

Assignment M3

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Abstract—As the online streaming services become more and more common to the consumers, there are high expectations on these services to have an intuitive user interface and a streamlined user experience. In this project, I will be examining the Amazon Prime Video streaming service specifically the task in searching the desired content from their current user interface. These assessments and findings throughout the M assignments will guide me through the design lifecycle to find out the needs of the users, design alternatives, build prototypes and evaluate the proposed ideas.

1 BRAINSTORMING PLAN

In my brainstorming plan, I will start by exploring the possible design spaces which is the area in which we design our interfaces. The rule is trying to avoid narrowing down the design solution too early on the current design for Amazon Prime Video. Secondly, I will sit down on my desk with a piece of paper and a pen in the morning to generate a lot of brainstorming ideas. The rule for individual brainstorming is writing down as many ideas as possible with very high level and very general ideas to search content on Amazon Prime Video. I should also follow the five rules of individual brainstorming.

1. Write down the core problem
2. Constrain yourself: at least three ideas with different interaction methods
3. Aim for 15 ideas
4. Take a break: take a walk or visit different coffee shops and then come back to revisit the problem at a different time
5. Divide and Conquer: divide search content on Amazon Prime Video in different steps and brainstorm the ideas for each step

Next I will take these fifteen ideas and start flushing out three ideas that are worth taking forward to the prototyping stage. I can utilize a few flushing idea methods and look at the timeline of the users using the Amazon Prime Video service or think about different scenarios when the users will use the service.

After executing the brainstorming plan, the goal is to have three ideas that I am interested in moving forward to the prototyping stage.

2 BRAINSTORMING EXECUTION

2.1 Define Design Space

The users want to search content on Amazon Prime Video because they are looking for content to watch and experience the movie or show character stories at any location of their choice. The design space is to help users to find the content they would be interested in watching the next few hours. The possible areas I could explore are thinking about how to help users to find the content in different locations, any recommendations the system could provide to help them find the content faster, or provide helpful information such as a quick preview of the content to help users decide if they want to watch this content.

2.2 Individual Brainstorming

2.2.1 *The core problem*

The core problem is the current Amazon Prime Video streaming service does not provide an easy way for users to find the content they are looking for. The search result page is cluttered with a mixture of different information that the users don't need. For instance, it is hard to tell which content is under the Amazon Prime Video subscription and which needs to be purchased.

2.2.2 *Divide and conquer*

I break down the search content task into two different scenarios:

- Scenario 1: The users do not know what content they are looking for. Recommendations help them to narrow down their list and find what movie or shows might interest them.
- Scenario 2: The users have a movie or a show in mind. They could either search by movie title, categories, key words, cast, or director names.

2.2.3 *Fifteen Brainstorm Ideas*

1. Search content with voice.
2. Search content with mind or thoughts.
3. Search content with a touch screen on TV.

4. Search content with arm motions like a switch game console.
5. Search content with a smart watch instead of the remote.
6. Search content with a smartphone instead of the remote.
7. Content recommendation by holidays, seasons, time of the day.
8. Content recommendation by friends or family.
9. Content recommendation by trend on social media or the most watched series of the week.
10. Easier way to filter search content with categories filters (produce time, genera, directors, actors).
11. Content recommendation by geographic locations. (countries or other international films)
12. The system can detect users mood and make recommendations
13. Search result prioritize and emphasize on the content they are looking for Amazon Prime Video Subscription
14. Machine Learning algorithm to provide recommendations based on watch history
15. Provide movie ratings from other critiques such as Rotten Tomatoes

3 SELECTION CRITERIA

3.1 Evaluate Ideas

3.1.1 Scenario 1: Users on the go

The users are generally watching the streaming service content in a time frame when they might be bored or time frame after a long day at work. For the first scenario, the users might be riding a transportation and have some time anywhere from 30 minutes to a couple of hours and they are staying in the same stationary location. In this case, there might be a lot of ambient noises and surrounded by other passengers in the same vehicle. The users might not want to draw too much attention while searching the content on Amazon Prime Video. Ideas with voice commands or big hand motions might be suitable in the first scenario. The users might also use more portable devices such as smartphones, tablets, or laptops to watch content on the go. I will narrow down the ideas with the simplicity and quicker way for the users to find the content in this case.

1. Search content with mind or thoughts.
2. Machine Learning algorithm to provide recommendations based on watch history

- Easier way to filter search content with categories filters (produce time, genera, directors, actors).

3.1.2 Scenario 2: Home theater

The second scenario is when a family or individual users want to watch content after work or during dinner time or late night in their comfortable home. They might be searching for content where multiple people would enjoy and willing to spend a little more time to find the movies and shows to watch. They could also just want some shows that are light hearted and can be put on while they are doing other tasks such as cooking or eating dinner. In this case, I will narrow down my selections to find a recommendation list based on certain categories to help users find content that others might like.

- Content recommendation by holidays, seasons, time of the day.
- Content recommendation by friends or family.
- Provide movie ratings from other critiques such as Rotten Tomatoes

3.1.3 Three Selected Ideas

Based on the two evaluations scenarios above, I have selected the following three ideas to move forward to the prototype stage with feasibility in mind.

- Search results show content recommendations powered by Machine Learning for a more customizable experience.
- Provide movie or show info such as ratings from Rotten Tomatoes that the user needs to help them decide.
- A quick way to search content with voice command.

I will evaluate the prototype from the perspective of these requirements.

4 PROTOTYPE 1: Textual

The selected idea that this prototype is addressing for is the search results showing content recommendations powered by Machine Learning.

4.1 How it works

If the users were not searching for a specific movie, instead they were searching content from a particular actor, genre or directors. The search results will then prioritize the recommended content from top to down based on the search

criteria and the recommended content. The recommended list is a model where it learns from many users around the world who like to watch similar content. The machine learning algorithm learns what type of movies or shows the users like and makes recommendations based on other users who watch similar content.

The search results list should also prioritize the Amazon Prime Video subscription content and hide the pricing information for the non prime video. This information users do not need until they are interested in watching the movies. The users should be able to easily tell which content is Amazon Prime Video and which is not by showing the Prime Video Icon on the movie's poster.

When there is no content that matches the search criteria, the interface should provide the feedback to the user to let them know the system does not carry the content you are looking for. Then also displays recommended similar content at the bottom to let users know we have something similar.

4.2 Evaluate Prototype

This prototype met the following requirements.

- Search results should emphasize Amazon Prime Video subscription content and minimize paid content. A clear design interface to help user differentiate the two
- Search result page should display a message “content not found” and should not show other content on the search result page
- Search result algorithms should prioritize prime video to the top.

4.3 Data Inventory

This prototype addressed the goal for users to find the content they desired. It also reduces confusions on the existing Amazon Prime Video interface by emphasizing the Prime Video content and hiding any info that the user does not need. This prototype also provides user feedback when the content does not exist in the Amazon Prime Service. Lastly, the machine learning algorithm helps users to find the content they want to watch if they don't have one in mind or they do not mind watching similar genre movies when the content does not exist in the Amazon Prime Video platform.

5 PROTOTYPE 2: Paper

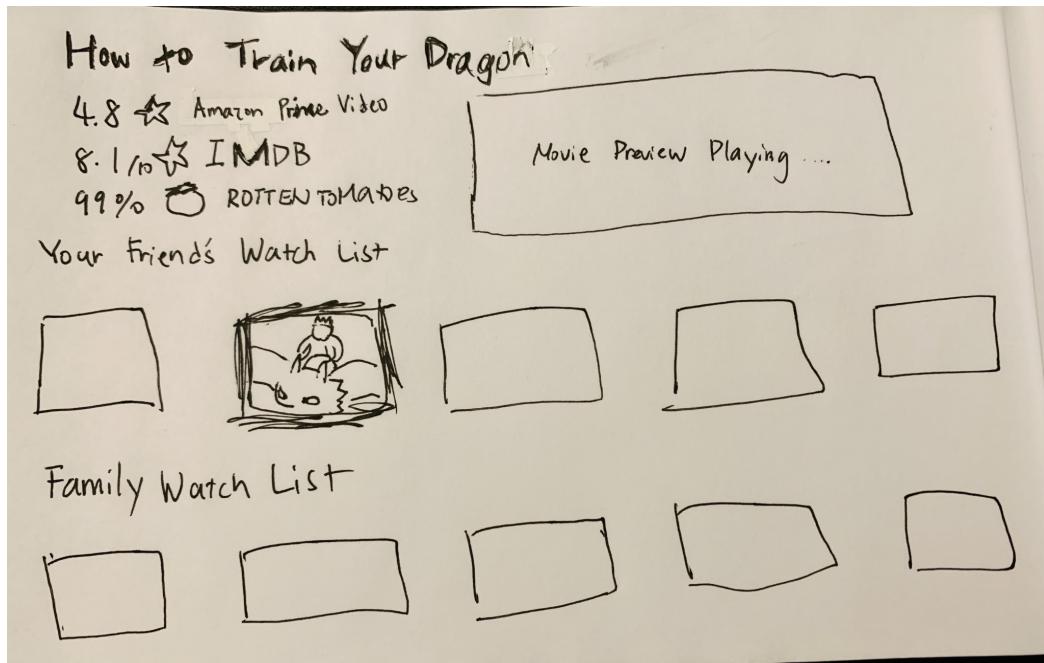


Figure 1—Hand drawing of a high fidelity paper prototype.

Source: My Drawing

This is the hand-drawing prototype for the idea of providing content recommendation based of Friend's or Family Watch History and provide helpful content information to help users decide if they would like to watch this movie. There is movie rating information from three different sources: one for Amazon Prime Video users, IMDB, and Rotten Tomatoes. There is also a section on the top that will automatically play previews of the movie to let users get a sense of what this movie is about.

5.1 Evaluate Prototype

This prototype met the following requirements.

- Search results should provide helpful movie or show insights such as trustworthy critics review to help users find their desired shows or movies.

5.2 Data Inventory

This prototype addresses the problem in helping users to find the content they are searching for. In the data inventory, the goal of the user is to find their desired content at the stationary environment. Their task is navigating through the Amazon Prime Video Interface and finding the content they are searching for. I think this interface can help the users achieve their goal by narrowing down choices and provide helpful insights on the movie when the cursor hover on the movie in the interface.

6 PROTOTYPE 3: Card

This prototype demonstrates the workflow when a user wants to search or find a movie via voice commands. The users can directly talk to the device to either find the movies in certain categories or genres or tell the devices with specific movie titles. Then the system will take the voice inputs from the users and process the command. Then display the search results along with the recommended list at the bottom.

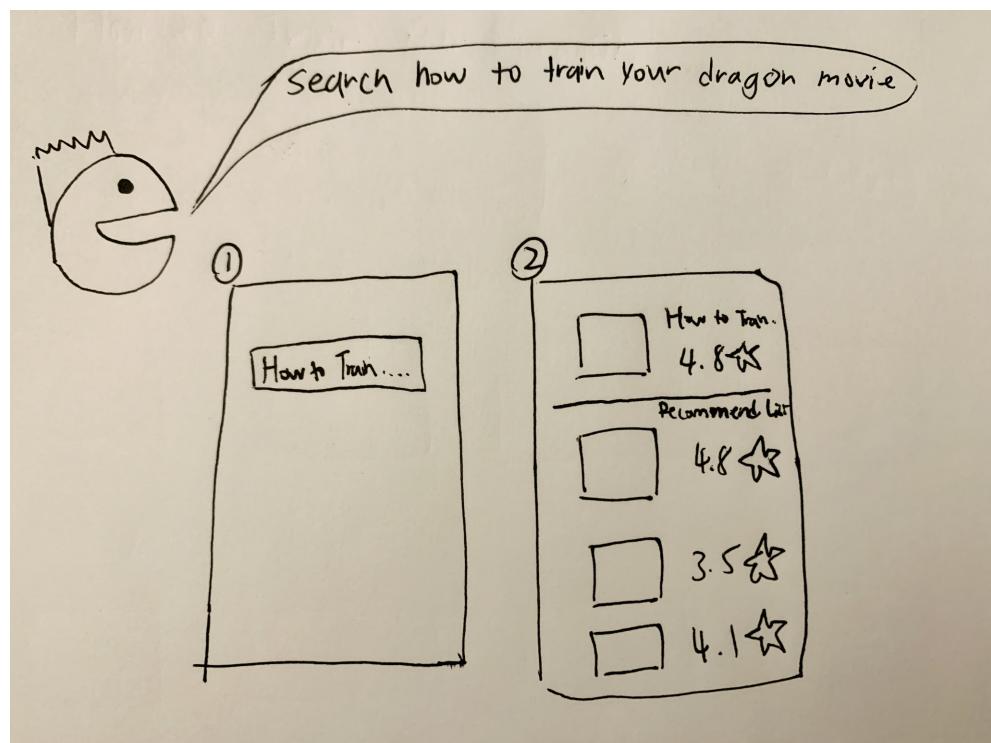


Figure 2—Hand drawing of a high fidelity card prototype. Source: My Drawing

6.1 Evaluate Prototype

This prototype met the following requirements.

- Provide voice search functionality or enhance word suggestions in the keyboard to help user search up content more efficiently

6.2 Data Inventory

This prototype also addresses the goal of the users to search on the content they desired. This helps the user by eliminating the need to type or select each character on the device screen to search. This is a much faster way to search the content by using voice commands. However, some challenges might be on existing system interpretation on processing natural languages. People have different voices and different ways of saying things and some systems might not be able to get the voice command on the first try compared to typing to the search bar.