

## Heuristic Evaluation of AuraScope

Evaluator A  
Evaluator B  
Evaluator C  
Evaluator D

(Your TA will remove your names before the document is given to the project team. Throughout the report, use these letters to identify yourselves.)

### 1. Problem/Prototype Description

We tested the medium-fi prototype for AuraScope, a mobile application that allows users to easily collect inspiration from their surroundings, organize the inspiration into moodboards, and share and collaborate with others.

### 2. Violations Found

1. H1: Visibility of System Status / **Severity 3** / Found by: A, C
  - Description: Looking at the page for a specific moodboard, it is difficult to distinguish between when the user is in “editing” or “viewing” mode. Exclusively changing the pencil icon button to a text “done” button is not an appropriate amount of feedback to clearly convey the system status.
  - Fix: Add a more significant visual difference between editing/viewing mode (ex. change moodboard background color, highlight editable items in pink color, or add a subheader that explicitly says “Editing Mode”).
2. H1: Visibility of System Status / **Severity 2** / Found by: A, B
  - Description: After trying to add people as collaborators to a moodboard, the user gets no confirmation or indicator that their action was successful. The dialogue box closes immediately without any other feedback on their action. This problem is also found when adding media to moodboards.
  - Fix: Add toaster messages that give affirming feedback on user actions. They could say something along the lines of “[Insert username] has been added as an [choose editor/viewer] to [insert moodboard name]”.
3. H1: Visibility of System Status / **Severity 3** / Found by: A, B, C
  - Description: After taking a photo or video, the user does not get any preview of what was captured. This can be a problem because the user might feel unsure that their photo/video was saved properly, and they would likely want to review

the quality of the photo/video immediately after taking it. Without feedback, it is difficult for the user to determine whether they need to take another shot.

- Fix: After taking a photo/video, allow the user to review what was captured before it is sent to the gallery.

4. H1: Visibility of System Status / **Severity 2** / Found by: B

- Description: Once the user has generated a new moodboard, there is no confirmation of completion. Users may wonder if there are more steps to complete the moodboard or if all of the steps are complete.
- Fix: Provide a confirmation message to the user once the moodboard has been created.

5. H2: Match b/w System & World / **Severity 2** / Found by: A

- Description: The button labeled “Generate New” doesn’t use real-world language. The user may be confused on what is being generated, especially when it seems as though moodboards are created manually.
- Fix: Label the button something more real-world like “Create New Moodboard”

6. H2: Match b/w System & World / **Severity 2** / Found by: A, D

- Description: The icons used on the page for capturing media do not carry any real-world meanings that would make it easier for the user to quickly and innately understand how they should be used.
- Fix: Switch out the current circle icons for icons that better reflect their usage (pencil for draw, camera for photo, etc.)

7. H2: Match b/w System & World / **Severity 1** / Found by: B

- Description: On the help page that explains the icons, “last captured” is vague and does not seem to be associated with a particular button. Users may be confused by this wording and may not know what it means.
- Fix: Make phrase “last captured” more specific, add an action verb to the phrase (e.g., “see last captured”), or change the phrase entirely to make it more clear.

8. H2: Match b/w System & World / **Severity 1** / Found by: B

- Description: When capturing media, there is an option in the top left to “toggle” icons, which seems like an unnecessarily specific word to use and incorrectly suggests one can toggle between icons. Users may assume that the “toggle icons” button allows one to switch between the icons or functionalities, or the user may simply be confused by the word “toggle.”
- Fix: Switch verb from obscure “toggle” to simple “view,” “see,” or “show.”

9. H3: User Control & Freedom / **Severity 3** / Found by: A

- Description: When viewing a moodboard, a user may realize that they want to add a specific piece of media to it. However, they would then have to navigate back to the previous screen, into the gallery, and to the specific piece of media before being able to add it to the moodboard. The extended number of screens required to add media to moodboards can clutter the user experience.
- Fix: Provide a way for users to access their albums and add media from the moodboard page directly

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

- Description: Sliding down from the moodboard takes the user to the draw function, but sliding back up takes them to the main page instead of the moodboard that they were previously looking at. There is no quick way to navigate back to the moodboard that they were looking at (“undo”) if they make this mistake.
- Fix: Remove sliding functionality from the moodboard page.

11. H3: User Control & Freedom / **Severity 2** / Found by: B, C

- Description: In the “add to moodboard” pop-up, it is not very clear how users can exit out of this. The first instinct might be to click outside of the pop-up to have it disappear.
- Fix: add a “done” button at the bottom of the pop-up or have the pop-up disappear when a user taps outside of it.

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

- Description: When viewing a specific piece of media, there is no direct way for a user to return to viewing their saved media (the back button takes a user to capturing media). A user may have made a mistake when selecting a piece of media and may want to return to select a different one.
- Fix: Make the back button return to the media gallery or add an “X” button to quit viewing the specific media.

13. H3: User Control & Freedom / **Severity 2** / Found by: B

- Description: When editing a piece of media within a moodboard, there are no ways to undo or redo changes that are unwanted. A user may change their mind about an edit they have made and will become irritated if they cannot undo or redo the edit.
- Fix: Include “undo” and “redo” buttons to support users who change their mind about edits.

14. H3: User Control & Freedom / **Severity 2** / Found by: B

- Description: When capturing media, there is no clear way to exit the capturing process if the medium selected was a mistake or if a user changes their mind about what to capture (the “Done” button seems to complete the capture). A user may become confused and/or frustrated to try to figure out how to exit.
- Fix: Add an “X” button to exit the capturing process.

15. H4: Consistency & Standards / **Severity 2** / Found by: A, C

- Description: On the generate page, there are checkboxes next to the subheaders for time, location, and media type. It is confusing whether these serve the same toggleable purpose as the options immediately next to them. Can the user toggle location in the same way that they can toggle “audio” as a selected media type? The user may be confused whether the subheaders are selectable/optional because that is how checkboxes are used elsewhere on the page.
- Fix: Remove the checkboxes or add an “\*” to the required parts of the new moodboard to distinguish what is required/optional.

16. H4: Consistency & Standards / **Severity 3** / Found by: A, B, D

- Description: The circle icons are used everywhere and for very different functions. From the icons on the capturing media page to the button for switching between pages, the meaning of the circle becomes convoluted. It is difficult for the user to predict what a button will do without clicking it because they are guessing whether the circles mean the same thing.
- Fix: Remove some of the circle icons and use them for a single purpose.

17. H4: Consistency & Standards / **Severity 2** / Found by: A, D

- Description: The button for switching from the capture page to the moodboards display page looks different from the button going the way, despite both being in the same corner. They serve the same purpose, but their reason for looking different is unclear and can be confusing.
- Fix: Choose one button style and use it for moving between the two pages in both directions.

18. H4: Consistency & Standards / **Severity 2** / Found by: A, C

- Description: There are multiple buttons that go back and forth between the capture page to the moodboards display page. There are two buttons on the moodboards display page that serve the same purpose but look different and are in different areas of the screen. This also creates unnecessary competition for attention (H8) between the two buttons.
- Fix: Remove the back button and keep the bottom left button for switching between the two pages.

19. H4: Consistency & Standards / **Severity 2** / Found by: A

- Description: While the user can see that the existing contributors to a moodboard have different permissions, they don't have the option to set permissions (viewing vs editing) when adding a new collaborator. It is unclear how they would do this even though it is displayed immediately below that they can.
- Fix: Add a drop-down menu that lets the user pick permissions while adding a contributor.

20. H4: Consistency and standards / **Severity 3** / Found by: C

- Description: The functionality of the "pencil" icon on the page to view boards is unclear. If the "pencil" icon means the user can draw something on the board, there is inconsistency as to why only the "draw" function exists as an icon and not other functions like "take a picture." If the "pencil" icon instead means "edit the board" or some other function, there is a major consistency issue, since the exact same "pencil" icon is used to indicate the "draw" feature in a different page.
- Fix: Use a more spot-on icon to let users know what the function of the "pencil" icon is.

21. H4: Consistency and standards / **Severity 2** / Found by: C

- Description: The "swipe up" function produces entirely different pages when at different parts of the app. For example, at the home page, the "swipe up" function brings the user to the "audio" page; whereas, on the boards page, the "swipe up" function brings the user back to the home page.
- Fix: get rid of the ability to "swipe" up to return back to the home screen not only to create consistency in the "swipe up" function but also because there is already a button on that page that will take the user back to the home page.

22. H4: Consistency and standards / **Severity 2** / Found by: C

- Description: The "toggle icons" button has different functionality depending on when you press it. Upon first press, the "toggle icons" button brings up instructions, and upon second press, the "toggle icons" button removes the icons but keeps the instructions. Expectation for what happens when the "toggle icons" button is pressed is not consistent. Additionally, another button, the "x" button on the right-hand side of the screen gets rid of both the icons and the instructions. It is inconsistent to have another button to do the functionality the "toggle icons" button should have been doing in the first place.
- Fix: Have the "toggle icons" button simply toggle between have the icons or not having the icons (don't worry about instructions in this case, your help button already takes care of that)

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

- Description: While options on the settings page include sliders to choose features, the screen to generate a new moodboard includes boxes to choose features. Since they have the same functionality, the two examples of choosing features should have the same type of button.
- Fix: Change the sliders to boxes or change the boxes to sliders (i.e., standardize the buttons).

24. H4: Consistency and standards / **Severity 1** / Found by: B

- Description: The blue bar at the top of the screen that consistently shows up from screen to screen varies in size (sometimes larger or smaller than other pages) and the back button on this bar slightly varies in location from screen to screen. This can be annoying for the user when changing from screen to screen since it is easily noticeable when changing screens.
- Fix: Standardize the size of the top blue bar and the location of the back button.

25. H4: Consistency and standards / **Severity 1** / Found by: B

- Description: While all of the other boxes and media pieces on the prototype have rounded corners, the media pieces in the user's gallery have sharp corners. This is inconsistent with the rest of the prototype.
- Fix: Standardize the type of boxes/frames used throughout the prototype.

26. H5: Error Prevention / **Severity 2** / Found by: A, B

- Description: There is no confirmation check after adding a collaborator. The user may have added the wrong person, and they would want to catch this before they share the moodboard officially.
- Fix: Have a pop-up that asks the user "Are you sure you would like to add [insert username] as a [choose editor/viewer] to [insert moodboard name]?"

27. H5: Error Prevention / **Severity 2** / Found by: A

- Description: There is no confirmation check after adding media to a moodboard. It could save the user a lot of time and energy by preventing them from adding media to a moodboard that they did not intend.
- Fix: Have a pop-up that asks the user "Add [media type/name/etc.] to [insert moodboard name]?"

28. H5: Error Prevention / **Severity 1** / Found by: B

- Description: When generating a new mood board, there are options to set a “time” and “location,” which do not give the user enough information about what setting a time or location means. A user can easily make an error by not knowing what “time” or “location” is supposed to be added.
- Fix: Specify what “time” and “location” should be added.

29. H5: Error Prevention / **Severity 2** / Found by: B

- Description: When viewing a specific piece of media in the user’s media gallery, the back button does not take the user to the previous screen. Rather the back button takes the user to the screen to capture media (the previous screen is the media gallery). A user may want to return to the media gallery and will be surprised to arrive at the screen to capture media.
- Fix: Change the back button to take the user to the media gallery rather than the screen to capture media.

30. H6: Recognition not Recall / **Severity 2** / Found by: A

- Description: There is no contextual information about the moodboards beyond their name that helps the user understand when the moodboards were made or where they were made, despite this information being collected upon creation of the moodboard. The user has to do the work of remembering the difference between unique mood boards (that may even share the same name).
- Fix: Display the contextual information that is collected during moodboard creation, alongside the names of the moodboard.

31. H6: Recognition not Recall / **Severity 2** / Found by: B

- Description: When attempting to add a specific piece of media to a moodboard (pressing “add to moodboard”) a user cannot tell if the piece has already been added to another or the same moodboard. While the example media pieces in the user’s gallery are already included in “my board,” the pop-up menu to add the piece of media to a moodboard does not remind the user of this. As a result, a user could forget that they already added the piece of media to a specific moodboard.
- Fix: Clearly show which moodboards include the media piece that is being added to a moodboard.

32. H7: Flexibility & Efficiency of Use / **Severity 2** / Found by: B

- Description: When adding collaborators, a user has to always input their collaborator’s email address in, regardless of frequency of collaboration. A user may find it tedious to type in the same email address over and over again.
- Fix: Provide suggestions to autofill the collaborator’s email address based on frequency of collaboration.



33. H7: Flexibility & Efficiency of Use / **Severity 3** / Found by: A, B

- Description: The user can only add a single piece of media to moodboards at once. Adding media individually can get annoying as the user collects many pieces that they want to add.
- Fix: Include a multiselect option where users can add groups of media to the same moodboard at once.

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

- Description: There isn't a way for users to pin their favorite moodboards or sort them in any particular way. There may be moodboards that users use more frequently and want quick access to, rather than scrolling through the whole list.
- Fix: Give users the ability to sort moodboards by time/location and the ability to favorite certain moodboards.

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

- Description: There is no way to search for a specific moodboard by name. Scrolling through the full list to find the name that they're looking for could be annoying when done repeatedly or in a rush.
- Fix: Add a search bar for users to search for moodboards by name.

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

- Description: A user may want to create a template moodboard and create copies that they can take in different directions. However, in order to achieve this, they would have to recreate the same moodboards from scratch. It may be frustrating to have to recreate moodboards that they want to reuse many times.
- Fix: Add the option to create copies of existing moodboards, perhaps as an additional section in the moodboard creation screen.

37. H7: Flexibility & Efficiency of Use / **Severity 1** / Found by: C

- Description: An experienced user would know all actions to do various tasks in the app such as "draw something" or "take a picture". The icons in the home page could be redundant.
- Fix: the default look after the first time using the app is to not show any of the buttons. Eg. The "toggle icon" button should be automatically set to off.

38. H8: Aesthetic & Minimalist Design / **Severity 2** / Found by: A, B, D

- Description: The icons on the media capture page are large and centered, meaning that they cover a lot of the background. It is important that the user be able to clearly see the background because that is what they are taking a picture/video of. The icons clutter the page and make media capture (the purpose of the page) more difficult for the user.



- Fix: Make the icons smaller and move them out of the center.

39. H8: Aesthetic & Minimalist Design / **Severity 1** / Found by: A

- Description: The navigation icons and sliding up/down functionality serve the same purpose. The sliding functionality makes the icons irrelevant, and thus they are taking up unnecessary space on the media capture page.
- Fix: Remove the sliding functionality or the icons.

40. H8: Aesthetic & Minimalist Design / **Severity 1** / Found by: A, D

- Description: The pink highlight color doesn't synergize with the navy blue color that is used on the headers. The pink is very bright while the navy blue is much more dull. It is disorienting to look between them on the same page and have to adjust your eyes repeatedly.
- Fix: Consider a monochrome color palette or make the pink more dull/blue more bright to match better.

41. H8: Aesthetic & Minimalist Design / **Severity 1** / Found by: A

- Description: The image and box around the editing tool (on a specific moodboard page) is misaligned. This deviates from the other editing tools and takes away from the aesthetic of the page.
- Fix: Make the box around the editing tool the same width as the image and center both.

42. H8: Aesthetic & Minimalist Design / **Severity 1** / Found by: A, B

- Description: There are two overlapping back buttons on the generate moodboard page. It is distracting and the first thing that catches the user's attention.
- Fix: Remove one of the back buttons.

43. H8: Aesthetic & Minimalist Design / **Severity 1** / Found by: A

- Description: Almost all the text on the moodboard display page is in uppercase. All the moodboard titles are competing for the user's attention and it's a bit difficult to focus on one name.
- Fix: Make the titles of the moodboards not in full uppercase.

44. H8 Aesthetic and minimalist design / **Severity 2** / Found by: B, C

- Description: The color of the buttons in the home page could easily blend into the background depending on what the camera sees.
- Fix: make the button colors not as transparent; could also use AI to make sure the color of the buttons does not blend into the background.

45. H8 Aesthetic and minimalist design / **Severity 2** / Found by: B, C

- Description: The gray banners over each board are not aesthetically optimal, since the gray covering could indicate something “incomplete” rather than something “inspiring”.
- Fix: Put the title of each board under the image, rather than superimposing them.

46. H8 Aesthetic and minimalist design / **Severity 2** / Found by: C

- Description: There is a bit of an inconsistency with design between the “home page” and the “boards page.” While one has minimalist design and translucency at its core, the other has more items on the page and solid colors. While I don't think they need to be completely the same design-wise, more consistency would be better. Right now, I feel like I'm in two different apps.
- Fix: Make overall design more consistent.

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

- Description: When generating a new moodboard, the various options are clumped together very closely and the text is relatively small. Half of the screen is white space. A user may have difficulty reading the options or may feel overwhelmed by all of the options being so close together.
- Fix: Utilize the entire screen to space out the options and increase text size.

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

- Description: The preview list of a user's moodboards is slightly cluttered with many moodboards shown on a given screen. A user can be overwhelmed by the number of colors and variety of text on the screen.
- Fix: Make the previews of the moodboards larger and show fewer moodboards on the screen at a given time. A user can scroll through to see more moodboards.

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

- Description: The small boxes on the screen to generate a new moodboard and on the screen to add a piece of media to a moodboard are not very aesthetically pleasing. The prototype mostly utilizes round edges. The small boxes can come across as very rigid, elementary, and less pleasing to a user.
- Fix: Use round edges or utilize another type of button that is more consistent, welcoming, and pleasing to the eye.

50. H10: Help & Documentation / **Severity 2** / Found by: A, D

- Description: The help instructions on the media capture page are intrusive and block the camera view (which is essential to the function of the page).
- Fix: Make the text of the help instructions smaller or separate from the media capture page (perhaps in a pop-up modal).

**51. H10: Help & Documentation / Severity 2 / Found by: A, B, C**

- Description: The moodboards are very free-form, and there isn't much guidance on how the user can organize things. They can easily miss functionality that might be important to the experience.
- Fix: Add a help guide that explains the ways in which users can interact and organize media on their moodboards.

**52. H11: Accessible / Severity 2 / Found by: B**

- Description: The text size on many of the screens is very small and some of the blue fonts are too light (e.g., generate moodboards screen). A user may have difficulty reading the text, especially when the amount of text is cluttered and there is not enough white space between sections of text.
- Fix: Make the pop-up menus larger and increase the text size or utilize more of the pop-up menu's space by increasing the text size.

**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	2	2	0	<b>4</b>
H2: Match Sys & World	0	2	2	0	0	<b>4</b>
H3: User Control	0	0	5	1	0	<b>6</b>
H4: Consistency & Standards	0	2	7	2	0	<b>11</b>
H5: Error Prevention	0	1	3	0	0	<b>4</b>
H6: Recognition not Recall	0	0	2	0	0	<b>2</b>
H7: Efficiency of Use	0	1	4	1	0	<b>6</b>
H8: Minimalist Design	0	8	4	0	0	<b>12</b>
H9: Help Users with Errors	0	0	0	0	0	<b>0</b>
H10: Help & Documentation	0	0	2	0	0	<b>2</b>
H11: Accessible	0	0	1	0	0	<b>1</b>
H12: Fairness & Inclusion	0	0	0	0	0	<b>0</b>
H13: Value Alignment	0	0	0	0	0	<b>0</b>
<b>Total Violations by Severity</b>	<b>0</b>	<b>14</b>	<b>32</b>	<b>6</b>	<b>0</b>	<b>52</b>

**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	0%	0%	0%	0%
Sev. 1	28% (4/14)	64% (9/14)	7% (1/14)	7% (1/14)
Sev. 2	53% (17/32)	53% (17/32)	28% (9/32)	13% (4/32)
Sev. 3	83% (5/6)	50% (3/6)	50% (3/6)	17% (1/6)
Sev. 4	0%	0%	0%	0%
<b>Total (sevs. 3 &amp; 4)</b>	83% (5/6)	50% (3/6)	50% (3/6)	17% (1/6)
<b>Total (all severity levels)</b>	50% (26/52)	56% (29/52)	25% (13/52)	12% (6/52)

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

## 5. Summary Recommendations

Overall, this was a great step forward in the development of Aurascope. Through the medium-fi prototype, you were able to structure a strong base for your task flows. We were able to clearly see how you intended for the application to be used. The biggest areas for improvement were in aesthetic & minimalist design, consistency & standards, and flexibility & efficiency of use.

Despite flexibility & efficiency of use having fewer pain points, it is an important place to focus your attention. We believe you already have a strong lead in this area, and we see this as your differentiating factor between other moodboard applications. Therefore, we believe focusing more and thinking more critically on how to make Aurascope as convenient and quick-flowing as possible will help set it apart even further. For example, allowing users to add multiple pieces of media at once, or helping users search moodboards by name, or allowing users to permanently set the toggle of their icons to off, would significantly enhance the usability of your app long term.

Many of the issues raised with the aesthetic/minimalist design and consistency/standards were interlinked. There are some low-priority fixes with alignment or misplaced buttons that could be addressed to give the app a more polished feel. However, there are also some high-priority problems that need to be addressed, such as the icons being unclear in their meaning, some of the pages feeling cluttered, and having too many buttons that overlap in function and create confusion.

Looking at the big picture, we suggest putting more time into fleshing out the details of your task flows and thinking practically about what a user would want to do at any point in your flows. How can you make the process as easy as possible? What tools does the user need to achieve the task efficiently?

Again, you did a great job! I'm looking forward to seeing how Aurascope progresses from here.

### ***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.