

Heuristic Evaluation of Pelican

1. Problem

Pelican is an app that helps newcomers get comfortable in and explore new surroundings by completing challenges.

2. Violations Found

1. H2-4. Consistency and standards / Severity 2 / Found by A

The "Challenge" heading isn't in the hamburger menu, but shows up on all screens reached by pressing "Let's Do It!" in the map. Confusion about its absence in the main menu could interrupt the flow for tasks 1 and 2. It may help to change all screens with headings of "Discover" or "Challenge" to have a single heading like "Challenges" or "Discovery" (to keep all main menu items nouns) and have that heading be the item in the main menu that leads you to the challenge map.

2. H2-1. Visibility of system status / Severity 3 / Found by A, B, C

There seems to be no way for a user who started but didn't finish one or more challenges to keep track of their entire set of in-progress challenges. While navigating throughout the app, the user needs to be able to keep track of all the active challenges.

Possible solutions:

A: Consider including a special section or filter for the "You" part of the Feed ("You started challenge X") where its dialogs can be pressed to get to those challenges, and also linking to this section somewhere in Progress.

B: A separate page in "progress" for "challenge in progress".

C: Having a small, thin bar similar to the "Challenge in Progress!" bar at the top of one of the challenge screens ("4 challenges in progress...") appear in the rest of the app would suffice.

3. H2-2. Match between system and the real world / Severity 2 / Found by A, B

The colors of the challenge pins on the map don't intuitively correspond to meaningful categories, leaving them a little confusing. Try using different icons, different versions of the current icons, a single color with different shades, or traffic light colors to convey whatever information the current colors are meant to show. Tips might also be useful for this purpose.

4. H2-8: Aesthetic and minimalist design / Severity 2 / Found by A, C

On the challenge screen, the tip text is small and, although not quite intrusive, distracts from the user's task, especially when even the user has not yet even begun his or her attempt. Again, a bit too much clutter on one screen. A light bulb button with "Tip" captioned that reveals a tip would be more minimalistic.

5. H2-3: User control and freedom / Severity 2 / Found by C

The user might not want to see a tip before or during the challenge phase. One must grant user control over the information he sees or doesn't see. A light bulb button with "Tip" captioned that reveals a tip (or another one, if the user taps again) would give the user that control and freedom over the information he wants or doesn't want. A light bulb button with "Tip" captioned that reveals a tip would be more minimalistic

6. H2-6 Recognition not recall / Severity 2 / Found by B

On the group challenge page, once the challenge started, tips are not shown anymore because there's not enough space. It would be nice to have a constant button for tips.

7. H2-7. Flexibility and efficiency of use / Severity 2 / Found by A

When the user is looking at a challenge and then goes back to the map, the text box coming from that challenge's icon is still visible. At this point in the flow, the user is almost definitely familiar with the challenge's details in this box (having just looked at that challenge in another screen) and the intention will almost invariably be to close that box and move around on the map or look at another challenge. With the exception of the text box for the center "You" icon in the map, which does have info on other challenges, make these disappear by default when going back to the map page.

8. H2-3 User Control & Freedom / Severity 3 / Found by B

Also on the home screen, I was not able to exit from the challenge list by clicking on the map. For this kind of pop-up, it seems to be more intuitive if users can exit by clicking areas outside the pop-up.

9. H2-3. User control and freedom / Severity 2 / Found by A

The "number of participants" slider makes sense, but changing the design to make it less restrictive and give the user more choice in how many people to include would make task 2 a better experience. Try having two number menus (a la the native iOS date-chooser) where the user can choose exactly what number to make the minimum and maximum.

10. H2-5. Error prevention / Severity 2 / Found by A

The "public" and "private" options in the group challenge screen are checkboxes, which (being mutually exclusive) could cause confusion and backend errors. Change these to radio buttons.

11. H2-8. Aesthetic and minimalist design / Severity 1 / Found by A

The "Challenge in Progress!" screen (for the group challenge more than the solo challenge, but this applies to both) has too many different button sizes, font sizes, colors, and bits of information in general. This leaves the screen looking cluttered and not cohesive, and makes for a less satisfying launching point for tasks 1 and 2. Try removing the dotted lines, making the text for "+7 pts" black, and making sure all buttons have the same color scheme.

12. H2-6. Recognition rather than recall / Severity 1 / Found by A

The x-axis on the graphs of points vs. time in "Progress" should have units (Mon, Tues, Wed, etc.). What this takes away in terms of cleanliness, it makes up for in keeping the user immediately informed when trying to accomplish task 3.

13. H2-4. Consistency and standards / Severity 2 / Found by A, B, C

The "Let's Do It!" call to action doesn't show up in some places where it should (like solo challenges on the map or in place of the "attempt" button). Although it can seem boring to see the same buttons over and over again, for the sake of clarity and consistency, the overall design of the buttons that accomplish the same task (e.g. "Let's do it!") should be streamlined and standard. It also shows up in other places where it might be confusing without more context (challenges completed by others - does "Let's do it" mean you're doing the challenge with that person?). A standardized "Do it!" or "Go!" button for starting a challenge might work better.

14. H2-4. Consistency and standards / Severity 2 / Found by A

Some solo challenges completed by the user showed up only in "Near You," others only in "You," and still others in both lists. This may have more to do with the hardcoded text in the prototype, but there could be some confusion about where to see which challenges you've done. It may be best to avoid any possible redundancy by leaving out all challenges the user has done from his/her "Near You" list, and possibly even change "Near You" to "Nearby" to make it extra clear.

15. H2-4. Consistency and standards / Severity 1 / Found by A

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16. H2-8. Aesthetic and minimalist design / Severity 2 / Found by A

Each time the user encounters the "More Challenges" button, it's faded out but still pressable. The reason wasn't entirely clear - was it because it's a less common action than the one above it? This can be a mildly jarring experience and doesn't make for the smoothest transition to another instance of task 1 or 2. A clearer way to downplay the button might be to make it physically smaller instead.

17. H2-4 Consistency and Standards / Severity 2 / Found by C

On some challenge screens, "<- Back" is how the user gets back to the map screen, but on others, "More Challenges" is how the user gets back to the map screen. Since they look

different, either button seems like it could potentially take the user to a different screen. Use one or the other on the challenge screens.

18. H2-8 Aesthetic & Minimalist Design / Severity 2 / Found by B

Is "more challenges" necessary on the "challenge in progress" page? It makes sense to show this option after the user completed a challenge, but in the middle of a challenge, isn't it a bit distracting? I understand that by darkening the button, it seems less important. But the button takes a lot of space and the user can look for more challenges by going back to the home screen if he really wants to. In this case, I think it's too much user control. On the other hand, if it's a way of exit, I think things like "Maybe later" works better.

19. H2-3. User control and freedom / Severity 2 / Found by A

This may have already been in the works for the high-fi prototype, but users will often want to go from the main menu back to the screen they were just on. Currently, you can only go back to one of the four main screens from the hamburger menu. Have the hamburger button be a "back" button when the main menu is up. Side note: you may want the main menu to stay left-aligned, since your thumb will be on the left side after pressing the hamburger button the first time.

20. H2-1 Visibility of Status / Severity 2 / Found by B

The menu page does not show where I am, and it takes up the whole screen so that there's a temporary disconnection with the previous screen. Users have to recall where they were. I suggest a half-screen menu that can be swiped away and a highlight on the current position on the Menu.

21. H2-5 Error Prevention / Severity 3 / Found by B

On the home screen, as a first-time user, I was not sure if I'm supposed to click on the big circle. Also, its shape is different from other items on the map which makes me think that it serves a different purpose than the teardrops. Maybe adding a little bit of animation on the circle in the high-fi prototype would better prompt new users to click on it. Or small pop-ups of tips as demonstrated below:

22. H2-5 Error Prevention / Severity 2 / Found by B

After clicking on a challenge, the next page immediate shows a big "+2 points". Though I wouldn't assume I've already earned the points, the feel of the message (especially the plus sign) seems to be more apt for the page after completing the challenge. I suggest remove the plus sign.

23. H2-3 User Control & Freedom / Severity 3 / Found by B, C

After clicking on "attempt", there's not an option of giving up. It's not clear if I don't finish the challenge what the state of the app will be. Or does the "more challenges" serve as

an exit? It's also probable that a user could accidentally initiate a challenge. The user might want to stop doing the challenge at some point. Add an option to quit the challenge, such as a "quit challenge" button.

24. H2-8 Aesthetic & Minimalist Design / Severity 1 / Found by B

On the Leaderboard and feeds page, the user is shown as "you". I think showing the user's name is more appropriate because "you" kind of puts a distance between the user and others. But it might be just a problem with making static prototype.

25. H2-8 Aesthetic & Minimalist Design / Severity 1 / Found by B

Overall the interface looks nice. But there are some minor inconsistencies in style. Centered items are often off a few pixels, challenges on the home screen take on different grid sizes, checkboxes on the same line on the group challenge page are of different shapes and sizes. But these issues are easy to solve moving into the development phase.

26. H2-8: Aesthetic and minimalist design / Severity 2 / Found by C

On the map screen, when the user clicks on himself, there are a lot of challenges that the user is looking at on one screen in addition to the many stimuli already feeding the user's brain from the map. There's too much on one screen, especially with a text description that doesn't match the way other challenges, such as the one Alexa M. completed, are presented (related to Violation #5). Even though conceivably there is a scroll bar that could help the user scroll through the solo challenges, a secondary screen that lets the user see a list of solo challenges after clicking on himself or herself on the map screen would remove clutter from that map screen. If a secondary screen would be too overwhelming, keep what you have, but only show the top 3 sorted by popularity, and then have a "more" button that takes you to the list that has more challenges.

27. H2-2: Match between system and real world / Severity 3 / Found by C

The only way that indicates whether the user completed a challenge or not are two buttons: "Attempt" and "I did it!" There seems to be no in-app way to verify whether the user actually did a task in the real world or not. Having a "buddy system" that would require the user to do tasks with another user or having a witness confirm the user's task with a QR code scan could give more verification credibility. You may also want to motivate users with a hierarchy of challenges where higher levels "unlock" new challenges and features.

28. H2-4 Consistency and Standards / Severity 2 / Found by C

Solo Challenges from clicking the big "user" icon on the map gives points values from the map screen while clicking on challenges outside of the big "user" icon doesn't immediately show point values. All challenges should show the same type of information when clicked on. Either have point values appear immediately on-screen from the map for all challenges in their description, or have them appear only on the challenge.

3. Summary of Violations

Category	# Viol. (sev 0)	# Viol. (sev 1)	# Viol. (sev 2)	# Viol. (sev 3)	# Viol. (sev 4)	# Viol. (total)
H2-1: Visibility of Status			1	1		
H2-2: Match Sys & World			1	1		
H2-3: User Control			3	2		
H2-4: Consistency		1	5			
H2-5: Error Prevention			2	1		
H2-6: Recognition not Recall		1	1			
H2-7: Efficiency of Use			1			
H2-8: Minimalist Design		3	4			
H2-9: Help Users with Errors						
H2-10: Documentation						
Total Violations by Severity		5	18	5		28

4. Evaluation Statistics

Severity / Evaluator	Evaluator A	Evaluator B	Evaluator C
sev. 0	0%	0%	0%
sev. 1	60%	40%	0%
sev. 2	61%	33%	33%
sev. 3	20%	80%	60%
sev. 4	0%	0%	0%
total (sev. 3 & 4)	20%	80%	60%
total (all severity levels)	54%	43%	29%

5. Summary Recommendations

The prototype's organization felt intuitive, and the aesthetic of the app was clean and coherent. The loose ends that need wrapping up mainly have to do with keeping the already-solid design clear and consistent across all screens, especially the action buttons. There is also room, mainly in tasks 1 and 3 (completing solo challenges and viewing the leaderboard) for giving the user more information and control without sacrificing too much in terms of UI simplicity. More buttons or screens give the user more control over what they want to see and when they want to see it. Also, we think the overall tone of the app, especially the home screen, could be more welcoming and encouraging, considering the nature of the app's users. An animated tutorial involving pop-ups might do the trick. Some other suggestions we have include: a QR scan code or buddy system for the verifiability of the app (for high-value challenges), a leveling up mechanism that can unlock more challenges or features, location-specific rewards (like in Pokemon go) for more motivations other than competition. Overall great app, great idea, great potential.