

Heuristic Evaluation of [Barefoot]

1. Problem/Prototype Description

Barefoot is a social app designed around finding and sharing trails to facilitate engagement with nature.

2. Violations Found

- H1: Visibility of system status / A, B, C, D / Severity 3**
 - When you're on any of the five main pages, it's unclear what page you're on. There are no titles or markings that tell you.
 - Fix: Bold/color the icon on the bottom panel that tells you where you are.
- H2: Match between system and the real world / A, B, C / Severity 3**
 - It's unclear what the "Heart" icon on the bottom of the page means. I thought it stood for "Liked items" and not the feed.
 - Fix: Change the icon to be something more indicative to a feed.
- H8: Aesthetic and minimalist design / A, B, C, D / Severity 3**
 - When you're on the feed page, it's unclear what the pictures are in a row at the top of the screen. Are they stories? Friends? If they are friends, it seems like a weird place to put your friends. It doesn't fit on the feed page.
 - Fix: Make a separate friends page that you can access when you're looking at your profile.
- H1: Visibility of system status / A / Severity 3**
 - When you're on the feed page, it is unclear what you are looking at. Are these trails that other people created? Are these trails that other people finished? Are the trails that you finished supposed to appear here?
 - Fix: If it's all of the above, make it clear what each post is: "Bob added a new trail!" "Carly finished X trail!"
- H2: Match between system and the real world / A, B / Severity 2**
 - When you're on the Owl Trail page, it is unclear what the five empty stars mean as a rating. Does this mean that the trail was 0 stars or 5 stars?
 - Fix: Make the stars filled in instead of blank.
- H6: Recognition rather than recall / A, B, D / Severity 1**
 - On the Owl Trail page, when we click on the grad cap, the user is not going to be able to remember these items to look for. They are never shown anywhere else on the screen.
 - Fix: Include these items during the hiking session.
- H10: Help and documentation / A, B, C, D / Severity 2**

- When you're walking someone else's trail, on the map, it is unclear, at first glance what all of the footprints are. The user is unsure if these are landmarks on the trail or refer to separate trails themselves.
 - Fix: Make it clear that these are landmarks with a hover-over functionality
- 8. H4: Consistency and standards / A, D / Severity 2**
- When you're walking someone else's trail, on the map, these footprints are supposed to be landmarks, but on the other pages they're supposed to represent different trails.
 - Fix: Pick a different symbol for landmarks vs. trails.
- 9. H1: Visibility of system status / A, B / Severity 4**
- When you're walking someone else's trail, on the map page, it is unclear what the record button is supposed to be doing. What is it recording? Audio? Video? Where they walk? What is it used for? Where will people see your recordings? Would people even need recordings of you?
 - Fix: Honestly not sure what the purpose of the record button is entirely.
- 10. H7: Flexibility and efficiency of use / A, D / Severity 4**
- When you're walking someone else's trail, on the map, it is unclear what the pausing and stopping does. Does it have to do with the hike or just the audio recording? The user must only stop the recording when they are done with the hike. There is no flexibility in being able to stop recording but continuing to hike.
 - Fix: Have the recording system separate from starting/stopping the hike.
- 11. H10: Help and documentation / A, B, C / Severity 4**
- When you're walking someone else's trail, after clicking on "Audio Only", it's unclear what the user is supposed to do. There are no instructions about using earbuds, or turning on the volume, or anything about how it's supposed to be used. What is the audio component???
 - Fix: Include instructions to the audio portion of the map.
- 12. H1: Visibility of system status / A / Severity 3**
- "Audio only" doesn't make sense as a label because it implies that there is audio in the map view. Is there? If there is audio in the map view, there should be some onscreen indications, as my phone is usually muted.
 - Fix: change the label to "Guided walk" or something similar.
- 13. H8: Aesthetic and minimalist design / A / Severity 2**
- When you're walking someone else's trail, when there's an "audio only" view, there shouldn't be words on the screen.
 - Fix: remove the words on the screen.
- 14. H1: Visibility of system status / A, B / Severity 2**

- It doesn't make sense that the two views are "audio" and "map", these things seem to be independent of each other. Couldn't you want to listen while you're on the map?
- Fix: Don't make it a toggle between the map and the audio. Make the audio just an extra button.

15. H3: User control and freedom / A, D / Severity 3

- It seems like you can only get to the Congrats page if you record something, which shouldn't be the case.
- Fix: Allow the user to finish the hike without recording.

16. H1: Visibility of system status / A, B, C / Severity 2

- It's unclear what it means to "create landmark". Will this appear for other people when they take the walk? What is a "landmark"?
- Fix: Make the "Create" landmark popup more explanatory.

17. H5: Error Prevention / A / Severity 3

- While walking, there is no way for the user who accidentally pressed the record button to delete the recording. Where are these recordings stored...?
- Have options to save or delete the recording (before the Congrats page).

18. H5: Error Prevention / A / Severity 4

- When you're on the hike, you're still allowed to access other parts of the app, like starting another hike. It is unclear what this would do to the recording. Would this pause it? Stop it? If you do get to other parts of the app, there's no way to get back to your hiking map.
- Fix: Remove the bottom navigation panel when you're hiking.

19. H2: Match between the system and the real world / A, C / Severity 2

- It is unclear, when you finished the hike, what "Your Facts", "Your Tips", and "Your photos" are. Are these photos you took? Or just the photos other people took? Do you fill out your facts or your tips? Or are these things you also heard?
- Fix: Change all of the labels.

20. H1: Visibility of system status / A, B, C, D / Severity 3

- It's unclear what it means to "share" your hike. Does it appear on the feed screen for your friends? Where does it appear?
- Fix: Let the user know where it will be going.

21. H2: Match between the system and the real world. / A, C / Severity 2

- When you're reviewing a hike, the stars and rocks make no sense. It's unclear if this is difficulty or time or how much you liked it.
- Fix: Labels!

22. H1: Visibility of system status / A, C, D / Severity 2

- After you review a hike, there's no indication of what the "next" arrow is. Does it publish it? Send it to other people's feeds? Save it somewhere in the hikes you've done?
- Change the icon and tell the user what it does.

23. H1: Visibility of system status / A, C / Severity 1

- In the hike review page, it's unclear what that bottom block is supposed to be. Is it where you leave a review?
- Fix: Add a label.

24. H3: User control and freedom / A, D / Severity 3

- The user is only allowed to leave reviews right after they've finished, and not later.
- Fix: Add functionality that makes it easy to go back and make a review.

25. H5: Error prevention / A, B / Severity 3

- In the "create trail" button, it's unclear why there is still an "audio only" button. There is no "audio" that has been recorded yet.
- Fix: Remove it.

26. H4: Consistency and standards / A / Severity 3

- In the "create trail" section, it is unclear if this "record" button is the same as the "record" button for those who didn't create the hike. What are you recording? Where you walked? The audio that will be played? Is the audio for the other hikers a reading of your words? Are you recording the audio?
- Fix: Make all of the questions above clear in some sort of documentation.

27. H4: Consistency and standards / A, C / Severity 2

- In the "create trail" section, it is unclear if the landmarks you set are the ones that will appear to other people while they are walking? How is this different or the same as when other people create a landmark?
- If they are different, make the symbol different.

28. H2: Match between the system and the real world / A / Severity 1

- When creating a new trail, again, the rocks and stars make no sense. Would someone give a poor rating to a trail they create themselves?
- Fix: remove the star ratings, change the rocks.

29. H7: Flexibility and efficiency of use / A / Severity 2?

- The user can only create a new trail immediately after they've done the trail. There is no flexibility to create a trail later, after a while. Depends on what the goal is
- Fix: Make the "create trail" button an option to explore on a hike or to just enter an existing trail that you've already been on.

30. H4: Consistency and standards / A, C / Severity 2

- On the confirmation page of creating a new trail, this page should look different from the “trail completion” page. The similarity makes it confusing.
- Fix: Add a different design for confirmation of creating a new trail.

31. H8: Aesthetic and minimalist design / A / Severity 2

- When creating a new trail, the user enters the title and description, and has access to it again on the confirmation page. The three panel slider and the confirmation page seem redundant.
- Fix: remove the three panels to create a new trail. Just create it on one page.

32. H1: Visibility of system status / A, B / Severity 3

- On the create trail confirmation page, if “publish” means they publish it to their feed, what’s the difference between that and “sharing”? Not clear to the user what the difference is.
- Fix: Create some signage to let the user know what the difference is.

33. H9: Help users recognize, diagnose, and recover from errors / A, B, C / Severity 2

- After “publishing” the new trail, there is no confirmation if the user did it on accident, and no way to change what they did.
- Fix: Create a confirmation page for all sharing mechanisms.

34. H5: Error Prevention / A, B, C, D / Severity 3

- How do we prevent accidentally posting a trail?
- Fix: Signpost the action

35. H1: Visibility of system status / A, C / Severity 1

- In the profile, why is there a goal for the miles traveled/trails published? Where did these goals come from?
- Fix: Remove it.

36. H1: Visibility of system status / A, B, C / Severity 1

- In the profile, it’s unclear what is “Saved”. Are these trails you’ve bookmarked or the ones you saved but didn’t publish?
- Fix: Make two different sections for the categories mentioned above.

37. H2: Match Between System and Real World / C / Severity 1

- On the ‘owl trail’ screen, the ‘high altitude’ ‘dog friendly’ and ‘historial’ tags are in outlined ellipses, which on many other platforms indicates a clickable setting.
- Fix: Along with the ‘easy’ tag mentioned in the next comment, find a way to differentiate buttons vs indicators

38. H4: Consistency and Standards / C / Severity 2

- After pressing 'lets go', the same map as on the landing page gets pulled up. On the landing page, we were able to drag and visually explore the area on the map, but after starting the walk the map is static (except for I'm assuming when the user is moving). Even google/apple maps after the user starts the navigation, you can still drag and move the map with your finger.
- Fix: Allow for dragging the map to explore

39. H4: Consistency and Standards / C / Severity 2

- On the 'owl trail' screen, both the "easy" indicator and the "school" button are the same color. This led me to think that the school button was actually just an indicator that it was good for school groups(?) until i tapped on the screen elsewhere and discovered a button.
- Fix: make some differentiation between indicators and buttons

40. H4: Consistency and Standards / C / Severity 1

- On the map page, cannot click on any of the other footprints to explore nearby [landmarks?][trails?]
- Fix: Allow clicking of footprint icons to show what is in the area

41. H3: User Control and Freedom / C / Severity 1

- After clicking the 'add a landmark' button, there is no indication how to exit the add landmark popup screen.
- Fix: Solution would be to add an 'x' in a top corner or add the horizontal bar that is present on drag-up popup windows to indicate you can drag it away

42. H2: Match Between System and Real World / C / Severity 3

- When trying to add a landmark, how do you specify where the landmark is? Is it just the inherent GPS location? What if your GPS is off (as I find it sometimes is). The icon indicates that you can drop a pin, which usually comes with the function of dragging around the map to indicate an exact point.
- Fix: Demonstrate to the user where the pin is being dropped

43. H3: User Control and Freedom / B, C / Severity 2

- On the 'congrats' page, the back button indicates that the user would be able to go back and view the walk that they just did, but the back button does not work.
- Fix: It would be cool to go back and be able to see your walk! Make back button functional

44. H2: Match Between System and Real World / C / Severity 2

- Congrats page right arrow kind of seems like it should do the same thing as the send button -- both are used in messaging platforms to indicate sent and their proximity reminds me of that.
- Fix: Change symbol or otherwise make distinction more clear

45. H4: Consistency and Standards / C / Severity 2

- Why does a right arrow return the user to the home page?
- Fix: Find a better representation of this icon, maybe use something from elsewhere in the app if you have it?

46. H1: Visibility of system status / B, C / Severity 1

- On your profile page, is 'history' hikes you have done already? Hikes you have specifically logged in the app? Can you log hikes you have done without the app?
- Fix: Change the name of 'history'

47. H5: Error Prevention / C / Severity 3

- On the landing page map, clicking on the footprint icon directly takes you to a new page
- Fix: maybe flag what trail it is before leaving the page (also google maps-esque → shown basic details then tap again to learn more)

48. H1: Visibility of system status / C / Severity 1

- On the Share page, can we select multiple contacts to send this to or only one?
- Fix: Mark potential multi-selection

49. H4: Consistency and Standards / C / Severity 0

- I think the camera icon has slightly thinner lines than the rest of the icons?
- Fix: Thicken the lines a bit (but see below for comments on actual camera icon utilization)

50. H2: Match Between System and Real World / C / Severity 1

- The map has google maps trails already loaded in the area -- will the footprint replace those trail markers or will they coexist?
- Fix: Get rid of google maps trail indicators or turn them into footprints (maybe a different kind of footprint to distinguish formal trail vs someones traveled path?)

51. H5: Error Prevention / C / Severity 1

- Can't click on things on map during walk? Expectation of map is ability to click around?
- Fix: Make this map have same clickability as search page map

52. H1: Visibility of system status / B, C / Severity 2

- I am not entirely sure of what the camera is for..... Where are these photos stored after capture? Is there a photo albums tab? If so how do

you access it? I realize there are photo albums that are trail specific but if the camera is an entire tab on the bottom nav, that indicates non-specificity of trail

- Fix: Change this icon/make it more clear to the user how this system works

53. H8: Aesthetic and minimalist design / A / Severity 2

- On the instagram-like page, i don't know if the miles listing is absolutely necessary -- i guess think about what this page is meant to be (?) if this is to show others what it is like at certain locations then i would incorporate timestamps into the photo comments. Also, do these photos get auto added to the photo libraries under each designated trail?
- Fix: Remove miles? Miles can be found on trail page. Add timestamps to photos so users can see when the place looked like that!

54. H3. User control and freedom B / Severity 2

- Doesn't seem like there is a way to share the trail with friends after you post it. This would imply the sharing task needs to be done during the posting which could be limited to the number of shares and also confusing on how to go about sharing later on.
- Fix: Add sharing to trails in your profile.

55. H5. Error prevention B / Severity 2

- The button for finish is on the modal for adding pictures. Could lead to an error where someone clicks to finish the modal when they were actually trying to scroll their pictures or add more. This is probably likely since the modal for pictures is kind of small.
- Fix: Make the modal bigger or move the button outside the modal.

56. H8. Aesthetic and minimalist design / B / Severity 1

- The choice of blue font for the trail list in the search tab is pretty difficult to read. The font is a little too small and blue is probably not a great color for text.
- Fix: Change the color of the font to be darker and make the size bigger.

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	5	4	5	1	15
H2: Match Sys & World	0	3	4	2	0	9
H3: User Control	0	1	2	2	0	5
H4: Consistency & Standards	1	1	6	1	0	9
H5: Error Prevention	0	1	1	4	1	7
H6: Recognition not Recall	0	1	0	0	0	1
H7: Efficiency of Use	0	0	1	0	1	2
H8: Minimalist Design	0	2	2	1	0	5

H9: Help Users with Errors	0	0	1	0	0	1
H10: Help & Documentation	0	0	1	0	1	2
Total Violations by Severity	1	14	22	15	4	56

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

ex) If Evaluator A found 1 of the 4 total severity 1 violations, they would put down 25%

Severity / Evaluator	Evaluator A	Evaluator B	Evaluator C	Evaluator D
Sev. 0	0%	0%	100%	0%
Sev. 1	35.29%	23%	70.58%	5.89%
Sev. 2	69.57%	39%	56.52%	13.04%
Sev. 3	92.86%	57%	42.85%	42.86%
Sev. 4	100%	50%	25%	25%
Total (sevs. 3 & 4)	94.44%	55%	38.89%	38.89%
Total (all severity levels)	62.71%	38%	54.23%	18.64%

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

5. Summary Recommendations

First, I applaud the visual design of the application. It has a clean layout with elements that incite feelings of calm that are paralleled in nature. This style fits the purpose beautifully. That being said, the biggest trend that should be looked into is the lack of usability. Many places seem to sacrifice usability for aesthetic beauty and I think the priority should go the other way. People get frustrated easily and if anything doesn't go their way early on it can be very damaging to the first impression.

The main issues were in not understanding the concept of the application, which is why there were so many violations of the visibility of system status. Many of these came with the functionality while going on a hike. The recording button, the "audio only" button, as well as the landmarks were not explained at all, and as a user who has no idea what your app is supposed to do, these things were most confusing to me. Additionally, the other major part that contributed to the visibility of the system status was the frigidity of being able to navigate through the app and create, edit, or delete hikes without having to go on a hike.

The main recommendation I would make is to focus on the hiking portion of the app. The social media aspects were relatively straightforward, but the hiking needed a lot more documentation and walkthroughs so the user knows what a hike is supposed to look like with the app. Explain what the “audio only” is supposed to be, and tell the users how to use it. Explain what the landmarks are. Have more flexibility in being able to record/not record your hikes. Recording a hike is a relatively foreign concept to me, so I have no idea what that would entail.

Additionally, the social network is not build out enough to properly function. For example, there is an option to privately message someone about a trail, but no way to receive messages on this app. There is an option to take a photo with the phones camera (assuming since the camera button didn't work), but nowhere to see photos taken unless those photos were assigned to a specific trail (in which case, I recommend moving the 'take a photo' option to an action you can do mid-walk instead). Some information about trails could be nice to see on the main screen instead of getting *all* of the information about a trail thrown at you on the more detailed page (think google maps click on a location). A big focus should be indicating where the users should go next and generally visually showing system status.

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