

Heuristic Evaluation of Capsule

Reminder from CA: You do not need to implement all of these fixes! Pick the ones with high severity and at your own discretion. Another thing, some folks write feedback differently. I don't censure or change any of the feedback (unless it's egregious), so don't take it too harshly the way feedback is communicated. Feedback is always awesome because it will make your designs so much stronger! Happy feedback day!

1. Problem/Prototype Description:

"Capsule" is a community engagement platform that promotes sharing and receiving of knowledge through mutual exchange, enhancing the sense of belonging among members of a community.

2. Violations Found

1. H4. Consistency and standards / Found by A, B, D

Severity: 1

Task: Simple and Complex Task

Description: Even though an icon is provided for age info, there is an "Age" unlike other categories (pronouns and distance)

Rationale: If some categories like age are represented with both an icon and a label, while others like pronouns and distance are represented differently, it can lead to confusion or inconsistency in the UX

Fix: Change to an icon which has "Age" text to avoid writing down the text separately

2. H4. Consistency and standards / Found by A, B

Severity: 3

Task: Simple Task

Description: No visible option to like or save capsules, but there is a tab for viewing liked or saved capsules

Rationale: When users see a tab for liked or saved capsules, they naturally expect that there should be a straightforward way to like or save these capsules within the app.

Fix: Include a "Like/save" button

3. H4. Consistency & Standards / Found by D, B

Severity: 3

Description: Not sure if the "new capsule available" notification does the same thing as the "view capsule" button. Why are there two similar actions?

Rationale: Users may find it confusing when two different actions seem to have the same effect, leading to uncertainty about which one to use.

Fix: Ensure that "new capsule available" notification and "view capsule" have consistent functionality or clarify the differences.

4. H9. Help users recognize, diagnose & recover from errors / Found by A, B, D, C

Severity: 1

Task: Simple Task

Description: Capsule details like who posted and the actual capsule with post are in different screens

Rationale: Capsule details like who posted and the actual capsule with post are in different screens

Fix: Merge these two screens

5. H5. Error prevention / Found by A

Severity: 2

Task: Simple Task

Description: There is a large, prominent capsule logo that has no function or interactivity and a “Open Capsule” button

Rationale: It might create false expectations for users, as prominent elements like the Capsule logo are typically assumed to be important or interactive. It feels a little bit redundant to have a separate “open capsule” button

Fix: Make the Capsule logo into a clickable button which opens the capsule

6. H1. Visibility of system status / Found by A, C, B, D

Severity: 1

Task: Simple Task

Description: After viewing another's capsule, it goes to a screen where it says “new prompt will be available soon”.

Rationale: After a user views a capsule, a message saying “New prompt will be available soon” might be unclear or confusing. Users might expect to see more details about the capsule they just viewed, or a return to a previous screen

Fix: Have a back button

7. H2. Match Between System and Real World / Found by B, C

Severity: 3

Task: Simple Task

Description: The word “Capsule” is used a LOT, what does this mean in the real world?

Rationale: If a new user downloaded this app, they would be lost as the terminology “capsule” is used everywhere and it's not defined what a capsule is - they may be lost.

Fix: Under the big “CAPSULE” sign on the page we start on, have a smaller text underneath it that defines what a capsule is - “a dose of information” or something.

8. H5. Error prevention / Found by A, C, D

Severity: 3

Task: Simple Task

Description: There is a large, prominent capsule logo that has no function or interactivity, “New Capsule Available!” text and a “View Capsule” button

Rationale: It might create false expectations for users, as prominent elements like the Capsule logo are typically assumed to be important or interactive. It feels a little bit redundant to have a separate “View capsule” button and a text saying “New Capsule Available”

Fix: Add notification to Capsule logo indicating number of Capsules available and make it clickable to view those capsule

9. H6. Recognition rather than recall / Found by A

Severity: 3

Task: Simple Task

Description: There is no option to check whether there are multiple capsules to view

Rationale: When users cannot easily recognize or find out if multiple capsules are available to view, it forces them to rely on memory.

Fix: Add notification to Capsule logo indicating number of Capsules available and make it clickable to view those capsule

10. H7. Flexibility and efficiency of use / Found by C

Severity: 3

Task: User receiving and reading a capsule that was created by another user

Description: Across all three screens (opening, viewing, and closing capsule), the button required to progress to the next screen is at a different vertical height from the bottom of the page

Rationale: For frequent users, being able to tap at the same location for each page will help build muscle memory and increase ease of use

Fix: Place the "next" button at the same position for all screens related to viewing a capsule

11. H11. Accessible design / Found by C

Severity: 4

Task: User receiving and reading a capsule that was created by another user

Description: The selected font size used to show the posting user's details is quite small

Rationale: The decreased font size makes it more difficult for users to see the information, increasing the amount of effort required to understand the capsule

Fix: Make the font size a bit bigger

12. H1. Visibility of system status / Found by A, B, D, C

Severity: 3

Task: Simple Task

Description:

Rationale: When users click on "view capsule," they should know about what is being displayed, especially if there are multiple capsules available. Without this clarity, users might be unsure about whether they are viewing one of many capsules or the only one available.

Fix: After clicking on View Capsule, go to a screen where all the capsule (even if it one) are listed out

13. H6. Recognition rather than recall / Found by A, C, B, D

Severity: 2

Task: Simple Task

Description: No mention/details about flairs in the main Capsule page

Rationale: Users have to remember about what flairs were used from the previous screen with general details of who and when was the capsule posted

Fix: Include the info of flairs in this screen too or best would be combine the capsule general details (who posted and when) screen and this one (the main capsule page)

14. H3. User control and freedom / Found by A, B

Severity: 2

Task: Simple Task

Description: No “Close” option to exit from viewing the capsule

Rationale: Without “close” option, users might get frustrated if they accidentally entered it or wish to leave it quickly

Fix: Have a “Close (X)” button

15. H1. Visibility of system status / Found by A, C, B

Severity: 2

Task: Moderate Task

Description: When a notification is clicked, it directly opens the app to the questionnaire

Rationale: When a user is taken directly to a specific part of an app, like a questionnaire, without any indication of where they are in the app's overall structure, they might not understand how they arrived at that point or how to navigate to other sections of the app.

Fix: Have a heading like “New Capsule!”

16. H3. User control and freedom / Found by A, D

Severity: 2

Task: Moderate Task

Description: To add flairs, we need to click on Close button (X)

Rationale: If clicking on a "Close" button (commonly understood as an action to exit or cancel something) is the required method to add flairs, it can be confusing and counterintuitive for users.

Fix: Have a “Done” or “Ok” button to add flairs

17. H3. User control and freedom / Found by C, B

Severity: 3

Task: User creating and sending a knowledge capsule by responding to a prompt

Description: Users are unable to remove flairs they have added

Rationale: Some users may mistakenly add more flairs than they intend too and have no way to backtrack

Fix: Add a feature to remove unwanted flairs

18. H2. Match between system and the real world / Found by C, B

Severity: 2

Task: User creating and sending a knowledge capsule by responding to a prompt

Description: All flairs are common English words but they lack a helpful description

Rationale: I was confused whether flairs were supposed to represent how I felt about the prompt and which ones were applicable

Fix: Have a short description following each flair to explain its purpose

19. H12. Value alignment and inclusion / Found by A, B, C

Severity: 2

Task: Moderate Task

Description: The limitation of only being able to select from a set of predefined flairs without the option for customization

Rationale: Restricting users to a predefined set of flairs might not align with the diverse values and expressions of all users, potentially excluding those with unique or specific flair needs.

Fix: Add "Create new Flairs" Option

20. H7. Flexibility and efficiency of use / Found by A, B, D

Severity: 3

Task: Moderate Task

Description: The limitation of only being able to select from a set of predefined flairs without the option for customization

Rationale: The lack of customization options can be limiting for users and for those with specific needs or preferences.

Fix: Add "Create new Flairs" Option

21. H6. Recognition Rather than Recall / Found by B

Severity: 4

Task: Author and Send Capsule (Moderate Task)

Description: Remembering/Figuring out how to create a capsule without clicking on the notification.

Rationale: What if we've lost the notification that there is a new capsule present? How do we know where to go to create a new capsule? I can't find a button anywhere to do it, so I certainly can't recall where to go.

Fix: Add a clear way to make a capsule without use of the notification - maybe a plus button for creation or a message on the home screen that allows you to create a capsule (if there is one available)

22. H7. Flexibility and efficiency of use / Found by A, B

Severity: 1

Task: Moderate Task

Description: The absence of text formatting options when posting a capsule

Rationale: Without formatting tools, users lack the means to customize their posts for clarity or emphasis, which limits the efficiency of communication and personal expression within the app.

Fix: Add text formatting options like Bold, Italic, Underline, Colors, Background Colors

23. H2. Match between system and the real world / Found by A, C [should be H4]

Severity: 1

Task: Moderate Task

Description: The absence of text formatting options when posting a capsule

Rationale: People are accustomed to having text formatting options in similar platforms and applications. The lack of such features may not match the users' expectations based on their experiences in the real world.

Fix: Add text formatting options like Bold, Italic, Underline, Colors, Background Colors

24. H2. Match between system and the real world / Found by A, C [should be H4]

Severity: 1

Task: Moderate Task

Description: The placement of the submit and close buttons at the same level

Rationale: Users expect consistency with other app interfaces where the close button is usually at the top of the screen and the submit button at the bottom. Having them at the same level breaks this convention and may lead to mistakes.

Fix: Have Submit button at the bottom right corner

25. H9. Help users recognize, diagnose & recover from errors / Found by A, C, B [should be 4 severity]

Severity: 2

Task: Moderate Task

Description: No warning of whether to proceed or cancel when clicked on submit "this capsule"

Rationale: Absence of a warning or confirmation dialog when submitting something significant (like a "capsule") can lead to accidental submissions or unintended actions.

Fix: Ask the user whether to submit the capsule or not once again

26. H1. Visibility of system status / Found by A, C, B

Severity: 2

Task: Moderate Task

Description: The confirmation of submission page only indicates that something has been submitted without specifying what has been submitted

Rationale: The lack of specific information about what has been submitted on the confirmation page can lead to uncertainty or confusion for the user. It's crucial for users to receive clear, detailed feedback about their actions

Fix: Include details about the capsule and time it has been posted

27. H4. Consistency and standards / Found by A, B, C

Severity: 1

Task: Moderate Task

Description: The "flairs" text colors are more attractive and popping in a black and white UI

Rationale: The use of color should be consistent and follow established standards. If the "flairs" are the only colored elements, they may not fit with the overall design of the app.

Fix: Maybe have a black colored text to fit with the black-white UI and an emoji to describe

28. H4. Consistency and standards / Found by A, C, D,

Severity: 1

Task: Moderate Task

Description: Flair text and Submit button have similar color (green)

Rationale: When different elements (like flairs and a submit button) that serve different purposes are styled with the same color, it can create confusion

Fix: Maybe have a black colored text to fit with the black-white UI and an emoji to describe or Change the color of 'Submit' to a regular black background button with white text

29. H3. User control and freedom / Found by A, C, B

Severity: 2

Task: Moderate Task

Description: No undo option for the post / text

Rationale: An "undo" function is particularly important in text input areas, as users often make mistakes or change their minds about what they have written. Without the ability to easily undo these changes, users can experience frustration and de

Fix: Have undo and redo functional buttons

30. H3. User control and freedom / Found by A, D

Severity: 1

Task: Moderate Task

Description: In these screens, the close button is like the letter X

Rationale: Using a simple 'X' design can look clean and minimal, but if it's not obvious that it's a button to click, it might be hard for people to know how to use it

Fix: Highlight the 'X' button or circle it

31. H6. Recognition rather than recall / Found by A, D, C, B

Severity: 2

Task: Moderate Task

Description: In the notification, it gives you the information about when was the prompt generated but not when the user is viewing the prompt

Rationale: It would be easier for users if the system showed when they are viewing a prompt

Fix: Include time details in the capsule / prompt answering page too

32. H6. Recognition rather than recall / Found by A, C, B

Severity: 2

Task: Complex Task

Description: When trying to store a capsule, capsule details like who posted and the actual capsule with post are in different screens

Rationale: Users should not need to remember information when navigating through the app. users might forget some info

Fix: In my opinion, Having both on one screen (merge the two screens) would be good.

33. H2. Match between system and the real world / Found by A, B, D

Severity: 1

Task: Complex Task

Description: When I click on the love/heart symbol button it takes me to "Cabinet"

Rationale: A love or heart symbol is commonly associated with liking or favoriting something. If clicking this symbol leads users to a different section, like a personal "Cabinet" of their own posts, it creates a mismatch between what users expect (typically to like or favorite something) and what actually happens

Fix: Change the icon to search symbol so users know where the capsules are organized

34. H1. Visibility of system status / Found by A

Severity: 1

Task: Complex Task

Description: Displaying only date on the saved/liked capsules

Rationale: The system should provide clear information about the timing of content releases.

Fix: Add details about the time it got posted

35. H8. Aesthetic and minimalist design / Found by A, D

Severity: 1

Task: Complex Task

Description: Displaying date in mm/dd/yyyy format on the saved/liked capsules

Rationale: if the date information is presented in a mm/dd/yyyy format with a lot of text, it can overwhelm the user, and moreover it is not providing any info regarding time.

Fix: Just say 4hr ago or 1d ago with capsules sorted by posted dates.

36. H7. Flexibility and efficiency of use / Found by A

Severity: 2

Task: Complex Task

Description: No search option in the Cabinets Page

Rationale: The absence of a search option can significantly hinder the efficiency and flexibility of the system. It forces all users, to navigate in the same potentially time-consuming way and it become even more difficult when there are many capsules

Fix: Have a search bar

37. H4. Consistency and standards / Found by A, C

Severity: 3

Task: Complex Task

Description: The presence of both a back arrow and a "go back" text button

Rationale: The presence of two different back buttons could confuse users about their purpose if they perform the same or different actions.

Fix: Clearly indicate "Go back to Name Page" (the screen that come before this screen)

38. H4. Consistency and standards / Found by A, C, B

Severity: 3

Task: Complex Task

Description: "Unsorted cabinet" appearing in the same font as named cabinets

Rationale: Users might think "unsorted" is a specific cabinet rather than a default or "all unorganized capsules" category.

Fix: Mention something like "Answer the prompt from your own experiences or knowledge :)" **[solution doesn't make sense]**

39. H10. Help & Documentation / Found by A, B, D, C

Severity: 2

Task: Moderate Task

Description: It says "Add your capsule" but what specifically to enter? Answer the prompt? Write some story?

Rationale: When users encounter a function like "add your capsule" without clear guidance on what it involves or how to perform the action, it can lead to confusion

Fix: Mention something like "Answer the prompt from your own experiences or knowledge :)"

40. H6. Recognition rather than recall / Found by A

Severity: 2

Task: Complex Task

Description: Every capsule has the same "Capsule" logo

Rationale: When all capsules are represented by the same logo, it becomes challenging for users to quickly identify or differentiate between them.

Fix: Have a visual cue like having the border color same as the capsule's flairs color or color combination

41. H5. Error prevention / Found by A, B

Severity: 2

Task: Complex Task

Description: Does not automatically allocate newly created capsules to the newly created cabinet resulting in an unnecessary step where the user must manually select the new cabinet again.

Rationale: By not defaulting to the newly created cabinet for storage, the system adds complexity by making users take an extra step of selecting the newly created cabinet. This type of redundant may confuse the user and might lead to them making potential errors.

Fix: While trying to store in a new cabinet, default the option of storing the capsule in the new cabinet

42. H4. Consistency and standards / Found by A, D, C

Severity: 1

Task: Complex Task

Description: Spacing between the "create" button and other cabinets is the same

Rationale: Users should not have to wonder whether different words, situations, or actions mean the same thing. The similar spacing might lead to an assumption of similar functionality, which could confuse the user.

Fix: Have a dedicated Create New Cabinet button in the bottom left corner

43. H5. Error prevention / Found by A, B

Severity: 2

Task: Complex Task

Description: While creating new cabinet there is no warning that a cabinet with the same name already exists

Rationale: Allowing users to make cabinets with the same name without checking can lead to confusion and problems in managing them.

Fix: Merge both the screens so that users know what cabinets already exist. When clicked on "create new cabinet" it turns into a text box and if the user types the same name as one of the existing cabinet highlight the text box in red

44. H6. Recognition rather than recall / Found by A, C, D

Severity: 2

Task:Complex Task

Description: The newly stored capsule is not at the top of "Your Cabinet" Screen

Rationale: When new capsules are stored in a cabinet but not displayed in an expected location (such as at the top of the list), users might have to search through the cabinet or rely on their memory to locate the newly added item.

Fix: Show the newly stored capsule / cabinet at the top

45. H8. Aesthetic and minimalist design / Found by C

Severity: 2

Task: User organizing the capsules they received

Description: Users must slide right to left to view capsules within a cabinet

Rationale: Getting to the earliest capsule requires a lot of swiping, which hinders the user experience

Fix: Allow users to tap into cabinets, then scroll bottom to top to view older capsules

46. H1. Visibility of system status / Found by A, B, D

Severity: 2

Task: Complex Task

Description: After adding a capsule to a cabinet, it directly goes to “Your Cabinet” page without any notification of “successfully added to the cabinet”

Rationale: The lack of a confirmation message after an action (adding a capsule to a cabinet) leaves users without clear feedback on whether the action was successful or not

Fix: Have a notification or pop-up saying that the capsule has been successfully added to the cabinet

47. H2. Match Between System and Real World / Found by B, C

Severity: 2

Task: Organize Capsules (Complex Task)

Description: Store in a “cabinet”, what is a cabinet?

Rationale: Similar to the first H2 violation, it may not be intuitive as to what a “cabinet” is? But this is the only word used - without any insight in the app.

Fix: Have a smaller text under “Your Cabinets” that mentions what a cabinet is, so the user is not confused.

48. H11. Accessible design / Found by A

Severity: 1

Task: Complex Task

Description: Create New Cabinet doesn't appear like a clickable button

Rationale: “Create New Cabinet” element does not clearly convey its functionality as a button, users who have low vision may not recognize it as a clickable element

Fix: Place the “Create New Cabinet” text in a rectangular box which can be easily identified as clickable button

3. Summary of Violations

A Google Sheet Template is provided [here](#) to help you calculate numbers.

Category	# Viol. (sev 0)	# Viol. (sev 1)	# Viol. (sev 2)	# Viol. (sev 3)	# Viol. (sev 4)	# Viol. (total)
H1: Visibility of Status	0	2	3	1	0	6
H2: Match Sys & World	0	3	2	1	0	7
H3: User Control	0	1	3	1	0	5
H4: Consistency & Standards	0	4	0	4	0	8
H5: Error Prevention	0	0	3	1	0	4
H6: Recognition not Recall	0	0	5	1	1	7
H7: Efficiency of Use	0	1	1	2	0	4
H8: Minimalist Design	0	1	1	0	0	2
H9: Help Users with Errors	0	1	1	0	0	2
H10: Help & Documentation	0	0	1	0	0	1
H11: Accessible	0	1	0	0	1	2
H12: Value Alignment & Inclusion	0	0	1	0	0	1
Total Violations by Severity	0	14	21	10	2	49

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 (in %)

Severity / Evaluator	Evaluator A	Evaluator B	Evaluator C	Evaluator D
Sev. 0 Ex: Eval A count / total sevs 0 in table #3	100%	100%	100%	100%
Sev. 1 Ex: Eval A count / total sevs 1 in table #3	86%	43%	50%	50%
Sev. 2 Ex: Eval A count / total sevs 2 in table #3	86%	71%	52%	33%
Sev. 3 Ex: Eval A count / total sevs 3 in table #3	70%	70%	63.6%	40%
Sev. 4 Ex: Eval A count / total sevs 4 in table #3	0%	50%	50%	0%
Total (sevs. 3 & 4) Ex: Eval A = sum(sev 3: sev 4 counts) / sum(sev 3: sev 4 in table #3)	58%	66%	69%	33%
Total (all severity levels) Ex: Eval A total sev count / total sevs (green cell) in table #3	78%	59%	51%	36%

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

5. Summary Recommendations

Likes

A great idea and a well-thought-out Med-fi Prototype! We really like the minimalist UI design. The animations of the capsule logo, the clean rounded rectangles and the sleek menu bar on the bottom are great. Impressed with the uniform word choices ("Capsule", "Cabinet", "Flairs"). But there are some minor UI improvements that can be made as suggested in the heuristic evaluation and are summarized as follows:

Suggestions

There are 5 overall areas for improvement.

Notification

Firstly, ensuring a consistent interaction between the "new capsule available" notification and the "view capsule" button, complemented by the replacement of the "done viewing" option with a standard close icon to enhance ease of use.

Visual and navigational improvements

suggesting a potential shift from a monochromatic color scheme to a more visually engaging one. Additionally, increasing font size on specific screens and incorporating features like a back button or "Go Back" option, alongside more confirmation pages, are recommended to facilitate smoother navigation. Making the Capsule logo clickable further enriches user interaction within the app.

Terminology & Representation

This involves clarifying the meaning of terms like "flair" or substituting them with more commonly understood language. It also extends to replacing the heart icon in the tab navigator with a symbol more indicative of the "your cabinet" functionality. Furthermore, clarifying the organization of "unstored capsules" and "food & motivation" capsules aims to improve overall user comprehension.

User guidance

We suggest providing a clear description of what a "capsule" entails, particularly for first-time users, accompanied by the app's tagline. Additionally, efforts are directed at enabling users to answer prompts and create new capsules without solely relying on notifications, coupled with addressing the term "Cabinets" through alternative wording or comprehensive descriptions.

Inclusivity, customization, and editing capabilities

Ensuring that prompts are inclusive and avoid design pitfalls is a priority. Providing users with more customization options, such as text format and the addition of less vibrant "flairs" to maintain focus on capsules, is suggested. Additionally, allowing users to update or adjust previously created capsules contributes to a more user-centric experience. This extends to the consideration of merging screens, like combining the capsule info page with the actual capsule content, where logical and beneficial for a streamlined user journey.

Severity Ratings

- 0 - not 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

- Words, actions, and UI elements should be consistent across the entire platform
- Follow platform and industry conventions

H5: Error Prevention

- Minimize error-prone conditions
- Remove memory burdens, support undoing, and warn your users when necessary

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, keyboard shortcuts)
- Allow users to tailor frequent actions (e.g., macros)

H8: Aesthetic & Minimalist Design

- No irrelevant information. Focus on the essentials.

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

H11: Accessible

- Users can interact with the system using alternative input methods.
- Content is legible with distinguishable contrast and text size.
- Key information is upfront and not nested for screen readers.
- Purely visual or auditory content has text-based alternatives for users with low vision and low hearing.

H12: Value Alignment and Inclusion

- The design should encode values that users can understand and relate to.
- It should make a diverse group of users feel included and respected.
- The design should prevent the reproduction of pre-existing inequities and not create additional burdens for members of disadvantaged populations.