

# Heuristic Evaluation of Senior Circle

## 1. Problem/Prototype Description

I evaluated the medium-fi prototype of the Senior Circle app, which is an app that connects older people in group living homes through chores and events.

## 2. Violations Found

### 1. H3: User control and freedom / Severity 2 / Found by: A, B, D

Once users input their energy / social levels for the day, there is no way to return and re-evaluate how they are feeling after the first task is completed

Fix: reroute users to initial screens so that they can reassess their energy levels after completing a task

### 2. H5: Error Prevention / Severity 4 / Found by A, B, C, D

On check in screens users may misclick the three options for the “energized” and “social” questions

Fix: have a screen that confirms users preferences with a short blurb like “Thanks for checking in \_\_\_\_\_, so you are feeling \_\_\_\_\_ energized and \_\_\_\_\_ social

### 3. H2: match between system and real world / Severity 4 / Found by A

When users are directed to switch to their real world tasks, there is little information regarding where and how to meet with teams to complete tasks

Fix: include clear directions about meeting place for team members

### 4. H11: Accessible / Severity 3 / Found by A, B, C, D

We had a couple issues with the contrast chosen for the prototype. The yellow banner was hard to read and caused eye fatigue. Plus any yellow on white was also hard to distinguish. Additionally, the black text on the brown sign was really hard to read as well.

Fix: Choose colors with more contrast.

### 5. H11: Accessible / Severity 4 / Found by A, B, C, D

The font is so small and hard to read. Since your target audience is primarily elderly people, the text needs to be easy to read. In addition to small text, the icons and posts

Fix: Make the font bigger or make the icons larger (make each community garden post one line, one button to visit garden).

### 6. H4: Consistency and Standards / Severity 2 / A, D

Some buttons throughout the app have verbs indicating to “press” or “tap” while others do not.

Fix: to save space within your buttons, it might be nice to take users through an onboarding flow that explains what a button will look like in the app so you don’t need to explain it every time (I see you doing some great stuff with making this accessible to an older demographic, but you might save some screen real estate by doing an onboarding flow :)

- 7. H2: Match between system and real world / Severity 3 / Found by A, B, C**

Within the community garden slide, plant icons are used to represent different / inconsistent tasks which abstracts each individual task—possibly to a point of confusion.  
Fix: Use previews of the images that people posted and put those on the community garden post instead of abstract plants.
- 8. H10: Help and Documentation / Severity 3 / Found by B, C, D**

Community garden buttons used on task assignment screens are unclear. The garden icon during the second task seems unnecessary. Plus the app has not explained what that icon is or does so it could confuse users.  
Fix: introduce the use of this button earlier in the app, or maybe even remove it from this screen and just have it on the later screens
- 9. H3: User Control & Freedom / Severity 4 / Found by A, B, C, D**

There is no way to get out of the screen that says “Jo is on her way”. I think the idea of calling for real world help is good, but applications can be frustrating when users don’t have full autonomy over their device.  
Fix: Allow users to call for real world help, but redirect them back to the previous screen and remove the step where “Jo” has to enter a code to “unlock” the phone.
- 10. H1: Visibility of System Status / Severity 2 / Found by A**

Once Jo has been called users cannot see where she is and if she is acting on their request  
Fix: add a progress bar, or live location update, or messaging feature for assistants to inform users that they are on their way
- 11. H4 Consistency and Standards / Severity 1 / Found by A**

Sometimes the “see the garden” feature has words, and others it doesn’t. The community garden feature is inconsistent across screens  
Fix: standardize the garden button to “see garden” across all instances of the button to ensure clarity and consistency
- 12. H5: Error Prevention / Severity 1 / Found by A**

“Social” and “energized” are underlined to indicate the small change between screens, this small emphasis makes it difficult to find the difference, and increases the likelihood of misclicking an answer as a result of thinking the two screens are the same  
Fix: up the contrast of these keywords by outlining them with a box that’s filled in and changing their **text** color like shown with “text”
- 13. H8: Aesthetic and minimalist design / Severity 3 / found by A, B, C, D**

When tasks are assigned, the screen is set up such that users first see the task, and then the order in which to approach their task “1. Put down phone, 2. Find your team, 3. Do your task” This layout in introduces task then team then directions in an order that is not exactly aligned with what users will be doing  
Fix: consider putting the ordered list first (1. Put down the phone 2. Find your team....) and interlacing the task assignment and team assignment as they appear in this list to

align the apps display of information with the order in which they will occur in real life  
-> this will lead to a sense of virtual and physical consistency

**14. H1: visibility of system status / Severity 2 / Found by A, B**

There is no way of knowing where teammates are at. Are they in the lounge? Have they changed their mind about the task? When are they meeting?

Fix: have icons that indicate if teammates are enroute to the lounge, haven't accepted the task, etc.

**15. H6 recognition rather than recall / Severity 2 / Found by A, C**

Screens referencing the "tasks" that users have or are completing requires users to remember which task they are completing. Plus on the task confirmation screen there is no way to remember what task you completed.

Fix: include the task or tasks that the user is completing or has completed on these screens

**16. H3: User Control and Freedom / Severity 3 / Found by C, D**

There is no option to generate a new task if the user is not content with the one assigned to him/her.

Fix: Have an option to "Generate New Task" (with the appropriate error checking to ensure that they don't switch tasks accidentally).

**17. H13: Value Alignment / Severity 1 / Found by C**

I think one value in Senior Circle is empowering users to fill their day with meaningful activities. I think that value is well conveyed, except for the "Are you really done with your task?" screen. I think the screen could be taken as condescending.

Fix: Remove this screen and put a confirmation on the original screen (split the single button into two - confirm done with task "confirm" and "no").

**18. H12: Fairness and Inclusion / Severity 2 / Found by A**

Check In screen features emoticons to indicate emotions associated with energeticness and socialness for the day. Sad icons indicate tiredness and less social-ness, but this may make some users feel upset or excluded from tasks as a result of checking in with less pleasant emotions

Fix: maybe replace these emoticons with other more welcoming ones ie: a sleepy emoji, or a single person emoji in contrast with an emoji that features several people

**19. H13: Value Alignment / Severity 1 / Found by A**

The features in the app indicate that this is a technology meant to help enhance community in senior living spaces, but the app does not say this explicitly, which at times makes it feel a bit more individual

Fix: insert a tag-line or mission statement at the opening of the app, or introduce a small one-line explanation as to why happy hour is a goal that we should be excited about to further emphasize the community aspect of this app.

**20. H10 Help and Documentation / Severity 3 / Found by B, C, D**

There is no explanation of what users are getting into on the home page.

Fix: It could be helpful to have a blurb explaining the app on the home page, before users have to click anything. This could even be a help icon that directs users to another page explaining the idea/purpose of the app.

**21. H2: Match between system and real world / Severity 3 / Found by A, C**

“We are getting closer to happy hour” screen feels a bit out of order and introduces some confusion with the phrases “you’re all done for the day!” and “Do another task” so close to one another.

Fix: Consider putting the congratulations banner at the very top to mirror the sense that it has just been done. Then possibly the “We’re getting closer to Happy Hour” immediately following it as it is the result of the previous task completion (now at the top of the screen). Then allow users to decide if they want another task because that would be the next step, and finally have the community section.

**22. H6: Recognition not Recall / Severity 3 / Found by C**

The “Post to Garden” button could be confusing because the user might not know what they are posting.

Fix: Change language (“Post your task to the garden”) or move the button under the “Thanks for doing your task...”.

**23. H7: Flexibility and Efficiency of Use / Severity 2 / Found by A, D**

The interface does not allow users to skip any steps, such as the input of energy/social levels, or bounce between community garden, task assignment, and check-in sections easily.

Fix: have a navigation bar with the community garden, task assignment, and check-in tabs on it for easy access

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

There is no way to sort or search community garden posts, requiring users to search through them manually when they want to view a post

Fix: have a toggle menu for different sort options, and/or include a search bar for ease of access to posts

**25. H2: match between system and real world / Severity 2/ Found by A**

On the community garden screen, there is no description of the event that took place (ie: Happy Hour on March 11, 2022–what was the theme, etc). There is some disconnect between the actual event and how it is represented in the app

Fix: Have workers or event organizers insert a short description of events on the page where users can “tap on a plant to see details about its corresponding task” so that users are reminded of what each event was without having to remember themselves.

**26. H3 User Control and Freedom / Severity 2 / Found by D**

Users are unable to post to the garden until they have clicked all the way through the tasks, which could be a burden to users who just lost their place/accidentally pressed start a new task without posting.

Fix: When a user clicks the garden icon (available on most screens), it should allow them not only to view the Garden but also to add a post.

**27. H1: Visibility of System Status / Severity 2 / Found by A, C**

There is no way to know where in the flow the user is. Both in the question series and in the flow as a whole.

Fix: Put a status bar at the top with steps of “Filling out information”, “Doing task”, and “Task completion”. Add a line that says “1/2 questions answered” etc. That might not be the best language but something along those lines!

**28. H8 Aesthetic and Minimalist Design / Severity 1 / Found by C, D**

On the first page, there is a banner announcing Happy Hour toward the bottom – this seems extraneous and could be confusing for users.

Fix: Remove this Happy Hour banner or have a more intentional events calendar/explanation that the task will pertain to Happy Hour.

**29. H11: Accessible / Severity 3 / Found by C**

It could be hard for older people to type verbose paragraphs on small smart phone screens.

Fix: Add audio recording option or give users emojis to describe the experience.

**30. H4: Consistency and Standards / Severity 1 / Found by A**

Event is labeled but tasks are not (when you click into a plant). It’s unclear what exactly a plant represents.

Fix: label the tasks that are associated with each plant in their posts with consistent formatting between.

### 3. Summary of Violations

Category	# Viol. (sev 0)	# Viol. (sev 1)	# Viol. (sev 2)	# Viol. (sev 3)	# Viol. (sev 4)	# Viol. (total)
H1: Visibility of Status	0	0	3	0	0	3
H2: Match Sys & World	0	0	1	2	1	4
H3: User Control	0	0	2	1	1	3
H4: Consistency & Standards	0	2	1	0	0	3
H5: Error Prevention	0	1	0	0	1	2
H6: Recognition not Recall	0	0	2	1	0	3
H7: Efficiency of Use	0	0	1	0	0	1
H8: Minimalist Design	0	1	0	1	0	1
H9: Help Users with Errors	0	0	0	0	0	0
H10: Help & Documentation	0	0	0	2	0	2
H11: Accessible	0	0	0	2	1	3
H12: Fairness & Inclusion	0	0	1	0	0	1
H13: Value Alignment	0	2	0	0	0	2
<b>Total Violations by Severity</b>	0	6	11	9	4	30

**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)**

Disclaimer: We didn't know to use severity 0 so we used a 1 - 4 scale.

#### 4. Evaluation Statistics

Severity / Evaluator	Evaluator A	Evaluator B	Evaluator C	Evaluator D
Sev. 0	-	-	0	0
Sev. 1	4/5 (80%)	0	2	1
Sev. 2	10/11 (91%)	2	2	4
Sev. 3	4/9 (44%)	5	8	5
Sev. 4	4/4 (100%)	3	3	3
<b>Total (sevs. 3 &amp; 4)</b>	<b>8/13 (61%)</b>	<b>8</b>	<b>11</b>	<b>8</b>
<b>Total (all severity levels)</b>	<b>22/30 (73%)</b>	<b>10</b>	<b>15</b>	<b>13</b>

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

#### 5. Summary Recommendations

Congrats on your med-fi prototype! Overall, the app is super simple and easy to use. There is only one flow, and the first task is easily navigable by users. That being said, we would add a navigation bar to your first task and status as to where in the process users are. You should allow users to go back and edit their responses to their social and energy levels. Additionally, you should allow users to opt for a different activity if they do not like the one they are given. Also as a general feedback the ordering of content on the page in this task flow could be refined to better align with how tasks and time flow in the real world—specifically the task assignment and task completion screens could be in an order that reflects chronologically what happens in real life. We believe that users would find the second task of calling for assistance frustrating because in order for them to have their phone “unlocked”, they have to allow someone else to take their phone and enter a code. We feel like this level of security is unnecessary and could be threatening to some senior citizens to give up their property voluntarily (also we think it is a bug on your prototype, but once you get to that screen, it is impossible to navigate out using the on-screen buttons). Overall for the third task, we like the idea of being able to see what other people in the community have posted, but we think the terminology of “community garden” could be confusing. Users might actually have a community garden in their group living space and might not understand what this virtual community garden means. Additionally this task flow could use some standardization and photos to help better align the virtual representation with the community emphasis.

In regard to the aesthetic choices of the third task, we think the fonts are too small and hard to read with the black text on a brown post. We recommend improving the readability of the texts in this app because this app is mainly for elderly people to use, who might have difficulty reading texts on smartphones in the first place. To improve readability, the design team can consider (1) increasing the contrast between the background color and the text color, (2) increasing the size of the text, (3) decreasing the use of text by using icons or pictures, or (4) providing an option to listen to the text audio.

We think it is important to consider you have two user bases here. First, you have designed a frontend for the elderly users who will use the app to complete tasks. The second user group are those who work at the senior living facility and have to upload and monitor the activities. We are not sure what you want to do with that, but we think it is important to think about the different people who will be using the app. Lastly, we are curious about the feasibility of using an app for this idea. Can the senior users successfully navigate a smartphone application? If so, we would really emphasize big text and high contrast to ensure the users have the smoothest experience.

### ***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: Fairness and Inclusion**

- Users shouldn't feel that the design is not made for them.
- The design should meet all users' needs equally and prevent the reproduction of pre-existing inequities.
- It should not create additional burdens for members of disadvantaged populations.

### **H13: Value Alignment**

- The design should encode values that users can understand and relate to.
- Conflicting collateral values should not emerge when the user interacts with the product.
- Encoded values should match users' values in a broad set of use-contexts.