Assignment M1 (Summer 2020)

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***Abstract*—**In this project I will be working on re-designing the search functionality of the 'HBO Now' mobile app. The search functionality in the app is not very well designed and is difficult for the users to find the shows that they want to watch. The app does not store user's recent searches or categorize the search results. The absence of the 'Continue Watching' section on the homepage makes it difficult to look for the episodes which the user is currently watching. In this paper I will be discussing the problems and also brief the need-finding methods I will be performing to make the search functionality more user-friendly.

1 PROBLEM SPACE

While the HBO Now app is very popular, there are some improvements that can be performed on the search functionality. Below are a few areas of concerns:

1. The search results provided are not categorized into Movies, Shows etc. To know what they are, the user has to click on the individual search result.

2. The search results are in a list view and not displayed as a grid. If the search result is huge, the user has to scroll through the entire list to find the result they want.

3. The search result does not show what is the relation between the search keyword and the search result. For example, if I search for "Office", it shows a result of a show which does not have the word 'Office' in its title. Once the user clicks on it, he can see that the description of that show has the word 'Office' or one of its episodes has the word 'Office' in its title. If such results are provided, it is better to highlight what detail in the show is matching the search keyword.

4. The search option is not available while watching a video. The user has to stop watching the video completely before accessing the search functionality.

5. There is no voice command feature for the search. The user has to key-in the search keyword to perform the search.

6. If the user wants to watch the show he was watching previously, it is difficult

to locate the "Continue Watching" section as it is not present in the homepage. This results in user using the search feature to search for the show.

7. The app does not store user's recent searches.

2 USER TYPE

The user is anyone who is using the 'HBO Now' mobile app. To mention a few:

1. The user can be someone who likes to watch their favorite show. He might be an expert or novice user. This type of user might be a person who is 18 years or older. Their motivation is to just watch the show for entertainment.

2. The user can be a student who is trying to watch a video for educational purpose or to complete their homework. The age of these users will be less than 18. This user might not be an expert at the interface.

3. The user can be a teacher who is watching videos to learn few things that she can teach her students. The age of such users will be above 18. The user might be an expert or a novice user.

4. The user may be people who are above 60 years trying to watch their favorite shows from yesteryears. Their motivation is to just watch the show for entertainment. This category of users might not be comfortable with using the app.

5. The user might be someone who is exercising or running and wants to enter the search keyword through a voice command. The age of these users might be 18 or older. Their motivation is to listen to the show while performing their activity.

These are just a few examples for the user types. Generally, the user can be anyone who is using the mobile app.

3 NEEDFINDING PLAN 1

The first need-finding method I would like to use is the *Participant observation* plan.

3.1 What will you do?

I will download the 'HBO Now' app and perform certain operations like a normal user under different contexts.

3.2 What steps will you follow?

As a user of the HBO Now app, I will use all the functionalities of the currently designed search.

1. I will open the app and locate the search icon.

2. I will search for keywords which has exact match in the results.

3. I will search for keywords which do not have the exact match in the results.

4. I will try to analyze the search results I get when there is no exact match. I will try to understand why the particular result was displayed.

4. I will try to perform a search operation while I am running or exercising.

5. I will try to perform a search while I am watching a video.

6. I close a couple of videos without completely watching them and quit the app and come back again and analyze how easy it is to find the video I had been watching during the previous session.

7. I will try to perform the search by entering a search keyword while exercising or running.

These are some of the tasks I will perform as a user on the 'HBO Now' app.

3.3 What data will you gather?

1. I will make note of the number of steps I performed to achieve the above tasks.

2. I will make note of how easy or difficult it was when I performed the operations for the first time and compare it to the ease/difficulty when I perform the operation after 3 or 4 times.

3. I will analyze if I was able to perform the search easily while exercising or doing other tasks when it's difficult for me to type.

4. In general, I will make note of the user experience while performing the above mentioned tasks.

3.4 Data Inventory

3.4.1 *Who is the user?*

One of the users here is someone who exercises while watching the video.

3.4.2 *What is the task?*

The user wants to perform a search to watch a video.

3.4.3 *What is the context of the task?*

We are dealing with 2 contexts :

1. Search while the user is watching a video.

2. Search while user is busy with other tasks like exercising.

3.5 Potential Biases

There is a possibility of *Confirmation Bias* in this case as I am the one doing all the analysis I will tend towards seeing what I want to see.

How will you overcome biases?

To overcome this bias, I will try to find ways to prove that I am wrong. In other words, I will challenge my thought process. I will also discuss the results with an acquaintance to see if I was biased.

4 NEEDFINDING PLAN 2

The second needfinding method I will be using is *Evaluation of existing user interfaces*.

4.1 What interfaces will you look at?

The interfaces that I will look into are Netflix, YouTube and Hulu. I will evaluate these interfaces and compare the results with HBO Now to determine what are the features I have to incorporate in my new design.

4.2 Where will you find them?

I found these applications from the App Store. I chose these interfaces as they serve the same purpose as HBO Now i.e., video streaming and also because there are a lot of users who use both the mentioned apps as well as HBO Now.

So it is a easy way to find out what features of those apps users like more than HBO Now and how can those be incorporated to HBO Now.

4.3 Systematic Evaluation

I will evaluate each interface based on the following criteria:

4.3.1 *Efficiency*

This is comparing how long it will take users to perform their desired task in different interfaces. I will perform the search operation while watching a video in YouTube and HBO Now. I will note down the steps required in both the interfaces and compare them.

I will also evaluate the number of steps the user needs to perform to get to the *Continue Watching* section in HBO Now and Netflix and compare them.

4.3.2 *Accuracy*

This is the possibility of user errors while performing their desired task. I will perform the search operation in both HBO Now and Hulu compare them.

4.3.3 *Learnability and Memorability*

I will compare the interfaces of HBO Now with Netflix and YouTube to understand how easy it is for users to perform a particular task. Example, continue watching a video after quitting and entering the app or accessing search functionality while watching a video.

4.3.4 *Satisfaction*

Based on the above comparisons and seeing the number of downloads of the apps, I will compare the user satisfaction level. We can gain more insights about by analysing the product reviews of the app which we will do in the next method.

4.4 Data Inventory

For this need-finding method, we can link the following to the data inventory :

1. *What are their goals?* : The users here are trying to accomplish a search operation in the HBO Now app.

2. *What is the context?* : The user might be wanting to perform the search while

currently watching a video.

4.5 Potential Biases

The bias in this type of needfinding will be *Mere exposure effect*. This happens when we show liking towards things just because we are familiar with them.

How will you overcome biases? To overcome this bias, I am evaluating 3 different video streaming apps. I am not familiar with 2 of them as I don't use them often. This will help me overcome the bias.

5 NEEDFINDING PLAN 3

Analysis of product reviews: Where will you find the reviews? How will you examine them systematically?

5.1 where will you find the reviews?

I will find the review on the HBO Now app page on the App Store.

5.2 How will you examine them systematically?

I will enter the reviews into an excel sheet and do analysis based on the keywords in the review and the corresponding rating. By following this method, I will know which keywords have bad sentiment and which ones have good sentiment.

5.3 Data Inventory

5.3.1 *What are the goals?*

The users just want to have a pleasant user experience for their paid subscription.

5.4 Potential Bias

5.4.1 *Sequential Bias*

The bias I will encounter while analyzing the reviews is *Sequential Bias*. This arises because of the ordering of reviews from 5 to 1.

How will you overcome biases?

To overcome this bias, I will randomly order the reviews while analyzing them.

5.4.2 *Negativity Bias and Positivity Bias*

The other bias is the *Negativity Bias and Positivity Bias*. This is because a user is likely to write a review when he/she is either very happy with the product or dislikes the product. So the 5 star and 1 star ratings are more and hence when analyzing we tend to concentrate on them more.

How will you overcome biases?

To avoid this I will also look at the 2,3 and 4 star ratings.