's not actually obvious what you'd be searching for.

Fix: I'd look for a clever way to hide it while keeping its functionality.

37. H9. Help users recognize, diagnose, and recover from errors / Severity 2 / Found by: C

<u>Problem:</u> There is no confirmation message over the purchasing buttons. E-commerce sites live off of purchases, and clients expect a simple process to buy things that lets them change their mind easily.

<u>Fix:</u> Add a confirmation pop up when purchasing items.

38. H10. Help and documentation / Severity 1 / Found by: C

<u>Problem:</u> Task 1 is unclear. Users are unaware of the power of Conejo even though its functionality is super simple.

<u>Fix:</u> There should be documentation about Conejo sizing. Maybe next to "your size" there is a little (i) button where you can press and it tells you exactly how sizing works. This will also instill confidence in your product since people will know there is AI at work!

39. H10. Help and documentation / Severity 1 / Found by: A

Problem: It's not abundantly clear what the app does based on the name.

Fix: I think a demo would be helpful.

3. Summary of Violations

Category	# Viol. (sev 0)	# Viol. (sev 1)	# Viol. (sev 2)	# Viol. (sev 3)	# Viol. (sev 4)	# Viol. (total)
H1: Visibility of Status	0	0	3	1	0	4
H2: Match Sys & World	1	2	3	0	1	7
H3: User Control	0	0	1	1	0	2
H4: Consistency	0	4	1	0	0	5
H5: Error Prevention	0	1	1	0	0	2
H6: Recognition not Recall	0	0	5	0	0	5
H7: Efficiency of Use	0	1	2	2	0	5
H8: Minimalist Design	0	6	0	0	0	6
H9: Help Users with Errors	0	0	1	0	0	1
H10: Documentation	0	2	0	0	0	2
Total Violations by Severity	1	16	17	4	1	39

Instructor: James Landay

4. Evaluation Statistics

Severity /	Evaluator A	Evaluator B	Evaluator C	Evaluator D
Evaluator				
sev. 0	100%	100%	100%	100%
sev. 1	31%	37.5%	25%	37.5%
sev. 2	41%	41%	29%	41%
sev. 3	25%	0%	75%	25%
sev. 4	0%	100%	100%	0%
total (sev. 3 & 4)	20%	20%	80%	20%
total (all severity levels)	36%	38%	36%	41%

^{*}Note that the bottom rows are *not* calculated by adding the numbers above it.

5. Summary Recommendations

We recommend that the "Outfit View" become the focal point of the application. When the user opens the app, it should be prominently displayed, allowing the user to specify which categories (shirt, pants, shoes, etc.) are "inputs" and which categories are "outputs." Inputs can either be from the wardrobe or online items, while outputs are the recommended items based on the inputs. From this screen, there should be some way to access the wardrobe in order to add items. This recommendation would streamline the application, allowing the user to feel oriented and eliminating the need for the "Shop" and "Wardrobe" tabs.

We also think you should be more deliberate about your choice of color, font, and layout. First and foremost, these aspects of your apps should be consistent. Rather than using 3 clashing blue colors, pick colors that afford certain options. Cards should be consistent, and the actions you can take on cards should be consistent as well. We also suggest you try to unify the actual copy on the site. Try to make your text match common standards for shopping sites, and make sure all of the text for a certain action is consistent.

Finally, we think that it would be beneficial to strongly consider the user's current shopping mental model when making design choices. Users are used to shoe size being wrong online - you need to let them know that you are actually right. Further, they want to shop by price and have the same checkout flow they have in other applications (such as add to cart), and you should make an effort to match this model in order to increase your app's usability.

Severity Ratings

- 0 don't agree that this is a usability problem
- 1 cosmetic problem
- 2 minor usability problem
- 3 major usability problem; important to fix
- 4 usability catastrophe; imperative to fix

Instructor: James Landay

Heuristics

H1: Visibility of System Status

• Keep users informed about what is going on

H2: Match Between System & Real World

- Speak the users' language
- Follow real world conventions

H3: User Control & Freedom

- "Exits" for mistaken choices, undo, redo
- Don't force down fixed paths

H4: Consistency & Standards

H5: Error Prevention

H6: Recognition Rather Than Recall

• Make objects, actions, options, & directions visible or easily retrievable

H7: Flexibility & Efficiency of Use

- Accelerators for experts (e.g., gestures, kb shortcuts)
- Allow users to tailor frequent actions (e.g., macros)

H8: Aesthetic & Minimalist Design

• No irrelevant information in dialogues

H9: Help Users Recognize, Diagnose, & Recover from Errors

- Error messages in plain language
- Precisely indicate the problem
- Constructively suggest a solution

H10: Help & Documentation

- Easy to search
- Focused on the user's task
- List concrete steps to carry out
- Not too large