

Project 2: Netflix application

ISE 164 Project Report

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Introduction

Netflix is a global streaming service platform that allows members to watch TV shows and movies on an internet-connected device. It gains popularity and growth through affordable and commercial-free service to bring entertainment and comfortability for the audience. It also offers a wide range of content and many languages suitable for people at different ages and regions. With Netflix, people can also have the flexibility and freedom to binge viewing any show at any time and on any screen that could connect to the internet. Therefore, Netflix has been an upgrade and replacement for traditional cable television with all those advantages.

Project 1 explored and conducted study on selected features and detailed the applied Human Computer Interaction knowledge to have a better understanding of Netflix's user interface. Specifically, the first feature is the rating ability using "thumb up" or "thumb down" and the second feature is the ability to save a movie for watching later. Those features were evaluated under comparative study, heuristic evaluations, user profiling and user requirements.

The purpose of this Project 2 is to design a high fidelity prototype to improve Netflix using Figma. The upgraded version will also be evaluated and described through the Human Computer Interaction theories and knowledge in the design requirements. The new prototype will also then be tested and compared with the originals through measurable usability metrics from experiments with four participants.

Design Requirements

This section will go over the design requirements that will help improve the usability of Netflix. It includes evaluation of the improved high-fidelity prototype with the comparison of the original design.

Netflix main page (movie search)

Figure 1 Original Main Page

Figure 2 New Main Page

On the main page, movies are separated into different categories and users are required to scroll down to search for movies or tv shows. However, the categories may be organized differently each time and not in a fixed order. To help searching for movies easier and more effectively, it is beneficial to have important lists as buttons at the top when the users access the main page. Such needed lists are “My List”, “Continue Watching”, “Suggestion”, and “Popular”. In that way, users could go straight to the prioritized destinations if they want, instead of scrolling down and looking through categories that are not in a fixed position. For example, if the user wants to continue where they left off of a movie series, they could click on the corresponding button and get delivered to the necessary list instead of taking time to scroll and find the list on the main page. The additional bar laid out at the top (Figure 2), according to Fitts Laws, would help the users to easily interact and memorize the position. Furthermore, it would not interfere with the main element of the page which are the movies and categories.

Netflix Movie Panel (like and dislike)



Interceptor

96% match 2022 TV-MA 1hr 39min HD ATMOS

The last officer standing on a remote missile defense base wages the battle of her life against terrorists aiming 16 stolen nuclear weapons at the US.

Cast: Elsa Pataky, Luke Bracey, Aaron Glenane
Director: Matthew Reilly

✓  

My List Rate Download

Figure 3 Original movie panel



Entergalactic

97% match 2022 TV-MA 1hr 34min HD ATMOS

Ambitious artist Jabari attempts to balance success and love when he moves into his dream Manhattan apartment and falls for his next-door neighbor.

Figure 4 Original movie panel after clicking the Rate button

Figure 1 shows the original screen when clicking on any specific movie or tv show. The Play button is put on the thumbnail of the movie with the Save, Rate, and Download buttons below the movie description. Specifically, when clicking the Rate button, a “thumb up” and “thumb down” appear to be chosen (Figure 2). Below are recommended movies that are similar to the current movies.



Figure 5 New movie panel (before rate)



Figure 6 New movie panel (after rate)

Figure 5 shows the prototype for the improvement of the rating feature and, overall, of the movie panel. Firstly, the Play button is moved under the movie description instead of having it on the movie thumbnail. This would help separate the button and make it more visible. To make it more noticeable since it is the most used button on the panel, the Play button is also highlighted with a red color. Secondly, the Rate button is laid out instead of having one that includes both. Doing it reduces the number of clicks taken to finish the feature from two to one. Then, they are grouped to the right side further from other buttons. According to the proximity rule of Gestalts' principles, having them group together separately would help the users to intuitively perceive and distinguish the same functions of those two buttons on the panel. After that, since all the symbols clearly showed the purposes of all the buttons, the description texts under could be removed. This creates a simplistic, efficient view for the user interface and avoids any redundancy. Lastly, below include recommendation and related movies, it is necessary to include a description text such as "You may also like" for the users since they may think they are just randomly selected movies.

Netflix movie cards (Save feature)

The original movie cards for "Get Smart with Money" and "Love Death + Robots" are displayed side-by-side. Both cards feature the Netflix logo in the top left corner.

The original movie cards for "Married at First Sight" and "Community" are displayed side-by-side. The "Community" card features the show's title prominently at the top.

The new movie cards for "John Wick" are shown after hovering over the first card. The first card has a red border around its image. The cards are labeled "Continue Watching" and "Popular on Netflix".

Continue Watching

Popular on Netflix

Figure 7 Original movie cards (including hovering)

Figure 8 New movie cards (after hovering)

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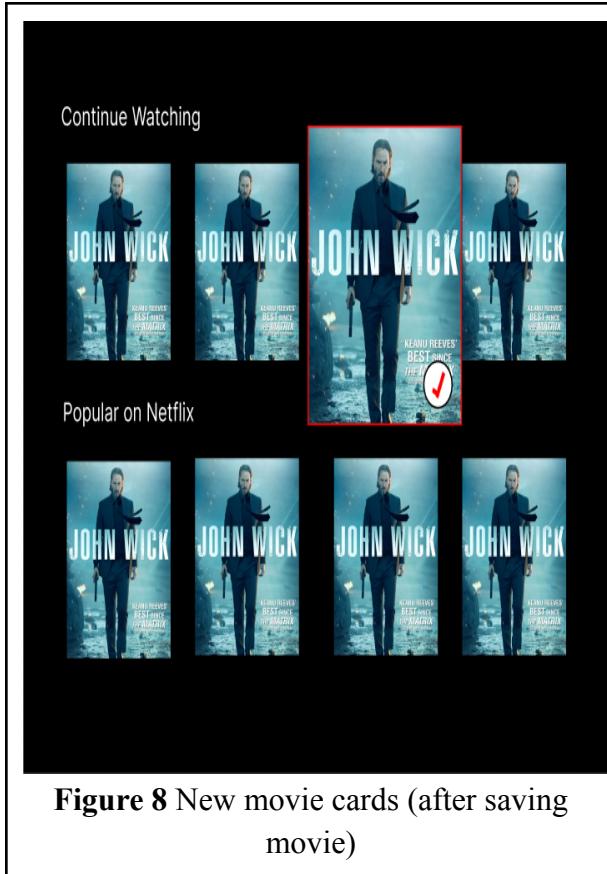


Figure 8 New movie cards (after saving movie)

Movie icons are organized well into categories on Netflix. However, to make the selecting process better, adding visual effects would make the elements stand out clearer for the users. While hovering or going through selections on Netflix, the only effect on the card happens after clicking to get to the movie panel. There is no other response while going through the cards on the searching pages. To make the selection more appealing, the card is enlarged to help users notice their selection (Figure 8).

Furthermore, to improve the Saving feature, the adding button also is included in the enlarged card. This allows the users to use the Saving feature without necessarily doing the additional step of going to the movie information panel. As a result, this also provides more flexibility with the extra functionality and reduces the steps for the users to continue searching and saving movies into their list.

Prototyping Tool

The prototyping tool that was used in this project is Figma. Figma is currently a popular software that allows everyone to build and design interfaces for products and applications.

Usability testing

Usability metrics help to evaluate how easy and effective the product is for users. Those metrics are ways to track the performance of the user interface and design. For this project, the metrics are time to finish tasks, number of clicks, numbers of errors, and participant rating on the scale of five.

Testing results

Four participants will join in to test the high-fidelity prototype. For each of the goals and procedures, they are required to perform tasks on both the original design and high-fidelity prototype. Participants would also receive answers for their questions and guidance if necessary. Usability metrics will also be measured throughout the testing process. Testing results from all the participants would show the average score and comparison between the original and the new design.

Task 1 (main page): Continue to watch a movie that you left off

Design	Finished time (s)	Click numbers	Errors	Rating (5 max)
Original	8.2	1.3	0	4.4
New	5.6	2.5	0	4.7

Table 1. Average result of task 1

The result from the usability testing of task 1 shows a good amount of reduction in the amount of time it takes to finish, even though it requires more clicks. There were no errors made by the participants. Furthermore, the rating suggests they prefer the new version over the original one.

Task 2 (Movie panel): Rate a movie

Design	Finished time (s)	Click numbers	Errors	Rating (5 max)
Original	5	2	0	4.7
New	3	1	0	4.7

Table 2. Average result of task 2

The result from the testing of the rating feature indicates a difference in the finished time, less for the new one. The original design also needs more clicks, but not significantly. There are no errors made on both designs during the test. Overall, users show the same interest and thought both are adequate.

Task 3: Save a movie to watch later

Design	Finished time	Click numbers	Errors	Rating (5 max)
Original	6	3	0	4.5
New	4	1.5	0	4.6

Table 3. Average result of task 3

The result from the testing of the Saving feature shows on average, it takes less time to complete the feature if using the new design. Furthermore, the original design needs more clicks since the new design does not require users to get into the movie panel to use the feature. The participants were able to navigate through the process without trouble. Overall, they slightly prefer the new design compared to the original.

Conclude

From the testing tasks, it shows several optimizations in the new design compared to the original, especially the time saving. Overall, the users do not show clear favor from one over the others when they still could easily reach the goal provided. The original might be more simplistic

in the user interface but the new design is more effective and provides more functions in the approach.

What did you learn from this project?

From this project, it has helped me to learn how to build a high-fidelity prototype of a software. Therefore, I can provide a better testing environment of an user interface design for customers to interact with. Especially, I learn how to use and develop it with Figma which adds a technical skill of UX/UI for me as a software engineer. Furthermore, I also have gained information on how to effectively analyze a user interface design using Human Computer Interaction knowledge and theories. I can look into the goals from features of an application and see what they want to achieve. Therefore, I can bring changes that would be beneficial in user views and still keep the same requirements. Finally, I am able to conduct testing and measure metrics of the new prototype to understand if my modifications are effective enough. Overall, the project has helped me to explore UI/UX knowledge so that I can enhance the experience of users when interacting with digital applications.

Reference

Leitch, D., & Stahelski, C. (2014). John Wick.

Netflix. (n.d.). Retrieved October 17, 2022, from <https://www.netflix.com/>