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May 23rd, 2023

CS 352: Formative Research

Prototype URL

https://www.figma.com/proto/fIII6Un2bitorHGKHKY03L/Wireframe-Design-Gallery?type=design&node-id=1-2&scaling=scale-down&page-id=0%3A1&starting-point-node-id=1%3A2&show-proto-sidebar=1

Introduction

The **project** our group is working on is called **Stream Sync**. It is an application that allows the user to combine multiple streaming services into a singular user interface. Once the user has added their streaming service accounts into the Stream Sync service the media will be presented in a cohesive user interface.

 The **target audience** would be anyone who uses multiple streaming services to view media content. To show how this might work with different age demographics the clickable prototype I have created for the design gallery shows it from the point of view of two different users on a shared account. When the user first logs into the Figma model, it will be for a younger viewer who has content filtered in advance for shows they would enjoy but also age appropriate for younger viewers. Later, the younger viewer might need to go study their homework or go to bed so now the parent can have access to watching the stream sync account after dinner. The user can click on switch profile to

change to the other account which offers shows that are appropriate for young adults to adult viewers.

The **usability problem** for our group is how it can be difficult to efficiently navigate multiple streaming services. The process of accessing and switching between the different services because each has their own content and unique interface layout. Our project idea is a single service that combines the accounts of the streaming services the user is subscribed to and displays it in a clean singular interface. This will save the user time and offer a better viewing experience as they can see everything currently available in a streamlined interface experience.

Usability Test

Participants

I decided to have a participant from the previous assignment for Generative Research. The participant's name is **Jeff**, and he is a **middle-aged male** who **lives in metro area of San Antonio, Texas**. He is **employed in the retail service sector** and works for a company that places an emphasis on customer service. Photography is a passion for him, and he enjoys taking photos on his days off and perfecting his skillset in the field. He **enjoys watching both movies and television shows** and **currently subscribes to five streaming services**. In addition, he was **part of a user study called the Netflix Preview Club** where he was a **member of a focus group**. This gave him the exclusive opportunity to watch Netflix shows during production and early pilot programs where Netflix was trying to gauge the success of these shows for future media on the service.

The **consent form was sent via iMessage** to the user **after getting verbal agreement** that he would participate in the study. I **sent a PDF copy of the consent form via text**, and he signed and dated the PDF with his iPhone before sending it back to me. I also emailed him a copy of the consent form when I sent the Figma link along with the User Tasks. I felt **sending it by two methods** allows a **backup copy** for the future.

Testing Procedure

We decided to use **FaceTime** because he has a **Mac laptop computer** which allows him to screenshare and I would be able to view the process as he navigates the prototype tasks that have been presented for him to accomplish. I felt this works well because it doesn't require either of us to install new software such as Zoom, and personal privacy is very important to him. Jeff's Mac setup is in his **bedroom at his computer desk** where he has both a Windows desktop computer setup for gaming and a Mac laptop setup for photo editing, but he will be using the Mac for the purposes of the prototype test.

The **task for the participant** will be to start on the user log-in screen and make it to main menu of the default **'Rabbit' avatar, which is a user profile for younger viewers**. Then Jeff will need to then **navigate to the switch user screen** and select the profile for **'Teddy' which is an account for young adults to adult viewers**. Then he will need to go into the 'Add Stream' section of the interface and attempt **to add the AppleTV+ service** to the list of their current stream services that are within the current Stream Sync profile settings. After doing so the **Stream Sync will update** to show the user is currently subscribed to AppleTV+, Disney Plus, Netflix, HBO Max, and Prime

Video. The user will then be asked to **return to the main menu** of Teddy's profile in Stream Sync. Attached to the assignment's **appendix section is a copy of the Task Guide** which was sent to Jeff before the usability test. I sent it to him via an iMessage text where he could either print out a copy of the tasks or refer to his phone during the usability test. After rewatching NNGroup's video titled 'Running a Remote Usability Test, Part 2,' I really liked the idea of giving Jeff a reference since this is all new to him and felt it lowered any anxiety of the tasks being presented within the usability test. The **scenario** being played out would be when a user logs into Stream Sync but it is not their current profile so they will switch from one profile to another. The user just started subscribing to AppleTV+ and would like to add the service of their current list of active streams and attempts to go into the 'Add Stream' settings within the menu to add AppleTV+ to the others. Once successfully the user will return to the main menu of their profile to enjoy the viewing material.

When we first set up FaceTime, we ran into issues with my iPhone connecting to his Mac laptop for screen sharing. It took us about ten minutes or so and realized there was an issue with a media device attached to his laptop that was causing audio issues. However, afterward everything went smoothly with the overall usability tests. Jeff had a second monitor attached to his laptop, so he placed the User Task PDF on his second monitor while screen sharing the main monitor that showed him navigating the Figma model with me observing as he went through the task list. While Jeff was navigating the prototype, I tried to stay quiet and observe and listen as Jeff said his thought process out loud while he navigated the interface. If Jeff had a question such as within Figma about how the cursor would change from a pointer arrow to a hand, I would let him

know that this indicates the user can interact with object and will initiate a change in the environment of the prototype.

Method for Obtaining Informed Consent

The consent form was based on the one I created for the Generative Research assignment, I tailored the format and details about the usability test to work for this assignment. We used **iMessage** originally for the consent forms because the iPhone has built in PDF editing, which is convenient, so it allows him to date and sign the PDF using the iOS editing abilities and send it back to me. This was the same method used in the previous Generative Research assignment and I felt it made it convenient for everyone involved so it might offer a sense of familiarity. I also sent the pre-usability test questions **via email** along with a second copy of the consent form and a weblink to the Figma model for the usability test. When we first connected via FaceTime, I asked the pre-usability test questions which focused on if Jeff had any questions about the consent form. Next, I asked if he had ever done a usability test before and if he had any questions on the process, if he had ever used Figma before, and if he had any concerns or questions he would like to discuss before the test. Although Jeff had read and signed the consent form, I wanted to make sure he was completely comfortable with the usability test and make sure he understood everything involved going forward. He **didn't have any questions**, but said if he did during the test, he would let me know.

Findings

The first question I asked Jeff after his completion of the usability test was "What was your overall impression of the Stream Sync prototype?" The first impression he gave was that he felt the **user interface felt cluttered** in terms of the number of icons and the selection options for the user. He felt the **'Account' and 'Add Stream' options should be removed from the user menu** and moved to the profile selection screen as this would free up space on the main menu. Another possibility he thought of is the **'Add Stream' icon may benefit from being closer to the 'Search' ability** within the main navigation bar. Jeff said if the search ability pulled up shows but requires a user login for another streaming service it would be faster for the user if the icons were right beside one another. He also felt the **Stream Sync logo text takes up too much room** with its current size font. Also, in Rabbit's profile how the Bear emoji sends messages to the user, he likes the idea but feels it should be moved to the bottom right corner after the removal of 'Account' and 'Add Stream'. He likes the idea of how it has messages and feels the **bottom corner could be an interaction screen** where a possible example could be a parent messaging 'Dinner is ready' to a younger viewer and it would appear in the same corner where the Bear message would be displayed to the user. The two profiles within the prototype for Rabbit and Teddy have the **home navigation bar in different areas** where Rabbit's is on the top and Teddy's is on the bottom. Jeff felt this is confusing and he thinks they **should both be on either the top or bottom** but preferably on the top.

One question I asked Jeff was 'What are your thoughts on the color themes used in Stream Sync?' He **likes the light color theme of Rabbit's profile**, but said he feels

Teddy's profile is not bad but not good either. He said if there was customization by the user that would be a nice feature. However, then he reflected more on how Netflix has black / dark backgrounds and felt maybe they do this so the user focuses more on the colors within the media selection imagery and might be less distracting so he felt it could go either way.

When asked about the icons within the prototype, Jeff feels they are suited for what they are trying to represent, and he felt the **navigation 'home' was very helpful** for him when he was originally learning how to navigate the prototype interface.

When asked 'How might this service change the way you view media?' Jeff stated there would **be less switching between applications**. He felt **the initial up-front cost would be greater** due to adding all the log in usernames and passwords for every streaming service but **once everything is set up it would save a lot of time** with the viewing experience. Jeff feels **there is a market demand for Stream Sync**, and that the **product would be beneficial to users** viewing media with multiple streaming services.

Evaluation

Evaluation Method

The evaluation method I will be using will be a **heuristic evaluation** and I will be using a structure similar to the assignment we did in week two of the course. The structure will show a Source Description, Issue, Heuristic, Explanation, and Severity Rating.

References:

Oregon State University. (2023). Exploration: Usability Heuristics.
https://canvas.oregonstate.edu/courses/1914830/modules/items/23177697

Evaluation Findings

Source Description:

The main menu differences between the two user profiles for Rabbit and Teddy in the Stream Sync prototype model in its current state.

Issue:

The navigation menu locations for Rabbit (top image) and Teddy (bottom image)

The issue images are on the **next page** due to image sizing.
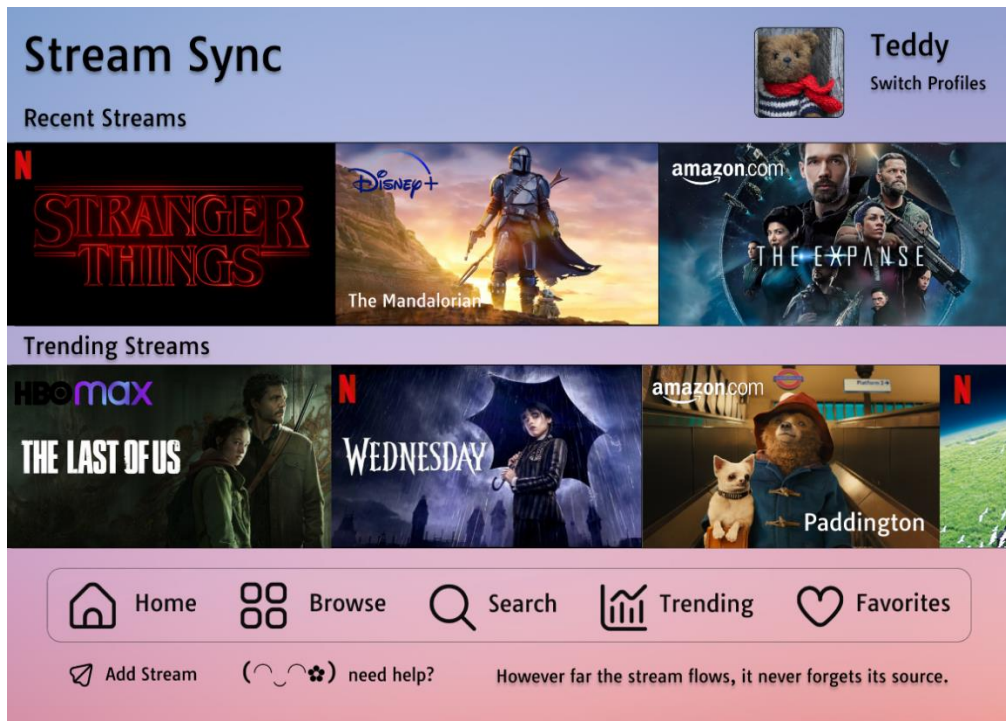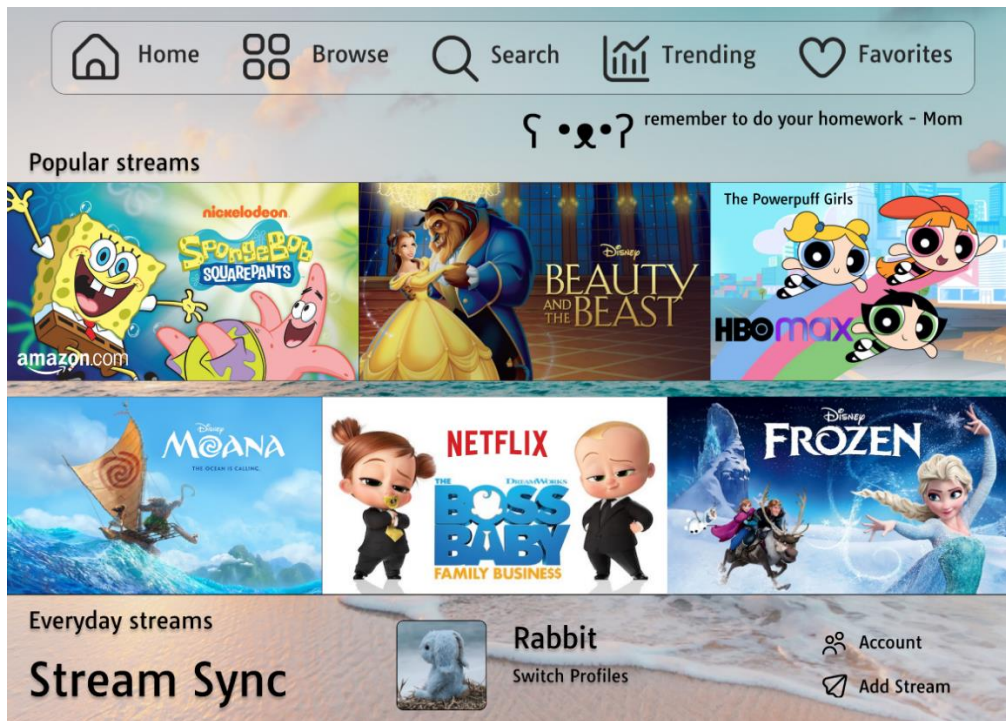
Heuristic:

Consistency / Standards

Explanation:

When Jeff first logged into Stream Sync he was in Rabbit's profile where the navigation main menu is located on the top of the screen. However, the next task for the user was to switch profiles to Teddy's profile where the navigation bar moves to the bottom of the screen. While observing Jeff, I noticed it took him a moment to realize it was the same menu just located in a different part of the screen. He also mentioned in the interview after the usability test that he thought it would be better if the navigation bar was kept consistent in terms of its location between user profiles.

Severity Rating:

I would rate this a 2, which is a Minor Usability Problem. Although it would improve consistency between profiles and improve the user experience, I do not feel at the present time that it requires a high priority status in terms of Nielsen's rating system and can be fixed in the future.
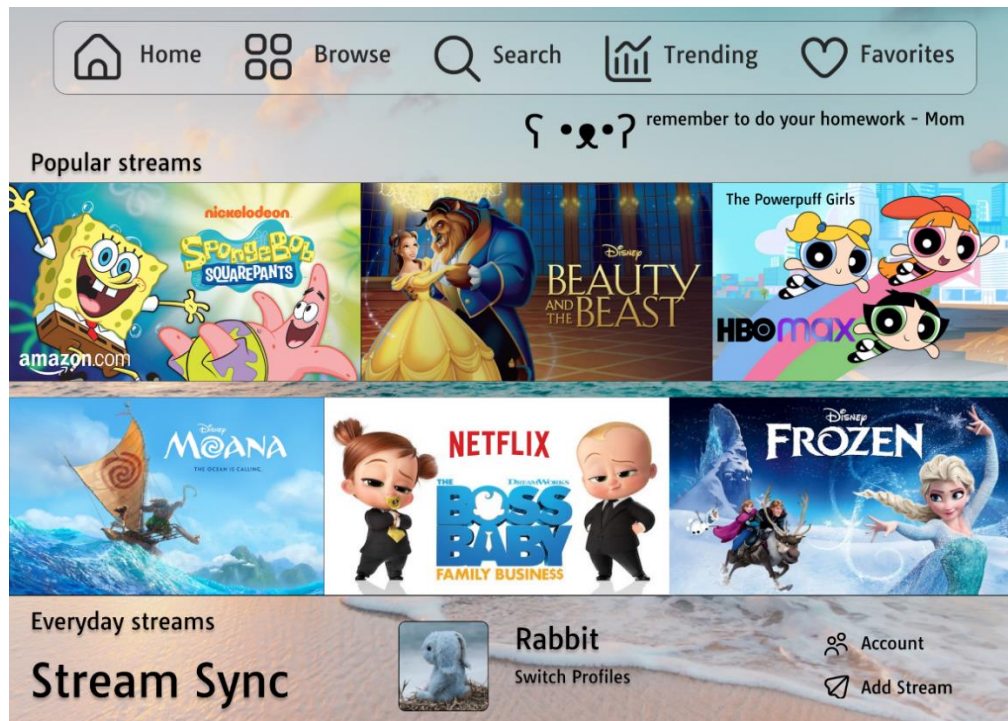
Source Description:

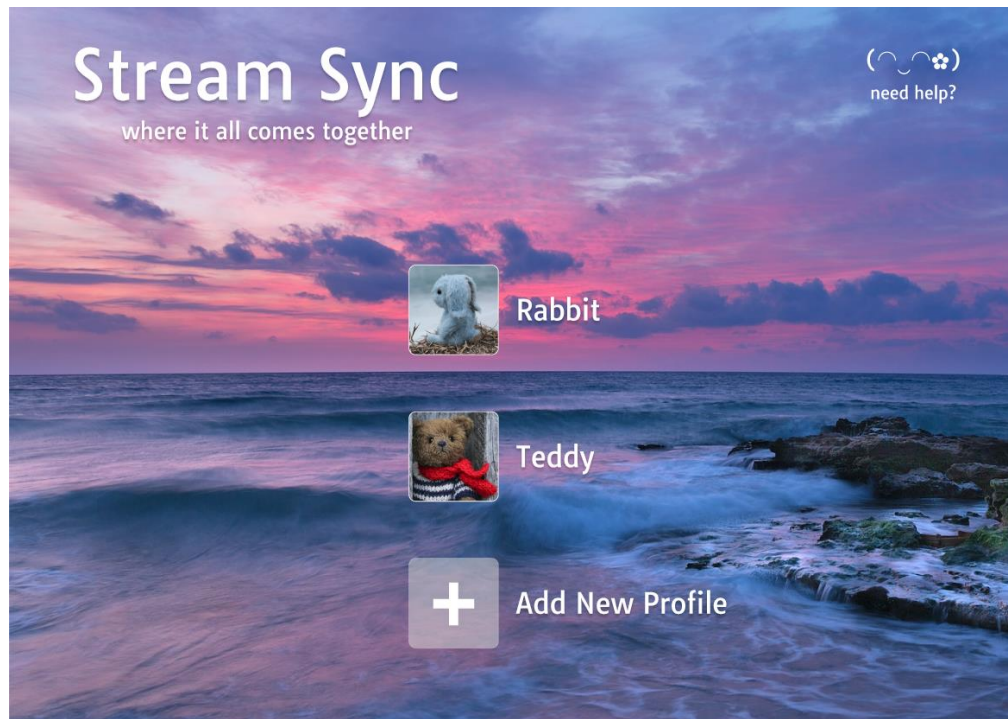The main menu between the two user profiles for Rabbit and Teddy in the Stream Sync prototype model in its current state.

Issue:

The Stream Sync logo text taking up space on the bottom along with the 'Account' and 'Add Stream' icons being far away from the home navigation menu.

Rabbit's main menu:

The Switch Profile screen for Stream Sync:

Heuristic:

Aesthetic / Minimal Design

Explanation:

When I asked Jeff what his first impression of Stream Sync was overall his first response was that it felt cluttered. I asked a follow up question where I asked what made it feel cluttered to get more detail about the original response. Jeff stated that he felt the Stream Sync text was taking up room and that the 'Account' and 'Add Stream' icons in the bottom right corner didn't feel right being so far away from the main navigation menu on the top of the user interface. He felt 'Account' and 'Add Stream' should either be moved closer to the home navigation menu or removed completely from this screen and moved onto the screen where users switch between profiles.

Severity Rating:

I would rate this a 3, which is a Major Usability Problem. Future versions could have the Stream Sync logo in a smaller font to take up less screen space and a version could be rolled out where 'Account' and 'Add Stream' are moved to the profile selection screen. The original reason I had them in the bottom corner was because the profile for Rabbit was designed for younger viewers where I thought it would be a good idea to have these settings away from the main navigation menu to avoid errors of account settings being adjusted by younger viewer. I feel moving 'Account' and 'Add Stream' to the switch profile selection screen would benefit a minimal design while keeping these

options in a place that would reduce accidental errors on the part of the user. In a way focusing on the heuristic for Aesthetic / Minimal Design would also benefit the possibility of the heuristic for Error Prevention in the future.
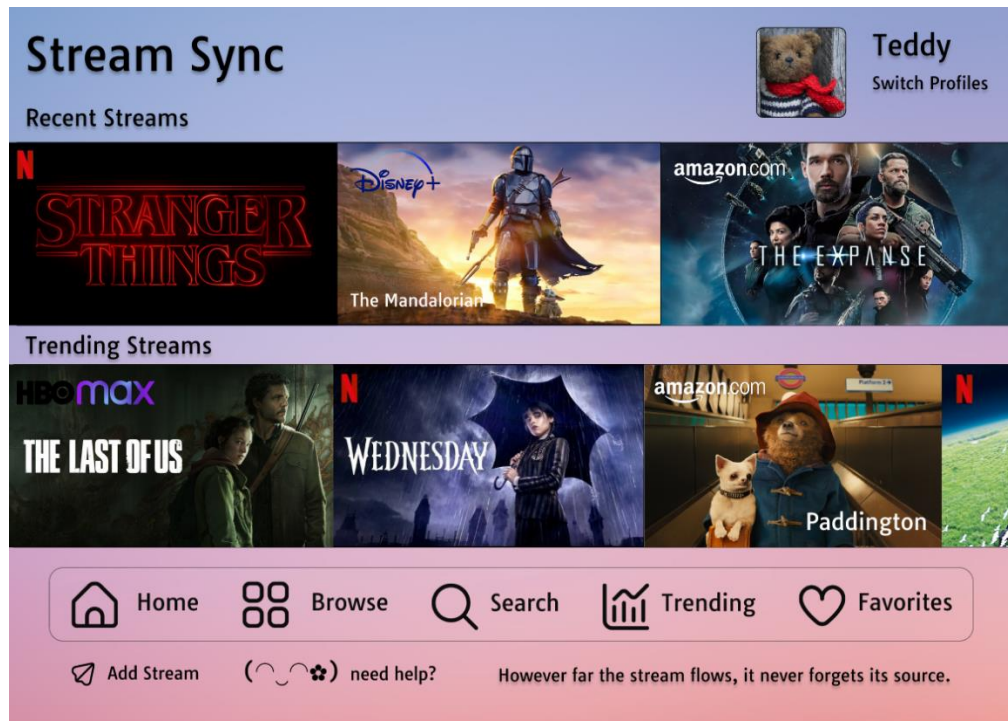
Issue: The 'Search' ability of the main navigation menu bar is too far away from the option 'Add Stream' which is located either in the bottom left or right hand corners.

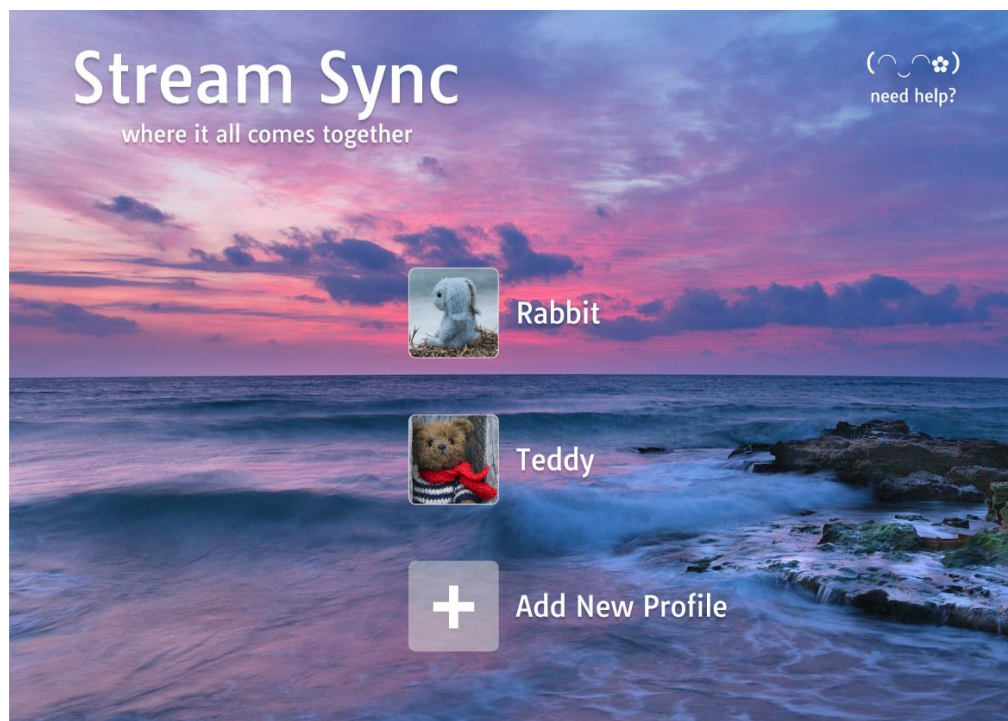The issue images are on the **current page and next page** due to image sizing.

Rabbit's main menu:
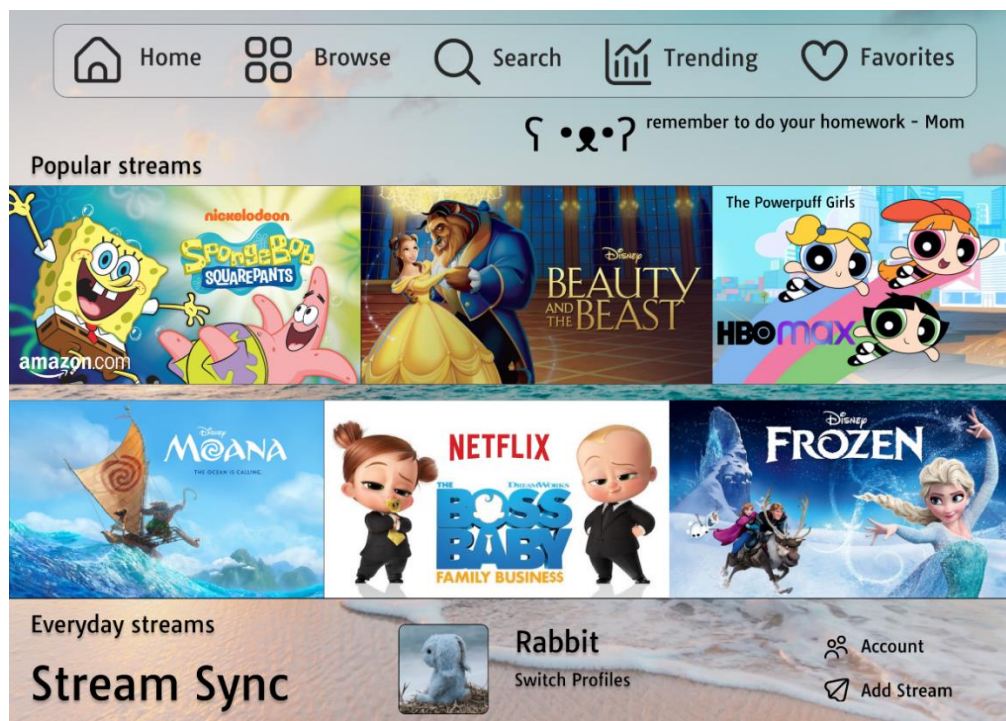
Teddy's main menu:

The Switch Profile screen for Stream Sync

Heuristic:

Aesthetic / Minimal Design

Explanation:

The Search function is within the main navigation menu while the 'Add Stream' ability is separated as a smaller icon in the lower left corner of the main menu. Jeff felt that it would be more efficient to move it up into the navigation bar next to search so the user could switch over quickly when adding a streaming service to the user profile. He also felt it could be a possibility to move it to the Switch Profiles screen to make the main menu feel less cluttered and free up space.

Severity Rating:

I would rate this a 3, which is a Major Usability Problem. I understand both points of view and both options would probably improve the application. I think his advice on moving it to the Switch Profile screen makes the most sense because the user will probably not be adding streaming services on a regular basis once the accounts have been input into the account settings. Therefore the 'Add Stream' option takes up valuable space on the main menu which could be used to display media content and a more minimalistic user interface.

Appendix

Informed Consent for Research Participation: Stream Sync Group Project

The usability test / interview for the Formative Research assignment for course CS 352 Introduction to Usability Engineering at Oregon State University, a public university located in Corvallis, Oregon. The usability test / interview will help us understand how an individual will navigate the user interface with a given task, we will also ask open ended questions to get a better understanding of where we are doing things right, but also maybe where there are areas to focus on improvement for future versions of Stream Sync.

Your Involvement in the Study

In an estimated time completion of 30-minutes to 1-hour for the usability test / interview at a selected time of the participant's choosing, we will connect via FaceTime to have a pre-interview, a prototype usability test of a website Figma prototype model, and a post interview discussing the test. The interviews will be focused on Stream Sync and the participation of the usability test. With your permission, we will take notes / observations and quotes on the answers but will not record either audio or video of the interview to protect the interviewee's privacy.

Your Participation is Voluntary

You may pause or leave the usability test / interview at any time you feel, and no reason needs to be given. We want the participant to always feel comfortable during the participation process. Also, you may withdraw from the study after the meeting by communicating with the researcher who gave the usability test / interview.

How We Will Use the Interview Data

The data gathered during the usability test / interview via handwritten and digital notes will be used to present unbiased findings and focus on areas of usability that were observed or noted during the usability test / interview. The information will be on assignments submitted and graded by both teaching assistants and the professors.

Incentive for Participation

The researchers will forever be grateful for you taking the time to help advance our education.

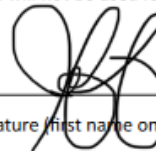**Storage of Personal Information and Session Data**

We will store the information on handwritten notes stored in the researcher's home along with notes taken on a Microsoft Word document that is stored in a password protected computer. The notes and quotes from the usability test / interview will be submitted on Oregon State Universities Canvas site where students turn in assignments and learn about material from the class. Professors and teaching assistants will have access to the submitted material and may view it as it will be needed to grade the assignment and work on future aspects in the class. To respect users' personal privacy and because I cannot control data protection on the university's website, I will only submit the users' first name and will keep their contact information private for their protection.

Your consent:

[X] The usability test / interview responses can be used for personal quotes for the CS 352 assignments.

[X] The usability test / interview responses can be used for note taking for the CS 352 assignments.

[X] The material may be viewed by students from the group along with teaching assistants and professors.

[X] We may use your first name as an identifier in the assignment process (last names will not be used for privacy).

Jeff	5/24/23	*(signature)*
Name (first name printed)	Date	Signature (first name only)

Group Project: Stream Sync

Pre-Usability Test Questions

CS 352: Formative Research

Do you have any concerns or questions regarding the consent form?

Have you ever been part of a usability test before?

Do you have any concerns or questions regarding the usability test?

Have you ever used the Figma application / website?

Do you have any questions about Figma?

Is there anything you would like to discuss before the usability test?

Group Project: Stream Sync

Post-Usability Test Questions

CS 352: Formative Research

What was your overall impression of the Stream Sync prototype?

Follow up: What makes you say that?

How might this service change the way you view media?

How did you feel about how the feature 'Add Stream' was implemented?

What are your thoughts on how users switch profiles within Stream Sync?

What were your thoughts on the interface icons used for navigation?

How did you feel about the present layout of the user interface?

What are your thoughts on the color themes used in Stream Sync?

Is there anything you would change within the current user interface?

Do you feel there is a market demand for Stream Sync?

References

World Leaders in Research-Based User Experience. (2023). *Open-ended vs. closed-ended questions in User Research*. Nielsen Norman Group. Retrieved May 23, 2023, from https://www.nngroup.com/articles/open-ended-questions/

NNGroup. (2020, September 18). *Running a Remote Usability Test, Part 1*. YouTube. https://www.youtube.com/watch?v=ZkDafFDtJ1Y

NNGroup. (2020, September 18). *Running a Remote Usability Test, Part 2*. YouTube. https://www.youtube.com/watch?v=lYE8I311qG4

World Leaders in Research-Based User Experience. (2023). *User interviews: How, when, and why to conduct them*. Nielsen Norman Group. Retrieved May 23, 2023, from https://www.nngroup.com/articles/user-interviews/

Oregon State University. (2023). Exploration: Usability Heuristics.

https://canvas.oregonstate.edu/courses/1914830/modules/items/23177697