Assignment M5 (Fall 2018):

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Abstract. Apple Music app on iPhone is trendy and cool. However, some of the functionalities of the app fail to give users the ability to accomplish their intended tasks quickly. As a daily user of the iTunes mobile app, I have observed a number of functionalities that could use efficient redesigning. Designing an interface for transitioning between playlists and songs will be the focus of this assignment.

Qualitative Evaluation

The qualitative evaluation was completed in the form of interviews with four participants with various backgrounds. Out of the three prototypes outlined in the M3 assignment, I have chosen the verbal prototype for the qualitative evaluation. The Idea for the verbal prototype was to use artificial intelligence to monitor user behavior, listening habits, activities and play music accordingly so the users do not have to interact with the apple's music app interface to change songs or playlists while engaging in other tasks.

Evaluation process took place in four different places with four participants. Each of them was given the same questionnaire and their verbal answers were recorded in the form of note-taking. Each session went according to the original plan of getting the participants to answer all the questions. All the sessions were similar and no changes were made to the questions. Some participants were not quite aware of how artificial intelligence would be used in this prototype; I had to give them a brief explanation of how the technology will be used in this scenario. I would like to get more participants to be involved. It will help to get more insights about the prototype and how it could be changed.

Interview questions and answers can be found in the following link.

Q&A: Qualitative Evaluation

All participants agreed that the prototype would be useful for their listening habits. Finding new music was mentioned as the reason during all the interviews. Having to interact with the phone to control or change music during another activity (driving, exercising, biking) was seen as a distraction by three participants. One participant didn't think that would cause distractions and willing to overlook the fact. All the participants agreed to give feedback to songs suggested by AI to improve its model for better performance. They had several suggestions on how they would like to give feedback. One of the participants questioned about the frequency of the required feedback. They also suggested additional features to be added. When I pitch them the idea of how this prototype will create a profile of users to detect the activities (driving, exercising) of the users and play music accordingly, all of them were interested but some expressed doubts on how well the AI will be able to figure out their interests. All participants are concerned about the data, which is collected about them.

After analyzing the answers given by each participant, it's clear that all of them are willing to use the prototype to see if it works as they expected. The main takeaway for improving the interface in to have a better AI model to prove that users are presented with song choices they actually like listening to. Having voice commands to switch songs, playlists and other controls is also another suggestion that could improve the prototype. Surprising feedback was that none of the participants considered interacting with a phone while engaging in another activity as a distraction until they were made to think about it. I was expecting to hear about the concerns about collecting data and all participants had some concerns about it. All the participants are interested in the idea of having AI-powered music app, which help them discover music that they never heard before. The main purpose of the prototype is to keep users from getting distracted from their main activities while listening to music, but it was not emphasized in the answers given by the participants.

Changes that might result from the received feedback would be adding voice controls to skip songs and change songs. And also the way of getting user feedback has to be redesigned. Opening the app to give a feedback would defeat the purpose on the prototype.

Predictive Evaluation

A cognitive walkthrough of the paper prototype (Figure 1) is planned as a predictive evaluation. I will be looking at how a novice user navigates through the prototype in accomplishing tasks such as changing playlists and songs.

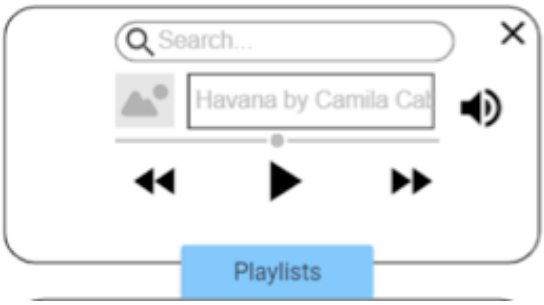

Figure 1. Apple Music app widget (redesigned)

Figure 1 shows the app widget redesigned to include playlists. It has the standard controls which users are already familiar with. The principle of consistency is taken into consideration by not changing the original design drastically. It shows the information about the current song on the play and other audio controls.

The Blue “playlists” button indicates the user about where to look for the playlists. Since it’s a button, users will have an idea that something relates to playlists could pop up on the screen after pressing the button. The principle of discoverability is present in this step.

Once the “blue” button is pressed, Interface will be changed as in figure 2.

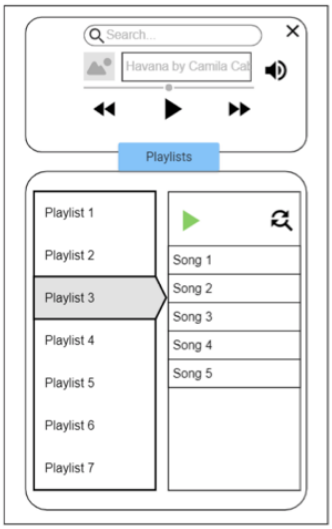

Figure 2. Apple Music app widget (redesigned)

A list containing playlists will appear in the bottom. The user can tap on the "playlists" button again to make the list disappear. Users will be presented with a list of songs once they tap on a title on the left side. Users will be guided to think that each list item has songs listed since the list titles are the names of the playlists users themselves create. Users are already familiar with the playlists on the music app; widget only displays the existing playlists. In that way, users know what songs are in those playlists. Since almost all the lists based interfaces are scrollable, users will know that both lists of playlists on the left and list of songs on the right are scrollable.

Each playlist displayed in the prototype is mapped to the group of songs that belongs to it. It will be easier for users to realize that every playlist contains the songs that they themselves categorized into different playlists.

The main purpose of this prototype is to avoid opening the music app in order to change songs and playlists. It requires about five steps just to switch the playlist. The Gulf of execution is narrowed with this prototype. Users have access to playlists through the widget and browsing for playlists is made easier.

Evaluation Summary

I would like to understand a few more perspectives of the user through additional need finding exercises. During the interviews for the verbal prototype, Users were more interested in the fact that playing music according to their liking over having to change the songs and playlist through the app. I would need to investigate furthermore that users really care about the problem that I was trying to solve or switch the focus to creating a music recommendation system based on listening habits.

Additional design alternatives can be applied to both prototypes. I might explore how to improve the AI based prototype (qualitative evaluation) with the use of an interface (as of now, I am not focusing on a visual interface). This approach may result in an all-new design. The paper prototype, which was used in the predictive evaluation, might go through additional changes without major changes to the current design.

Adding voice controls to the AI based prototype and make the interface totally hands free and integrating a system to get the user feedback would be the focus for the second iteration. This will raise the prototype to the next level of fidelity. Also, an interface where users can enter the feedback will also be in the works for the next iteration. I will try to visualize these changes to the participants with diagrams instead of using a verbal prototype in order for them to understand the design well.

Changing the paper prototype (predictive evaluation) to add features to create new playlists will only change that I have in mind as of now. This will not alter the current design significantly.

Qualitative and empirical interviews will be used for the next round of evaluations. As of now, my prototypes are not ready for the rigor of a true empirical evaluation. I want to gather more feedback based on a qualitative evaluation first. Interviewing a higher number of participants with diverse backgrounds and all levels of technical expertise would help to gather more insights that can be useful. I would also be planning for empirical evaluation by comparing the existing app interface and the paper prototype (Figure1, Figure2).

References

1. Udacity lectures.