

## Heuristic Evaluation of Q

### Prototype:

Q is a locally synchronized social radio that allows users to join, curate, and influence networks in their area.

### Violations Found:

[H2-1: Visibility of System Status][Severity 3][Found by A, C]

From the home screen there is no visual cue that music is playing, or which Network it is coming from. Users might not know that the sound is coming from the app. Add a speaker icon next to the selected network.

[H2-3: User Control & Freedom][Severity 3][Found by A, B, C]

It seems that you cannot look at what is in other networks without stopping from listening to the currently selected network. Have a button to play a network and then allow browsing without changing the “chosen” network.

[H2-2: Match Between System & Real World][Severity 4][Found by B, C]

The “New Radio” button is pointing at whatever Network is selected. This implies that that network is new. It is not clear that that is an actionable button unrelated to the selected network. Change this to a round button concentric with the vinyl.

[H2-2: Match Between System & Real World][Severity 3][Found by B, C]

“Saved” vs “Starred” songs. We thought that saving the songs would actually download them which legally cannot be the case. We recommend changing the vocabulary to Starred, or removing this feature completely.

[H2-2: Match Between System & Real World][Severity 2][Found by A]

The record icon is not usually associated with the radio. This can get confusing to people who either know a lot about records, or the radio. Change the icon.

[H2-4: Consistency & Standards][Severity 3][Found by C]

On the home screen: The red “New Radio” button makes me feel like the red “Saved Songs” option is also a button that would open saved songs. Users might press on saved songs instead of rotating the vinyl. Use something other than color to distinguish saved songs from other networks.

[H2-7: Flexibility & Efficiency of Use][Severity 3][Found by B, C]

The “Saved Songs” option is only visible when the bottom network is chosen. Users might not know where to find it once they’ve rotated the disk. Have saved songs be fixed and somehow indicate that it is not on the record that rotates.

[H2-4: Consistency and standards][Severity 2][Found by A, B]

You have “New *Radio*” and “Choose a *Network*.” I assume “Radio” and “Network” mean the same thing? I would use the word “Radio” for both, or a different word. I wouldn’t use “Network” because that emphasizes the technology behind the app, which the user doesn’t need to know about, rather than the music.

[H2-4: Consistency & Standards][Severity 2][Found by B, C]

The “Saved Songs” option is in the list of networks but it is not a network. Users might be confused by this. Have saved songs be fixed and somehow indicate that it is not on the record that rotates.

[H2-1: Visibility of System Status][Severity 1][Found by C]

Nowhere in the app does it let you know that you are using Q. This is bad for your brand. Have some sort of icon or splash page.

[H2-4: Consistency & Standards][Severity 2][Found by C]

On the first page the yellow help section says to “Rotate a network down” or “Pull up the saved song list”. Rotate and Pull are different words but in the app it would actually be the same action for both of these options. The user might try different actions. Stick to “Rotate”

[H2-3 User Control and Freedom][Severity 2][Found by A]

After the user enters the name for their new radio station, there is no "Enter" button which allows them to proceed. This will confuse users because it looks like there is no way to register their station with the app. Include an "Enter" button below the textbox.

[H2-10: Help & Documentation][Severity 2][Found by C]

On the first page the yellow help section says to “Pull up the saved song list” but gives no indication of what you can do from there. Users might be confused about the functionality of that list. Change this to “View Saved Songs by Rotating Up”

[H2-8: Aesthetic and minimalist design][Severity 1][Found by B]

After you click on New Radio, the Random button is bright orange with red text which I don't find to be aesthetically pleasing. I would revise the colors. The colors on your slides are cleaner than the colors on the prototype (more consistent with just the purple, gold, and white theme).

[H2-8: Aesthetic and minimalist design][Severity 1][Found by B, C]

Choose a Network screen: there's a lot of text on this screen, including “Rotate a network down to select it. Pull up the saved song list from below.” It's kind of an overwhelming screen. I don't know exactly what is going on, and the lazy user won't want to have to read this description to figure out what to do. I think you should make the UI on this screen simpler so that I don't need to read a bunch of text to figure out what to do. Make it intuitive.

[H2-2: Match Between System & Real World][Severity 2][Found by C]

On the first page the yellow help section says to “Rotate a network down to select it” but users want to “play” a network, not “select it”. Either have play be another button or change this to “Rotate a network down to play it”.

[H2-1: Visibility of System Status][Severity 3][Found by C]

It is not clear how the Networks are ordered on the home page. The user might not know how to search for a network. Use alphabetical ordering.

[H2-10: Help & Documentation][Severity 3][Found by B, C]

After the prompt to “Choose a Network” it is impossible to get back to that help screen. The user might need to refresh the available options. Add a ? button in the corner.

[H2-4: Consistency & Standards][Severity 2][Found by C]

On the first page the yellow help section says to “Rotate a network down to select it” but the prompt in the middle says to “Choose a Network”. “Choose” and “select” are different words but indicate the same action. Users might think there is a difference. Stick with “Select”.

[H2-5: Error Prevention][Severity 2][Found by B, C]

It is very easy to change Networks from the home page. If a user accidentally swipes the screen to another Network they will change what they are listening to, which is not what they want to do. Users could be annoyed when they accidentally change the song. Make playing and browsing separate actions.

[H2-6: Recognition Rather Than Recall][Severity 2][Found by C]

I can only see a maximum of 6 Networks at a time and it seems that I will initially only see the bottom 4 when opening the app. This will lead to those being more popular because they are easier to get to. Have a listview button where it is easier to jump around to different sections.

[H2-4: Consistency & Standards][Severity 2][Found by B, C]

When "Saved Songs" is "Chosen" it then prompts me to "Select for full list". "Select" was used before to mean rotate to a Network. Here it means "tap here". Users might think they've already done that. Change that to "Tap here for full list".

[H2-4: Consistency & Standards][Severity 2][Found by C]

In the saved songs or network page the top bar is gray. Gray was not a part of the color palette on the home screen, black was. Users might think the color change means something. Use black.

[H2-8: Aesthetic & Minimalist Design][Severity 2][Found by B, C]

In the saved songs page every song has the saved date. That is a lot more text than needed. The user might find it harder to see the valuable information. Use months as headings for a chunk of saved songs, or remove the saved date altogether.

[H2-2: Match Between System & Real World][Severity 4][Found by B, C]

It is not clear what I can do from the saved song page other than go back. The songs do not appear actionable. Make the songs look more like cells that can be played or looked up. Also, consider if there's really a reason to have a saved songs list at all.

[H2-2: Match Between System & Real World][Severity 2][Found by C]

When a network is chosen and inside the network, the "Queue" shows what is "Up Next". The actual queue would include the current song that is playing (Shown above). Users might be confused by this inconsistency with other music app vocabulary. Change "Queue" to "Up Next".

[H2-2: Match Between System & Real World][Severity 4][Found by C]

When I tap on the "queue" shown in the yellow box it takes me to the Network below, not to that queue. Users will tap here a lot. Change it to take the user to the Queue.

[H2-6: Recognition Rather Than Recall][Severity 3][Found by C]

When I tap on the back arrow from a network page it takes me to the page when no network is selected. If I still wanted to play that network I would have to find it again. Take me back to that network being selected.

[H2-7: Flexibility & Efficiency of Use][Severity 2][Found by B, C]

In a network page I can only save the current song (or does it save the whole playlist? Unclear). Users might want to save other songs. Use a "..." button for each song to access additional functionality like save. Or use a star icon. I might want to be able to save a song other than the song currently playing, so adding a star icon next to each song in the queue would allow me to do this.

[H2-4: Consistency and standards][Severity 2][Found by B]

On the vertical Queue page, there are up and down arrows on each song. I believe your intention is for these arrows to be an up or down vote for the song, but this is unclear to me. My instinct would be to think that this moves songs up or down in the queue, but you are competing with the preferences of other people on your same playlist so I don't think that would work. If you intend for it to be an up or down vote, I would make the icons clearer, such as a thumbs up or down, and I would show the total count of up/down votes per song as well.

[H2-1: Visibility of System Status][Severity 4][Found by B, C]

Once I've upvoted/downvoted a song there is no indication of what I did/of how close the song is to being moved. Users might think that their votes don't matter. Add a vote counter to show users how close songs are to one another.

[H2-8: Aesthetic & Minimalist Design][Severity 1][Found by A, C]

The font used throughout the app is boring and ugly. Users might stop using the app because it looks boring/under-developed. Use a less boring font that is still legible.

[H2-1: Visibility of System Status][Severity 3][Found by C]

At the top of a network page it says "Now playing on Chill". This takes up the full span on the window. If the network title were longer than 5 or 6 letters it would always be cut off. Have the name of the network on a new line.

[H2-8: Aesthetic & Minimalist Design][Severity 2][Found by C]

In a network page, "Add Song" is the biggest thing, indicating that it is the most important. Users might think that they should always do that. Make it smaller, potentially just a plus button.

[H2-1: Visibility of System Status][Severity 3][Found by C]

There is never any indication of how far through a song the listener is. Users might want to know that information. Show a progress bar for the song in the Now Playing section.

[H2-4: Consistency & Standards][Severity 1][Found by A, C]

The queue cells are formatted differently (tabbed) than the now playing song. Users might be confused because there are so many differences (color, format, background, no art). Make the cell formatting consistent throughout.

[H2-4: Consistency & Standards][Severity 1][Found by C]

The artist and song title are formatted the same way on the home page and the now playing section of the network page. The user might not know which is the title and which is the artist. Make the artist smaller font or not bold (conventional)

[H2-8: Aesthetic & Minimalist Design][Severity 1][Found by C]

The white space is not enough to indicate separation between cells in tables. Users might have a hard time seeing each item in the queue. Add separator lines between the cells.

[H2-8: Aesthetic & Minimalist Design][Severity 1][Found by B, C]

The purple and red colors used through the app clash. Very ugly on the horizontal network page. Users will stop using the app because they don't like the look. Use the Adobe color website to find colors that work well together. The purple and yellow together are complementary but very jarring. Simplify your color scheme to one or two colors.

[H2-8: Aesthetic & Minimalist Design][Severity 2][Found by C]

When making a new network, the random button is just as big as the text field. Indicating that it is something that should be used a lot. Users will make lots of randomly named networks. Make this button smaller or remove it (unnecessary).

[H2-6: Recognition Rather Than Recall][Severity 3][Found by B, C]

On a network page there is no indication that going horizontal will allow the user more control and options. Have a little line of text showing that rotating the phone gives more voting functionality. Also consider that some users may have their phones locked to not allow rotation.

[H2-4: Consistency & Standards][Severity 2][Found by C]

When horizontal the colors of the songs and artists have changed from when on the vertical network page. Users might take a second to realize what the songs are. Keep the colors of text consistent.

[H2-10: Help & Documentation][Severity 2][Found by B, C]

When horizontal the gray prompt is a block of text with no context. Users might not read all of this. Use pictures to give more visual instructions. This also causes the page to be cluttered, so consider using a “?” in the top corner for help text instead.

[H2-6: Recognition Rather Than Recall][Severity 3][Found by C]

When horizontal, after being told by the gray box that the bottom left is a notification feed, there is no labeling of what that is other than when things pop up. Users might not know what the pop ups are. Add a title, “notifications:”.

[H2-4: Consistency & Standards][Severity 2][Found by C]

When horizontal the current song is in the list of songs that can be reordered and it is in the same color scheme. It looks like you could reorder it too. Users might try to drag it around. Remove that from the reorderable list.

[H2-8: Aesthetic & Minimalist Design][Severity 2][Found by C]

On the horizontal screen, the songs alternate light and dark. This looks good but when they are dragged around are recorded either the alternation will be lost and it will look weird, or the box will change shade which will be a weird effect with no actual meaning. The users might not be able to easily keep track of the songs. Keep the colors consistent and separate the songs a little. Use artwork to have a more visual queue of which song is in which cell.

[H2-6: Recognition Rather Than Recall][Severity 4][Found by C]

When horizontal, after being told by the gray box goes away it is not intuitive that the songs can be reordered. Users might be confused. Show a click and drag icon under the list.

[H2-2: Match between system and the real world][Severity 1][Found by B]

On the horizontal queue screen, the songs appear in a diagonal fashion, which does not seem to be laid out in a natural and easy-to-read way. It feels a little confusing and disorienting to me. I would make this look cleaner. It feels more natural to order things top to bottom than right to left, so I would suggest scrapping the horizontal and keeping the screen vertical so it's clearer to the user when reordering songs.

[H2-8: Aesthetic & Minimalist Design][Severity 1][Found by C]

On the horizontal screen, if a song has a letter that hangs down like a “g” that letter overlaps with the artist. Users will be annoyed by this. Make the text a smaller size with more space between the lines.

[H2-8: Aesthetic & Minimalist Design][Severity 3][Found by A, C]

On the horizontal screen, what does “420” mean? If it is the influence score, is 420 high or low? There is no benchmark. Users will be confused by this large number. Get rid of this feature or it will get too complicated.

[H2-8: Aesthetic & Minimalist Design][Severity 1][Found by C]

On the horizontal screen, the now playing song is shown in two places. Users might be confused by this because one seems to be interactive. Remove the not playing song from the recording list.

[H2-1: Visibility of System Status][Severity 3][Found by C]

The notification feed tells me that a song was upvoted. Why does that matter to me as another user who didn't necessarily add or interact with that song in any way. It would seem that the entire point of the app is up and down voting, that is a lot of notifications for everyone holding their phones horizontally. Users will be annoyed by these if they cannot do anything with that information. Remove the notification feed.

[H2-4: Consistency & Standards][Severity 2][Found by B, C]

When horizontal the “Add Song” option only says “Add”. Users might think that these buttons do different things. Just use a plus button in both places.

[H2-4: Consistency & Standards][Severity 2][Found by B, C]

When horizontal the save and add buttons are round where no buttons have been round before. Users might not recognize different shapes as buttons. Use all round buttons.

[H2-4: Consistency and standards][Severity 2][Found by A, B, C]

What is the difference between the vertical and horizontal queue pages? It seems as though on the vertical page, you give your song preferences through voting, but on the horizontal page you reorder the songs. Choose only one consistent way for users to give their preferences. I would remove the horizontal page altogether because it seems confusing, and just stick to the up/down voting for giving preferences.

[H2-5: Error Prevention][Severity 3][Found by C]

The upvote and downvote buttons are very small and close to one another. Fingers are a lot less precise than a mouse. Users will likely click on the wrong arrow sometimes. Make them bigger and next to one another.

### Summary of Violations:

Category	Sev. 0	Sev. 1	Sev. 2	Sev. 3	Sev. 4	Total
H2-1: Visibility of Status		1		5	1	7
H2-2: Match Sys. & World		1	3	1	3	8
H2-3: User Control			1	1		2
H2-4: Consistency		2	12	1		15
H2-5: Error Prevention			1	1	1	3
H2-6: Recognition not Recall			1	3		4
H2-7: Efficiency of Use			1	1		2
H2-8: Minimalist Design		7	4	1		12
H2-9: Help Users with Errors						0
H2-10: Documentation			2	1		3
<b>Total by Sev.</b>	<b>0</b>	<b>11</b>	<b>25</b>	<b>15</b>	<b>5</b>	<b>56</b>

### Evaluation Statistics:

Severity	Evaluator A	Evaluator B	Evaluator C
Level 0			
Level 1	1	4	9
Level 2	6	11	21
Level 3	1	5	15
Level 4	1	3	5
<b>Total (Levels 3 &amp; 4)</b>	<b>2</b>	<b>8</b>	<b>20</b>
<b>Total</b>	<b>9</b>	<b>23</b>	<b>50</b>

## **Appendix:**

### **Severity Ratings**

- 0 - don't agree that this is a usability problem
- 1 - cosmetic problem
- 2 - minor usability problem
- 3 - major usability problem; important to fix
- 4 - usability catastrophe; imperative to fix

### **Heuristics**

#### [H2-1: Visibility of System Status]

- keep users informed about what is going on

#### [H2-2: Match Between System & Real World]

- speak the users' language
- follow real world conventions

#### [H2-3: User Control & Freedom]

- "exits" for mistaken choices, undo, redo
- don't force down fixed paths

#### [H2-4: Consistency & Standards]

#### [H2-5: Error Prevention]

#### [H2-6: Recognition Rather Than Recall]

- make objects, actions, options, & directions visible or easily retrievable

#### [H2-7: Flexibility & Efficiency of Use]

- accelerators for experts (e.g., gestures, kb shortcuts)
- allow users to tailor frequent actions (e.g., macros)

#### [H2-8: Aesthetic & Minimalist Design]

- no irrelevant information in dialogues

#### [H2-9: Help Users Recognize, Diagnose, & Recover from Errors]

- error messages in plain language
- precisely indicate the problem
- constructively suggest a solution

#### [H2-10: Help & Documentation]

- easy to search
- focused on the user's task
- list concrete steps to carry out
- not too large