

Heuristic Evaluation of SpringBoard

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1. Problem

In the midst of a person's busy schedule, it is easy to lose sight of personal goals, so one's desire to be a participatory and philanthropic individual can get lost in the movement of everyday life. SpringBoard is a mobile application that empowers and motivates its users to meet personal daily goals by rewarding reaching goals by donating to a user's charity of choice.

2. Violations Found

1. [H2-5 Error prevention] [Severity 3] - Found by A

Upon logging in, the navigation is at the bottom of the screen. The distracted user that I am, I clicked on the appealing orange buttons before I finished making my account. It took me to an unfamiliar page, but from there I couldn't go back or undo my action to get back to the registration screen. The navigation buttons are not necessary at all upon login, and should be removed to prevent such user navigation errors. By getting rid of unnecessary distractions, it also keeps the user focused on creating an account so they have a higher chance of making an account and using the application in the future.

2. [H2-4 Consistency and Standards] [Severity 2] - Found by A, D

On the new user registration screen, it has the option to "save changes" or select the orange check mark button. I was confused if hitting the big orange check mark or "save changes" would do the same, correct thing. Giving the user this many options to carry out a simple task is actually detrimental. I would change the icon from a check to a home icon, to be more representative of what that button does (will touch upon this more later).

3. [H2-2 Match between system and the real world] [Severity 2] - Found by A

On the select a charity screen to designate the donation amount, the application uses a slider to designate the amount. This was not designed with user affordances in mind, because users typically associate such a slider with variables they want to adjust that lead to perceptual changes that do not necessarily matter incrementally (such as volume settings, or how bright your iPhone screen is). However, in the real world, I would not arbitrarily estimate how much money I would contribute to something. I want complete control over that. I would suggest a text entry field for this task.

4. [H2-2 Match between system and the real world] [Severity 2] - Found by A, C, D

The check mark at the center of the navigation bar is confusing. I associate check marks with approving things, or finishing items off a to-do list. However, in this app selecting the check mark takes me to some sort of home screen that tells me the date and what goals I have for the day. Perhaps an icon with a house would be better.

5. [H2-3 User Control & Freedom] [Severity 3] - Found by A, C, D

When I am at the screen where I log progress, I have the option of viewing information about the charities I support. When I hit the 'back' button after viewing the information about the World Health Organization, Spring Board takes me back to setting a new goal, instead of the screen where I can log progress. I had to hit the center check mark button twice to take me back to where I was. It would be preferable to have a working "back" option that undoes the last action and takes the user back to the same task he/she was working on.

6. [H2-2 Match between system and the real world] [Severity 1] - Found by A, B, C, D

*On the screen to log progress, the user is supposed swipe left or right to indicate success or failure of a task. However, the current prompts are a green right arrow and a red left arrow, which is intuitive for the user to press, not swipe. To simulate a swiping **motion**, there should be some kind of **moving** indicator (maybe a rolling luminance across the rectangle, similar to how the iOS8 lock screen does it) across the button that would indicate to the user that he/she should swipe. Otherwise, it's too easy to miss. I only knew to swipe by reading the prototype report.*

7. [H2-1 Visibility of system status] [Severity 2]- Found by A

After adding the goal of avoiding soda, I designate that I will donate to the WWF. However, the next screen brings me to my Spring Board homepage of what goals I have and the causes I support. Foremost, I'm not sure if the WWF (and with that, my financial commitment) went through because there was no prompt or success message that told me this charity was successfully added, because it does not appear on my Spring Board home page. The logo should be added under "my charities" and a temporary green banner that displays, "Goal created!" could indicate the user successfully added a goal.

8. [H2-10 Help and documentation] [Severity 3]- Found by A, B, C

There are two times someone can designate how much money he wants to give to the charity. Although it seems nuanced that one is a daily rate to donate and the other is based off if someone reaches a specific goal, there is a lack of clarity as to what each exactly means. One option should be eliminated, or there needs to be more clarity in both contexts (maybe an info button that explains the difference).

9. [H2-8 Aesthetic and minimalist design] [Severity 1] - Found by A, B, C

This page is particularly cluttered. One element that could be removed is the blurb about the charity. Since the user can already click on the charity logo to learn more, it's unnecessary to have that information take space up on this screen.

10. [H2-1 Visibility of system status] [Severity 2]- Found by A, C, D

It was difficult walking through some of the scenarios and tasks because I was not sure where in the application I was, especially with the 'home' screen I access when pressing the check mark. Instead of having "Spring Board" on the top of every screen, it would be more helpful to label the feed as "Spring Board Feed" and the home screen as "My present goals." Plus, only 3 of the 5 pages have the "Spring Board" header.

11. [H2-7 Flexibility and efficiency of use] [Severity 1]- Found by A

For someone with several goals and to-dos, it would be helpful to have a to-do list interface on the home screen. Since people are busy, their primary motivation is to get through the day having met their goals.

Hence, to account for these frequent actions, the home page should showcase what a person has left to accomplish for the day and/or week. Streaks and charities that are associated with each goal can be accessed by pressing on the goal.

12. [H2-9 Help users recognize, diagnose and recover from errors] [Severity 2] - Found by A, B, C

Upon creating a goal, there is no clear way to change the dollar amount of my donation. To do so, you have to press 'edit charity,' but that cues the user if they want to change the charity, not any of the other details they designated on the last page. There should just be a clear 'back' button.

13. [H2-2: Match between system and the real world] [Severity 2] - Found by E

On the sign-up screen, you give a list of potential interests that a user might have where they can check those that apply. In the real world, in forms, checkboxes are standard for checking off items that apply to you. This standard has been adopted in internet forms as well. Without the cue of a checkbox, the user can become confused whether or not that list is interactive/checkable or not and its also unclear if they can choose more than one (generally check boxes indicate you can choose more than one, radio buttons indicate pick only one). This could be fixed by putting an empty checkbox to the left or right of each item that becomes filled when selected.

14. [H2-5: Error Prevention] [Severity 1] - Found by C, E

Once the user is signed in and ready to add a goal, it is unclear what to do next since nothing on the screen is interactive besides the menu bar on the bottom. You fixed this by putting a message in that says "press the '+' below to get started." This is a little bit like putting a "push" sign on a door - it helps but ideally it isn't needed at all because the design is clear enough on its own. This could potentially be fixed by removing the add goal button from the bottom navigation and adding it to the goal list in the form of a super descriptive button that says "Add a New Goal." That button could also be there once you already have a list of goals for consistency.

15. [H2-4: Consistency and Standards] [Severity 1] - Found by D, E

The application is not consistent with what a button looks like. At first, buttons are white with grey/orange outlines and text. Then they are solid grey/orange with white text. On the save changes/delete goal page, they have less rounded corners and are grey/red with black text. On the edit account page, you also have less rounded corners and a grey button with black text. This could be improved by adopting one set of buttons as a standard. I personally like the outline with colored text buttons - use the grey one as the "normal" button and the orange one as the "catch attention/important action" button.

16. [H2-4: Consistency and Standards] [Severity 2] - Found by B, E

When adding a new goal, the button to proceed to the next step is always in the bottom right corner and the one to go back is on the bottom right. On the save changes/delete goal screen, the buttons are one atop the other, rather than side by side. Also the delete goal button is in the same location where the "next" buttons used to be. Personally, I accidentally clicked the delete goal button when going through the signup process quickly. This could be fixed by making the "delete goal" and "save changes" buttons side by side with the delete goal button on the left like in prior screens.

17. [H2-2: Match between system and the real world] [Severity 1] Found by - E

When your user gets the check-in notification, you ask them if they did their goal and then seem to automatically update the goals page based on their response. Really like how easy that is, but the "Not

Yet” language is very unclear. In real life, “Not Yet” generally means – “I intend to but I have not yet done so” but you seem to be using it as a “I have not accomplished it and do not plan to do it today.” It might be best to keep it at a simple “Yes/No” or “Yes/Not Today.”

18. [H2-3: User Control and Freedom] [Severity 3] - Found by E

When your user gets a notification, it seems like they are forced to respond to it with either a yes/no right then and there in order to keep using their phone normally. If the user accidentally set their notification time to sometime inconvenient or if the user is planning on completing their goal later than usual one day, there is no way for them to reset their notification time/delay it once they already get the notification. This could be fixed by having a “Snooze notification by 1 hour” button or a “reset notification time” button on the notification when it comes up.

19. [H2-6: Recognition rather than recall] [Severity 2] - Found by B, E

On your home screen, the arrows indicating that no is a left swipe on a goal and that yes is a right swipe on a goal don't appear unless the user clicks/taps on them. This forces the user to remember that left is no and right is yes or remember/figure out that they need to tap on a goal. This could be improved by having the arrows there at all time.

20. [H2-4: Consistency and Standards] [Severity 2] - Found by E

On your Goal Details pages, there seems to be some consistency problems with what is charity information and what is goal information. For instance, tapping on a goal mostly gives you information about your achievement of the goal, but also gives you information about the charity, which you already have in your “My Charities” section of your home page. The edit button lets you edit the Charity Information but the Charity Information includes a slider about goal check in. This is confusing for the user because you are not consistent about Goals sections applying to goals and Charity sections applying to charities. This could be improved by having separate areas for charity information/editing and goal information/editing.

21. [H2-2 Match Between System and Real World] [Severity 2] Found by C, D

The interface only allows users to set daily goals. It may be better to reserve the option for users to change the time intervals they are allotted, especially because working towards a goal may be something that is done every two days or even weekly. Having a daily goal limitation also may deter a user to want to donate to a charity, considering even \$2 a day adds up.

22. [H2-8 Aesthetic and Minimalistic Design] [Severity 3] - Found by C

On the Homepage that lists the current goals, the design seems to not be sustainable. If a user has a streak of greater than 8 days, it appears that the UI will have to change the display format to accommodate the larger amount of days. This is also true of the number of goals for the day.

23. [H2-1 Visibility of System Status] [Severity 2] - Found by B, D, E

On the dashboard used to log progress for Task 2, it is unclear whether the “Current Streak” and “Longest Streak” bars refer to just one task or all of the user’s tasks. It would be better to make this distinction more visible to the user.

24. [H2-2 Match Between System and Real World] [Severity 2] - Found by B, D

On the charity’s information page, at the bottom right there is a graphic with the caption “X% of donations go towards cause”. It is not very clear what this means, so perhaps phrase this in a clearer way

that makes more sense to the user. Does this mean that I am donating to this charity for 90% of my goals? Or that 90% of the money that I donate goes to this charity while the other 10% goes to Springboard?

25. [H2-6 Recognition Rather than Recall] [Severity 4] Found by A, B, C, D, E

In the current design, after the user has finished setting up a goal, there does not appear to be a way to access or edit information about that goal such as what time the check-in notification will be sent or how much they are donating each time they achieve the goal. Perhaps it would be helpful to allow the user to click on their goals on the home page to see this information, so they don't have to rely on their memory or wait until they get a notification to see what time it occurs. → Discussion revealed that goals can be edited by double clicking on them, but this was not clear.

3. Summary of Violations

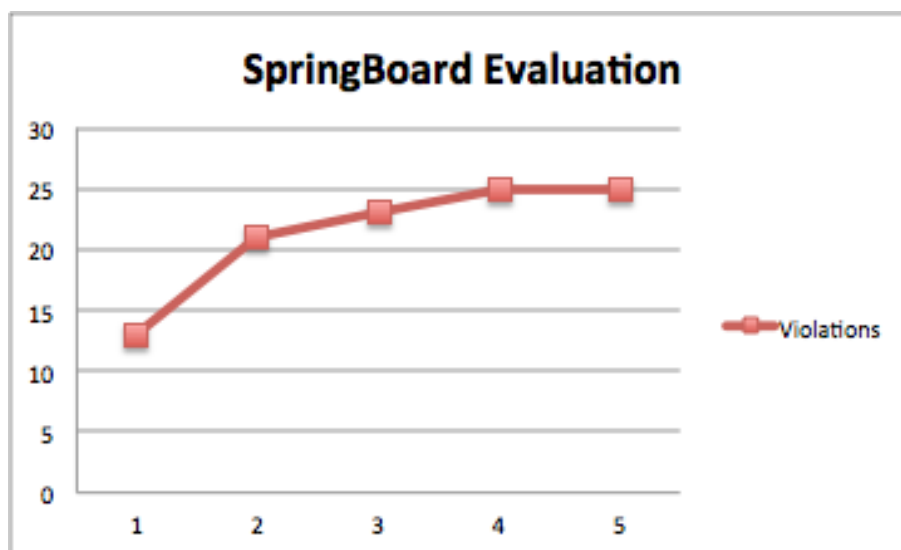
Category	# Viol. (sev 0)	# Viol. (sev 1)	# Viol. (sev 2)	# Viol. (sev 3)	# Viol. (sev 4)	# Viol. (total)
[H2-1: Visibility of Status]			3			3
[H2-2: Match Sys & World]		2	5			7
[H2-3: User Control]				2		2
[H2-4: Consistency]		1	3			4
[H2-5: Error Prevention]		1		1		2
[H2-6: Recognition not Recall]			1		1	2
[H2-7: Efficiency of Use]		1				1
[H2-8: Minimalist Design]		1		1		2
[H2-9: Help Users with Errors]			1			1
[H2-10: Documentation]				1		1
Total Violations by Severity	0	6	13	5	1	25

4 Evaluation Statistics

severity\evaluator	evaluator A	evaluator B	evaluator C	evaluator D	evaluator E
level 1	50%	33%	50%	33%	50%
level 2	46%	38%	31%	46%	38%
level 3	60%	20%	60%	20%	20%
level 4	100%	100%	100%	100%	100%
total (levels 3 & 4)	66%	33%	66%	33%	33%
total (all levels)	52%	36%	44%	40%	36%

evaluator Ex. C	# Ex. 7	problems found	# problems remaining & problem IDs Ex: 5 (1, 7, 11, 13, 17)
A	13		13
B	9		all shared with others
C	11		9 shared → 2 unique (#21, 22)
D	10		8 shared → 2 unique (#15,24)
E	9		1 shared with A → 8 unique (#13,14,16,17,18,19,20, 23)

(1, 13) (2, 21) (3, 23) (4, 25) (5, 25)



Severity Ratings

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

Heuristics

[H2-1: Visibility of System Status]

- keep users informed about what is going on

[H2-2: Match Between System & Real World]

- speak the users' language
- follow real world conventions

[H2-3: User Control & Freedom]

- "exits" for mistaken choices, undo, redo
- don't force down fixed paths

[H2-4: Consistency & Standards]

[H2-5: Error Prevention]

[H2-6: Recognition Rather Than Recall]

- make objects, actions, options, & directions visible or easily retrievable

[H2-7: Flexibility & Efficiency of Use]

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

[H2-8: Aesthetic & Minimalist Design]

- no irrelevant information in dialogues

[H2-9: Help Users Recognize, Diagnose, & Recover from Errors]

- error messages in plain language
- precisely indicate the problem
- constructively suggest a solution

[H2-10: Help & Documentation]

- easy to search
- focused on the user's task
- list concrete steps to carry out
- not too large