Instructor: James Landay

# **Heuristic Evaluation of [theGivingTree]**

# 1. Problem/Prototype Description

We evaluated the Med-Fi prototype of the Giving Tree, an app designed to help donors donate easily and effectively to causes of interest by providing information on high-impact nonprofits, options for recurring donations, and donation management tools.

# 2. Violations Found

### 1. H1 - Visibility of System Status - D, C - Sev. 2

Though the home screen says "Keep your tree growing with donations", it's difficult to identify if the tree is growing, dying, or static. Users may be confused about what exactly their tree is doing at a given point in time.

Fix: Add a progress bar / status bar to indicate tree progress or growth.

#### 2. H1 - Visibility of System Status - D, B - Sev. 2

On the Navbar, the small bar underneath the icons is difficult to notice and may blend into similar bars on newer iPhone models. Users may struggle to initially notice the bar and correlate it with its functionality in identifying the selected page.

Fix: Either 1) move the bar above the icons, or 2) use a different method to identify the current page (e.g., with a different colored icon or an icon outline).

#### 3. H2 - Match Between System & World - D, C, B, A - Sev. 4

The Organization search page does not elaborate on what exactly constitutes "Most in Need". Users are left to assume what this means, whether it might mean "most underfunded", "seeking most aid", or "most at risk of collapse".

Fix: Clarify definition (e.g., "most underfunded", "at risk of collapse") of each sort category.

### 4. H2 – Match Between System & World - D, A - Sev. 2

The Organization search page does not discern between clicking on the organization bubble or the donate button. Users may wonder what the purpose of the donate icon is when it doesn't directly take them to the donate page.

Fix: Clarify clickable region as "view more", or enable donations directly from the search page without viewing additional details.

### 5. H2 - Match Between System & World - D, C, A - Sev. 3

The Profile page does not clearly discern what the pie chart means in terms of "Your Causes". Users

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may wonder what exactly the breakdown entails — does it mean "proportion of donations", "number of supported orgs", or anything else?

Fix: Add a description to the Your Causes pie-chart breakdown.

### 6. H2 - Match Between System & World - D - Sev. 1

The Tree Growth page does not seem to reflect any meaningful change in the tree. This may be unimplemented, but there should be a more reliable way for users to understand the tree's growth. Users may wonder just how the tree is growing, and how their donations contribute to the tree's growth and progress.

Fix: Add a "height" metric or any other metric for users to identify how their donations correlate with the tree's growth.

### 7. H3 – User Control & Freedom - D, B - Sev. 4

After completing a donation, there is no window for the user to revert a donation if it was processed erroneously. Users may wish to cancel a donation without the appropriate means to do so within the app.

Fix: Add a donation in progress screen, with a cancel option for users right after clicking donate.

#### 8. H3 - User Control & Freedom - D - Sev. 1

The Badges area of the Profile page does not have options for users to edit or change which badges are displayed. Users may not identify with the badges assigned to them and may want the flexibility to choose which badges resonate most with them. The feature may benefit from allowing users to control which badges are featured.

Fix: Add an edit option to the Badges area.

#### 9. H4 - Consistency & Standards - D - Sev. 1

With the exception of the browse icon, the other icons on the bottom navbar do not have shadows. Users might wonder why the icon has a different style than the other icons, and generally notice the mismatch in icon aesthetic.

Fix: Remove the shadow from the search icon or add shadows to the other icons.

#### 10. H4 - Consistency & Standards - D - Sev. 1

On the Profile page, all the badges have a similar line weight with the exception of the first badge. Users might be caught off guard by the aesthetic mismatch.

Fix: Increase line weight of the leftmost badge.

#### 11. H4 - Consistency & Standards - D - Sev. 1

On the Profile page, only the center badge has text underneath it and is larger than the other badges without clear explanation. Users might be confused as to why the center badge is larger

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than the rest, and why it has text.

Fix: Have all badges be consistent by either adding text to the others or removing text from the middle badge. Shrink the center badge.

### 12. H4 - Consistency & Standards - D - Sev. 3

The back button on most screens can lead to different pages depending on the user's previous page. For instance, the back button on the Profile page can lead to the Home, Browse, or Organization page. This can be confusing as there is limited consistency in how pages relate to one another. Users may be confused by where the back button leads.

Fix: Have back buttons take users back to the previous page in the appropriate sequence, rather than the most recently navigated page. Enforce consistency in back button use.

# 13. H4 - Consistency & Standards - D, A - Sev. 2

The back button varies depending on the page, with different colors, sizes, and relative positioning. For instance, the back button is longer and green on the Profile page, but gray and wide in the browse page. Users may struggle to intuitively understand the position and general shape of the back button.

Fix: Standardize the color and shape of the back button on all pages.

### 14. H4 - Consistency & Standards - D - Sev. 2

When initially viewing organizations on the first Animal Rights page, the sort feature does not display how organizations are sorted. Users are left to wonder whether the organizations are sorted alphabetically on default, when this can be easily resolved.

Fix: Add default sort name to the sort button.

### 15. H4 – Consistency & Standards - D - Sev. 2

The Navbar icons can only be selected by clicking directly on the icon, rather than the text or the shape itself. Clickable Navigation portions are also difficult to discern. Users may be frustrated when clicking even a bit off the icon, wondering why they are stuck on the same page.

Fix: Expand clickable region of navbar icons to include the text or broaden the clickable region to the entire navbar section.

### 16. H4 - Consistency & Standards - D, A, C - Sev. 3

The Sort feature on the Animal Rights org search page does not display information relative to the metric at play. Users may wonder why organizations are more "in need" than other organizations, and not providing this information obfuscates sorting parameters.

Fix: Add metrics for each org given the current sort category.

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### 17. H4 - Consistency & Standards - D, C - Sev. 1

The "Your Causes" pie chart does not use different colors for different causes. This violates most conventional styles, where different sections are colored differently, and can make identifying small slices difficult.

Fix: Change the colors for each slice of the chart.

### 18. H4 - Consistency & Standards - D, A - Sev. 1

Buttons throughout the prototype are different colors without consistent reasoning. Users may wonder why some interactable buttons are black, some are gray, and some are green.

Fix: Standardize the button color.

### 19. H4 - Consistency & Standards - D, C - Sev. 1

Titles in the prototype vary in positioning and justify styling. Users may be confused why some titles are higher / lower, and why some titles are left-justified as opposed to centered.

Fix: Standardize the title positioning, size, and justification.

#### 20. H5 - Error Prevention - D - Sev. 3

The Recurring Payment subsection on the donation page for Whale.org may be misleading in whether or not recurring payments is an option or a required condition. Users may believe that all donations must be recurring, limiting their engagement with orgs.

Fix: Add a "no" option under recurring payments.

#### 21. H5 - Error Prevention - D - Sev. 3

On the Profile / Forms page, users cannot view a given form before deciding to export or download them. Users may want to view the form without downloading them first, and may download the wrong form if they cannot view the content details.

Fix: Add a preview page before downloading / exporting.

# 22. H6 - Recognition not Recall - D, B - Sev. 3

The single donation and recurring payment subsection on the Donation page do not allow users to view historical donations / patterns. Users may wish to donate equitably to all organizations and may struggle to remember previous donations from the donation page, requiring them to backtrack all the way to the Past Transaction flow and interrupting their progress.

Fix: Add an option to view historical donations / donation patterns directly from the donate page.

### 23. H6 - Recognition not Recall - D, C - Sev. 2

The Ocean Alliance organization page lacks the organization category, forcing users to recall under what category the organization falls under.

Fix: Add the category to the organization page.

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### 24. H7 - Flexibility & Efficiency of Use - D - Sev. 2

Users may wish to input their own common donation amounts on the donate page, instead of restricting them to \$10, \$50, and \$100 amounts. Users should be able to save custom amounts rather than inputting them repeatedly.

Fix: Allow users to save custom donation amounts or edit existing ones.

## 25. H7 - Flexibility & Efficiency of Use - D - Sev. 2

Similar to the above violation, users may wish to standardize recurring payment settings, instead of repeatedly inputting them. Users should be able to save custom recurring donations rather than inputting them repeatedly.

Fix: Allow users to save custom recurring donation amounts.

### 26. H7 - Flexibility & Efficiency of Use - D - Sev. 3

The Donate feature on the organization page leads users to the organization page rather than directly to the donate overlay. Frequent donors to a given organization may find the org details redundant and wish to donate more easily.

Fix: Allow users to donate directly from the search page.

### 27. H7 - Flexibility & Efficiency of Use - D - Sev. 3

The view Past Transactions subsection on the Profile / Forms flow does not allow users to view the transactions without downloading. Users may wish to view individual transactions after donating to an org, and must go through the hurdle of downloading the full file before being able to view the given transaction.

Fix: Either 1) remove the download feature and make the transactions viewable from the app itself or 2) enable transaction detail previews within the app.

### 28. H7 - Flexibility & Efficiency of Use - D - Sev. 2

The view Past Transactions subsection on the Profile / Forms flow does not provide further breakdowns beyond the given year. Frequent users with a lot of donations may wish to view only a month / a week of donations, and cannot do so easily without navigating through the entire year.

Fix: Add additional sort-by features to the Past Transactions tab.

### 29. H7 - Flexibility & Efficiency of Use - D, C - Sev. 3

The Your Profile page does not offer users the means to change statistics for view, such as "quantity donated", "orgs supported", or additional helpful details. Frequent users may feel constrained by the lack of statistics helping them guide their spending / donating habits.

Fix: Allow users to view helpful donor metrics based on their use.

# 30. H8 - Aesthetic & Minimalist Design - D - Sev. 1

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On the Navbar displayed on all pages, the text is redundant as the icons are relatively intuitive or can be taught through a tutorial sequence. The icons are well-selected and represent the appropriate page that they correspond to. Users may be distracted by the constant text at the bottom of the screen.

Fix: Either 1) only display page name for the currently selected page or 2) remove page names altogether.

#### 31. H8 - Aesthetic & Minimalist Design - D - Sev. 1

On the Animal Rights category page, a third of the page is taken up by the definition of Animal Rights, when this information becomes redundant for users familiar with the cause. Users may be frustrated by how much space the information takes up relative to the orgs, which are the main focus of the flow.

Fix: Remove text or add it as an optional information pop-up next to the title.

# 32. H8 - Aesthetic & Minimalist Design - D - Sev. 1

The navbar blends into the light pink of the Animal Rights organization search page. Users may struggle to discern which sections constitute the navbar and which sections constitute the org buttons.

Fix: Remove text or add it as an optional information pop-up next to the title.

### 33. H9 - Help Users with Errors - D, C - Sev. 2

The Donate feature does not specify / clarify what inputs are valid. Users hoping to donate in cents intervals may be confused and may input errors.

Fix: Add a description or help icon including valid donation formats.

### 34. H10 - Help and Documentation - D, A, C - Sev. 3

The app offers no additional details on what exactly Tax Form 8283 is. Users hoping to become more acquainted with the donor ecosystem cannot easily learn about the form's purpose or use within the app.

Fix: Add a help icon next to the form title providing details when clicked.

#### 35. H11 - Accessible - D - Sev. 4

The Tree feature of the app is only accessible for visual users. Users who cannot see the tree will not be able to understand how their actions are contributing.

Fix: Add a text-based metric, such as "height" for non-visual users to understand their donor progress.

### 36. H12 - Fairness and Inclusion - D - Sev. 3

The donation page should not assume common donation amounts, as it restricts users to be of a fixed economically-situated demographic. Users may feel that donating is not for them, discouraging

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them from participating with the app. High-wealth donors may feel that the donation quantities are too low, whereas low-wealth donors may be disheartened.

Fix: Allow users to save their own donation preferences, without assuming common set donation amounts.

### 37. H13 - Value Alignment - D - Sev. 2

The app seems to emphasize donations as the only way for users to contribute to the organization.

Users may either interpret this as the most effective way to get involved is to donate, when most organizations value individual participation / volunteering.

Fix: Add options for users to get involved outside of donating, whether by linking to their opportunities page or adding a "learn more feature".

### 38. H2: Match between System and World - B, C - Sev. 3

The "Your Charities" section of the Profile makes it sound like a list of charities that I created. Are these the charities for which I have recurring donations going? I would not refer to a charity that I donated to as "my charity." I would only use this possessive pronoun if I was part of the administrative team of a charity.

Fix: clarify to "Past Donations," "Recurring Donations" – the specific intention.

### 39. H3: User Control and Freedom - B, C - Sev. 2

When sorting organizations by \_\_\_\_\_, the adjacent options "Most in Need" and "Most Impact Per Dollar" are not easily distinguishable. A user may conflate the two and sort by an option that they did not intend to sort by. Continuing down this path, they could donate to an organization that is "Most in Need" when they intended to donate so that they have the "Most Impact Per Dollar."

Fix: clarify the wording of these two categories. They both sound like things I would definitely want to do – I want to donate to organizations most in need and I want to have the most impact per dollar, so I feel some internal conflict when I see these as distinct options.

#### 40. H3: User Control and Freedom - B - Sev. 2

As a user, what if I already know a certain organization I want to donate to? If I know the name but not the cause, the search feature of "Browse Causes" doesn't seem like it will let me look up an org name. Users may come in with specific organization names in mind – if they have to go through causes first, this limits their control in getting immediately to the organization. And if they don't know exactly which cause it'd fall under, they can't search for it.

Fix: add a way to search/browse generally – perhaps both causes and organizations could come up.

### 41. H4: Consistency and Standards - B - Sev. 2

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Under Forms, the "Past Transactions" could refer to every previous donation or to an older year's tax form - unsure what this encompasses. If this means previous donations, this doesn't seem like a form. If it means older tax forms, then different wording is used to refer to the same thing. Either way, users have to wonder whether these different wordings (Transaction vs. Donation; Transaction vs. Tax Form) mean the same thing.

Fix: use the same words to refer to the same elements or make it more clear what a transaction is if it is something different from these ideas.

### 42. H4: Consistency and Standards - B, A - Sev. 1

On the transition from 1167 tree to 1177 tree, the words "Keep your tree growing..." do not appear on the 1167 tree. However, on the original home screen we saw, the screen with the 1167 tree has the words "Keep your tree growing..." Unsure if the convention is to see this phrase only after your tree is in a resting state for the moment? Confusing to see the same amount on my tree but have one screen with that phrase and one without.

Fix: either keep text on all screens or remove entirely to be consistent.

### 43. H7: Flexibility and Efficiency of Use - B - Sev. 1

The pie chart doesn't easily accommodate a larger number of categories. It's visually appealing and easy to understand for 3 categories, but it would not work well for, per se, 10 categories (and the user could definitely donate to a lot of different types of organizations). While the pie chart works well to see how the user has been distributing their donations, it isn't flexible for a large number of organization categories.

Fix: perhaps switch to a percentage bar graph or figure out a way to simplify the pie chart labeling if there is a larger number of categories.

### 44. H7: Flexibility and Efficiency of Use - B - Sev. 2

It's not obvious what "Forms" encompasses. If people are concerned with donation patterns and tax forms in particular, they might not think of "Forms" as the place to turn to for that and require some clicking before they reach the correct place.

Fix: perhaps label "Tax Forms" or just make the scope of this task more clear.

### 45. H8: Aesthetic and Minimalist Design - B - Sev. 1

After making a donation, I see 3 lines of text: "Thank you for your donation!", "Your giving tree has grown!", and "See your Giving Tree grow!". The repetition of material about "giving tree grow" seems redundant. I understand that the state update that the tree has grown and the button to actually see it grow are distinct, but they're also somewhat contradictory. Has it already grown, or am I about to watch it grow?

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Fix: combine into one "watch your giving tree grow" button would avoid redundant and/or contradictory information.

Note: also falls under H4: Consistency.

# 46. H8: Aesthetic and Minimalist Design - B - Sev. 1

This is incredibly picky, but seeing all 3 lines end in exclamation points can sound a bit overenthusiastic. Expressing thanks is good, but 3 lines of comparable excitement can diminish the relative importance of each one.

Fix: decrease exclamation point count or simply condense the last two lines, as mentioned above.

#### 47. H9: Help Users Recognize, Diagnose, Recover from Errors - B - Sev. 2

When the user searches organizations, unsure of what the recovery process would look like if they looked up something that does not exist. It is entirely possible the user can search for an organization that isn't a part of the app, so there should be a clear message about how to diagnose this situation should they run into it.

Fix: I understand that this may just not be included in the medium-fidelity prototype but still found it worth noting because of the importance of error recognition. I would just ensure some way to notify the user that there are no results.

### 48. H10: Help and Documentation - B - Sev. 2

Encouragement to keep your tree growing with donations, but no current documentation for how to do that / how to donate using this app. Since this is the simple task, it would be helpful to have a guide for users (especially new users) to see exactly how donating works on the Giving Tree.

Fix: add a question icon / a help section, perhaps under settings or in a corner of the home page.

#### 49. H11: Accessible - B - Sev. 1

The shadow on headers such as "Browse Causes" makes the text seem blurry or make it look like it's moving. The slight shadow on each letter can make it more difficult to read for those who are visually impaired.

Fix: remove the shadow on text.

#### 50. H11: Accessible - B - Sev. 1

On the home screen, white "Keep your tree..." text on the light blue background is not very distinguishable in color. Users with poor color vision or who are otherwise visually impaired may have a difficult time reading the text.

Fix: make the two colors (white and light blue) more distinct from each other – could either darken the blue background or use a dark text color instead of white.

#### 51. H12: Fairness and Inclusion - B - Sev. 1

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The app's mission says they aim to "help donors." Not everyone would feel like that label (donors) applies to them, and the word may also suggest that you should have already previously donated to use the app. Encouraging donations from all possible users creates additional burdens for those who are not financially stable / those who have the means to donate.

Fix: alter the wording of the app's mission to allow any person to feel like they would be a welcome user of this app, even if it's just a shift from "donors" to "people."

#### 52. H12: Fairness and Inclusion - B - Sev. 2

There seems to be a direct correlation between the size of the tree and amount donated. This does not meet all users' needs equally, since people from various socioeconomic backgrounds could want to donate, but those who cannot donate much would see a small tree.

Fix: the tree could grow in other ways, too – looking more into a new organization, accommodating for frequency instead of / as well as sheer amount (donating \$2 every month vs. donating \$100 at once), and so on.

#### 53. H12: Fairness and Inclusion - B - Sev. 1

Seeing the raw amount of money the user has donated so far feels a bit in-your-face. This emphasizes pre-existing inequities. For instance, a lower-income user who has donated many times can have a far lower sum, then feel dissatisfied or discouraged.

Fix: move the raw amount donated from the home page to a different section in your profile.

### 54. H13: Value Alignment - B - Sev. 4

No option to view how the app makes its decisions and structures its organization pool. This app seems to involve trust as a value: trusting in the app to do their research, trusting which organizations are available to donate to, trusting in the organizations to use your money in a meaningful way. As a new user, I'd like to be able to access information (how they do their research) in order to trust the app.

Fix: add an option on the home page or somewhere else (possibly settings?) about "Our Research" or something along those lines.

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### 55. H1 Visibility of System Status - C - Sev. 1

Since it takes time for documents (especially documents as long as tax forms) to download, users may be curious of how much longer it will take to fully download the forms.

Fix: Add a progress bar that indicates the percentage of the document that has been downloaded.

#### 56. H3 User Control & Freedom - C - Sev. 2

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In the simple/moderate task flow, users are unable to return to the Home Page (or navigate to any other page) once they've clicked on an organization, without pressing the back button (left arrow in the top left corner). Users may change their minds after reading about an organization and may not want to immediately donate, so to return home should be simpler.

Fix: Make the navigation bar functional as well as the back button functional when the user is on the organization page (they've selected an organization from "browse").

### 57. H4 Consistency & Standards - C - Sev. 2

The "Profile" page and the "Organizations for Animal Rights" page are inconsistent in how they refer to the organization that the user is donating to. The "Profile" page uses "Charities," while the "Organization for Animal Rights" uses "Organizations." This inconsistency may cause potential confusion.

Fix: Rename "Organization for Animal Rights" to "Charities" or rename "Charities" on the profile page to "Organization." Stick with one choice and only use that word to refer to organizations that users are donating to.

### 58. H8 Aesthetic & Minimalist Design - C - Sev. 1

The profile page can be more minimalist by merging "Your Causes" and "Your Charities." Since the two entities serve similar purposes (shows causes user has donated to and shows charities that user has donated to), we don't need both entities; it is repetitive and may make the page look cluttered.

Fix: Merge the two entities by embedding the breakdown of specific charities within the breakdown of causes (to make it one big pie chart).

# 59. H8 Aesthetic & Minimalist Design - C - Sev. 1

On the page that gives detailed information about a specific organization, the spacing between each component – header, URL of website, body description paragraph, donate button – are not consistent. Keeping this more consistent and organized could make the page more intuitive and aesthetic.

Fix: Align each component so that there is fixed spacing between each component (i.e. right now, the space between the URL button and header is much closer than the space between the URL button and the description paragraph. Shift everything else down accordingly).

### 60. H8 Aesthetic & Minimalist Design - C - Sev. 1

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On the profile page, the titles "Your Causes" and "Badges" are significantly smaller than and don't stand out as well as "Forms" and "Your Charities," especially since the latter two are all capitalized, bolded, and in black. The entities may differ in importance, but the headers could still be matched better in degrees of how much it stands out.

Fix: Bold the titles "Your Causes" and "Badges" and make them slightly bigger. Make "Forms" and "Your Charities" slightly smaller or un-bold them.

### 61. H10 Help and Documentation - C - Sev. 2

Especially due to the nature of this app, users will likely have many relevant questions such as "What are the metrics being used to determine which organizations are the most 'in need'?" or "What percentage of my donations is going to be used to support the organization?" They may also have functionality-related questions such as "How do you change the amount of money being donated recurrently?"

Fix: Add a FAQ page in the navigation bar.

### 62. H11 Accessibility - C - Sev. 1

On the "Browse Causes" page, the names of each cause are very small, which could pose a potential barrier to visually-impaired users. Furthermore, the organization names and descriptions on the page with the list of organizations are also very small.

Fix: Increase the size of the icon and the names below, increase their brightness and bold the texts.

### 63. H11 Accessibility - C - Sev. 1

The lengthy and detailed description of the organization on the organization page may be hard to read and may not be accessible for visually-impared users or users with low vision. The text is also small and dense, making it further difficult to digest.

Fix: Shorten the description or reformat it into simpler bullet points so that visually-impaired users can use tools such as a screen reader to easily parse through bullet points and learn about an organization.

### 64. H12 Fairness & Inclusion - C, A - Sev. 3

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The "Forms" page with yearly tax forms seems to already assume knowledge of taxes/financial statements. Users who don't know how to correctly report taxes or what to do with their downloadable financial statements will likely be confused and feel excluded to partake.

Fix: Either add a step-by-step guidance to navigating the Forms page and what to do with each entity in a separate page (i.e. FAQs) or add instructions/guiding sentences on the page itself, preceding each section.

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### 65. H1: Visibility of system status - A - Sev. 2

Would be nice to have some sort of text confirmation about recurring donations, beyond highlighting the outline of buttons in green.

Fix: Text confirmation about recurring donations.

#### 66. H3: User control and freedom - A - Sev. 2

The information about the charities is a very brief overview, especially for an organization that you're going to be giving money to.

Fix: Have more information about the charities that would differentiate them from one another.

#### 67. H3: User control and freedom - A - Sev. 1

After sorting by Most In Need, can't revert to other sort criteria. (We were unsure whether or not this was a prototype-stage issue or not.)

Fix: Allow people to change sort criteria regardless of which one they're currently on.

#### 68. H3: User control and freedom - A - Sev. 2

The Other category on the Browse page is unclear, both in that it includes a wide range of topics that are not listed and that we don't know what the UI would look like.

Fix: Create a screen for the Other category, or find a way to reduce the number of topics that would fall under it.

#### 69. H3: User control and freedom - A - Sev. 2

People aren't given the option to modify their name or profile info. There also isn't any login page. *Fix: Add an option to edit profile.* 

### 70. H4: Consistency and standards - A - Sev. 3

Various elements look like they might be buttons or otherwise clickable, but turned out not to be (e.g. year numbers under Forms or badges on the Profile page). Many items in your design seem to feature drop shadows, making it confusing to determine which ones are clickable and which ones aren't.

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Fix: Have greater differentiation between things that are and aren't clickable, such as reserving button shapes for buttons and drop shadows / 3D appearances for items that are clickable.

### 71. H4: Consistency and standards - A - Sev. 0

The Your Charities button doesn't seem to be clickable, despite sharing the design of the Forms button. It seems like there should be a page for Your Charities.

Fix: If it's meant to lead to its own page, great! If not, distinguish it from the Forms button.

# 72. H8: Aesthetic and minimalist design - A - Sev. 1

Most of the screens seem to try to fill up the page rather than maintaining a consistent design across pages.

Fix: Maintain design consistency and whitespace over having full screens.

#### 73. H11: Accessible - A - Sev. 2

The contrast between the background color and the background color of the category icons is low. *Fix: Increase contrast between different UI elements.* 

# 3. Summary of Violations

Category	# Viol.					
	(sev 0)	(sev 1)	(sev 2)	(sev 3)	(sev 4)	(total)
H1: Visibility of Status		1	3			4
H2: Match Sys & World		1	1	2	1	5
H3: User Control		2	6		1	9
H4: Consistency & Standards	1	6	4	3		14
H5: Error Prevention		1	1	2		4
H6: Recognition not Recall			1	1		2
H7: Efficiency of Use		1	4	3		8
H8: Minimalist Design		9				9
H9: Help Users with Errors			2			2
H10: Help & Documentation			2	1		3
H11: Accessible		4	1		1	6
H12: Fairness & Inclusion		2	1	2		5
H13: Value Alignment			1		1	2
Total Violations by Severity	1	27	27	14	4	73

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*Note:* check your answer for the green box by making sure the sum of the last column is equal to the sum of the last row (not including the green box)

# 4. Evaluation Statistics

Severity /	Evaluator A	Evaluator B	Evaluator C	Evaluator D
Evaluator				
Sev. 0	100%	0%	0.0%	0%
Sev. 1	14.8%	33.3%	29.6%	40.7%
Sev. 2	25.9%	29.6%	25.9%	44.4%
Sev. 3	35.7%	14.3%	42.8%	78.6%
Sev. 4	25%	75%	25%	75%
Total (sevs. 3 & 4)	33.3%	27.8%	38.9%	77.8%
Total	24.7%	30.1%	27.4%	50.6%
(all severity levels)				

# 5. Summary Recommendations

Overall, the Giving Tree did a great job anticipating user intuitions, and we appreciate how the scope of the app allowed for the three task flows to feel very in-reach! We found that heuristics H3: User Control, H4: Consistency & Standards, and H7: Efficiency of Use were the most violated heuristics when accounting for both severity and frequency. In terms of raw count, H4 (consistency and standards) was the most violated heuristic at 14 violations (the other most violated heuristics had 8-9). This corresponds to an overall trend in which individual features were clear to use, but we wish this extended into other parts of the app. One instance of this is the use of different words to refer to the same concept, such as using "Charities" and "Organizations" to mean the same thing.

Moreover, a large quantity of our observed violations stemmed from inconsistent design and unclear signaling, which led to confusion in various task flows and would generally lead to user inconvenience if left in place. Regarding User Control, we found several areas where task flows can be modified to accommodate potential user assumptions and expectations. For instance, users should be allowed to preview and undo high-impact actions, especially those involving monetary transactions. Lastly,

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regarding Efficiency of Use, we find that the app has a lot of room for improvement in tailoring to frequent users while being beginner-friendly. For instance, allowing users to have streamlined donation flows would remove lengthy navigation requirements for long-time uses, and allowing users to save settings can expedite the donation process even further.

We also feel it's important to mention H2: match between the system and the real world. We noticed that all three of the simple, moderate, and complex tasks, used language that wasn't immediately clear or intuitive across the prototype. This connects to the previous point about allowing users of all backgrounds (first-time donors to experienced donors) to feel like they can easily use the app. A few other points of feedback, both specific and general, can be found below:

## **Specific Feedback**

- Standardize button styling, navbar and back button behavior to minimize distractions.
- Brainstorm additional features that would speed up workflows for frequent / experienced users.
- 3. Provide clear information on each organization and how orgs will use donations.
- 4. Display key data and metrics in diverse, interesting, and helpful ways.
- 5. Look for better color combination than blue on black
- 6. Indicate what it takes to earn badges, similar to what it takes to grow a full tree.
- 7. Conflict about choosing "Most in Need" vs "Most Impact per Dollar"
- 8. Way to skip "Browse Causes" if user already knows what cause they want to donate to

# **General Feedback**

- 1. Emphasize the tools that the app may provide for donors, discover what metrics are important for donors to consider, measure, and analyze.
- 2. Consider ways to build trust between the user and the app, particularly because the app has a financial relationship with both the organizations and the users.
- 3. Incorporate strong feedback and reinforcement cycles for users to measure their engagement with organizations and the app.
- 4. Make the navigation bar accessible across all tasks and screens.
- 5. General disconnect between Browse page and Home page - Home page looks a lot less visually developed in comparison.
- 6. More intentional usage of colors, possibly addition of accent colors for high-fi?

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One broader topic we wanted to discuss was the inherent challenge of creating a donor app: how do we include people who don't feel like the label "donor" applies to them? In studio, we believe we discussed ways in which people with less financial means could get feel like they were welcome to use this app, but we don't feel that this was reflected in the medium-fidelity prototype, particularly because of the raw amount donated shown on the home screen and the direct correlation from amount donated to size of tree. We feel like this suggests the "bigger is better" mindset and could discourage users who can't donate as much. As mentioned above, perhaps progress could be marked not just by the raw amount donated, but by frequency, dedication to a certain cause, or even branching out into new causes.

We definitely want to mention some features we enjoyed while using the prototype:

- Straightforward navigation bar
- Use of different shades of green to create cohesive theme
- Search bar to browse causes and organizations
- Offering different ways of sorting organizations
- Use of simple & intuitive icons to represent different causes
- How the homepage greets you with "Hi, NAME" making it more personalized for each user
- Can easily identify what each page is for and anticipate the next page in a sequence
- Can readily accomplish most tasks in a few clicks

Though we are not very frequent donors, our team believes that the tools this app provides can be incredibly powerful for both new and experienced donors. Looking forward to seeing what comes next!