

# Assignment M2

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**Abstract**—Launched on November 12, 2019, Disney Plus (Disney+) is a streaming service housing titles from "Disney, Pixar, Marvel, Star Wars, National Geographic, and More" (Hobson, Casano-Antonellis, and Schreibfeder, 2021). Plagued by launch issues (Span-gler, 2019), the Disney Plus platform lacks the maturity and user experience of other streaming platforms. In order to watch a program on Disney+, users have to be able to easily search for and find it within the platform. My research focuses on redesigning and improving the search interface of Disney+.

## 1 PARTICIPANT OBSERVATION NEEDFINDING

In my first needfinding method, I took notes on my own experience using Disney+ on a television, computer, and mobile app interface. Additionally, I observed a novice user who had never used a streaming service before.

### 1.1 Notes and Takeaways

The full notes for the participant observation are shown in Appendix 8.1. For the expert user, here are the key notes:

- TV Interface
  - The response to input is slow and laggy.
  - No clear sorting of results.
  - Four clicks to get to the search bar, 10 clicks to type "Big".
  - Some voice commands exited Disney+ rather than searching as expected.
  - The sidebar could only be accessed from the home page.
- Computer Interface
  - Fast response to user input, no apparent delays.
  - Cursor defaults to search bar on search menu.
  - One click to get to search bar.
- Mobile App Interface
  - Search menu not labeled, just a magnifying glass icon.
  - Two clicks to get to search bar.

For the novice user, they found it difficult to find the search menu, and did not

like that the keyboard was arranged alphabetically rather than in a QWERTY style. Based upon both user experiences, there were a few key takeaways. First, the gulf of execution for novice users is large, especially if they are not familiar with streaming tool menus. Second, the TV device had the most deficiencies, as it took the longest time to load, the most clicks to perform the search, and it had noticeable delays to input. Finally, having the sidebar with the search menu only available from the home page is a noticeable limitation in design.

### **1.2 Biases**

The main bias that I needed to control for was confirmation bias. As my research is focused on improving Disney+ search functionality, I am looking for what needs to be improved. In order to address this bias, I collected quantitative data of time to perform actions and number of clicks to provide objective measurements in addition to my qualitative data. For the observation of the novice user, the potential biases were observer bias and social desirability bias. In order to address observer bias, I similarly collected quantitative data, as well as recording direct quotes from the user in my notes to have a record of exactly what they said, free of my interpretation. For the social desirability bias, I addressed this by being very intentional in what I said to them to prompt the task.

## **2 SURVEY NEEDFINDING**

The second needfinding method utilized was a survey on what users like and dislike about the search functionality of different streaming services. The full list of questions is shown in Appendix 8.2 with the raw survey results given in 8.3. The survey was administered via PeerSurvey, and had fifteen respondents.

### **2.1 Notes and Takeaways**

The results from the survey are shown below, with key takeaways noted:

- Age: 8 participants are 18-29, 6 participants are 30-39, and 1 is 40-49.
- Gender: 11 participants identified as male and 4 as female. This is consistent with what I expected as 81% of OMSCS students are male per Fall 2020 enrollment data (OMSCS, 2020). However, the actual demographic of Disney+ users is 52% male (Dean, 2021), so these results underrepresent females.
- Children: 5 participants have 1-2 children in their household. There is no association between number of children and satisfaction with search functionality.

- Other services: All 15 participants use multiple streaming services.
- Devices: 14 participants use multiple devices for streaming. 14 use a television for some of their streaming, 13 use a computer, and 10 use a mobile phone.
- When asked "It is easy for me to search for a program in Disney+", where 5 was strongly agree and 1 was strong disagree, the average score amongst responses was 3.64 (between neutral and slightly agree).
- When asked what they like about the Disney+ search, respondents noted that the search is simple and appreciate being able to search by character.
- When asked what they dislike about the Disney+ search, users mentioned:
  - No auto-complete.
  - Inaccurate/inconsistent search results.
  - Poor keyboard layout.

## **2.2 Biases**

In this needfinding method, the biases that I aimed to control were social desirability and voluntary response. For social desirability bias, after writing the survey I had an objective third-party review the questions and survey description and help edit them to limit bias and leading questions. For voluntary response bias, the incentive of participation points within the class helped control this as students would participate regardless of their views about the search functionality. However, because the subject base was entirely Georgia Tech students, the results of the survey have some skew. Namely, computer science students are typically technology-savvy so the 3.64 score for ease of use of the search functionality may be an overestimate of what the score would be for the general population. To better address this I should have expanded the survey user base.

## **3 EVALUATION OF OTHER INTERFACES NEEDFINDING**

The final needfinding method I used was evaluation of other interfaces, specifically the search functionality of Netflix and Hulu. For this evaluation, I looked solely at the TV interfaces for these services. This evaluation was a combination of empirical, quantitative data collection and qualitative evaluation.

### **3.1 Notes and Takeaways**

I reviewed the Netflix and Hulu interfaces on both an Apple TV and a Smart TV. Additionally, I also reviewed captures I had taken of the Disney+ TV interface during the participant observation needfinding method, looking at it on a non-

smart TV and on a smart TV. In order to be consistent in my search across platforms, I entered the word "Big" to see what the search results would return. Appendix 8.4 contains a collection of images captured during my evaluation process, depicting the default menu in each service as well as the search menu.

The main empirical data that I collected when evaluating these interfaces was number of clicks to reach the search menu. For Netflix, on an Apple TV the search menu is located seven clicks away from where the default "Suggestions for You" cursor location. On a Smart TV, the Netflix search menu is located two clicks away from the default starting location, and the sidebar appears visible by default. Hulu Search on an Apple TV is similarly seven clicks away from the starting Hulu menu. On a Smart TV, the search button for Hulu is two clicks away, located directly to the left of the default home button. This is relative to four clicks to the search menu for Disney+ on both a smart and non-smart TV. Based upon this data, a key takeaway is that a user can more quickly navigate to the search menu from the default menu of both Netflix and Hulu than Disney+ on a search menu.

For qualitative data, there were two main pieces of functionality that I analyzed: the user toolbar (where the search button is housed), and the keyboard layout. Both Netflix and Hulu have the search menu button easily visible from the default view of the application, with the user's cursor starting in the application toolbar. This makes the search menu easily discoverable to a new user. In contrast, the Disney+ sidebar is not visible at first login, and instead the cursor is on the featured programs banner. For both the Apple TV and the smart TV, both Netflix and Hulu have the same basic keyboard layout in the search menu: letters are sorted alphabetically followed by numbers, presented in a 6x6 grid. The space, delete, and clear buttons are located at the bottom of the keyboard. The Disney+ keyboard varied between the non-smart TV and smart TV. The non-smart TV had the keyboard appear in a left column with the alphabetical and numerical characters split into two vertically stacked grids. On the smart TV, the alphabetical and numerical characters are split and horizontally stacked, but the keyboard appears at the bottom of the screen, overlaid on top of the search results. As mentioned before, pictures of all of these interfaces are shown in Appendix 8.4. The main takeaway here is that Disney+ uses a different keyboard than other major streaming services, and its layout is inconsistent across television devices.

### **3.2 Biases**

The main bias that I wanted to address here was confirmation bias. Coming into this needfinding method, I held the assumption that other streaming platforms would have better search functionality than Disney+ as a result of being in the market longer. The main step that I took to address this bias was by conducting empirical evaluation to collect objective, quantitative data. While this did help, the confirmation bias was still very present. Even in my writing in the prior subsection I observed my bias. What I should have done was increase the amount of objective data collected by also collecting data on time it takes to perform the workflow, as well as observing other users complete the workflow. With other users involved I would need to address social desirability and observer biases, especially if collecting qualitative data. Finally, I should have also had an objective third party review my needfinding plan, results, and analysis, calling out biases they observe.

## **4 DATA INVENTORY**

### **4.1 Who are the users?**

Disney+ as a streaming service has over 100 million subscribers in 59 countries (Dean, 2021). Based on the data from my survey results, combined with Brian Dean's compiled research, roughly one third of Disney+ users have children, and most users are under the age of 40. While my respondents were mostly male, this is representative of the OMSCS sample population rather than the overall population, which is closer to a 50-50 split. Based on the survey results most users of Disney+ subscribe to multiple streaming services, and use Disney+ fewer than 6 hours per week.

### **4.2 Where are the users?**

From the survey results, most users utilize multiple devices for streaming. Almost all users use a television or computer, with over half also using mobile devices. Since TVs are not highly portable, users would be streaming on these devices from their own home on their television. For computers, desktop streaming would occur at home while laptop and mobile streaming could occur at home or while in public. As I did not gather explicit data on the "Where", these conclusions are based on my own experience. To better address this question of the data inventory, I should have included questions on where users are located

when they use the service in my survey. I could also conduct interviews with participants to ask them about what physical locations they stream in.

#### **4.3 What is the context of the task?**

This question was not answered during my needfinding. Similarly to the previous question, I can speculate about user context based on my own experience as an extension of participant observation. While most of the time when using Disney+ I will exclusively be watching the program, there are also times where I am answering email at the same time. I may put a program on in the background while I am cooking, or while I have friends over and we are playing a board game. Thus, there are times where other tasks or interfaces compete for user attention. To answer this question, I could have included questions about participant context in my survey, such as "When using Disney+, what other tasks do you perform at the same time?". To answer this, I would either do this additional surveying, or conduct naturalistic observation to observe user context.

#### **4.4 What are their goals?**

The goal for a user when using Disney+ (or any streaming service) is to watch a program. This question was answered through participant observation and survey needfinding. As a user of Disney+, when I login to the service, I am almost always planning to stream a specific program. Rarely, I will login without any specific plan of what to watch and will select something randomly from the service, albeit still with the goal of streaming some program. Based on the survey results, users of Disney+ have a variety of TV shows or movies that they watch, all with the same common goal when using Disney+ of watching a program.

#### **4.5 What do they need?**

To use Disney+, users need a physical device, such as a television, a computer, a mobile phone, or a tablet. If using a television, users also need a remote. The needed physical objects for this question were answered via participant observation. From the observation of a novice user, users need to be able to easily discover how to navigate the platform, and they need feedback to help when having difficulties. From the survey results, users need consistent searches, age filters that work correctly, and efficient search tools. The results of the evaluation of other interfaces will help inform prototypes that address these user needs.

#### **4.6 What are their tasks?**

As the goal for a user of Disney+ is to watch a program, the main task is to load and start playing a selected program. In order to play a program a user has to find a program they want to watch, which is typically done via the search menu. Physically, a user is using either their hand or voice to enter in a search query. Depending on the device, they are interacting with either a remote, a phone screen, or a computer keyboard. Cognitively, the user is thinking about what program to watch, what letters/words to type or say, and if the program appears on their screen. Socially they may also be talking to other colleagues that they are watching a program with. This question was primarily answered by participant observation, but I could also conduct additional observation of users or interviews to see other tasks that users perform when using the service, such as using Group Watch for social interaction.

#### **4.7 What are their subtasks?**

The subtasks for Disney+ were answered through participant observation. In order to find and load a program to watch it (the task), the user has to perform subtasks: login to Disney+, select their user, and navigate to the search menu. From observing a novice user, I found that the subtask of navigating to the search menu can be difficult due to the sidebar's initial hidden state. Once a user is in the search menu, they find their program and then perform the subtask of hitting the play button to start the program. While this question was answered, in my needfinding I focused on a linear workflow going directly from login to searching for and playing a program. Some users may use other features like the watchlist for streaming, so I would want to perform additional observation or interviews to see other workflows users perform and if any workarounds exist.

### **5 DEFINING REQUIREMENTS**

First and foremost, the final design for the search interface needs to be functional. As mentioned in the survey responses, the current search results can be inconsistent or inaccurate. Having results that match user expectation is critical. From the three needfinding methods, I also identified inefficiencies in the current design. For the final design, I want to address this deficiency and will use number of clicks and time to perform the workflow as evaluation metrics.

While addressing these requirements will increase the usability for expert users,

my focus is going to be on improving it for novice users. As shown through the observation of a novice user, there are currently large gulfs of execution and evaluation. For this redesign, learnability and discoverability of the search menu are priorities after functionality. My aim is to make it easy for all users to find the search menu, and subsequently use the keyboard to find their program. After using the interface the first time, it should be easy for users to remember how to use the search feature. I can also measure this using time and number of clicks as metrics.

Finally, if all of those requirements are met I will look at increased compatibility across devices. While my focus is going to be on improving the search interface for Disney+ on television devices, if possible I want to improve consistency of the interface across all devices. Having a similar interface on TVs, mobile phones, and computers would make it easier for newer users. This may be a challenge due to hardware limitations, thus I am treating this as "nice to have".

## 6 CONTINUED NEEDFINDING

For the next iteration of needfinding, I would expand my evaluation of other interfaces. My evaluation was limited by both hardware (non-smart, smart, and Apple TVs) and software (Disney+, Netflix, Hulu) that I had available to me. I would want to do testing on more devices to look for further display differences beyond what I observed, as well as review other major streaming platforms. I would observe participants using these other streaming platforms, performing a think-aloud to get more insight into the thoughts of users of these services.

As my survey audience was limited to OMSCS students, I would want to expand it to a larger, more representative sample population. In the next version of my survey, I would gather data on how technologically savvy users are, and collect additional data to help answer the data inventory questions, particularly the context of users when using Disney+.

In my survey, the only rating scale question I had was on how easy it is to use the Disney+ search functionality. I would include this type of question for the other streaming services, so that I could have a direct numerical comparison between the platforms. I would also conduct interviews to ask users about their overall experience with different streaming platforms, to see if there are any general insights to gain that could then be applied to the search redesign.

## 7 REFERENCES

- [1] Dean, Brian (Mar. 2021). *Disney+ Subscriber Statistics 2021: How Many People Watch Disney+?* URL: <https://backlinko.com/disney-users>.
- [2] Hobson, Karen, Casano-Antonellis, Jessica, and Schreibfeder, Lisa (Feb. 2021). *Disney+ Lifts Off, Ushering in a New Era of Entertainment from The Walt Disney Company.* URL: <https://dmedmedia.disney.com/news/dtci-disney-plus-launch>.
- [3] OMSCS (2020). *The Numbers.* URL: <https://omscs.gatech.edu/prospective-students/numbers>.
- [4] Spangler, Todd (Nov. 2019). *Here's what went wrong during Disney Plus launch.* URL: <https://www.chicagotribune.com/entertainment/tv/ct-ent-disney-plus-launch-problems-20191112-n6gmdzfaujcudlmovwsojeuqkq-story.html>.

## 8 APPENDICES

### 8.1 Participant observation data

The notes from participant observation are shown in this appendix. For this needfinding method, I was the expert user as I use Disney+ on a weekly basis. For the novice user, they had never used Disney+ (or any streaming service) before, and all testing was done on a TV interface.

#### 8.1.1 Expert user - TV interface

- Defaults to top banner, have to navigate down to have sidebar where search menu is housed appear on screen.
- Slow/laggy response to inputs.
- Default on side is home button, icon stays highlighted that shows what screen you're on.
- Search at top, one away from home.
  - Small indicator to show which menu you have selected, text lights up.
  - 4 clicks to get to search bar.
- Defaults to letter "a" in bar.
  - 10 clicks from search bar to type "BIG".
  - Search bar not located near text, typing enters it to top.
- Suggested results are all characters shown at top in small font, movies/programs shown at right.

- No obvious sorting of results, not alphabetical. Newest program top left? “Big Shot”
- Overall laggy interface, slow to respond to prompts.
- Voice command “Search menu” exited Disney+ and took me to native TV, rather than the search menu.
- Voice command search “Big Hero 6” restarted the app, and then opened search bar.
  - 10 second loading time for it to process.
- From within a category “Disney”, could not access sidebar. Only available from home page, so had to hit the back button to be able to get to search menu. No indication on screen this is needed (gulf of execution).
- Searching the word “Big” generally with voice command exited Disney+, rather than doing a search for it.

#### ***8.1.2 Expert user - computer interface***

- Search button at top of screen to the right of home button.
- If not full screen, only the icons show, hovering over the search doesn't say that it's the search.
- Faster loading than computer when clicking on the search, no apparent delay.
- Almost immediate refresh upon typing.
- Opens up a screen that says “Explore”.
- Defaults cursor into search bar, whether minimized or maximized.
- 1 click to get to search bar.
- “Big” is 3 letters typed (4 actions with click to navigate from main menu to search bar).

#### ***8.1.3 Expert user - mobile app interface***

- Indicates where you copy and paste from, if copying email or password.
- Search menu not labeled, magnifying glass at bottom.
- Home icon selected and highlighted.
- Clicking magnifying glass opens search (“Explore” title).
- Can drag screen to scroll through.
- Not defaulted into search bar.
- Clicking into search bar shows recent searches.
- Typing first letter starts showing results, no obvious sorting order (algorithm in backend?).

- 2 clicks to get to search bar, then 3 to type.
- Clicking program takes to description page, doesn't start it.

#### **8.1.4 Novice user**

These notes combine my observations of the participant, as well as their talk-aloud as they performed the task. I gave them different instructions, aiming to give as little information as possible. Unless prefaced with "Me", all quotes are from the participant. All non-quotes are observational notes.

Me: "I want to watch Big Hero 6. Can you find it and play it for me?"

- "Would I have to know which one of those to go to. Like how old a movie is it. Is it contemporary, is it old. Do I have to know who put out the movie. Is it a Disney movie?"
- "Do I wait for it to show up in the screen and click it. I don't know how to use the remote."
- "I'm on Disney. I select that."
- They took 5 clicks to enter the Disney category. It took some time to pop up
- "I need to get some sort of keypad, oh I could say it couldn't I."
- Used voice command for Big Hero 6, which reloaded Disney+. Saw a blue screen, and it lagged in this loading.
- "I'm thinking it's loading because it's twirling. Big Hero 6, there it is. Big Hero 6 shorts."
- User typed "a" into search bar after "Big Hero 6", as the search menu defaulted to the cursor on the keyboard's "a".
- "Why does it say a? What does the a mean? How do I get to the picture"
- "Isn't that in the a position?" User hit the "a" again. "Now it says 'aa'. How do I go back?" User opens sidebar.
- "I'm trying to select that first one that says 'Big Hero 6'. But I don't know how to get there. I can see it but I can't get there. Do I move the arrows around?"
- User clicked into the movies on sidebar. "Oh sure now I've lost it. All movies A-z. Is it a kid's movie? Even if it comes up on screen, I don't know how to hit it to tap into that one."
- User was now on the wrong screen, and started clicking the arrows a lot to scroll down, eventually scrolled all the way down to the "B" programs and opened it after 15 clicks on this screen.
- Total process here took 6 minutes, 13 seconds.

Me: "Using voice command now, can you put on Big Hero 6?"

- User again searched "Big Hero 6" with voice command, which took 15-20 seconds to load.
- "I'm thinking I need to figure out how to get down to it."
- User clicked down "There we go! So fussy."
- 1 minute, 35 seconds here.

Me: "Put on Big Hero 6 without voice command using the search menu."

- "First I have to find Disney+. How do you know you're in Disney+? I don't want to be in the Mighty Ducks."
- User mistakenly hit the exit button and left Disney+.
- "Why did it go back. I don't know how to use this. Alright there's Disney"
- "Is down the only place you can go. I don't know, it's what I'm seeing."
- "Nothing left, but moving right doesn't seem to be doing anything. I went left and nothing moved."
- User got stuck on "The Proud Family". At this point, I had to prompt the user to go back to the main menu, and try navigating to the left.
- "I see stuff on the left. Oh my gosh let's go to search."
- "B, I, G, space, boy this takes a while doesn't it..."
- "I still don't know how to get the dang thing. Let's go back over there and see what happens."
- User had trouble navigating from keypad to the icon of the movie. The user wanted to go to enter the text at the top of the suggested autocomplete.
- "How do I start it though? I can't remember. Oh there it is. I had it."
- "That doesn't flash and hold very long, so you miss it."
- Total time of 7 minutes and 16 seconds.

Me: "From the search bar, start the program in as few button presses as possible."

- "Guess we better pick the B, and I. And there it is over there."
- User clicked quickly over to it this time, total time 22 seconds.
- Started in the search menu, not home page.

Me: "What were your general thoughts about what you did?"

- "Voice was the easiest, but you still have to learn how to use the buttons when you get there."
- "Typing in the whole name was hard I had to keep looking for the letters and

then going way up top for the space, assuming it had to be there. The letters are not there like a normal [keyboard]."

- The user commented about a QWERTY design being easier.
- "Since the search bar doesn't show on the screen, and not knowing there's bigger stuff out there than what's on the screen where do you begin to look for it. I'm not much of one to just press buttons."

## 8.2 Survey questions

**Disney+ Search Survey**  
 This survey asks participants to evaluate the Disney+ Search Functionality across devices, and share their experiences with other streaming platforms.

**Select your age.\***

Under 18  
 19-25  
 26-35  
 36-45  
 46-55  
 56+

**To which gender identity do you most identify?**

Female  
 Male  
 Non-Binary  
 Other  
 Prefer not to Answer

**How many children do you have in your household?\***

0  
 1  
 2  
 3  
 4+

**What streaming services do you currently use?\***

Amazon Prime Video  
 Apple TV+  
 CBS All Access  
 Discovery+  
 Disney+  
 Hulu  
 HBO  
 Netflix  
 Peacock  
 Showtime  
 Showmax  
 Other - Please Specify in the Next Question

**Please list additional streaming services you use:**  
 Type answer here...

**What devices do you use for streaming?\***

Computer  
 Mobile Phone  
 Television  
 Tablet  
 Other

**How many hours a week do you spend watching programs on Disney+?\***

I do not have a subscription  
 I have a subscription but I do not use it  
 0-4  
 4-8  
 8-12  
 12-15  
 15-20  
 20+

**What do you like about the search functionality of the non-Disney+ streaming services you use? Please specify which service's features you are referencing in your response.**  
 Type answer here...

**What do you dislike about the search functionality of the non-Disney+ streaming services you use? Please specify which service's features you are referencing in your response.**  
 Type answer here...

**It is easy for me to search for a program in Disney+\***

Strongly Agree  
 Agree  
 Neutral  
 Disagree  
 Strongly Disagree

**What do you like about the search functionality of Disney+? (If you do not have Disney+ put 'N/A')\***  
 Type answer here...

**What do you dislike about the search functionality of Disney+? (If you do not have Disney+ put 'N/A')\***  
 Type answer here...

**Any additional comments on the search functionality of Disney+ or other streaming services?**  
 Type answer here...

**Submit Your Response ➔**

**Figure 1**—The survey questions and description that were presented to participants in PeerSurvey.

### 8.3 Survey raw data

The raw survey data is shown in this appendix. Copying and pasting all of the data to a text editor will include the text that has run off the screen due to JSON/CSV formatting.

### 8.3.1 JSON Data

you use? Please specify which service's features you are referencing in your response.", "answers": ["Netflix search is fairly intuitive", "Variety of Options - Netflix", "I like services that enable voice-search when using my TV and Fire Stick. I also like auto-complete functionality to help reduce typing.", "", "The search results are quite accurate at least for Netflix , sometimes I can find movies that I was not looking for, but are good recommendations", "Quick suggestions appear as user start typing", "", "", "", "Netflix is able to autocomplete the title as you begin typing it; if the title you searched for is unavailable, it will offer similar suggestions", "Better suggestions ", "", "", "I don't like any of their features honestly", ""], "id": "1623116252097", "text": "What do you dislike about the search functionality of the non-Disney+ streaming services you use? Please specify which service's features you are referencing in your response.", "answers": ["hulu search navigation is extremely laggy", "The need to select the search letters one by one on different interfaces", "I sometimes dislike when I try searching for a kids show that isn't available on a kid-profiled account. This happens on pretty much all of the streaming services. It makes me wonder if the show is on the service at all (i.e., it's only available on another streaming service) or if I just need to switch profiles.", "", "For Amazon Prime video , the search results and recommendations are not as good as Netflix , but overall I am happy with the results", "Hard to search in some devices like TVs", "", "", "", "Amazon Prime's search results are often frustrating; sometimes will not display specifc title you searched for even though it is availble on the platform", "Recommendations", "", "", "difficulty in entering information", ""], "id": "1623200811530", "text": "It is easy for me to search for a program in Disney+", "answers": ["4", "5", "4", "4", "2", "4", "", "4", "2", "4", "4", "4", "3", "3", "4"], "id": "1623116265938", "text": "do you like about the search functionality of Disney+? (If you do not have Disney+ put N/A)", "answers": ["It works as expected", "Simple and easy to use. Familiar", "The images/thumbnails in the results make it easy to scan.", "Nothing special about it", "I do not like it too much, perhaps the interface is not mature yet ", "N/A", "N/A", "can find baby yoda", "when i find what i'm looking for", "The ability to search by characteris nice, especially since Disney is famous for their iconic characters", "Not too difficult to use", "N/A", "n/a", "its quick", "It finds what I want every time."], "id": "1623116281782", "text": "What do you dislike about the search functionality of Disney+? (If you do not have Disney+ put N/A)", "answers": ["Nothing", "The need to enter one by one", "There's no auto-complete.", "Nothing special about it", "It is not very intuitive, the search results are not as accurate. ", "N/A", "N/A", "when i type in mickey, too many mickeys"]}

show up","getting to it","Subject matter searches are inconsistent. For example, searching *witch* provides movies/shows with the word *witch* in the title. Searching *Halloween*, however, returns several themed titles including *Hocus Pocus*, a movie about witches","No auto fill suggestions","N/A","n/a","Typing information in to the interface (so mostly the physical device)","Primarily the keyboard layout. Seems to take a long time to type it out with my remote."],"id":"1623201469872","text":"Any additional comments on the search functionality of Disney+ or other streaming services?","answers":[],"N/A","","","","NA","N/A","","","","","","","","","","","",""]]

### 8.3.2 CSV Data

response,Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10,Q11,Q12,Q13,1,18 - 29,Female,o,Amazon Prime Video;Disney+;HBO Max;Hulu;Netflix,,Computer;Mobile Phone;Television,1-3,Netflix search is fairly intuitive,hulu search navigation is extremely laggy,4,It works as expected,Nothing,2,18 - 29,Male,1,Amazon Prime Video;Disney+;HBO Max;Hulu;Netflix;Other - Please Specify in the Next Question,Youtube,Mobile Phone;Television,4-6,Variety of Options - Netflix,The need to select the search letters one by one on different interfaces,5,Simple and easy to use. Familiar,The need to enter one by one,N/A 3,40 - 49,Female,2,Amazon Prime Video;Disney+;Hulu;Netflix;Other - Please Specify in the Next Question,YouTube,Computer;Mobile Phone;Television;Tablet,1-3,I like services that enable voice-search when using my TV and Fire Stick. I also like auto-complete functionality to help reduce typing.,I sometimes dislike when I try searching for a kids show that isn't available on a kid-profiled account. This happens on pretty much all of the streaming services. It makes me wonder if the show is on the service at all (i.e., it's only available on another streaming service) or if I just need to switch profiles.",4,The images/thumbnails in the results make it easy to scan.,There's no auto-complete.,4,30 - 39,Male,o,Amazon Prime Video;Discovery+;Disney+,,Computer;Mobile Phone;Television,1-3,,4,Nothing special about it,Nothing special about it,5,30 - 39,Male,o,Amazon Prime Video;Disney+;Netflix,,Computer,3,"The search results are quite accurate at least for Netflix , sometimes I can find movies that I was not looking for, but are good recommendations","For Amazon Prime video , the search results and recommendations are not as good as Netflix , but overall I am happy with the results",2,"I do not like it too much, perhaps the interface is not mature yet ",,It is not very intuitive, the search results are not as accurate. ,NA 6,18 - 29,Male,o,Amazon Prime Video;Disney+;HBO Max;Hulu;Netflix,,Computer;Television,1-3,Quick suggestions appear as user start typing,Hard to search in some devices like TVs,4,N/A,N/A,N/A 7,30 - 39,Male,1,Amazon

Prime Video;Disney+;Hulu;Netflix,,Computer;Mobile Phone;Television,4-6,,,N/A,N/A,  
8,18 - 29,Female,o,Amazon Prime Video;Apple TV+;Disney+;HBO Max;Hulu;Netflix;Showtime,,Comp  
Phone;Television,1-3,,4,can find baby yoda,"when i type in mickey, too many  
mickeys show up", 9,30 - 39,Male,o,Amazon Prime Video;Disney+;HBO Max;Netflix;Other  
- Please Specify in the Next Question,Plex,Computer;Mobile Phone;Television,4-  
6,,2,when i find what i'm looking for,getting to it, 10,18 - 29,Female,o,Amazon  
Prime Video;Apple TV+;Discovery+;Disney+;HBO Max;Hulu;Netflix;Paramount+;Peacock;Showtime,,  
Phone;Television,1-3,"Netflix is able to autocomplete the title as you begin typ-  
ing it; if the title you searched for is unavailable, it will offer similar sugges-  
tions",Amazon Prime's search results are often frustrating; sometimes will not  
display specifc title you searched for even though it is availble on the plat-  
form,4,"The ability to search by ""character"" is nice, especially since Disney is  
famous for their iconic characters",Subject matter searches are inconsistent. For  
example, searching ""witch"" provides movies/shows with the word ""witch""  
in the title. Searching ""Halloween,"" however, returns several themed titles in-  
cluding Hocus Pocus, a movie about witches", 11,18 - 29,Male,o,Amazon Prime  
Video;Disney+;HBO Max;Hulu;Netflix;Peacock,,Computer;Mobile Phone;Television;Tablet,1-  
3,Better suggestions ,Recommendations,4,Not too difficult to use,No auto fill  
suggestions, 12,18 - 29,Male,o,Amazon Prime Video;CBS All Access;Disney+;Netflix;Other  
- Please Specify in the Next Question,PlutoTV,Computer;Mobile Phone;Television,N/A  
(I do not have a subscription),,,4,N/A,N/A, 13,18 - 29,Male,o,Amazon Prime  
Video;Netflix,,Computer,N/A (I do not have a subscription),,,3,n/a,n/a, 14,30  
- 39,Male,2,Disney+;HBO Max;Netflix,,Television;Tablet,21+,I don't like any of  
their features honestly,difficulty in entering information,3,its quick,Typing infor-  
mation in to the interface (so mostly the physical device), 15,30 - 39,Male,1,Amazon  
Prime Video;Disney+;Netflix;Other - Please Specify in the Next Question,youtube,Computer;Television  
3,,4,It finds what I want every time.,Primarily the keyboard layout. Seems to  
take a long time to type it out with my remote.,

#### 8.4 Images of streaming interfaces

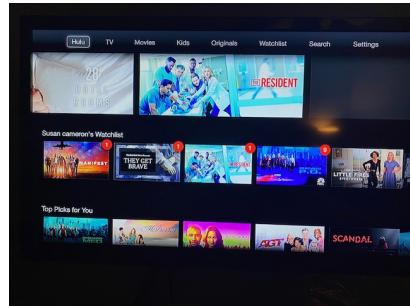
This appendix contains images of Disney+, Netflix, and Hulu search functional-  
ity on TV devices.



*Figure 2*—Disney+ search for "big" on a non-smart TV. The left side shows the user toolbar that has the menus including the search bar.



*Figure 3*—Disney+ search for "big" on a smart TV. The keyboard interface is different than the non-smart TV, but the sidebar is the same.



*Figure 4*—Hulu default display on an Apple TV. The search menu can be accessed by navigating to it in the top toolbar.

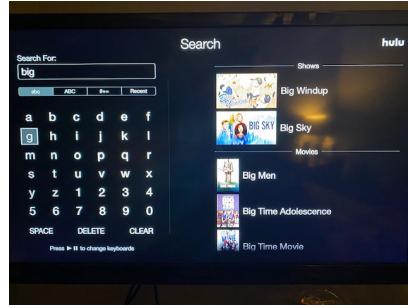


Figure 5—Hulu search for "big" on an Apple TV.

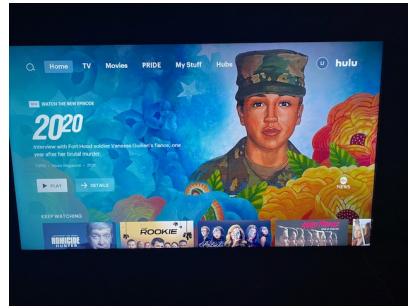


Figure 6—Hulu default display on a smart TV. The search bar is located to the left of the home button in the top toolbar.

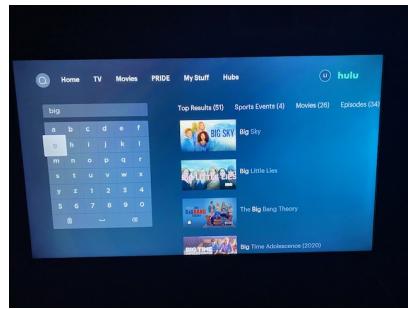


Figure 7—Hulu search for "big" on a smart TV.



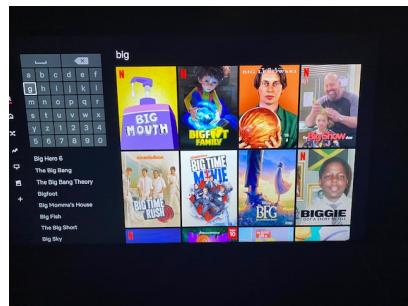
Figure 8—Netflix default display on an Apple TV. The search menu is accessed by navigating down.



*Figure 9*—Netflix search for "big" on an Apple TV. The layout of the keyboard and results are similar to Hulu on an Apple TV.



*Figure 10*—Netflix default display on a smart TV. The search menu is accessed from the left sidebar.



*Figure 11*—Netflix search for "big" on a smart TV. The left side shows the user toolbar that has the menus, including the search bar.