

Heuristic Evaluation of **BOLDer**

1. Problem

BOLDer is a mobile application interfacing with a earpiece that enables users to better navigate social interactions by giving them the ability to record interactions in their daily life and set goals based on the interactions.

2. Violations Found

1. H1 Visibility of system status / Severity 3/ Found by: A, B, C

When recording on the earpiece, how do I know whether or not I am recording? What if I double tap my earpiece and forget about it?

Fix: Make a specific beeping sound when a recording starts or stops so I know for a fact if I am recording

2. H7 Flexibility & Efficiency of Use / Severity 4/ Found by: A, D

When using your earpiece the instructions say that you can “scroll to the task that you would like to work on” and also “scroll chronologically through saved recording”. This is problematic because it uses the same movement to do two different things without giving any apparent positioning within the interface, how does the user know where they are in it? Will scrolling where I am do this or this? How do users keep tracking of what sub menu they are in within the earpiece interface?

Fix: Either make unique moves for every task or have the earpiece tell you every time you switch menus/tasks, because otherwise it will be alot for the user to picture and move through in their head.

3. H7: Flexibility & Efficiency of Use / Severity 0/ Found by: A, D

At no point does the earpiece make use of the potential that you might be looking at the application. The earpiece at multiple points could provide you more information via the application if it knew you were in private.

Fix: The app oftentimes links to the earpiece but the earpiece could link back to the application

4. H7: Flexibility & Efficiency of Use / Severity 2/ Found by: A

The app starts by syncing to the earpiece. Although this works immediately in the application, what happens if I try to open the application without the headpiece? Can I look at my achievements and recordings without the headpiece or will it stay stuck on the syncing screen?

Fix: allow syncing to happen as more of a background item. Like a loading bar at the top that doesn't obscure the whole screen

5. H4: Consistency & Standards / Severity 0/ Found by: A

On the home screen, the question mark at the bottom is colored the same as the other buttons but isn't clickable. If it is a button what functionality will it have? Otherwise it should be colored differently than the other interactable items.

Fix: add functionality to '?' Or change its color

6. H3: User Control & Freedom / Severity 2/ Found by: A

On the home screen, it greets a user but there is no way to change user or logout. What happens if I want to view my recordings without the earpiece on me but someone else synced to my phone previously

Fix: Create a user system that allows people to log-in without syncing

7. H5: Error Prevention / Severity 3/ Found by: A, B

What happens if someone else who has the app syncs and it connects with your headpiece. From the looks of the system, there is no security or log-in system so the person could theoretically read your recordings and achievements.

Fix: Put a first-time sync and “remember this phone feature” to prevent syncing to someone else

8. H4: Consistency & Standards / Severity 1/ Found by: A

The interface has the question mark button on the left on the home screen but on the right on the recording screen. This is confusing as if I click the home button twice it will load up the question mark screen.

Fix: keep the question mark button in a constant location

9. H1: Visibility of system status / Severity 1/ Found by: A

When I load up the public speaking recording all it tells me is “good job with slowing down”. This doesn’t give me any metrics or information. How much did I slow down. What data did the application gather that it can show me? How much did I stutter?

Fix: provide more thorough statistics or feedback on recordings that the user can view

10. H3: User Control & Freedom / Severity 0/ Found by: A

When a new recording gets synced, it takes the user back to the home screen. However, if I have more than one new recording that I want to look at, taking me back to the recording viewer screen would be far more efficient.

Fix: Change the destination after setting a goal back to the browser

11. H10 Help & Documentation / Severity 0/ Found by: A

What happens after I click on a recording I have already set a goal on? Can I click on recordings that I have set a goal on?

Fix: Allow me to see stats about the recording on click

12. H3: User Control & Freedom / Severity 2/ Found by: A

On the recording and goal setting screen, there is no way to change what goal I am working on.

Currently after you sync a goal, it appears that it is locked in.

Fix: Allow a user to click on the goal and switch it out

13. H9: Help Users with Errors / Severity 2/ Found by: A

On the goal screen it says ask crush on 2 dates, and text crush first 10 times. What happens if the crush says no on date 1. Not only does that not help confidence, but then he has no way to finish the task.

He will have to eternally look at a task that reminds him he got rejected asking his crush on a date.

Fix: Allow users to remove or refresh tasks

14. H1: Visibility of system status / Severity 4/ Found by: A, B, C

How does the application know whether or not the kid is making eye contact. How does the application track if I have texted my crush? Does the system have access to all my social outlets?

Fix: Make it apparent to users what real life information the application tracks. Also, give the user a way to manually enter progress made on goals that cannot be recorded by the device.

15. H1: Visibility of system status / Severity 1/ Found by: A

What does it take to maintain my streak? Do I just have to open the application? Do I have to submit a new recording? Do I have to get a new achievement?

Fix: Make it apparent to users what is required of them in order to keep their streak

16. H4: Consistency & Standards / Severity 2/ Found by: A, B

After you click on one of the recordings within the calendar page, both the achievements button and the back button link to the same location. It seems strange to have two buttons that do the same thing on the page.

Fix: Remove the Achievements button if you are coming from achievements

17. H1: Visibility of system status / Severity 1/ Found by: A, C

What are the differences between recordings and practices? Aren't practices recordings?

Fix: Maybe rename the tabs or differentiate them more somehow

18. H7: Flexibility & Efficiency of Use / Severity 1/ Found by: A

Don't certain recordings have relevant practices? Like I might practice asking my crush out 10 times and also have the recording of the actual attempt. Is there any way to view that relevant material?

Fix: Maybe create a better organization system to view material

19. H8: Aesthetic & Minimalist design / Severity 0/ Found by: A, B

The calendar icon in the top right of the achievements screen looks a lot like a calculator on the iPhone X. It also looks like the top of the view is cut off.

Fix: Make sure the icon isn't cutoff or switch to an icon that is more clearly a calendar

20. H8: Aesthetic & Minimalist design / Severity 0/ Found by: A, D

The main page of the achievements screen is rather cluttered. Why include date information and also have a separate calendar page? Why wouldn't I just swipe back two weeks instead of switching tabs?

Fix: figure out how you want to tie in a calendar and then do so in a way that information isn't repeated.

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

After you choose a task by tapping on the earpiece, there is no acknowledgement of the task being selected. There is also no clear sense of what the next steps are. The user does not know whether choosing the task worked and if they can start recording.

Fix: A confirmation along the lines of 'You've selected 'Public Speaking. Please double tap to record'

22. H3: User control and freedom / Severity 2 / Found by: C, B

If you choose the wrong task by accident, it is not clear how you can go back to the list of tasks and choose a different one.

Fix - Add the ability to go back to the previous menu to go back to the main menu

23. H5: Error prevention / Severity 1/ Found by: C

To fast forward a recording, the command on the earpiece is to swipe down and the command to exit is to swipe down quickly. The actions are very similar and could produce unintended results. It is unclear how much slower the user would need to swipe to fast forward, instead of exit.

Fix - modify the gestures to make them distinct or confirm with a user before exiting.

24. H1: Visibility of system status / Severity 1 / Found by: C

There is no confirmation that a recording that was created was saved unless the user checks their phone after it sync. The user would need to check their phone every time to check this status.

Fix - Add a voice confirmation that says "Recording saved".

25. H6: Recognition rather than recall / Severity 3/ Found by: C

If there is a user that records multiple interactions during the day, at the end of the day, they will end up with a list of unnamed recordings on their phone, with only the time of the day available to help with the interaction. They might need to listen to the recordings again to figure out the content.

Fix - Add the ability to name the recording, right after the recording has been created, so the user doesn't need to recall/listen to the recording again.

26. H10: Help and documentation / Severity 1 / Found by: C, D

There are lots of gestures on the earpiece and a novice user might not remember all of them and get stuck.

Fix - Explicitly state how to do an action. Eg - "Double tap to record"

27. H1: Visibility of system status / Severity 0 / Found by: C

There is no indication that the device has been turned off. The user could potentially think that the device was off, when it didn't actually turn off and the earpiece would run out of battery unexpectedly.

Fix - A clear way of knowing when the device has been turned off. Eg; A tone to indicate off.

28. H3: User control and freedom / Severity 3/ Found by: C, D

(On earpiece) As number of recordings gets large, it will get time consuming and cumbersome to scroll through all the recordings chronologically to find the one that the user is looking for.

Fix - Add a more fine grained search where the user first chooses the task that the recording falls under and then scrolls through all recordings under the task.

29. H8: Aesthetic and minimalist design / Severity 1 / Found by: C

The word "Show" can be mistaken to be a button since it has the same colour as all the buttons.

Fix: Make it grey/black to make it clear that it is not a button.

30. H8: Aesthetic and minimalist design / Severity 1/ Found by: C

The stars for the almost complete achievements look very similar to the stars for the completed achievements, since the colour for the star for incomplete achievements is the same as the colour for the star for completed achievements. Therefore, there is no sense of achievement when the star is completely filled.

Fix: Make the star grey while the achievement is not completed (grey + dark grey to show progress). Turn it to pink only when the achievement is completed.

31. H8. Aesthetic and minimalist design / Severity 1 / Found by: C

It's difficult to visually distinguish the achievements for different goals/tasks, since it's all the same colour. To see what task an achievement falls under, the user has to filter the view using "Show".

Fix - Use different colors for different goals/tasks

32. H4. Consistency and standards / Severity 2 / Found by: C, B

When you click on the calendar view for achievements and pick a date, the menu at the top switches back to the star, which is inconsistent since we are still in the calendar view.

Fix - Keep the calendar button as the active button at the top.

33. H8. Aesthetic and minimalist design / Severity 1/ Found by: C

On the calendar, under the information about the streak, the word 'All' looks like a button because it is the same colour as all the buttons and is in a different colour than the surrounding text.

Fix - Use a different colour or keep it as grey.

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

On the home screen, the icon for recordings is a square, later the icon for each individual recording is a circle.

Fix - Make the icon for 'Recordings' on the home screen a circle.

35. H6. Recognition rather than recall / Severity 3/ Found by: C, D

In the list of recordings, it is difficult to identify/select a particular recording since the only available information is the date of the recording and the goal that was set.

Fix : Add name of recording for each recording for easy identification.

36. H2. Match between system and the real world / Severity 1 / Found by: C

The list of recordings defaults to showing the recordings for 'Public Speaking' instead of 'All', which is what a user would expect.

Fix: Show recordings for 'All' by default.

37. H3. User control and freedom / Severity 3 / Found by: C, B, D

The app suggests some goals to work on for the recording. If the user doesn't have the ability to select a different goal (in case the suggestions weren't good) that wasn't suggested or add a new goal.

Fix- Add a 'See more goals' button that would show all the goals that were created by the user.

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

When I clicked on 'Recordings' and then on the recording titled 'Public Speaking', the next screen has the title as 'Title', which is inconsistent.

Fix - Keep the same title across screens

39. H7. Flexibility and efficiency of use / Severity 2/ Found by: C

Like the achievements, the app allows the user to show the recording for a particular day but the way to get to this view is to go to 'Achievement', go to the calendar view and then click on a date to show the recordings for that date. This is not a very intuitive task flow.

Fix - add a button for the same calendar view for 'Recordings' as well

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

If you click on 'Sync' without selecting a goal for the recording, a screen pops up saying 'Set a goal' but it's not clear that it's an error message.

Fix - Add words that indicate that it's an error, eg: 'Oops!', 'Sorry!' etc to make it clear that it's an error.

41. H9: Help users recognize, diagnose, and recover from errors / Severity 0/ Found by: C

When I click on 'Practice', the app shows 'Put on your earpiece'. This is not polite for an error message.

Fix - Add a 'please'.

42. H2: Match between system and the real world / Severity 0/ Found by: B

I was confused by the message "12 Day Streak being BOLDER in All". While after further exploration it made sense that "All" was simply a category (just like "Public Speaking", etc.), it was unclear at first in fact seemed like a bug until I discovered the other category options.

Fix - I would recommend changing "All" to "All Categories" or something similar.

43. H7: Flexibility and efficiency of use / Severity 3/ Found by: B

There is no way to access goals on their own without tying them to specific recordings. It would be nice to be able to see and/or track existing goals separately from the actual process of recording interactions.

Fix - Simply add a goals page.

44. H3: User control and freedom / Severity 3 / Found by: B

There is no clear way to exit a recording session. If the user mistakenly enters a recording session and wishes to exit and discard, there seems to be no option to do that.

Fix - Give the user a clearly defined gesture to allow them to cleanly exit a recording session without additional device interactions.

45. H4: Consistency and standards / Severity 2 / Found by: B

The app/presentation purports to sync "Goals" ("Stuttering", etc.) for later practice on the earpiece. However, the video demonstration seems to show the user practicing "Tasks" ("Making new friends", etc.), which are drawing from an entirely different bank of information.

Fix - Simply restrict the earpiece to only allowing the user to practice "Goals" (or "Tasks") in order to ensure consistency.

46. H7: Flexibility and efficiency of use / Severity 2/ Found by: B

There seems to be no way to manually categorize a new recording/goal within a "Task" category. Additionally, there seems to be no way to add/remove individual "Task" categories. This limitation restricts the generalizability of the earpiece/app to more unique, personalized situations.

Fix - Allow the user to add/remove their own "Task" categories and then manually categorize elements under those tasks, possibly using a separate pane / task flow.

47. H4: Consistency and standards / Severity 2/ Found by: B

There is no interface to allow the user to manually enter interactions. In similar platforms for wearable devices, it is customary to give users a way within the UI to manually enter information (either in full or abstracted form) in order to maintain consistency of recorded app/device usage.

Fix - Simply add an interface to allow users to manually enter interactions.

48. H3: User control and freedom / Severity 3/ Found by: B, D

It is unclear how to go back when navigating user menus using the earpiece. A user may get stuck in a menu which they did not intend to enter or wish to exit from, but has no way of doing so.

Fix - Simply implement an explicit "Back" gesture on the earpiece.

49. H8: Aesthetic and minimalist design / Severity 1/ Found by: B

The categories list is very small. This would likely be very difficult for users on mobile devices, as they may have difficulty selecting the right option given the limited size of the options.

Fix - Simply expand the size of the elements in the dropdown list, or switch to a different selection modality.

50.H7: Flexibility and efficiency of use / Severity 2/ Found by: B

There is no way to practice at all without selecting existing recordings. I would imagine that many users would like to be able to practice without looking back at their previous recordings, or having their goals tied to existing recordings. (For example, new users may want to practice goals before recording any interactions to test out the interface.)

Fix - Just be to add a global "Practice" option.

51. H10: Help and documentation / Severity 2 / Found by: B, D

There does not seem to be a way for users using the earpiece for the first time to figure out how to use the earpiece from within the earpiece interface. If it seems like the user is struggling to use the touch interface, the earpiece should be able to recognize this trouble and respond accordingly.

Fix - Simply include helpful audio prompts to guide the user if necessary.

52. H7: Flexibility and efficiency of use / Severity 2/ Found by: B, D

While it makes sense that this app was designed to be used in tandem with the earpiece, it feels a bit restrictive that recordings cannot be made on the app itself. I would imagine that users would not always have their earpiece on them and so would want to record certain interactions on their phone to ensure that they do not lose information in the app simply because they were not carrying their earpiece.

Fix - Add a 'record' option within the app.

53. H5: Error prevention / Severity 3/ Found by: B

There seems to be no way to tell whether or not the app is paired with the earpiece. This is crucial, because to have the two devices be unpaired would mean that recordings would not get synced correctly, would be lost, or would be synced with the wrong user. The same applies to "Goals" synced from the app to the earpiece. This would also prevent the "Put on your earpiece" screen from falsely indicating that the devices are disconnected if they are not.

Fix - Simply provide the user with some indication that the devices are paired correctly, possibility using some persistent connectivity status indicator.

54. H7 Flexibility and efficiency of use / Severity 3/ Found by: B, D

There does not seem to exist an option to delete existing recordings. This functionality is necessarily present in such an app, as users may often want to manually manipulate the saved information (for example, to start fresh). To fix this, simply give users the option to delete recordings, possibly using an elementwise delete option in displayed lists.

55. H4 Consistency and Standards / Severity 3 / Found by: D

The interface asks you to label your goals for your Science Fair project to which the only clickable option is a blue Stuttering goal, which is inconsistent with the recordings screen where stuttering is a

pink goal. The inconsistency in goal colors can be confusing on recordings screen where users want to quickly categorize recordings.

Fix: Make Stuttering on recordings screen blue and make sure goal colors are consistent across screens.

56. H4 Consistency and Standards / Severity 3 / Found by: D

When you click on October 27th you go to a screen where the user can play the days recordings, highlighting the 27th on a calendar above the goals achieved that day in a new orange color. All other days of the week are greyed out, which is inconsistent with the previous calendar that uses greyed out dates as dates where no achievements were accomplished, and other days that week that were pink are now greyed out.

Fix: If you want to put the week atop the days achievements be consistent with date coloring of days where achievements were accomplished making the entire week pink.

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

Your use of the Rock mascot is confusing because it is used for error messages and to provide the user with steps for instruction (Ex: tell user what they should do with the earpiece). This is confusing because the user may think they messed up and want to back pedal when they have seen the rock used for errors in the past. This is reinforced by the Rock with the open mouth because it makes it seem surprised/worried that something went wrong.

Fix: Incorporate different Rock faces/ emotions for different problems/tasks to make it clear the user hasn't messed up.

58. H4 Consistency and Standards / Severity 2 / Found by: D

The interface is inconsistent with its tracking of completed achievements. For example, there is an achievement under the star tab of the achievement section that has a completion date yet it is not represented on the calendar tab. Ex: October 14th. This can be problematic because the way the app is set up currently the achievements are not interactable on the star tab but are in the calendar so having mismatched dates of completion can lead to inaccessible data.

Fix: Make sure that all dates of achievements are represented on the calendar tab consistently so users aren't confused by date inconsistencies.

59. H8 Aesthetic and Minimalist Design / Severity 2 / Found by: D

In the calendar interface, on drop down menu, you have two "Public speaking"/ "Public speaking" choices that are spelled differently. Besides being inconsistent they presumably refer to the same subset of recordings/goals and make for redundant information within your drop down windows.

Fix: Clean up drop down menus by removing duplicates and make it clear whether you are sorting by goals or situations.

60. H4 Consistency and Standards / Severity 1 / Found by: D

In your interface the back button used in the "Club Meeting" screen takes you back to the correct "Public Speaking" filtered October 27th screen (The previous screen), but that same back button takes you to the incorrect unfiltered October 27th screen when used within "English Present". This

inconsistency of a button that is always available within your apps interface can be confusing to users who fear going back to something other than the previous screen.

Fix: Standardize the functionality of your back button, if you want the back button to go to the unfiltered October 27th screen no matter what that is fine, just make sure it does that for all of them.

61. H3 User control and Freedom / Severity 3 / Found by: D

When inputting goals for a given recording, you can only select from the ones the AI recommends for you. What if the user wants to work on a custom goal? Or notices that the AI missed something in the recording that they want it to look out for in future recordings of similar interactions? The problem here is that users may not necessarily agree that what the AI says is the most important thing to work on from a given recording.

Fix: Allow for users to input custom goals when assigning goals to a given recording.

62. H4 Consistency and Standards / Severity 3 / Found by: D

In recordings, the recent recording that needs to be categorized has the date November 1st at the top of the recording's screen, yet the current date according to your calendar is October 31st as shown by the dark grey circle. This is problematic because your recordings will be matched to incorrect date information lowering the value of accurately tracking progress within the app.

Fix: Make sure dates and recordings are consistent so you can accurately keep track of goal completion, a crucial component of your apps functionality.

63. H8 Aesthetic and minimalist design / Severity 3 / Found by: D

On the October 27th screen, what is the value of giving the time of the event on that screen? The title of the events are a little small and could use a little more real estate to make themselves more readable, move all non crucial information into recording specific screens (Ex: Within lunch with jack have information like place and time). Additionally, the generic recording symbol takes up alot of screen space and provides NO distinguishable feature that helps the user find the recording they are looking for.

Fix: Keep only larger title outside and make it larger so the identifying information is easier to view. Make your recording symbol either much smaller or remove it in favor of some generic image of the location the conversation took place, the person talked to etc. Use something more useful for identifying the desired recording. Put less useful specifics (Recording "Time") in "once they have been clicked" screens.

64. H5 Error Prevention / Severity 2 / Found by: D

Your back button looks alot like a playback/rewind button and would be confusing when in a recording whose button is the reverse of the back button. This could lead to errors regarding people clicking on it in an attempt to rewind or playback a recording and leaving a screen they did not want to leave.

Fix: Replace back button with one where the back symbol is not filled in and instead a <, distinguishing it more from your recording symbol/play.

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	1	4	0	3	1	9
H2: Match Sys & World	1	1	0	0	0	2
H3: User Control	1	0	3	5	0	9
H4: Consistency	1	4	5	3	0	13
H5: Error Prevention	0	1	1	2	0	4
H6: Recognition not Recall	0	0	0	2	0	2
H7: Efficiency of Use	1	1	5	2	1	10
H8: Minimalist Design	2	5	1	1	0	9
H9: Help Users with Errors	1	0	2	0	0	3
H10: Documentation	1	1	1	0	0	3
Total Violations by Severity	9	17	18	18	2	64
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	Evaluator A	Evaluator B	Evaluator C	Evaluator D
sev. 0	66.6%	22.2%	22%	22%
sev. 1	29.4%	5.88%	59%	12%
sev. 2	27.7%	50.0%	22%	27%
sev. 3	11.7%	44.4%	35%	65%
sev. 4	100%	50.0%	50%	50%
total (sev. 3 & 4)	21%	45.0%	37%	63%
total (all severity levels)	31.25%	32.8%	36%	33%

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

5. Summary Recommendations

We would recommend vastly expanding the range of options for manual user interaction with the app. Right now, the app and earpiece feel constraining in that they lack flexibility and hence lack the possibility for personalization. I would recommend giving users the option to record not only on their earpiece but also on the app, and then to organize those recordings manually if need be, including options like manual entry and deletion. Additionally, users should have to ability to define both “Goals” and “Tasks” themselves outside of the preset options presented by the app. For example, while it is nice to have the low-touch “Goals” selection interface, frequent users would quickly become irritated at the necessity to categorize their personal goals under these broad, immutable category labels.

We were a little confused by the distinction between “Goals” and “Tasks”. How does one differentiate between the two, and why are they named the way they are across the earpiece and the app? We think coming up with clearer and more consistent terminology would help decrease user confusion when using the interface as a whole. Additionally, there was no central way to see all the current goals and all the achievements/information related to that goal. We understand that it's not in one of your primary task flows but think this grouping of information is a really good way to communicate progress to users and would love to see it added if time allows!

As for the earpiece, there are issues with ‘visibility of system status’. Since there are no visual cues for a user to understand that an input has been registered, the earpiece would need to confirm that the input has been processed and state what the next possible states are. Also, there need to be clear pathways for the user to go back and forth between the main menu and the nested menus, either by saying ‘Back’ or adding additional touch features with that functionality. Moreover, as the number of tasks and goals increase for a power user, scrolling through all the recordings would prove to be very cumbersome and we think you should consider reorganizing how you store recordings for future searching. Lastly, there are features we weren't sure how you implemented, for example eye contact, and texting your crush first some number of times. How do you plan to get this data from the wearer? If the solution for the crush example is tracking your other apps you need to make this very

obvious when users begin with BOLDer. Overall, make sure what you plan to do with BOLDer is explained well, so that there is no confusion with coaching on that may question the user's understood reach of the app.

All in all, there seem to be certain aspects of the app and earpiece that need work, but otherwise we love the concept. We love the idea of seamlessly recording and processing interactions and then providing AI-generated feedback. With that being said, we cannot wait to see what's ahead for BOLDer!

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

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