

Twitch.tv

Website Content Redesign

HCI 454: Interaction Design and Information Architecture

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1. Overview

Twitch.tv is a Amazon owned live streaming service platform where broadcasters can stream themselves live to worldwide viewers

A spin-off of now shutdown Justin.tv, Twitch.tv was originally introduced as a gaming focused platform in 2011.

An increasing user base since the Amazon purchase led to the soft rebranding away from being gaming centered and now it includes various categories for activities such as Music and Art.

Because of these content expansions much of the content organization on the site has been ignored and the current site is daunting and difficult to navigate for new users.



Categories Live Channels

Filter by Q Search Tags







Call of Duty: Modern Wa...



League of Legends 119K viewers



MINEERAF

Fortnite 103K viewers

Grand The

100K viewer

М



VALORANT

Garena Free Fire

FREE F RE



Sea of Thieves

Minecraft

Music & P

Objectives



Review the current structure, organization and content of the site to discover potential problem areas.



Ideate Possible Variations

Through repeated testing throughout the process propose continuous solutions to improve navigation and page presentation regarding our two tasks.



Test Proposed Solutions

Use various user testing methods to validate the proposed solutions and inform further variations.

Personas



Michelle, 23

Michelle has recently stumbled upon Twitch.tv from their Latin American social media account. As someone who only speaks spanish she would like to easily find spanish speaking broadcasters.

Goals:

- Find spanish speaking broadcasters.
- Limit the site's browsing functions to only display content in the language she's interested in.

Pain Points:

 Having difficulties finding exactly how to filter out only spanish speaking broadcasters



Kevin, 20

Kevin is a regular user of the site but has a busy schedule. Since he can rarely catch the broadcasters live broadcasts he usually watches the pre-recorded broadcasts later on after they've aired.

Goals:

- Reaching the broadcaster's videos page without issues
- Having past recordings available, filterable, and easily navigable.

Pain Points:

- Video recordings not being categorized or filterable
- Navigating to the videos page

2. Testing

Content Inventory

Our first objective was creating a content inventory of the site. As the site itself is incredibly large with links to many subdomains we focused mainly on the main site and stuck to just cataloging the links to those subdomains in the content inventory. Additionally, we deep dove only into the sections of the time that users were more likely to be in contact with, that is to say, sections of the site such as the community guidelines were noted but not expanded upon further.

Discoveries

- Terminology used throughout the site was confusing and unclear
- Large majority of content was being hidden under one vague label, making it feel like a pile of unwanted content.
- Navigation was inconsistent, both types of navigation and locations were incoherent.

Card Sorts

Round 1: Closed Sort



5 users 40 cards 6 categories

Participants were tasked with sorting the 40 cards into one of the 6 categories which are available in the Appendix A results matrix. These categories were the current major labels used on the site as we wanted to understand how users would sort the content into the categories currently on the site.

Results

- Large range of answers, no cohesiveness as to where certain content belonged
- Higher than expected categorization into the "Unsure" category.
- Content was not being categorized in the sections it was on the live site.

Round 1: Closed Sort



4 users 40 cards 7 categories

For our second card sort we remade some categories from the site (see: Appendix A) based on the results from round one. We aimed to reduce confusion and increase the clarity of the categories so that users would more likely agree on the content in a particular category.

Results

- Higher concentration of categorization, participant tended to place cards in the same category.
- Less "Unsure" labelings

A result matrix for each round is available in the appendix

Task Analysis

Task 1: Where you would expect to find recordings of a broadcaster's past live streams?



- Participants were recruited through previous connections. 6 participants completed the test, one abandoned.
- We had two main tasks in our test. The results on the left are for the first task.
- Our main goal was to assess how reliable the path to reach broadcaster recordings was.



Average completion time of 17.87 seconds

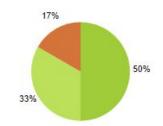


100% of participants completed the task with no errors.

Task Analysis

Task 2: If you were looking to only view Spanish speaking broadcasters where would you expect to find the option to do so?





Success	Direct Indirect	3 Y	5 T	50% 33%	83%
Fail	Direct	0	1 🔻	0%	17%
	Indirect	1 T	1 4	17%	
Skip	Direct	0	0	0%	0%
	Indirect	0	U	0%	

♦ View the pletree

- Participants were recruited through previous connections. 6 participants completed the test, one abandoned.
- We had two main tasks in our test. The results on the left are for the second task.
- Our main goal was to assess how easily and where participants expected to find the option to filter out spanish broadcasts.

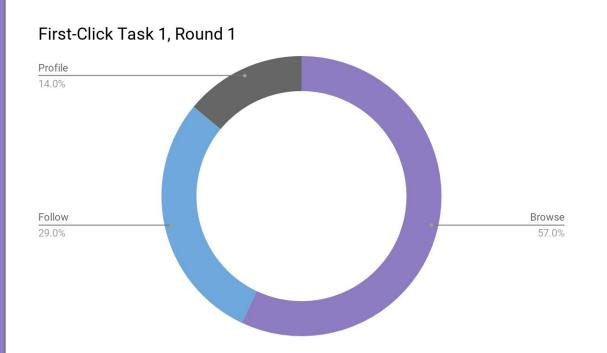


Average completion time of 19.7 seconds



83% of participants completed the task with no errors.

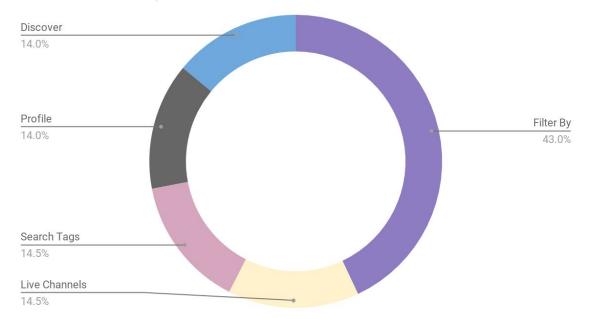
Task 1: Find recordings of past broadcasts



- We had 7 participants for our test.
- Average time taken to complete task 1 was 7.24 seconds
- The goal of the first round of tests was to obtain data on the current design of the site to guide our redesign and compare to it.
- There was a 100% failure rate, participants did not correctly identify where the recordings were located. 57% of participants thought they were located under the "Browse" header.

Task 2: Filter the site content to only display Russian Broadcasts

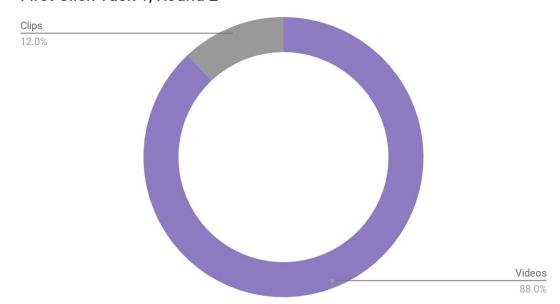
First-Click Task 2, Round 1



- We had 7 participants for our test.
- Average time taken to complete task 1 was 7.84 seconds
- The goal of the first round of tests was to obtain data on the current filtering feature in the hopes of improving its presence.
- There was a 86% failure rate, many were close, as they clicked right next to it but not on the correct area. This showed us that the clarity of the clickable area could be improved in our redesign.

Task 1: Find recordings of past broadcasts

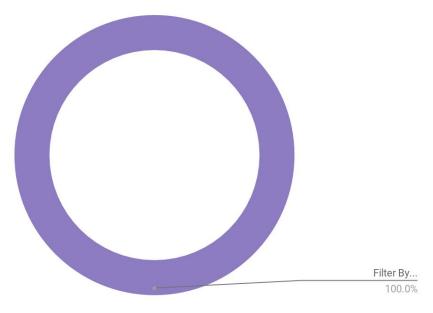




- We had 8 participants for our test.
- Average time taken to complete task 1 was 5.05 seconds
- This second round focused on obtaining data on our redesign of the broadcaster's channel and the detectability of the link to the videos page.
- Compared to the current design of the site, average task completion time was 2.19 seconds less, and the failure rate was 13% compared to 100%.
- It seems as though our design change was a success from data we collected.

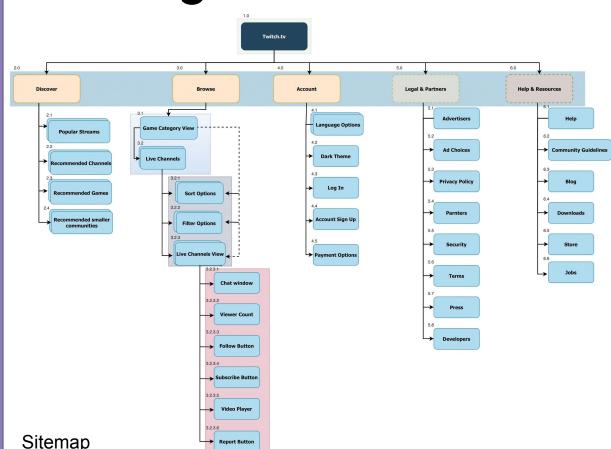
Task 2: Filter the site content to only display Russian Broadcasts

First Click Task 2 Round 2



- We had 8 participants for our second round of tests.
- Average time taken to complete task 2 was 4.12 seconds
- Compared to round 1, task completion time was 3.72 seconds quicker and the failure rate was 0% compared to 86%
- Because we found that many participants were close to success in the first round, clicking on the filter label instead of the drop down menu labeled "search tags", we redesigned the filtering feature into a single drop down menu instead of a label and dropdown menu.
- This seems to have had a positive result, making the correct first click more obvious by removing confusing elements.

3. Design



Process and Goals

Condense current site design

The content inventory and revealed issues with content being thrown into a "dump" directory.

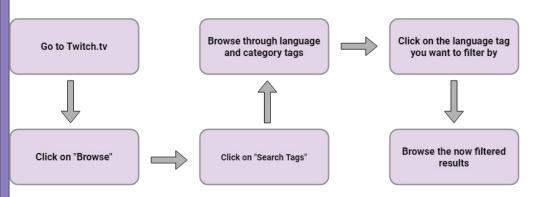
Incorporate card sort and task analysis results

We reduced confusing terminology and combined lesser used directories in order to reduce the number of categories. We also moved certain content to other categories as a result of card sort data from participants.

Keep what works

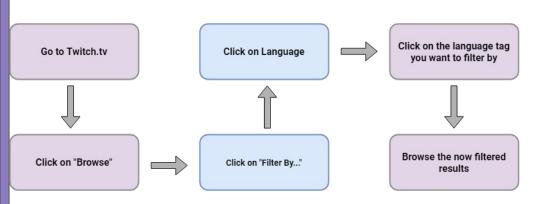
We found that for the two tasks we focused, users typically understood the general paths that needed to be taken to reach the goal. However other issues like obscure links and confusing layouts were the primary causes of issues regarding task completion.

Current Task Flow to Filter by Language



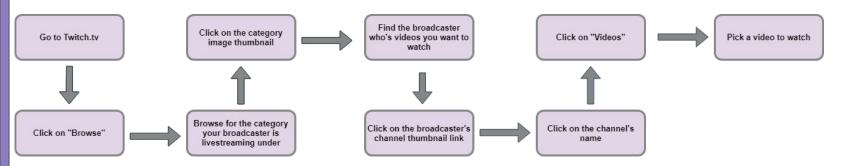
- As mentioned in the Sitemap section, the overall flow is solid and easy to understand for participants.
- The confusion in this task occurs in the third and fourth step, as the design of the page obscures the correct click target behind other distracting elements.
- Additionally, during the fourth step, the current design throws together language and category tags in an unorganized drop down list, leading to confusion from users.

Proposed Task Flow to Filter by Language



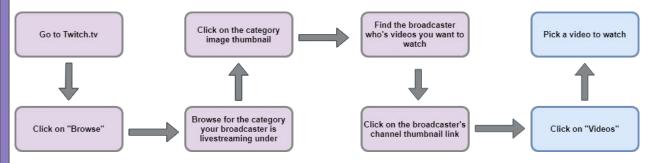
- Our proposed changes (in blue) are minor but and better displayed in the wireframes later on, we aimed to make the process of filtering content sleeker with less searching required.
- The biggest change from the previous task flow is the reduction of searching required by users, now the users are immediately shown the choices for filtering followed by an organized list of languages.

Current Task Flow to Find Video Recordings



- The main flow was solid for this task as well. Users understood the basic path they needed to follow from the landing page to the broadcaster's channel.
- We excluded the use of the search bar from this task as we felt that a task flow using it wouldn't properly exhibit the typical path a new user might face
- The 7th step was what we wanted to focus on as the "link" to get to the page where one could click "Videos" was not immediately noticeable.

Proposed Task Flow to Find Video Recordings

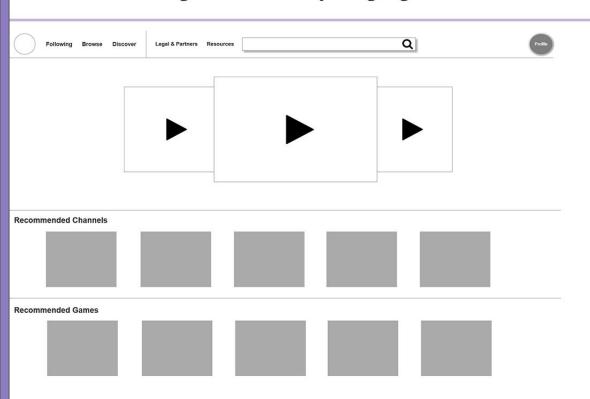


- The main changes to from the current task flow are in the last two steps. Instead of having the channel's name being an unclear link to the next step we redesigned the page to display a static "Videos" Header which leads to the next step.
- This change decreases the number of steps in the task flow as well as clears up the process for newer users.



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1.0.0 - 1.2.2 Filtering Broadcaster by Language



1.0.0 Home/Landing Page

1. Legal & Partners

The main changes from the current live version of the page are all in the header. "Legal & Partners" was added over the "General" option in the current version of the site in order to have more clarity and better organization

2. Resources

This was the second option that branched off of the currently live "General" option. Alongside "Legal & Partners" this category makes organization easier and clearer and contains links to sections such as "Help" and "Jobs".

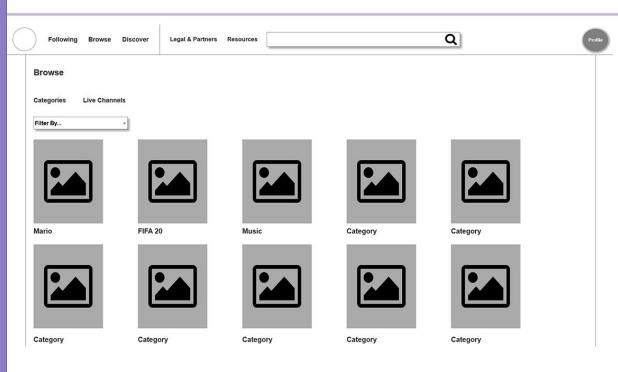
3. Browse

This is the main link new users will have available when first entering the site. It allows the users to browse currently live broadcasters and live categories.



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1.0.0 - 1.2.2 Filtering Broadcaster by Language



1.2.0 Main Browse Page

1. Image Links

Like in the current live version of the site, the main links on this page are images relating to the category the represent. These links act as a pseudo filter as they allow the users to only view live broadcasters who are under that category.

2. Filter By...

This tool is the main way to filter the various links on this page. Changed from the current live version, our filter tool doesn't have a default filter option which confused users, instead we aimed to inform users as to what the tool was for leading them towards its use.

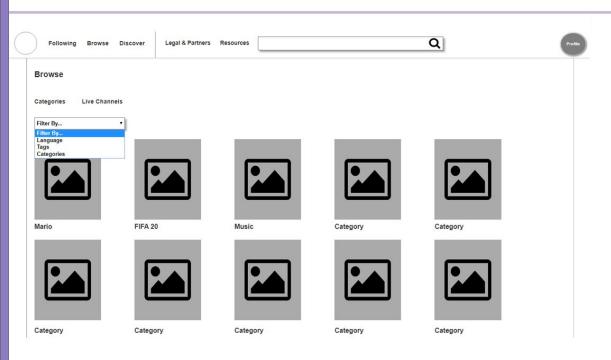
3. Browse Sub-Categories

Under the Browse heading we have two sub-categories, "Categories" and "Live Channels". Kept from the current version it defaults to "categories". These categories allow the user to access different views, either view by category or view every live broadcaster.



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1.0.0 - 1.2.2 Filtering Broadcaster by Language



1.2.1 Main Browse Page - Filtering Options

1. Filter Tool

Giving the user more choice than the previous version we creatted a two-part filter tool to help the organization of the options given to the user. Previously every option was mixed together in the drop down menu causing users to scroll until they found their target. This also caused unneeded errors as some users failed to find their target amidst the list.

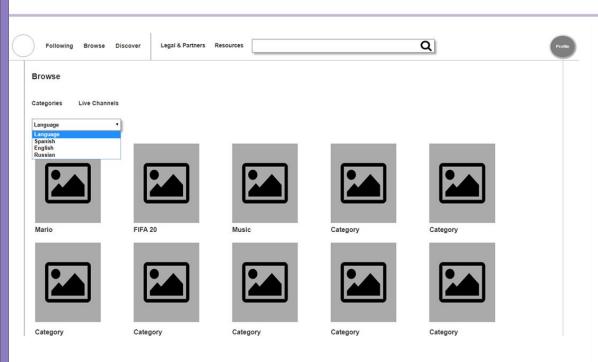
2. Filter Options

The options consist of the three main options left after the options from the old drop down menu were categorized by similarity.



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1.0.0 - 1.2.2 Filtering Broadcaster by Language



1.2.2 Main Browse Page - Language Filtering

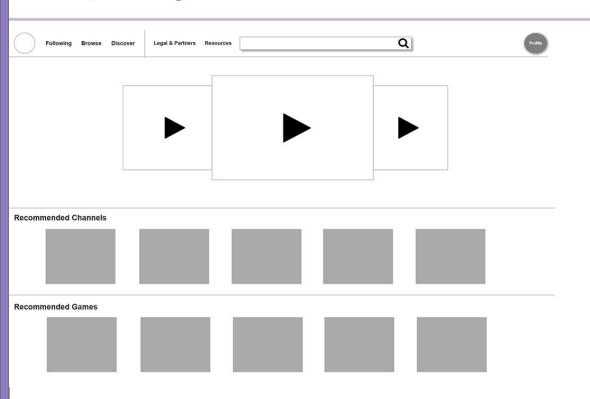
1. Language Choices

Once the user choses to filter by languages they are presented with the next level of the filter feature which allows users to filter live broadcasters by the language they are streaming in.



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1.0.0 - 1.3.1 Finding a Broadcaster's Past Videos



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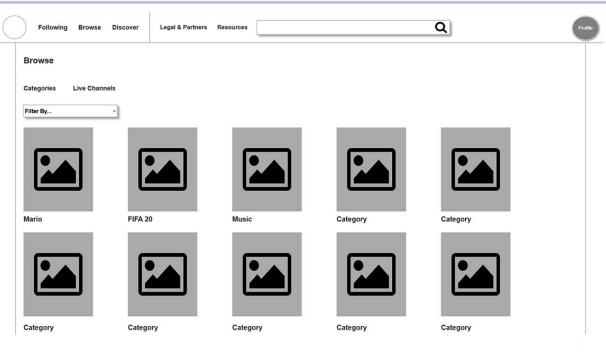
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Twitch.tv - Website Designs

1.0.0 - 1.3.1 Finding a Broadcaster's Past Videos



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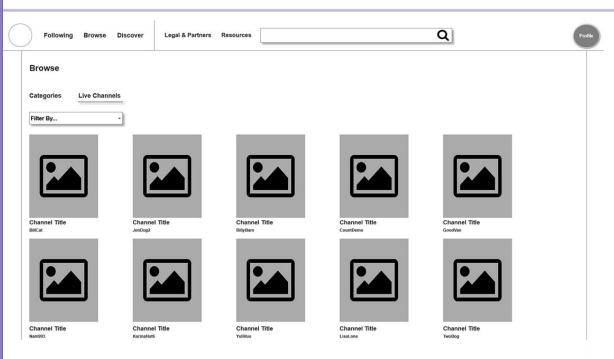
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Under the Browse heading we have two sub-categories, "Categories" and "Live Channels". Kept from the current version it defaults to "categories". These categories allow the user to access different views, either view by category or view every live broadcaster.



Twitch.tv - Website Designs

1.0.0 - 1.3.1 Finding a Broadcaster's Past Videos



1.2.1 Browse Live Channels

1. Channel Thubmnails

The main content in this page is the numerous thumbnail links to individual broadcaster channels. These take the user directly to the channel of the currently live broadcaster.

2. Channel Title

Each broadcaster is able to set their own title in order to interest potential viewers.

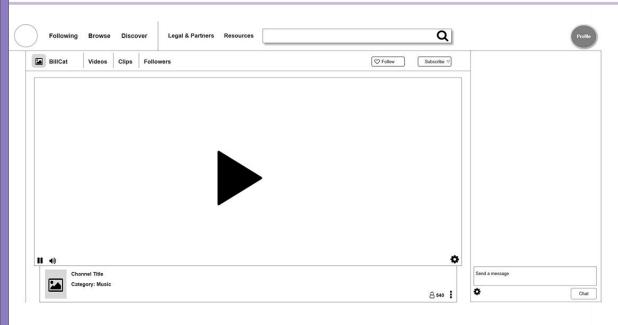
3. Broadcaster Name

The broadcaster's username is listed under their channel title, allowing users to know their name if they're looking for a specific broadcaster.



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1.0.0 - 1.3.1 Finding a Broadcaster's Past Videos



1.3.0 Broadcaster Channel

1. Video Player

The video player automatically starts when a user first loads the broadcaster's channel. It displays the current broadcast being streamed.

2. Chat Window

The chat window on the right side of the screen allows users to chat with other viewers while watching the broadcast.

3. Videos

Part of the broadcaster channel navigation bar, this section leads viewers towards the section of the site where users can view the broadcaster's past broadcasts, uploaded videos, and popular videos.

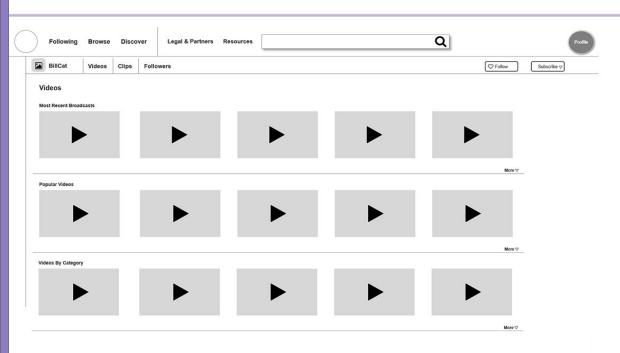
3. Clips

Clips are short video snipets that users can "clip" out of the broadcast in order to share a memorable moment.



Twitch.tv - Website Designs

1.0.0 - 1.3.1 Finding a Broadcaster's Past Videos



1.3.1 Broadcaster Videos Tab

1. Most Recent Broadcasts

The first of the three sections displays the broadcasters most recent broadcasts. The user is able to choose one of the five most recent broadcasts to watch or click "more" to view all their past broadcasts.

2. Popular Videos

The second section displays the five most popular videos that the broadcaster has. Popularity may be determined by view count, recent increased activity, or popularity on separate platforms.

3. Videos By Category

The last section displays thumbnails for the 5 most recent categories the broadcaster has broadcast under. These links leadsthe user to a page displaying videos of only the category chosen.

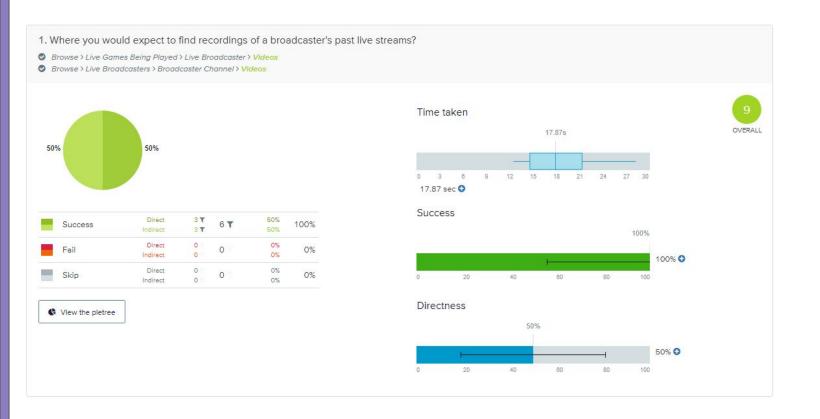
4. Retrospective

Review

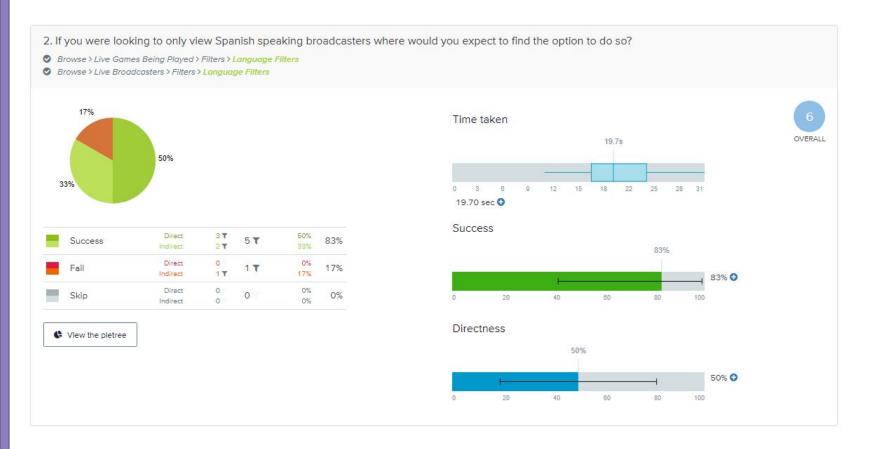
- The general flow of the site wasn't a big issue as shown in both the task analysis and task flow, as such
 many of the changes proposed are focused on the optics of the site and making sure the important elements
 are easy to find.
- The card sort was limited in scope as a result of both time and manpower. An open card sort might have uncovered different results or supplied us with different insights on the site.
- Participants did considerable worse on the first two first-click test for the current designs than they did for the redesign first-click tests. For future work I'd like to scale up the number of participants to see how the percentage of failed tasks changes.
- The site is very interconnected. Many sections of the site aren't actually new pages but are instead hidden layout embedded into a single page. This caused some issues with the sitemap as the page might be technically the same page, but in utility it may be completely different.
- The last point about interconnectivity also raises issues when attempting a redesign. When looking to
 change one page, one has to look at all of the functionality and utility included in that page. Because they're
 so compressed, attempting a redesign often may require expanding the overall number of pages on the site.

Task analysis results: Task 1

Appendix



Task analysis results: Task 2



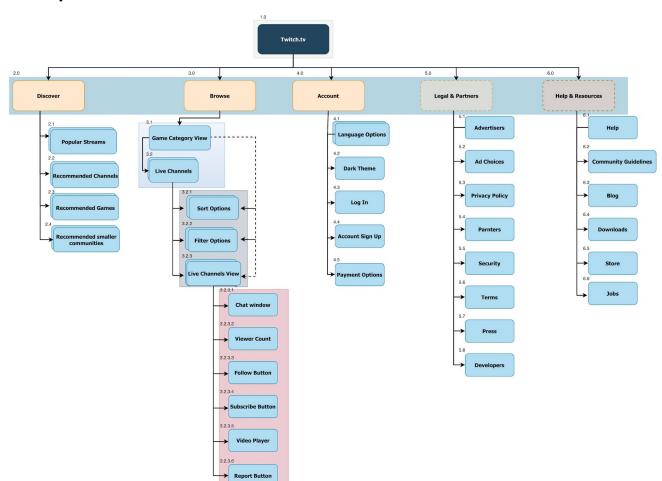
Close Card Sort: Round 1

	Broadcaster Cha	Profile	Browse	Discover	General	Unsure	unsorted
Live channel recommendations				4	1		
Login Button		2			3		
Category recommendations			2	2	1		
Recommended smaller communiti			1	3	1		
About	1			1	3		
Advertisers	2		1			2	
Blog		3	1			-1	
Developer Page	2		1	1		1	
Jobs			2	2		1	
Press				3		2	
Store			3	1	1		
Community Guidelines	3			1	1		
Help	1		1	2	1		
Privacy Policy	1			1	2	1	
Terms	2		1	1	1		
Channel Filter		1	3		1		
Channel Sort	1		1	1	2		
Game Cover Thumbnail Links			2	1	2		
Broadcaster Channel Thumbnail L	2		1	2			
Channel Tags			4	1			
Broadcaster Live Video Player	4				1		
Channel / Broadcaster Name	3	1			1		
Videos		1	2	1	1		
Clips	2	2	1				
Followers	3	1			1		
Follow Button	2	1	1		1		
Subscribe Button	2		1	1	1		
Chat Window	2				3		
Viewer Count	4				1		
Report Button	2		1		1	1	
Share Button	1		2	1	1		
Notifications Button	2	1			2		
Language Options		1	2		2		
Settings		3	1		1		
Friends		3	1		1		
Payments	3	1	1				
Log Out Button		2			3		
Creator Dashboard	1	4					
Inventory	1	3			1		
Dark Theme Option		2			2	1	

Close Card Sort: Round 2

	Broadcaster Cha	Profile	Browse	Discover	Legal & Partners	Resources	Unsure
Live channel recommendations				4			
Login Button		4					
Category recommendations			1	3			
Recommended smaller communiti				4			
About						4	
Advertisers					4		
Blog						3	1
Developer Page					4		
Jobs						4	
Press					4		
Store						4	
Community Guidelines					1	3	
Help						4	
Privacy Policy					2	2	
Terms					4		
Channel Filter			4				
Channel Sort			4				
Game Cover Thumbnail Links			4				
Broadcaster Channel Thumbnail L	1		3				
Channel Tags	2		2				
Broadcaster Live Video Player	4						
Channel / Broadcaster Name	4						
Videos	1		3				
Clips	2		2				
Followers	4						
Follow Button	4						
Subscribe Button	4						
Chat Window	4						
Viewer Count	4						
Report Button	3					1	
Share Button	4						
Notifications Button	3						1
Language Options		3				1	
Settings		4					
Friends		4					
Payments		2				1	1
Log Out Button		4					
Creator Dashboard		3					1
Inventory		4					
Dark Theme Option		4					

Sitemap



2.0 Discover

Gives suggestions to users of the site. The functionality and overall design has not changed between the different versions.

A Drower

Focuses on allowing users to look through all live channels and chose what they want to watch. The dotted line connecting Game Category View represents an alternate path through the Browse section. Users can directly view all currently live channels then chose from those or alternatively go through the Game Category View which will act as a filter so the user only views channels of a particular category.

4.0 Account

This section has miscellaneous features attached to the users account. The log in, log out, and sign up processes have been moved underneath this section to remove some clutter from the top level navigation.

5.0 Legal & Partners (changed from Help & Legal)

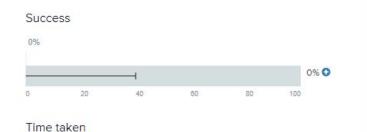
This section of the site has been altered from the current version. At the moment the top level navigation equivalent is "More" which leads to a secondary Help & Legal navigation path. Instead we've moved this path directly to the top level and changed it to Legal & Partners to better categorize the various section contained. This section encompasses the various legal information the site needs to provide as well information for non-viewers such as Press (5.7) and Developers (5.8).

6.0 Help and Resources (changed from General)

The current navigation equivalent "General" is ambiguous and doesn't convey what is contained underneath it. Instead we've moved the Help section here as we felt if if better than with the legal section of the site and renamed general to resources. This section allows users to find various resources such as site guidelines (6.2), general help (6.1) and downloads (6.4). It also contains links to the store (6.5) and job listings (6.6).

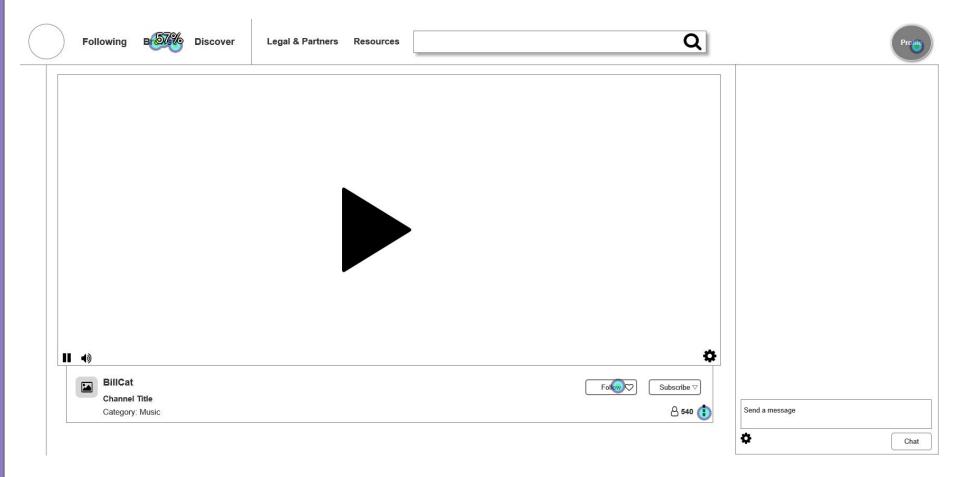
1. You've just navigated to your favorite broadcaster's channel but want to watch the recording of yesterday's broadcast instead of the current live broadcast. Where would you click to go to see their past broadcasts?





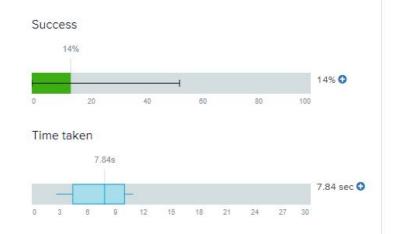


Edit correct areas for this task

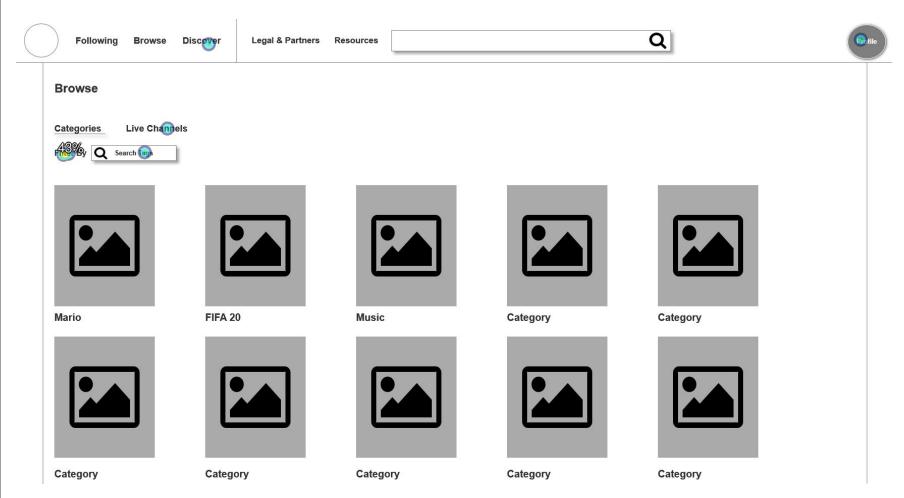


2. Where would you click if you wanted the website to only show you only Russian broadcasts.



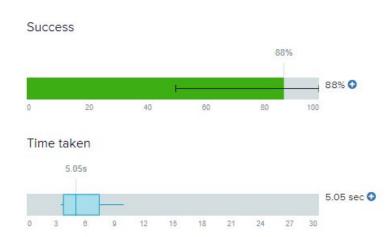


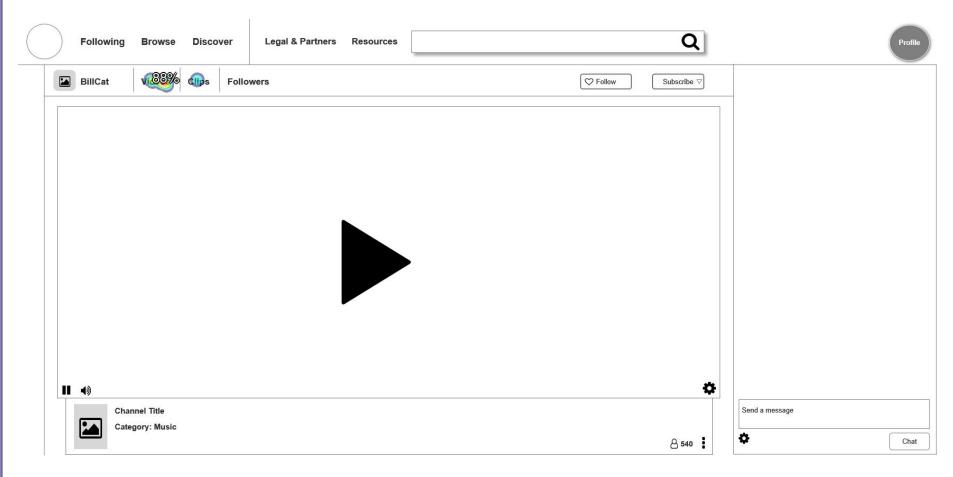
Edit correct areas for this task



1. You've just navigated to your favorite broadcaster's channel but want to watch the recording of yesterday's broadcast instead of the current live broadcast. Where would you click to go to see recordings of their past broadcasts?







2. Where would you click if you wanted the website to only show you only Russian language broadcasts?



