

INVIDIOUS

Lanoe Kessler

Summer 2022

CODE 4062-001

Interaction Design

broadcast
yourself

Invidious provides access to the services offered by YouTube without requiring a Google account:

<https://invidious.io/>

The site's source code is open source, meaning that anyone can host their own iteration, and edit it to serve their purposes.

What follows is a design direction intended for one such iteration, which focuses on the promotion of undiscovered content.

User Scenarios



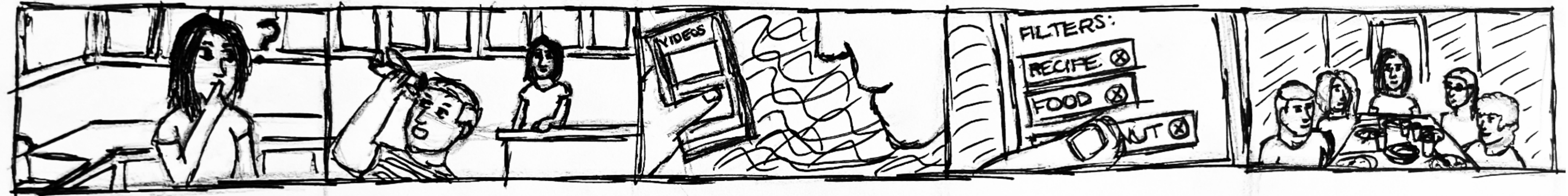
A group of friends are together for the evening, and find themselves crowded around the computer seeking entertainment.

Upon opening their preferred video site, they find that much of what is presented to them is uninteresting or derivative.

They decide to activate a new randomized voice function. One of them speaks a short phrase into the microphone.

The site algorithmically serves up a seldom seen video based upon a seed generated from the audio input of the microphone.

Entertainment ensues.



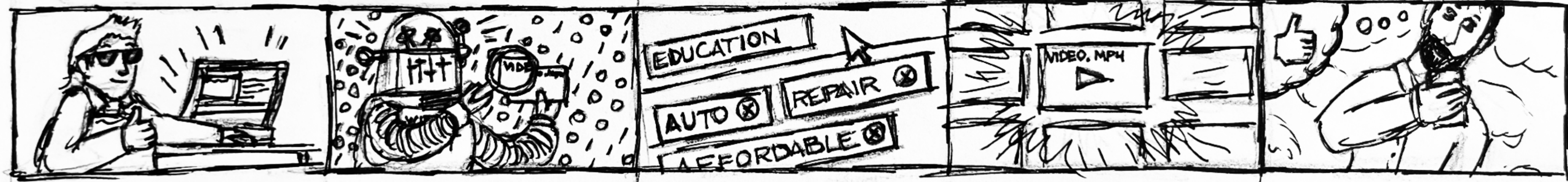
A parent of three is yet again tasked with determining what should be prepared for dinner tonight.

Avoiding monotony can be difficult in determining a recipe. The eldest child's peanut allergy is also an important consideration.

The parent turns to their preferred video site for a recipe idea. Perhaps asking via microphone would provide a suggestion?

Prior to speaking, the parent is able to input filters in the form of video tags, so that their results will meet a desired outcome.

The parent has served a new recipe which satisfies the family. Magnificent!



A content creator on a video site is preparing to upload their latest creation.

When the video has finished uploading, it is assigned a category through an artificial intelligence which compares it to other videos.

While certain video tags are editable by the content creator to assist discovery, others are not in order to prevent algorithm exploitation.

The video is uploaded to the site's servers.

A viewer discovers the video, still relatively unknown, through the site's voice functions. They eventually share it with their friends.

Key Task Flows

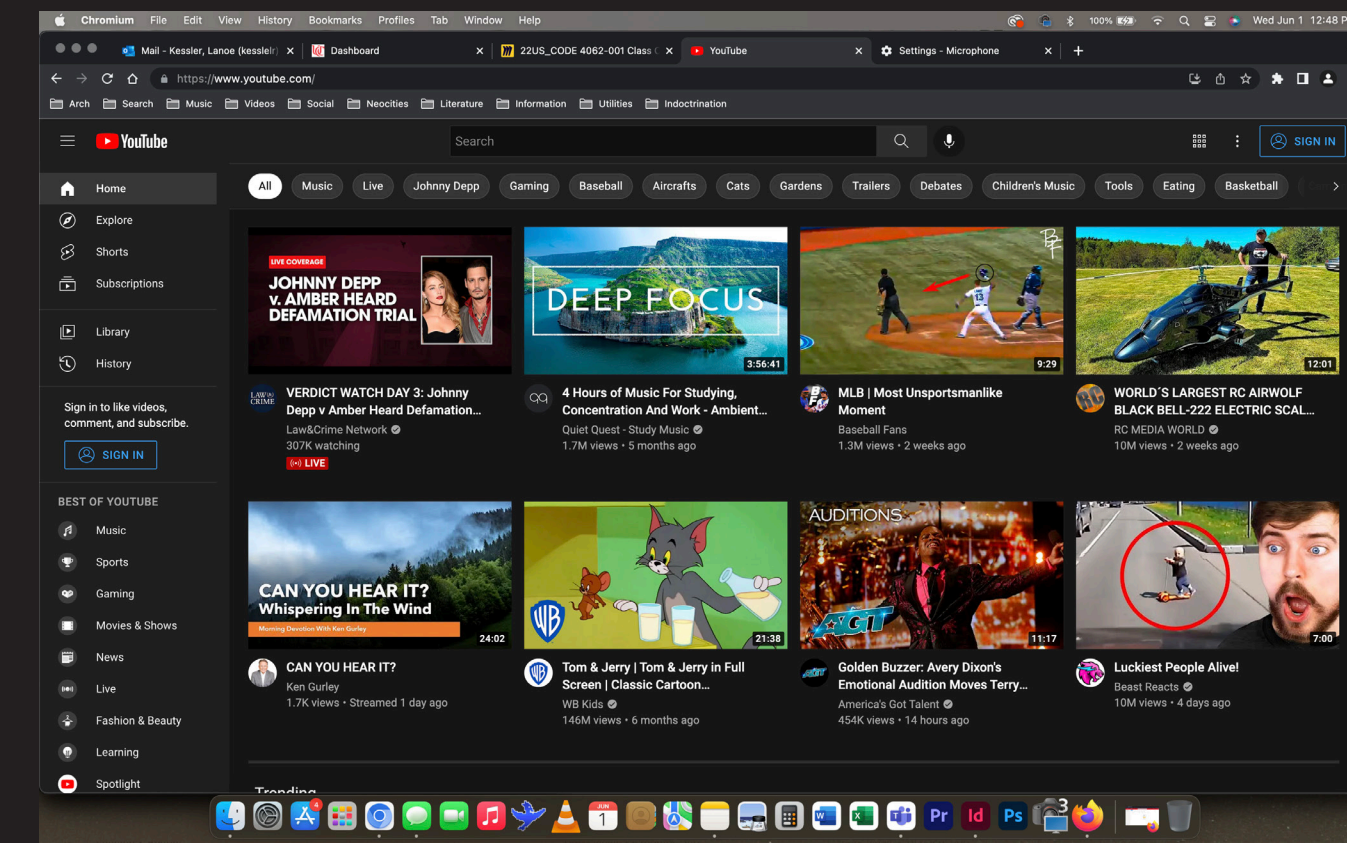


Benchmarking

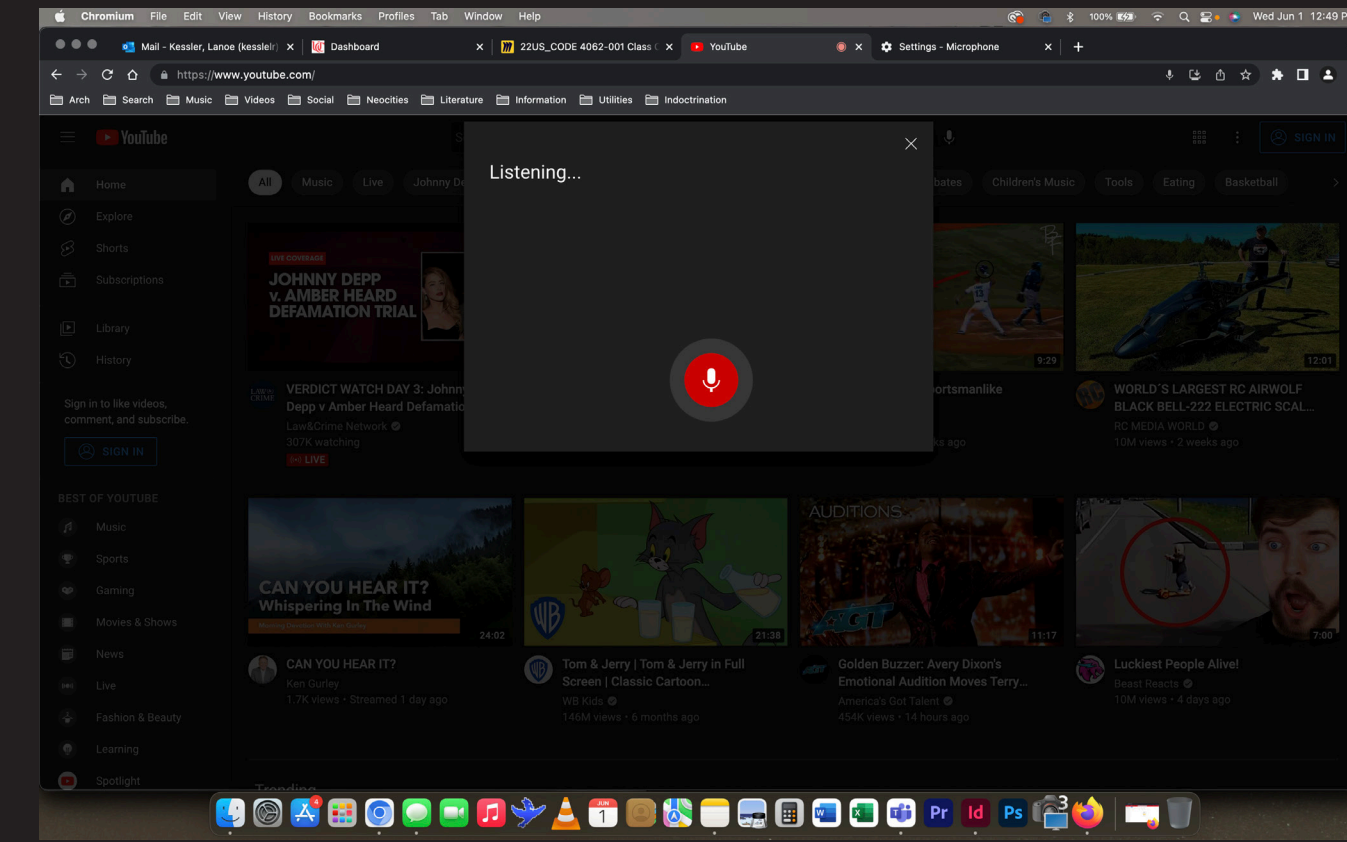
Voice Control

- Existing voice controls on video sites limited to basic control and search functions.
 - > Search > Voice > (Spoken Search Query) > Results
- Available through personal computers, televisions and smart phones.
- Existing search function could be used in conjunction with AI.
- Must take privacy concerns into consideration, activation only when requested by the user.

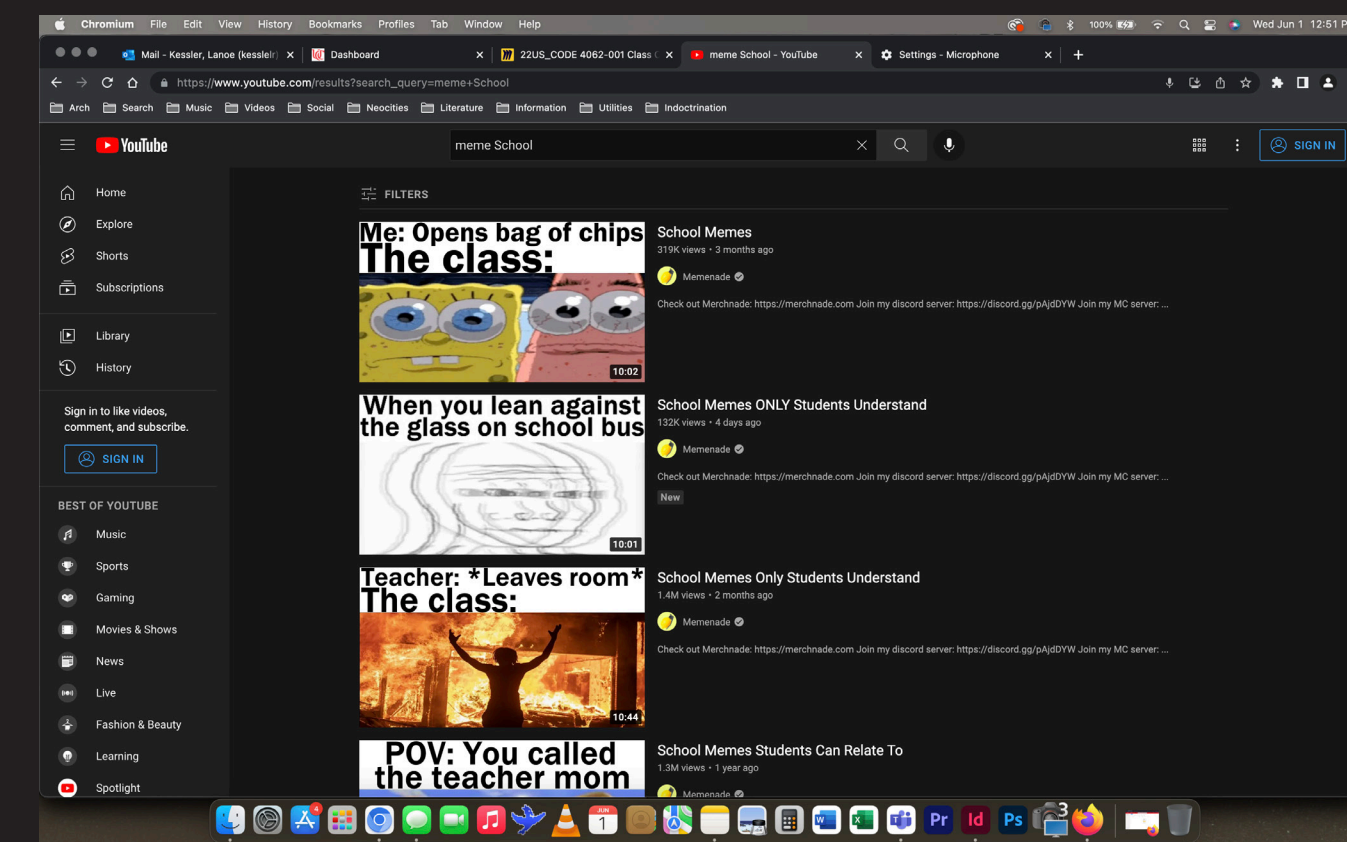
How to Use Voice Search on YouTube:



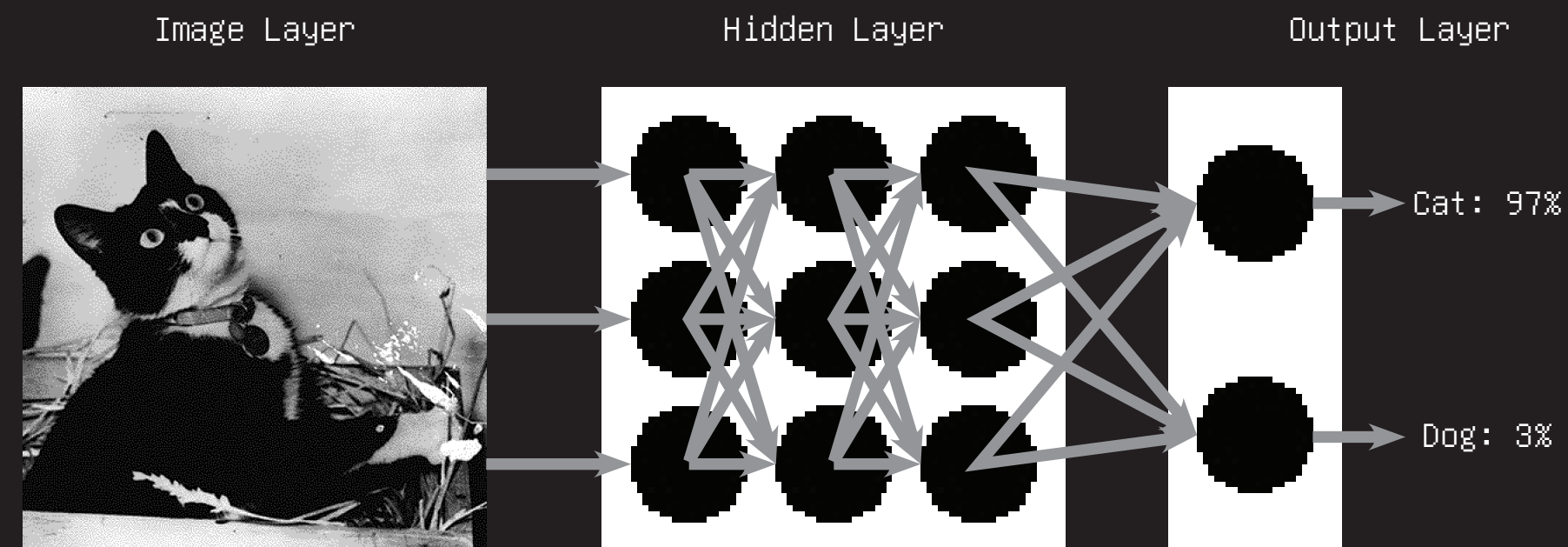
< On the home page. Searching by voice can be activated by pressing the microphone button next to the search bar.



< Search via voice activated. Speaking a phrase into the air activates a search based on recognized terms.

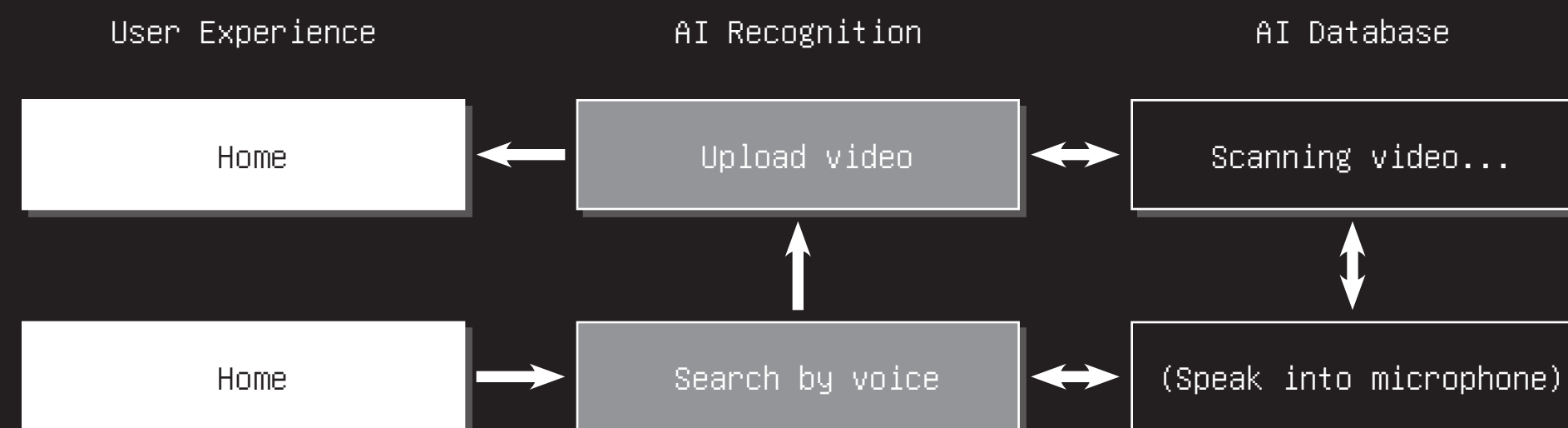


< Search via voice activated. Speaking a phrase into the air activates a search based on recognized terms.



Video Recognition

- Primarily used in surveillance applications at this point
- Artificial intelligence can introduce privacy and security concerns
 - Preventing AI recognition of individuals' characteristics could respect surveillance concerns, as well as preventing undesired promotion of prominent producers in the discovery algorithm.
- Sorting by topics / tags should take preference over individual producers.
 - Possibly supplemented by behavioral analytics over time
- Topics and tags constitute "rule-based" AI
 - Manual additions to AI "knowledge base" could operate on open-source principles, with additions being approved by an active user base

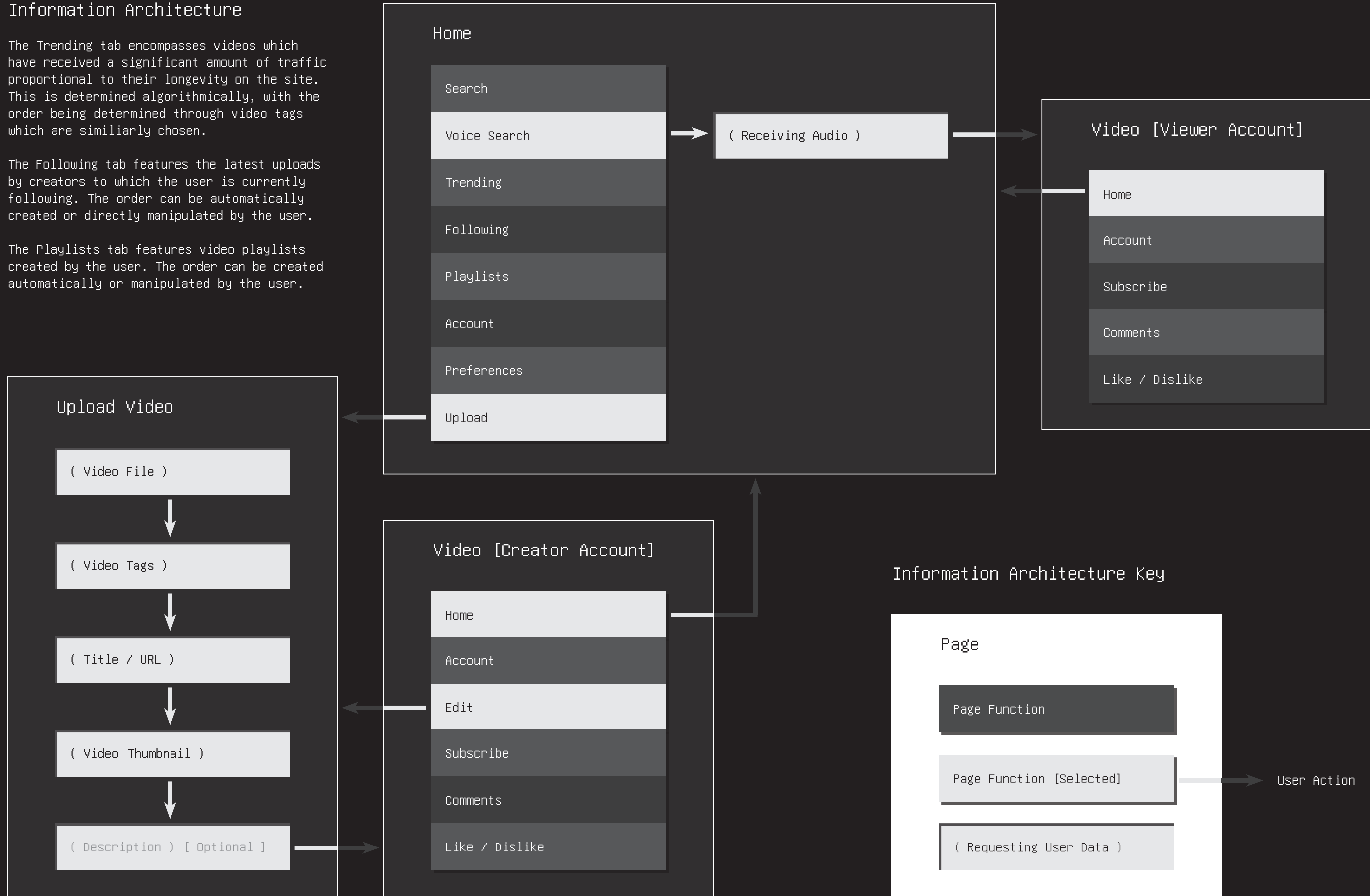


Information Architecture

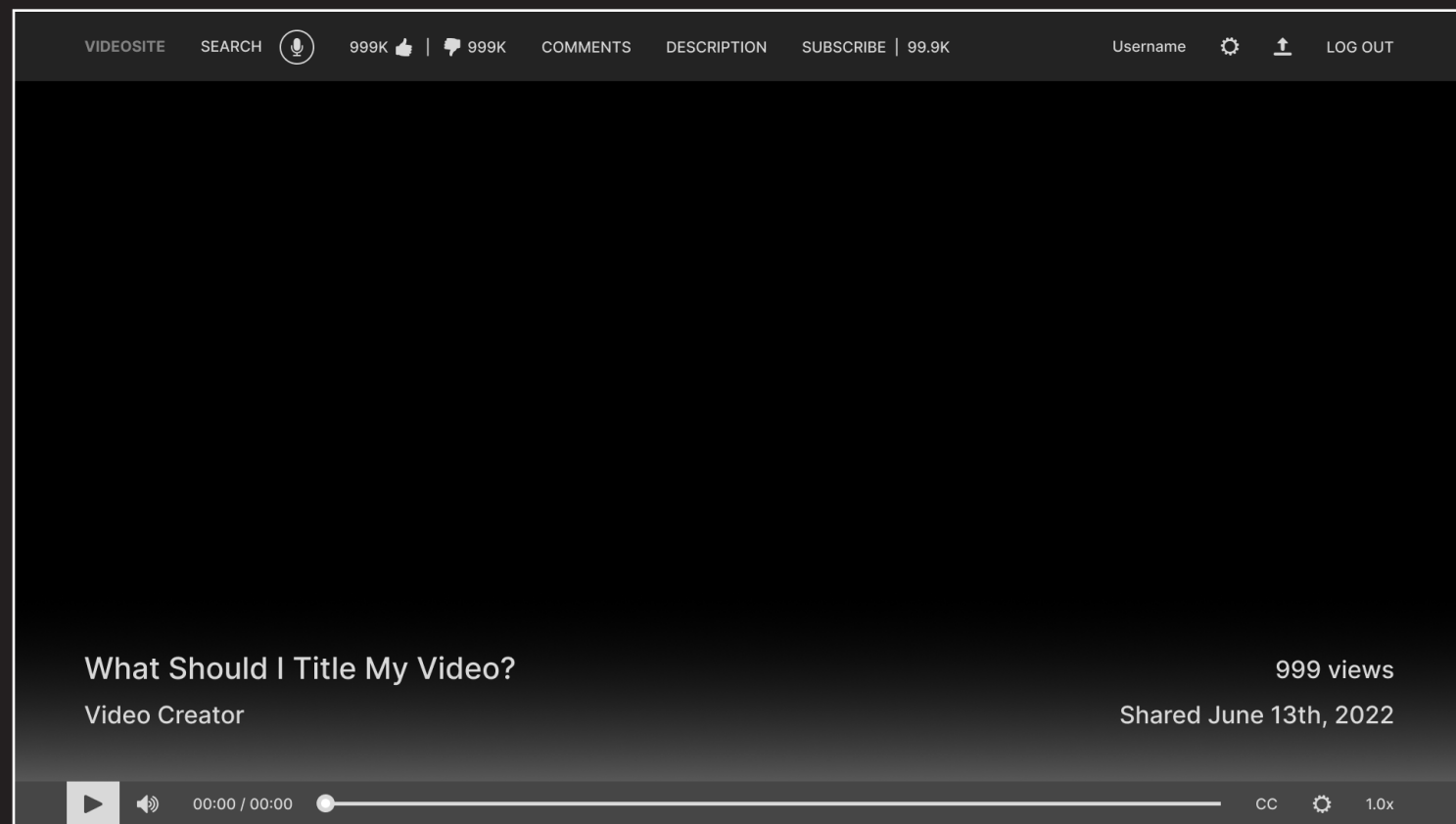
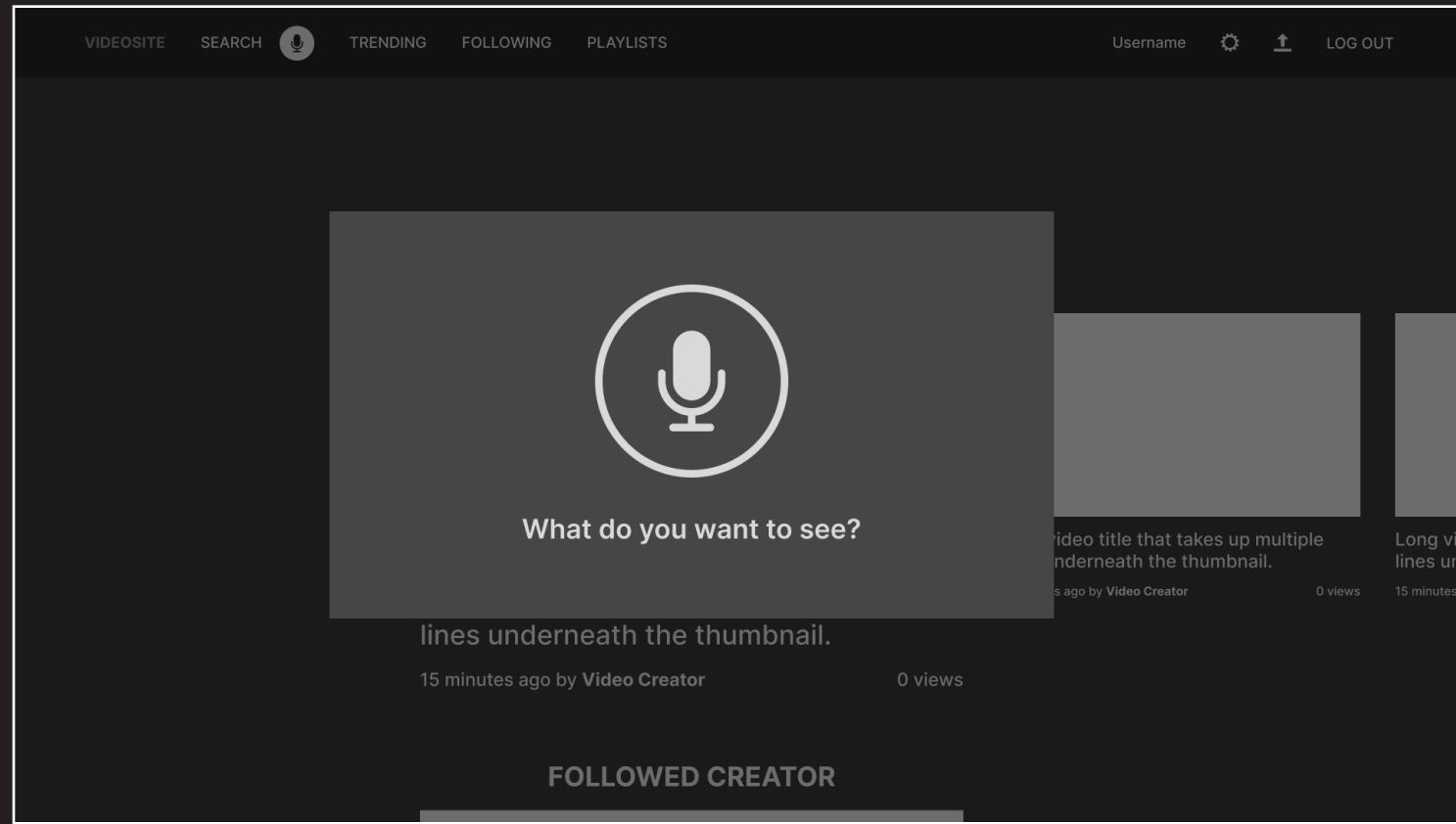
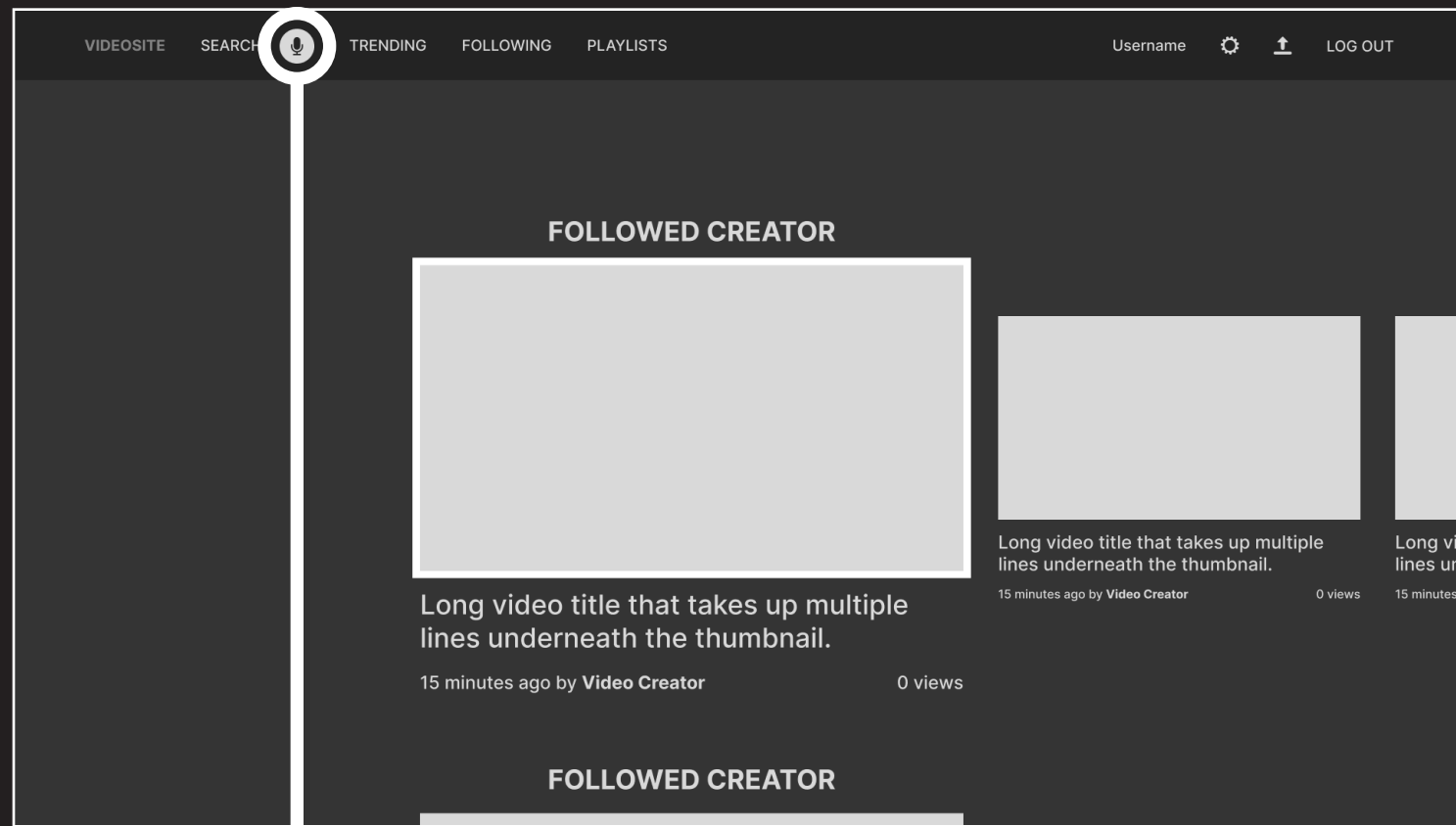
The Trending tab encompasses videos which have received a significant amount of traffic proportional to their longevity on the site. This is determined algorithmically, with the order being determined through video tags which are similiarly chosen.

The Following tab features the latest uploads by creators to which the user is currently following. The order can be automatically created or directly manipulated by the user.

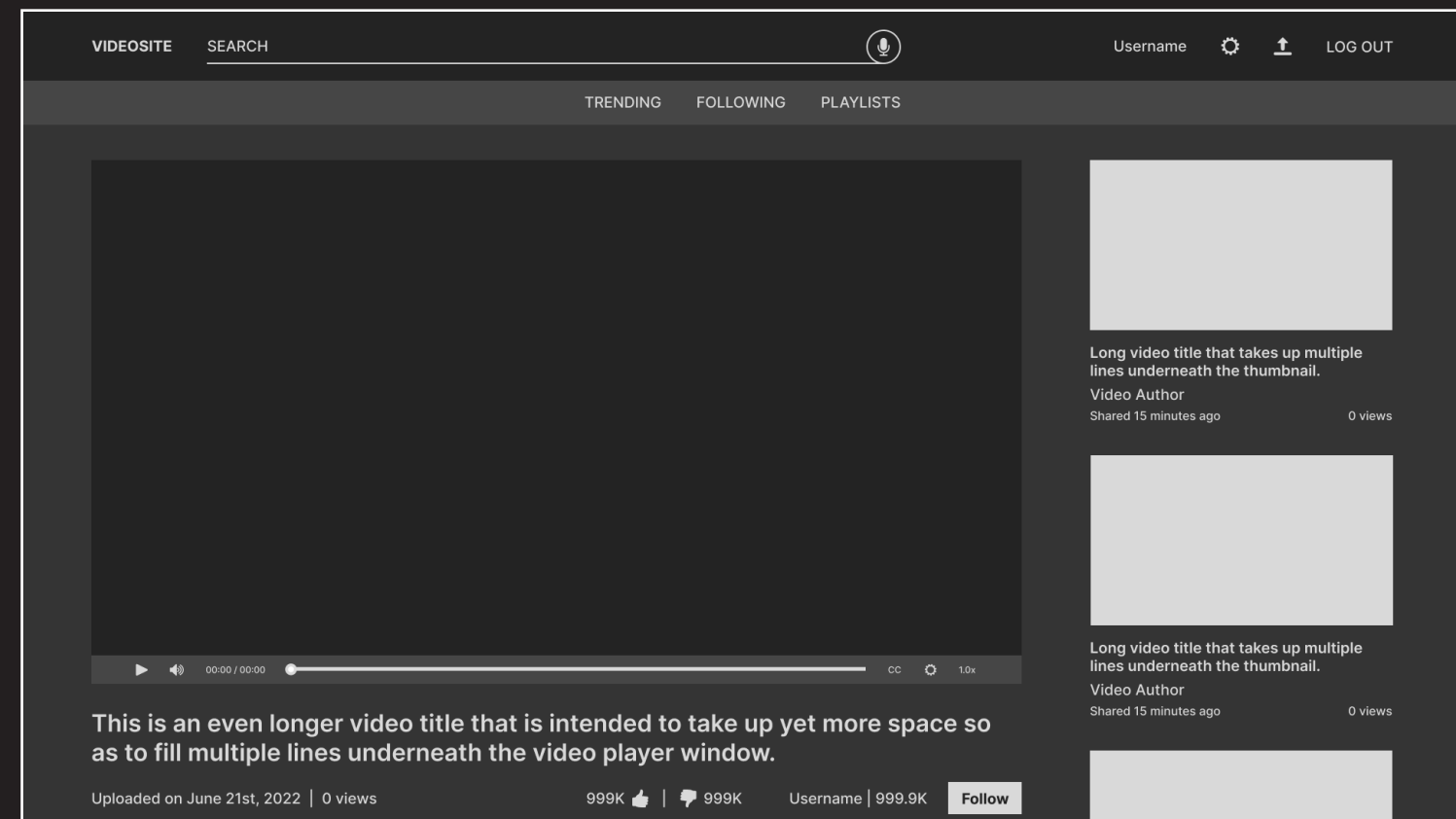
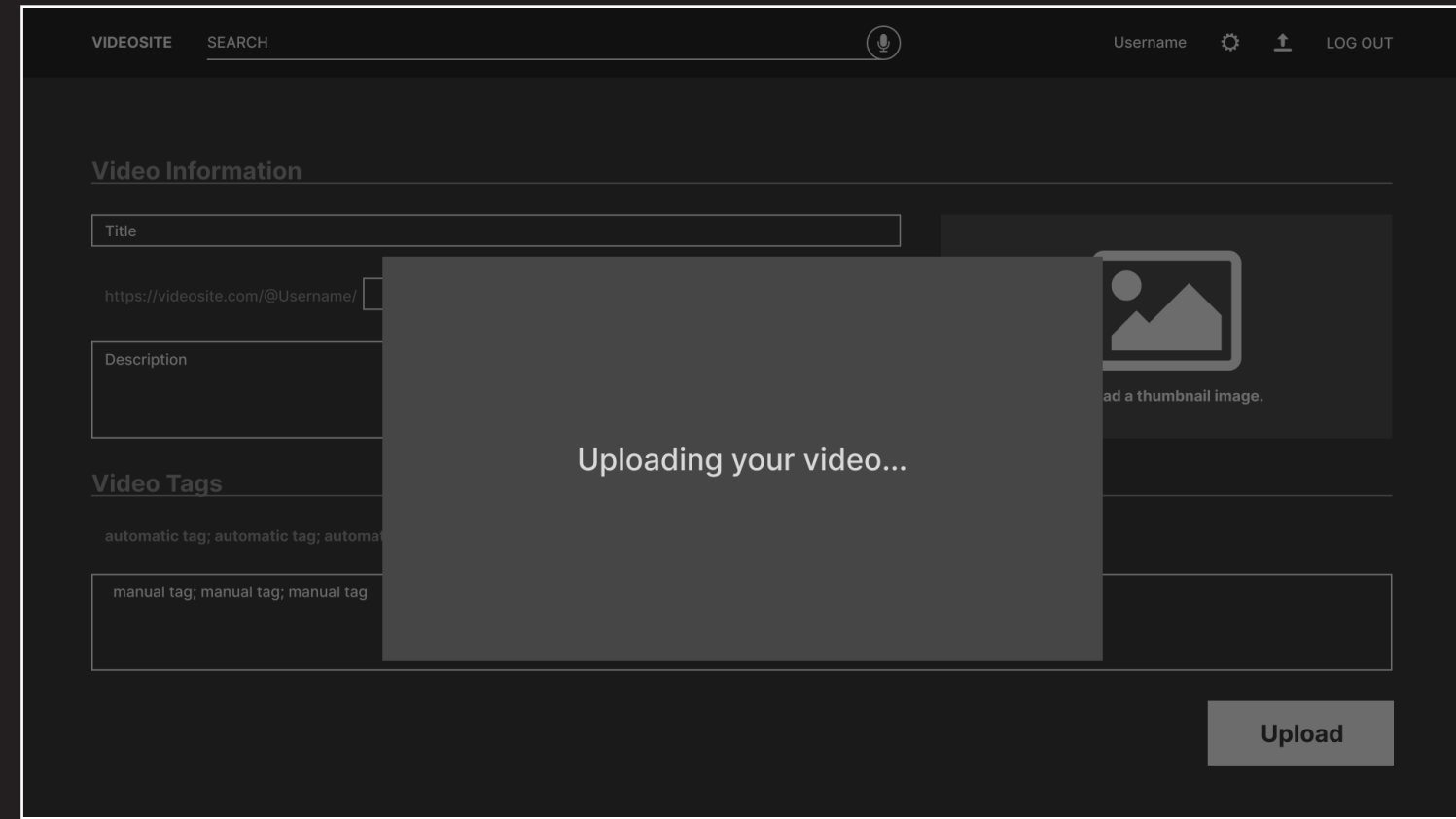
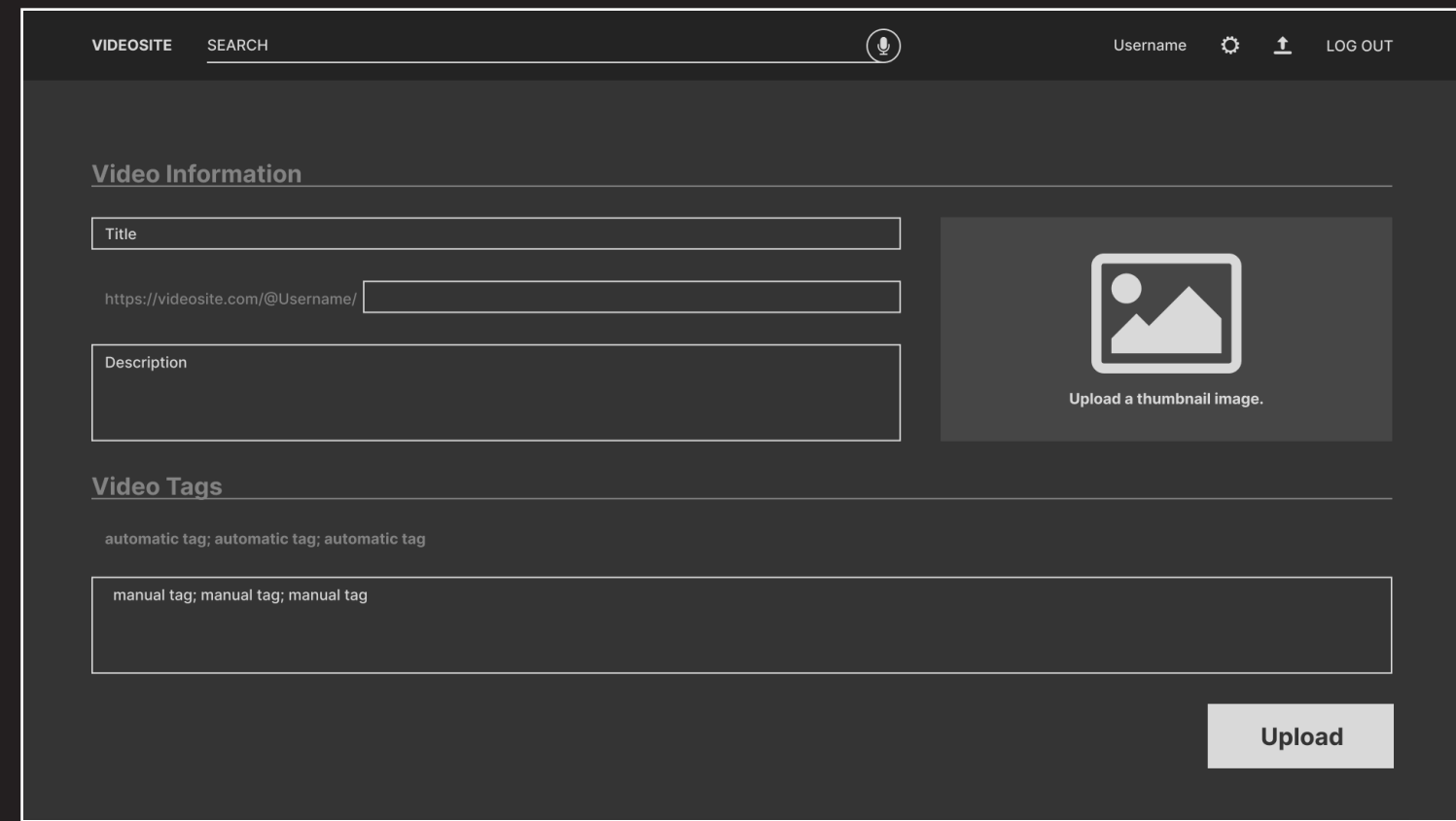
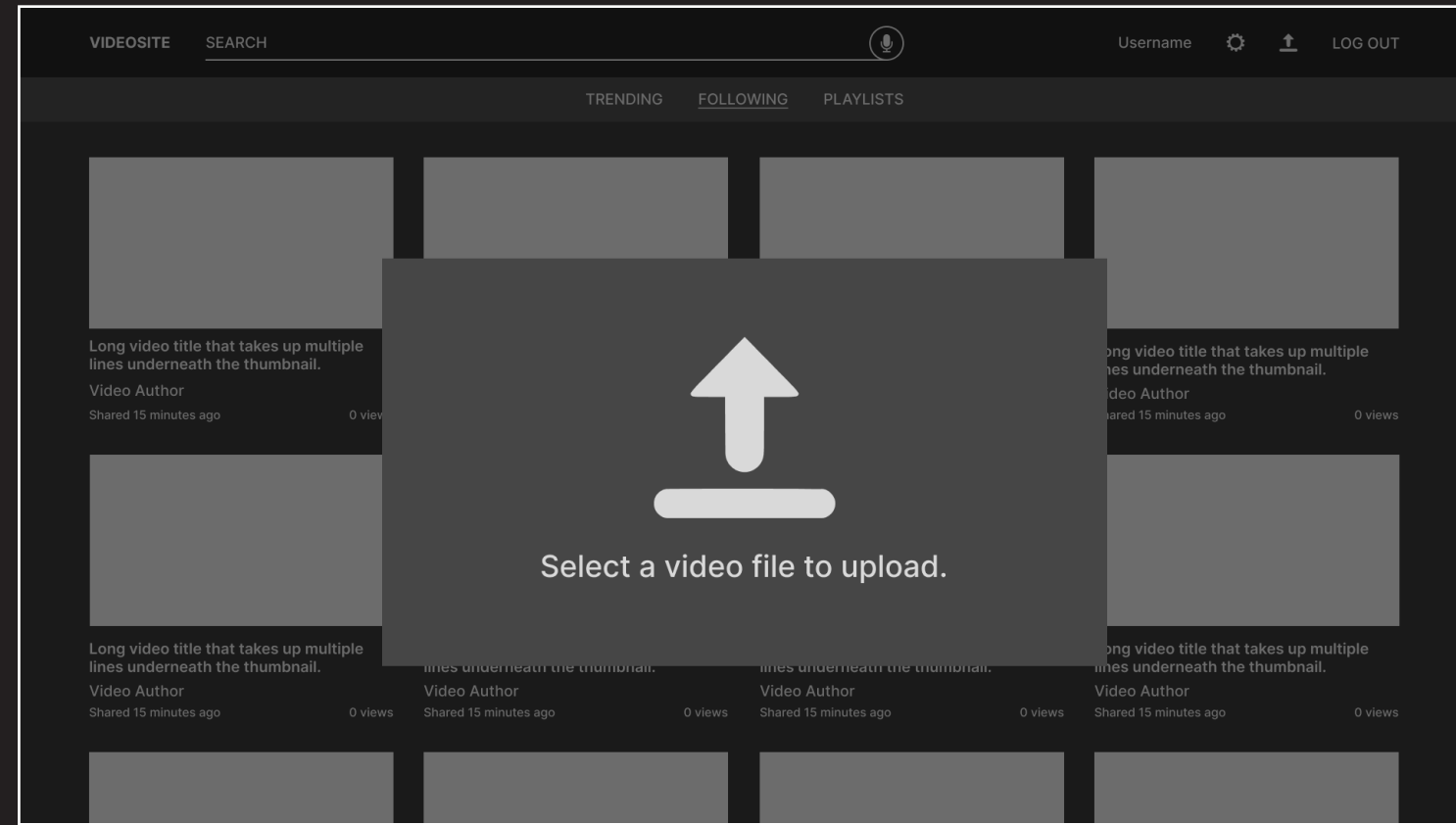
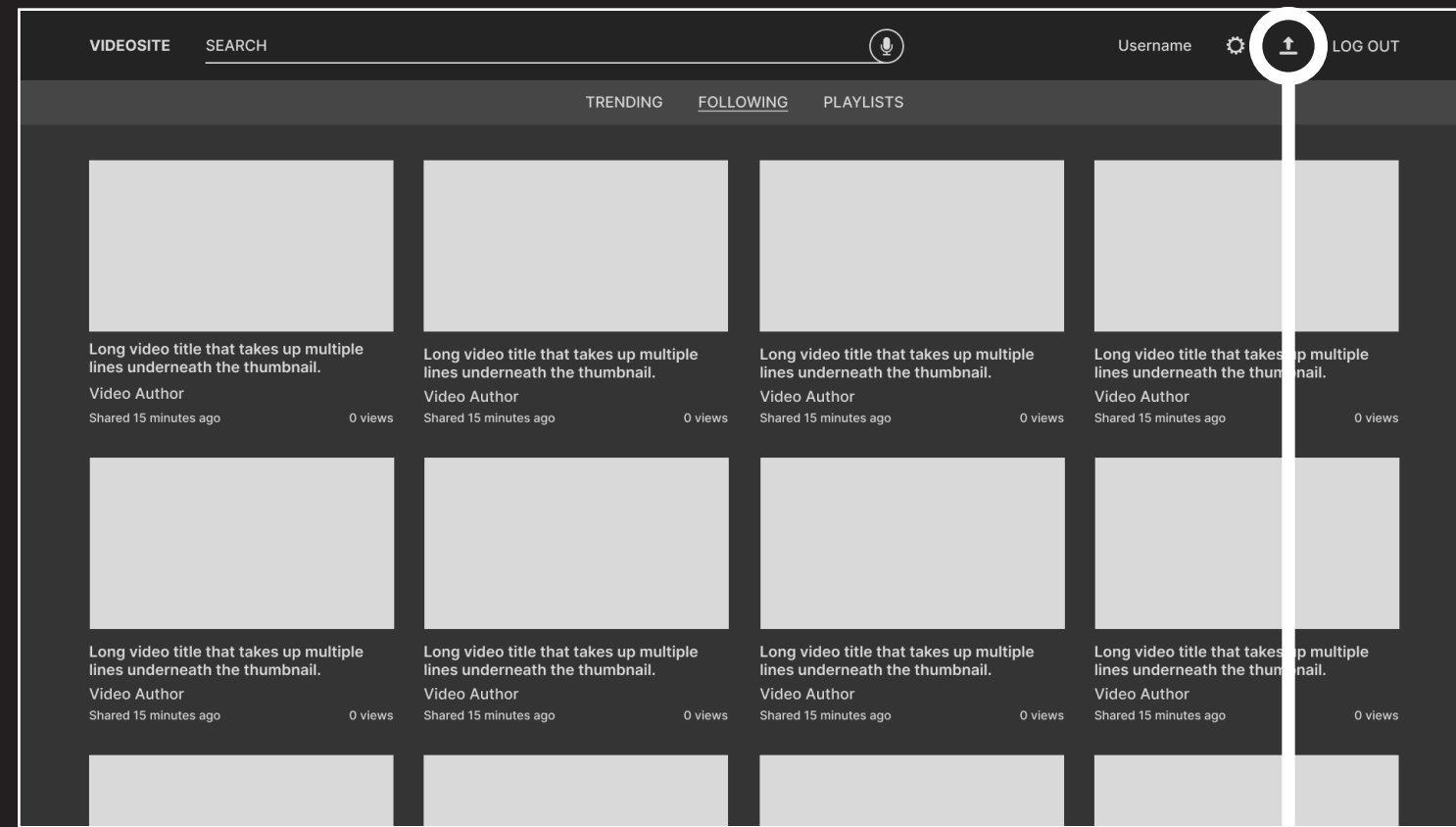
The Playlists tab features video playlists created by the user. The order can be created automatically or manipulated by the user.



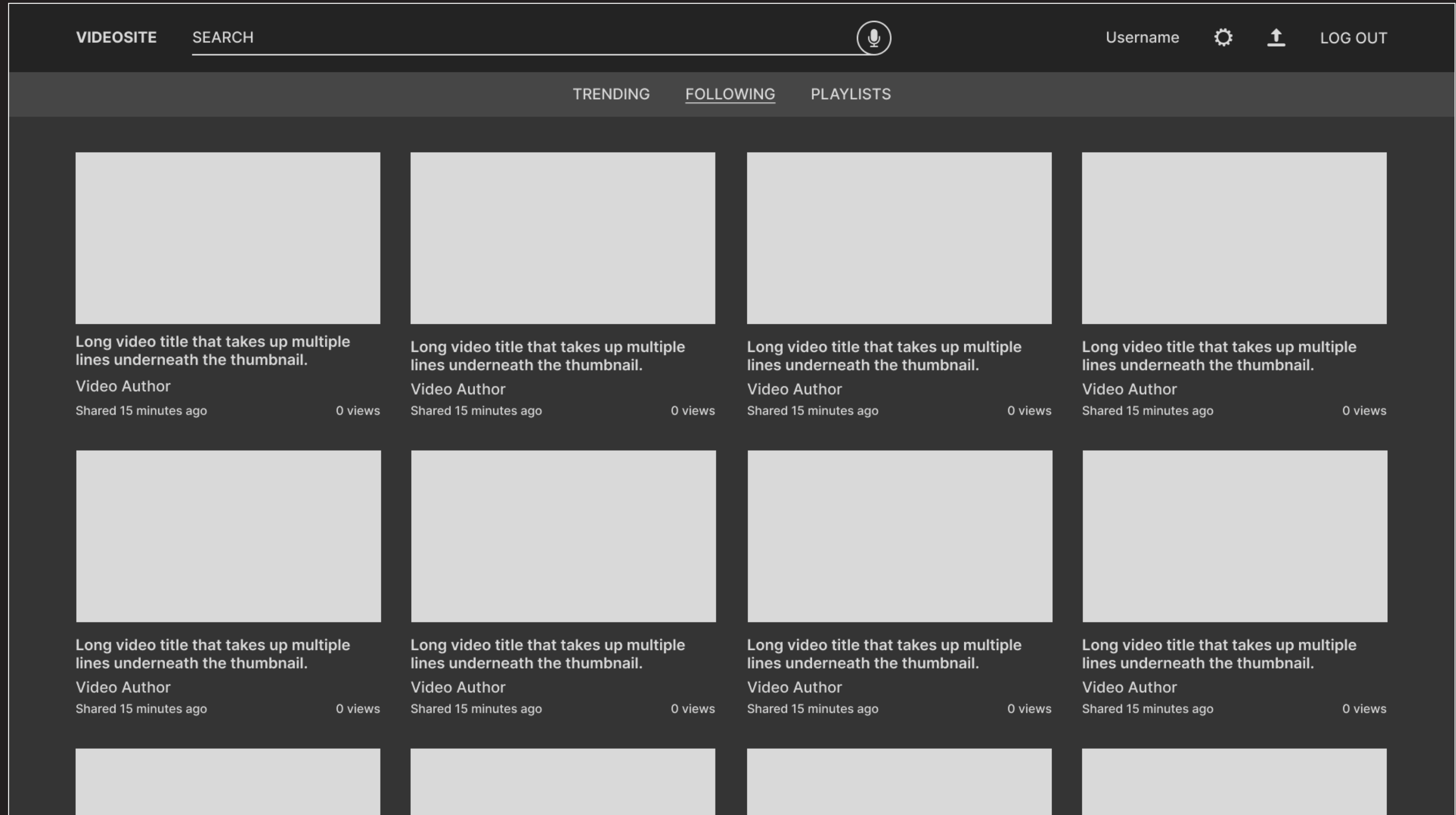
Viewer, TV Application (Searching by voice)



Creator, PC Web Browser (Uploading a video)



Creator Side, PC Web Browser (Following)



Search

- Standard search bar
- Voice search for discovery
 - Serves a random, relatively undiscovered video related to spoken search terms
 - Correlates spoken search terms with video tags via AI

Account / Settings




- Account accessible from homepage
- General site settings
- Quick upload button
 - Reduces the amount of actions necessary for the uploader
- Quick log out
 - Isolated to prevent accidental action

Tabs

- Categorized organization of videos
- Initially opens on "Following"
 - Most likely place a user will want to begin viewing (creators they are familiar with)

Video Browser

- Simple tiled layout
- Shows views and longevity on-site


VIDEOSITE SEARCH  Username   LOG OUT

Video Information

Title

https://videosite.com/@Username/

Description



Upload a thumbnail image.

Video Tags

automatic tag; automatic tag; automatic tag

manual tag; manual tag; manual tag

Upload

Video Information

- Prompts for user content
 - Video title
 - Video URL
 - Not editable on YouTube, where video URLs can be convoluted
 - Video description (optional)

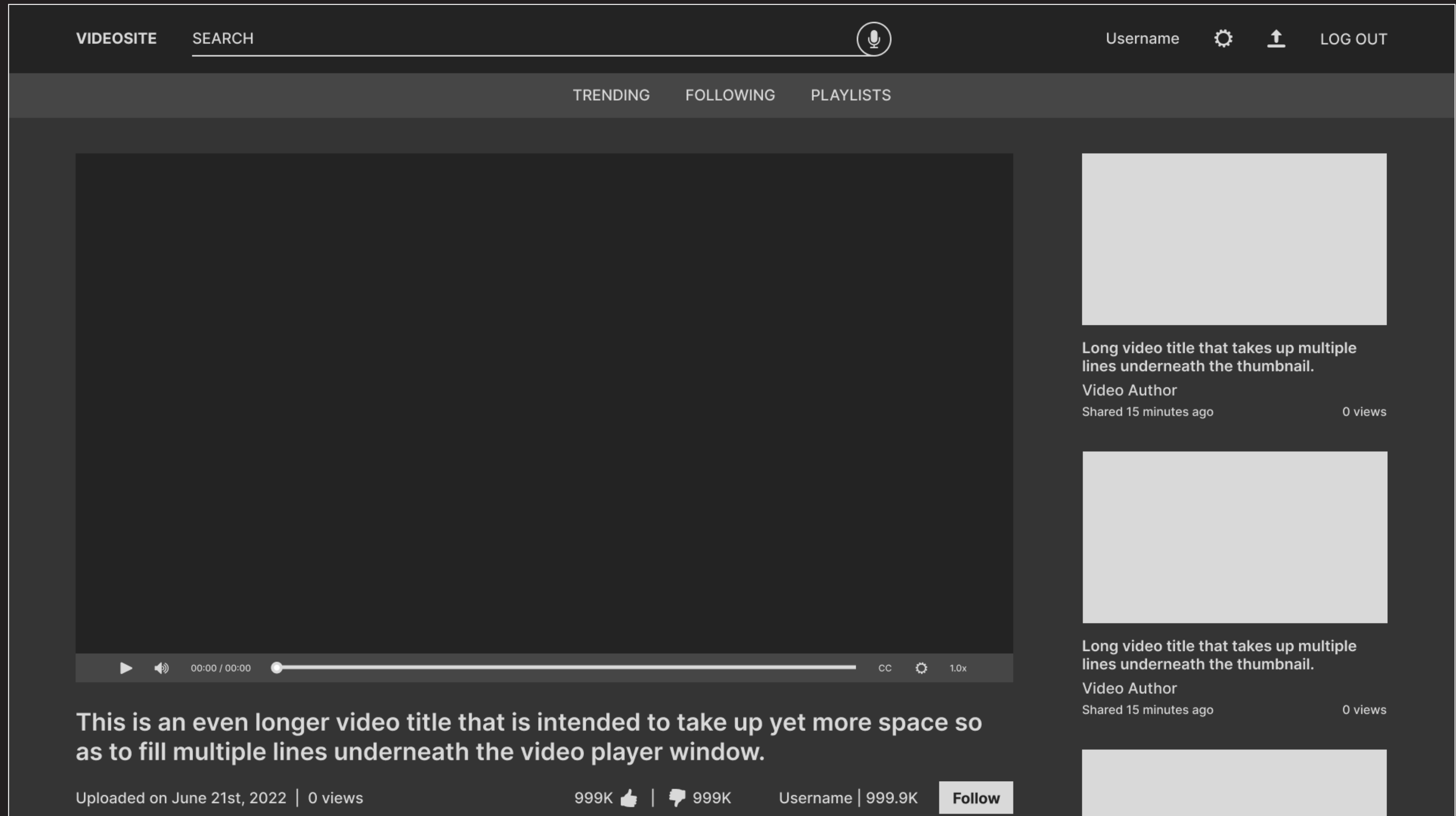
Video Tags

- Generated through AI recognition of visual similarities to existing videos on the platform
- Automatic video tags
 - Vague, categorical tags which are automatically assigned to a video to prevent algorithm errors
- Manual video tags
 - Editable tags are more specific
 - Allows the user to influence traffic through search terms

Thumbnail

- Allows the user to upload an image as a thumbnail for the video

Creator Side, PC Web Browser (Video)



Video Player

- Play / pause button
- Volume button
 - Would open a volume slider upon activation
- Timecode
- Timeline
- Other options open as small popups upon activation
 - Closed captioning options
 - Resolution / other settings
 - Video playback speed

Video Information

- Video title
- Upload date / view count
- Like / dislike buttons
- Uploader account / followers
- Follow button
- Description / comments would appear below (not shown)

Related videos

- Single column iteration of main video browser
- Videos displayed are related to currently viewed video

Viewer Side, TV Application (Following)

Search

- Search selection
 - Opens search popup on activation
- Voice search for discovery
 - Serves a random, relatively undiscovered video related to spoken search terms
 - Correlates spoken search terms with video tags via AI

Tabs

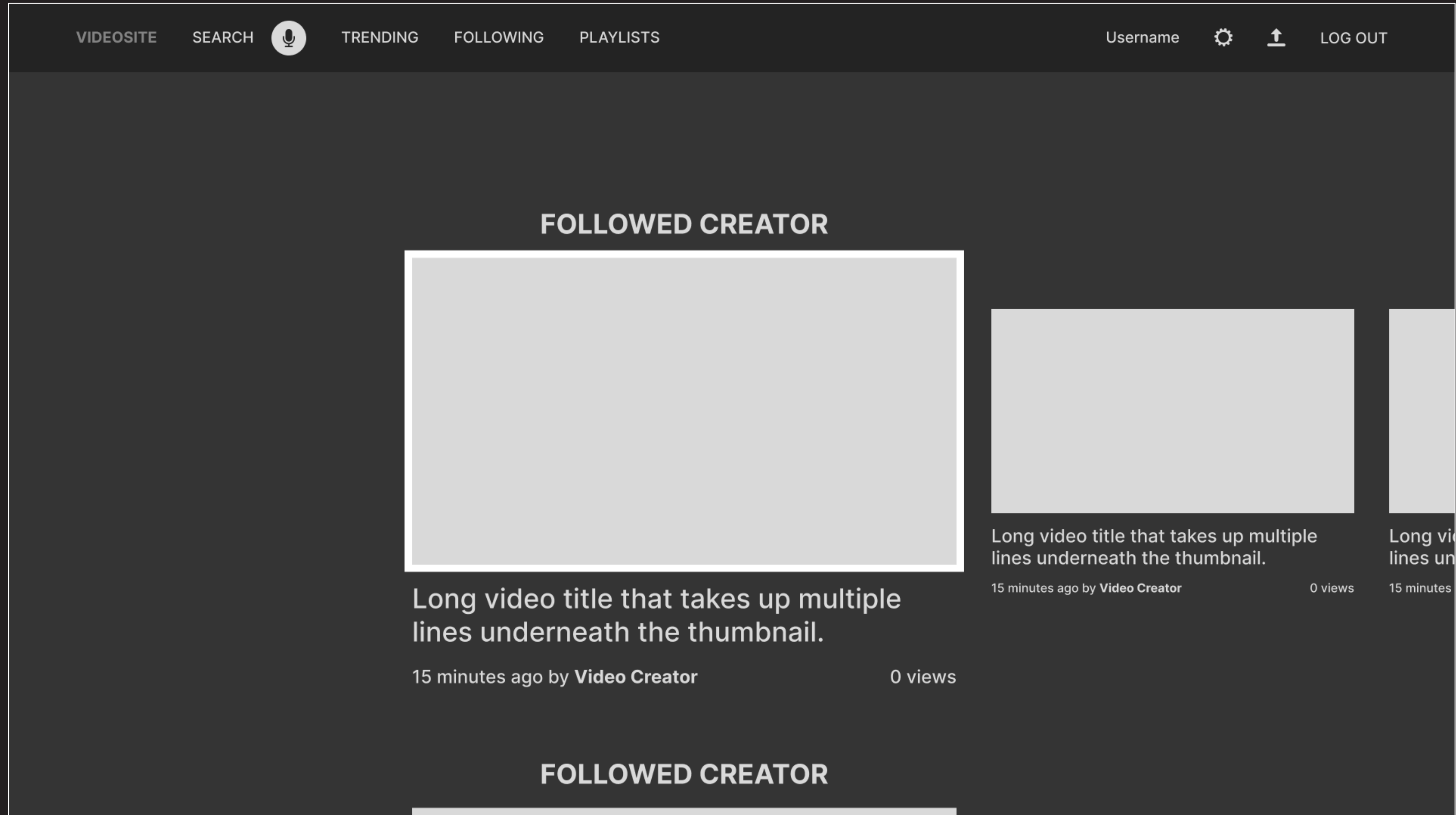
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Video Browser

- Zoomed browser layout
 - More effective for television, where the screen is typically further from the viewer's eyes than a computer monitor
- Categorized by rows (horizontal)
- Currently selected front-and-center



Viewer Side, TV Application (Video)

Video Player

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Overlay

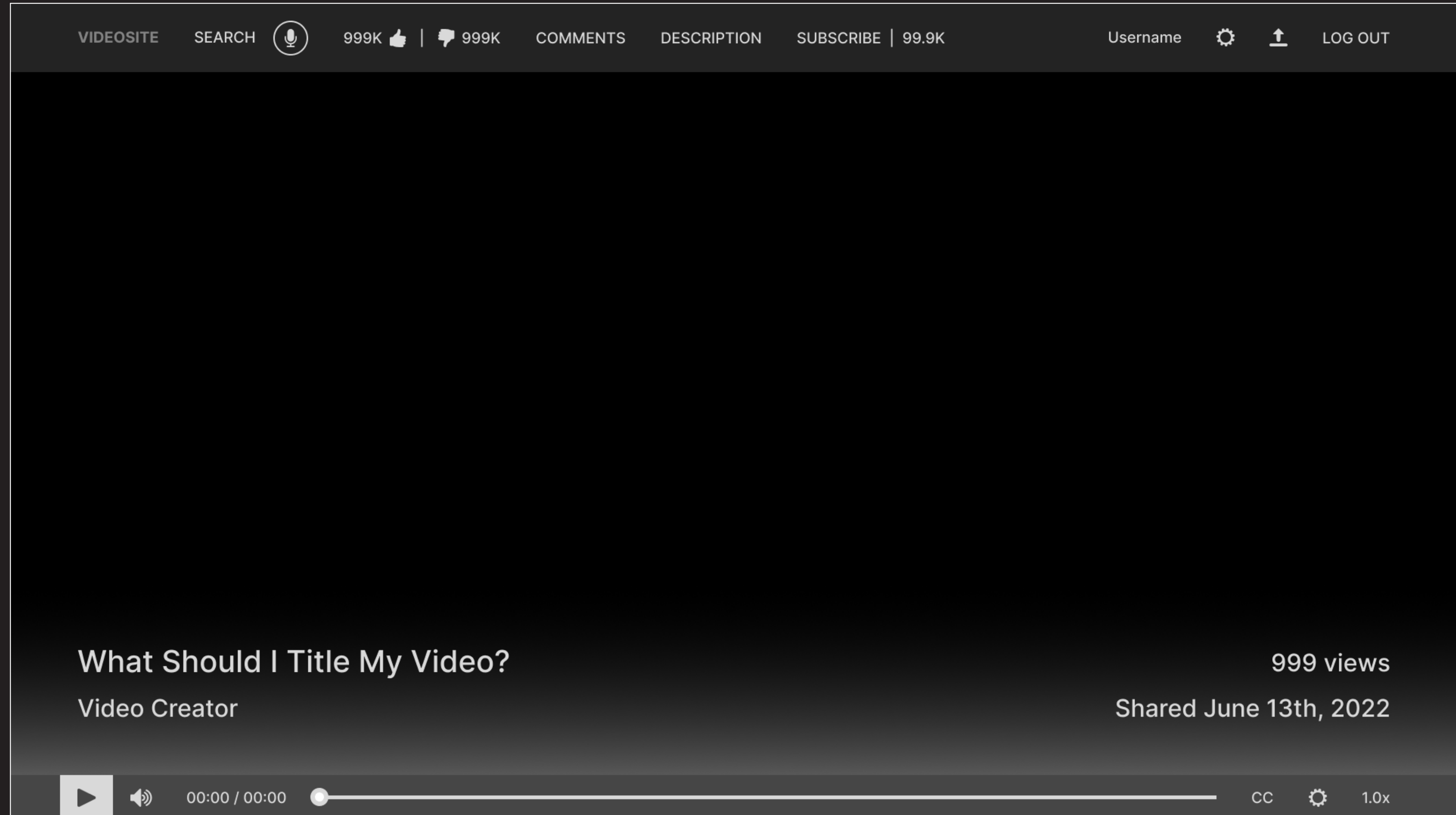
- Video title
- Uploader account
- Upload date / view count

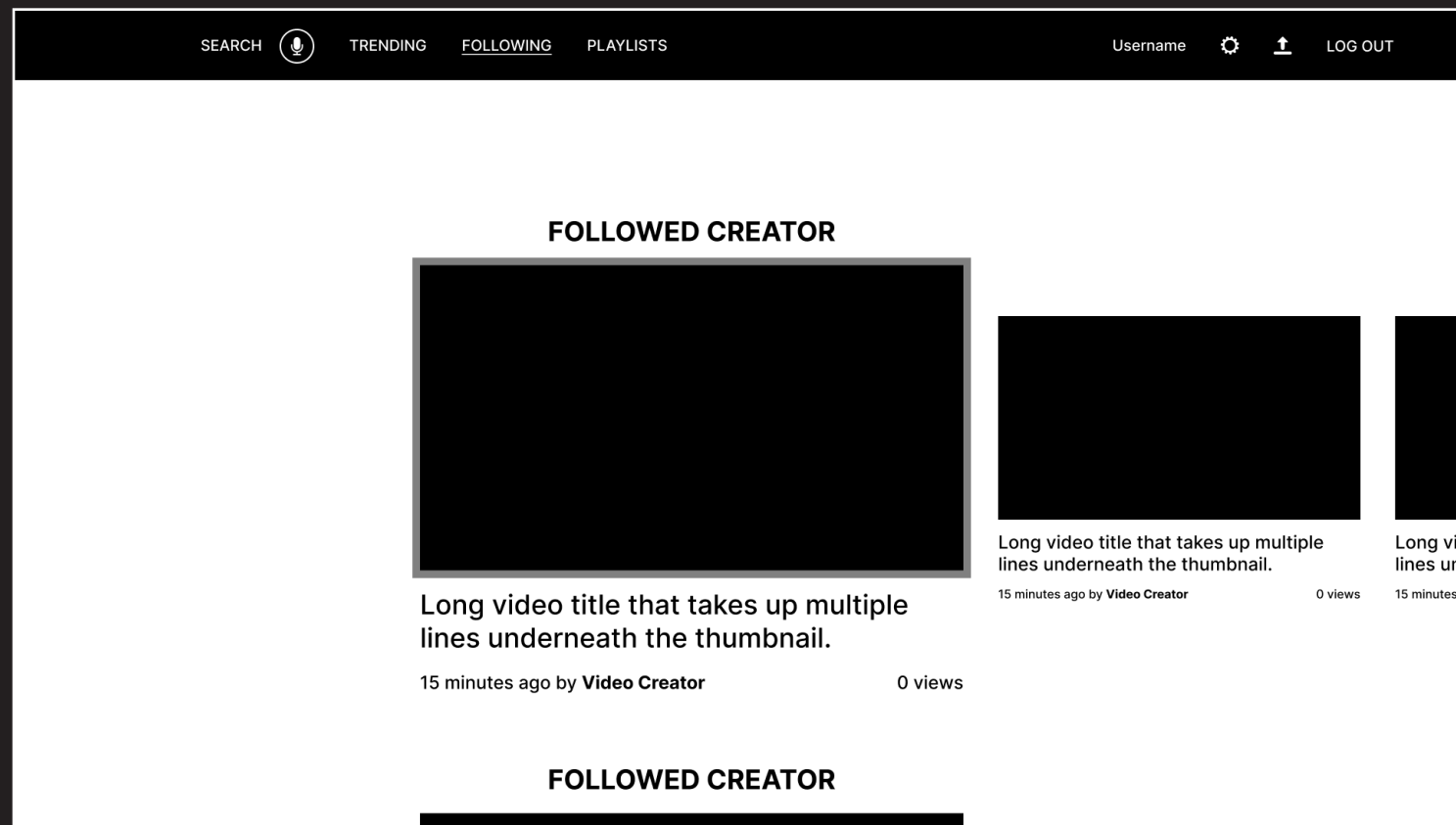
Header

- Like / dislike buttons
- Comments / Description
 - Appear as partial overlays during video playback
- Follow button / Followers

Controls

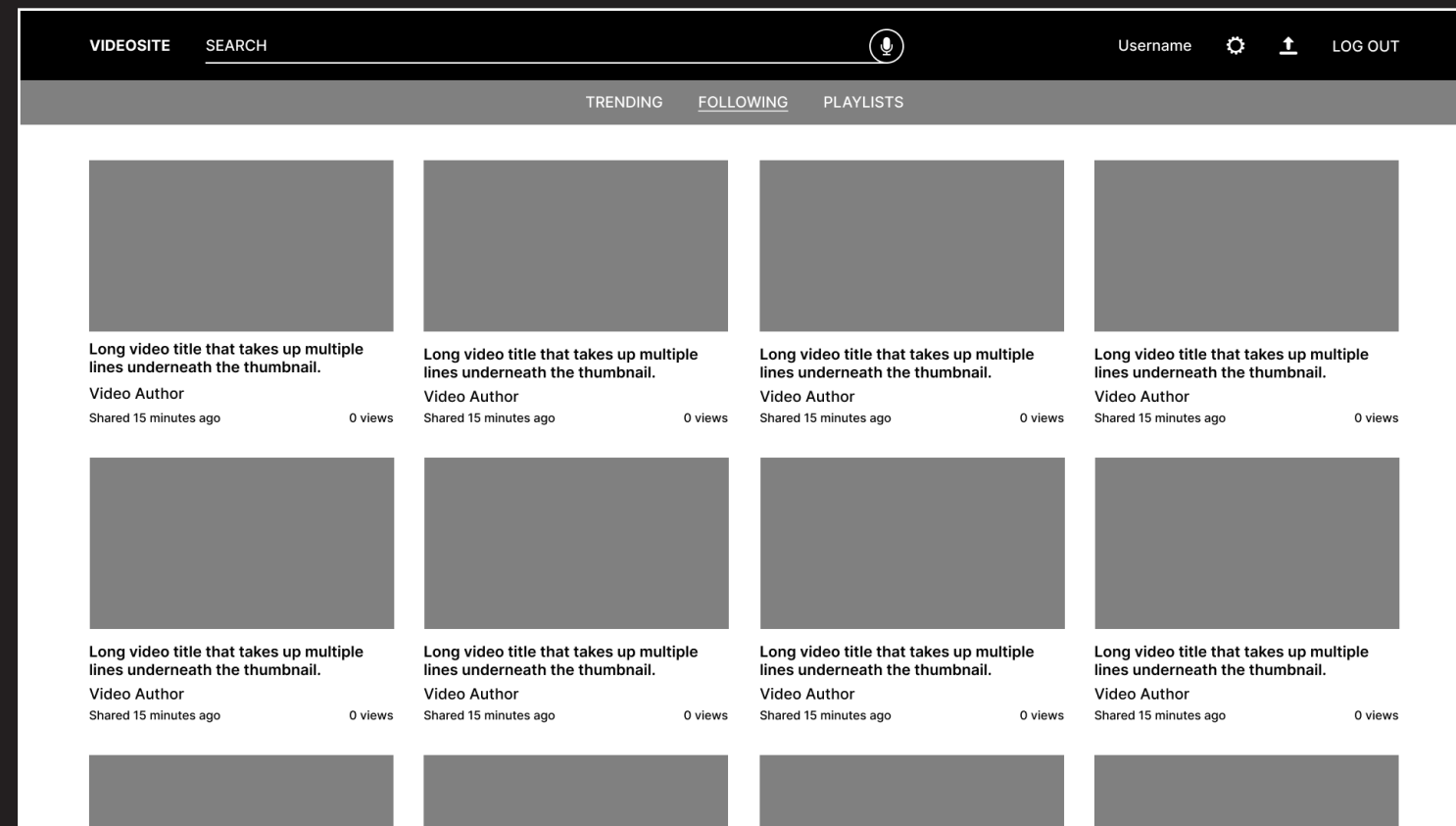
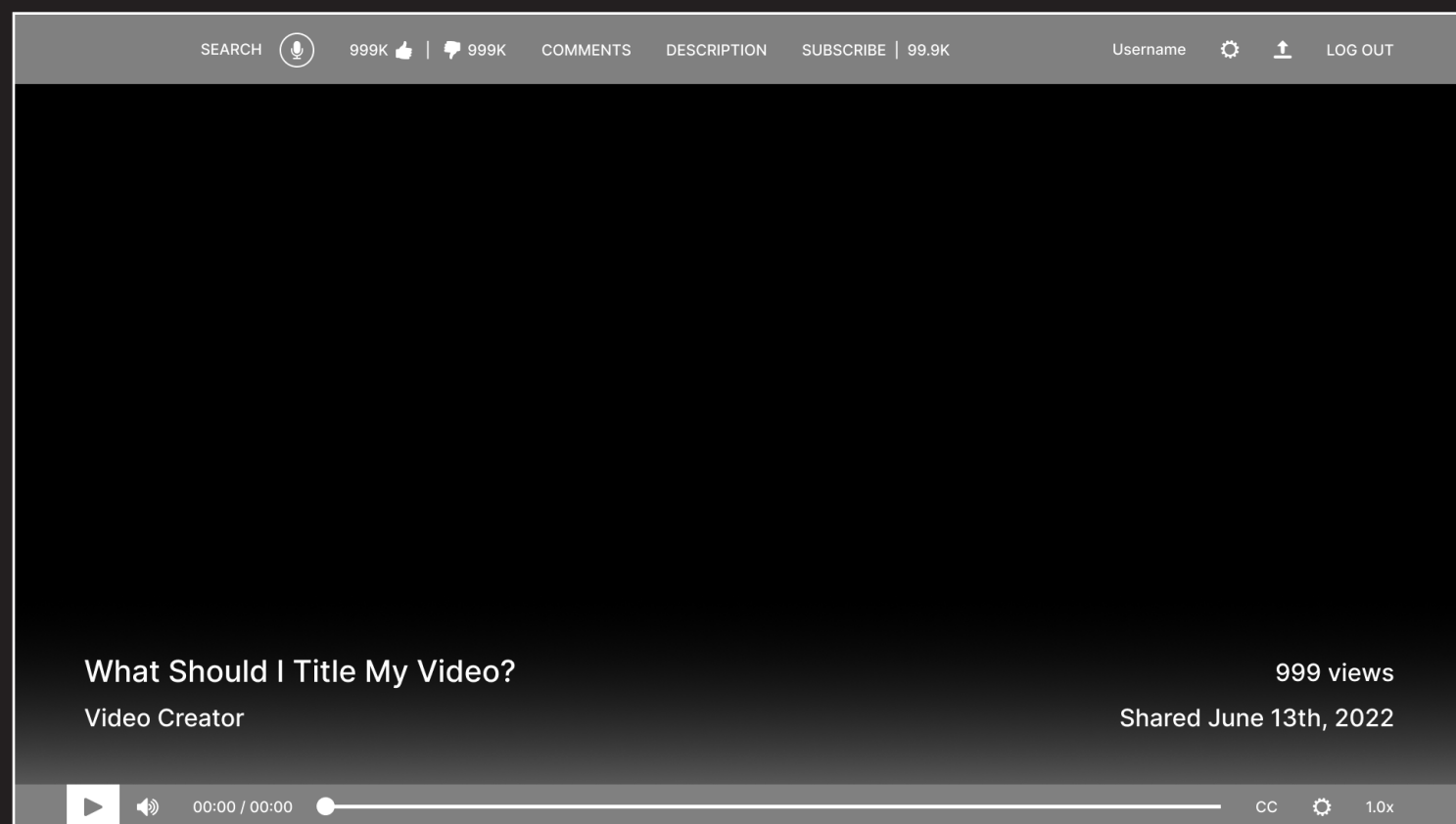
- After a few seconds, video playback overlay will disappear
- Video playback overlay can be recalled by pressing any button on the remote
- Pressing back while overlay is present causes header to appear
- Pressing back while header is present causes the video player to close, sending the viewer back to the previous page of the browser





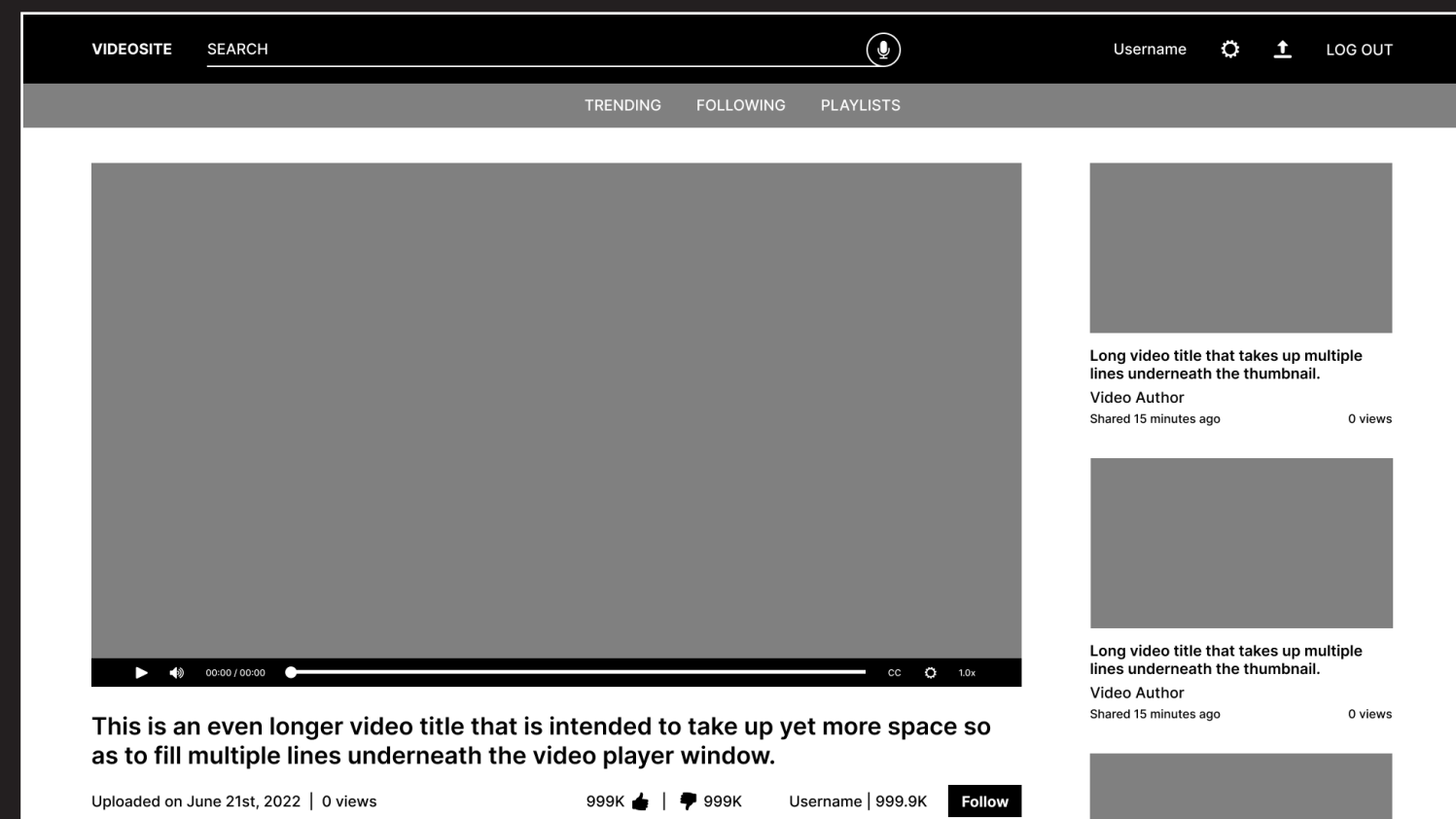
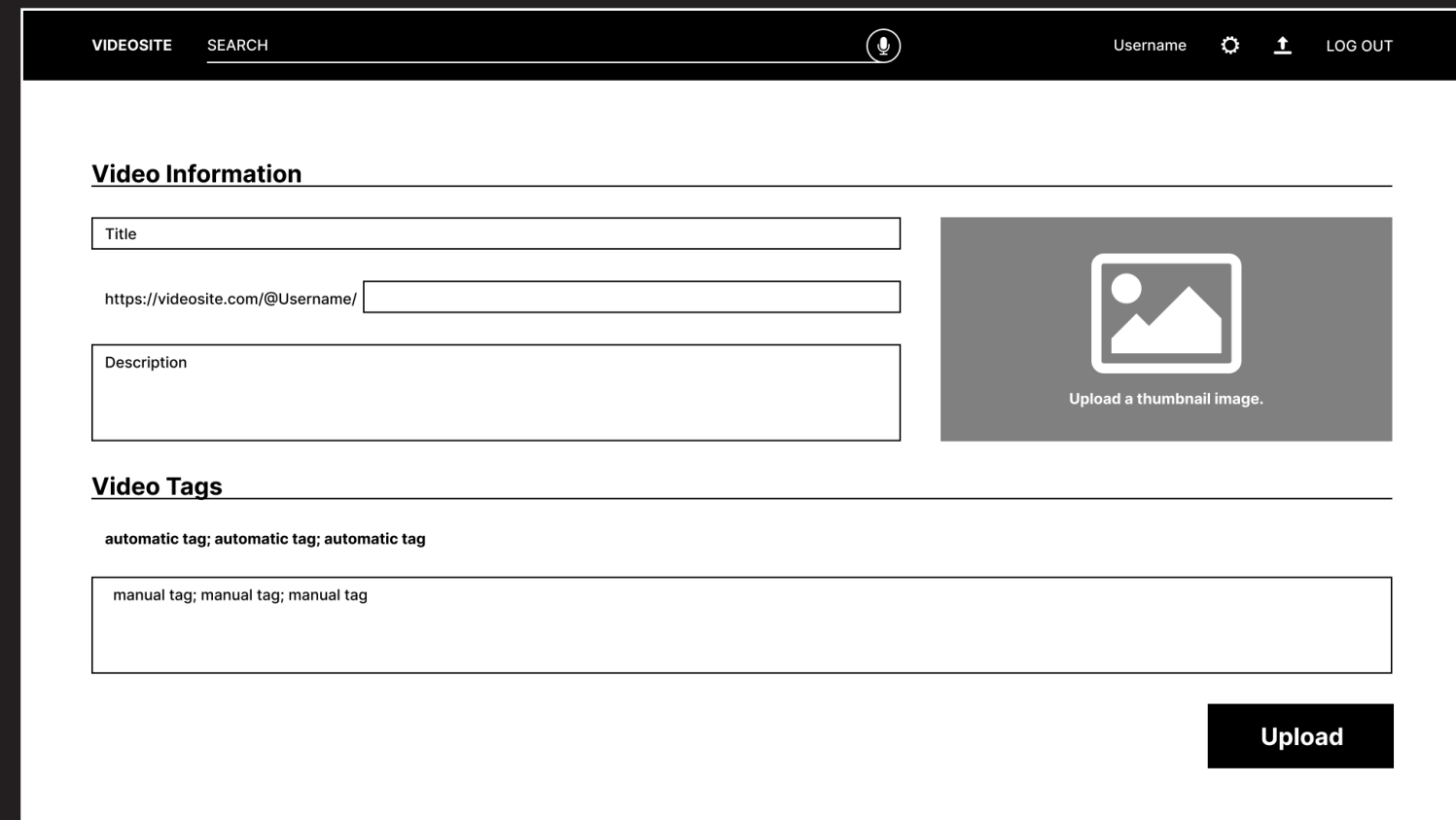
Research results - potential viewer-side changes:

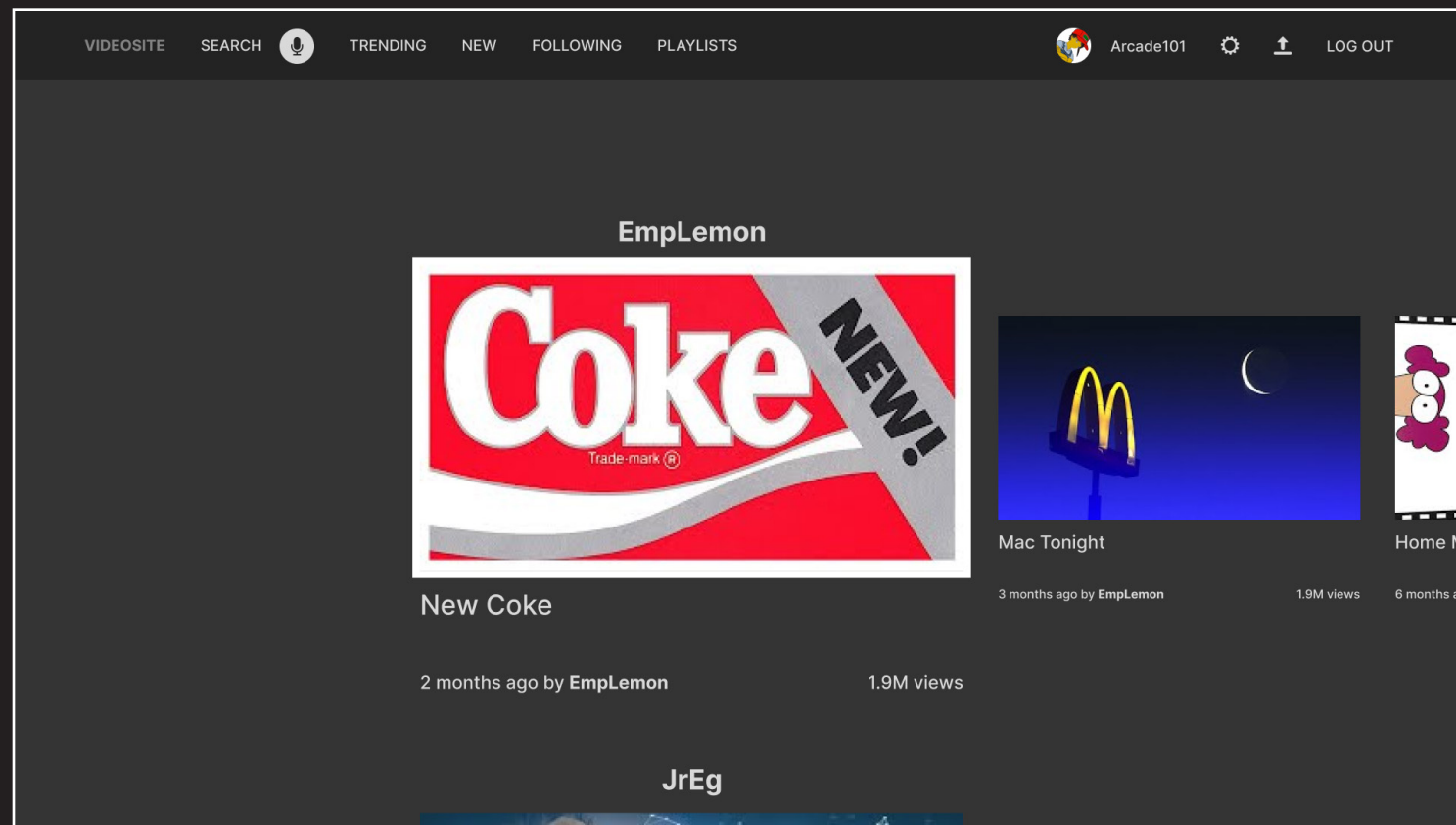
- Include profile avatar
- Add “new” tab to home screen
 - Would provide undiscovered videos
- Submerged search / settings in video player
- Desc. / comment windows in video player
 - Consolidate as “discussion”
- Change tab order in video player
 - Search / desc. / comments / ratings / subscribe
- Add “related” videos tab in video player
 - Would be located before search



Research results - potential creator-side changes:

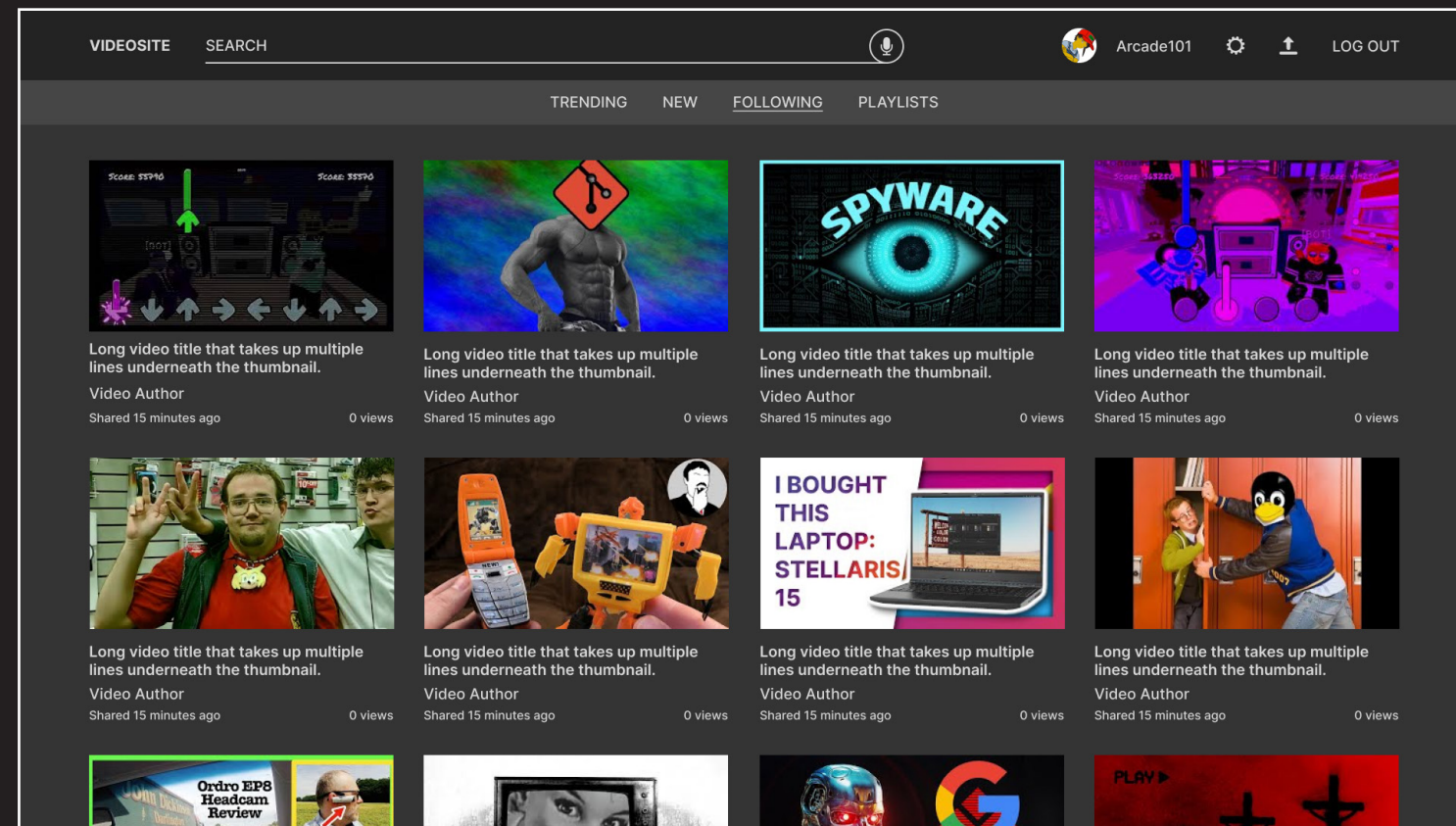
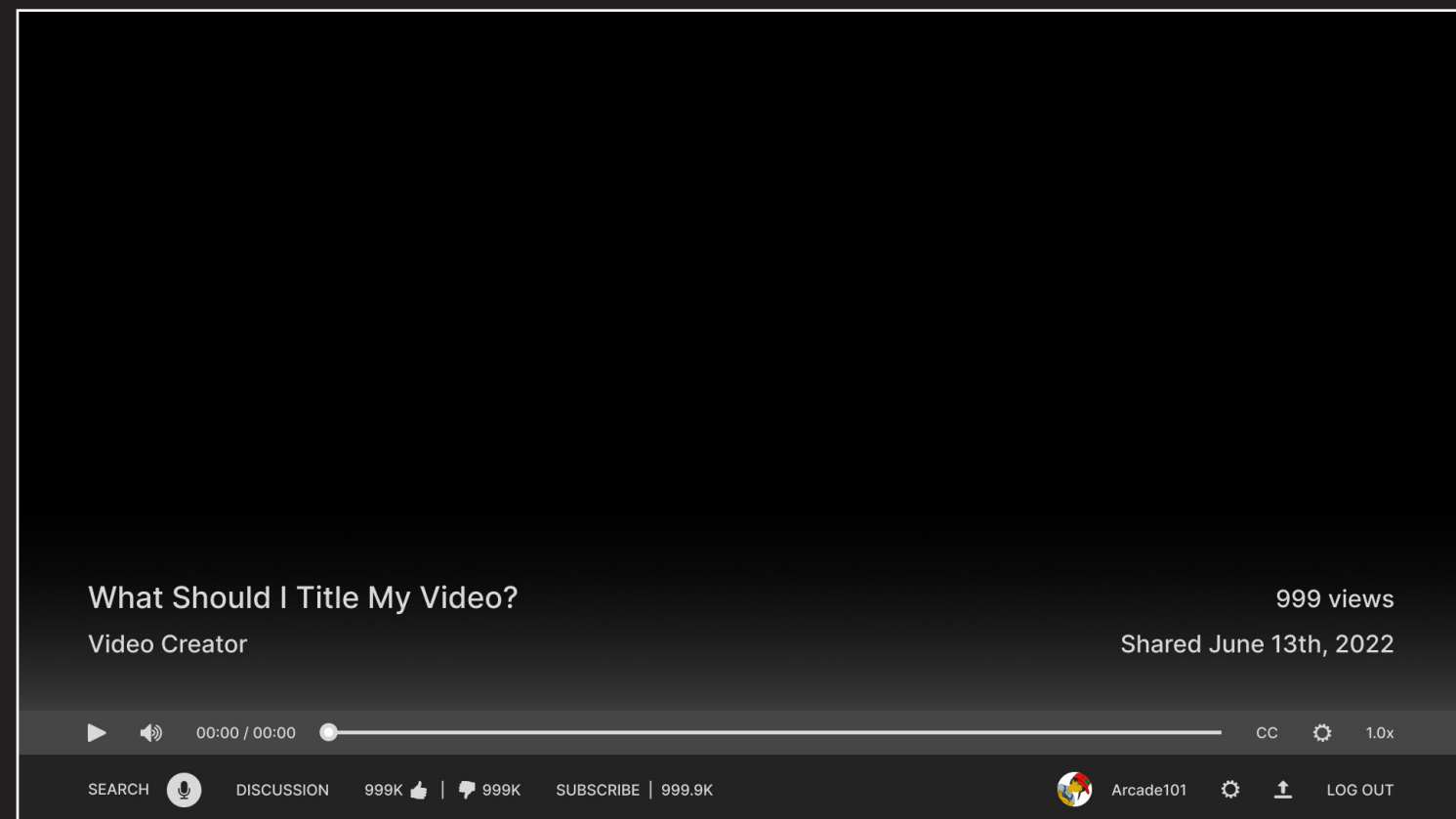
- Include profile avatar
- Add default screen when not following creators
- Add “new” tab to home screen
 - Would provide undiscovered videos
- Add a preview screen for uploaded video
- Add an automatic thumbnail generation option
- Include video length, filesize, aspect ratio + requirements
- Move ratings below video date / views
- Add fullscreen to video player
- Section off related videos / comments in video player





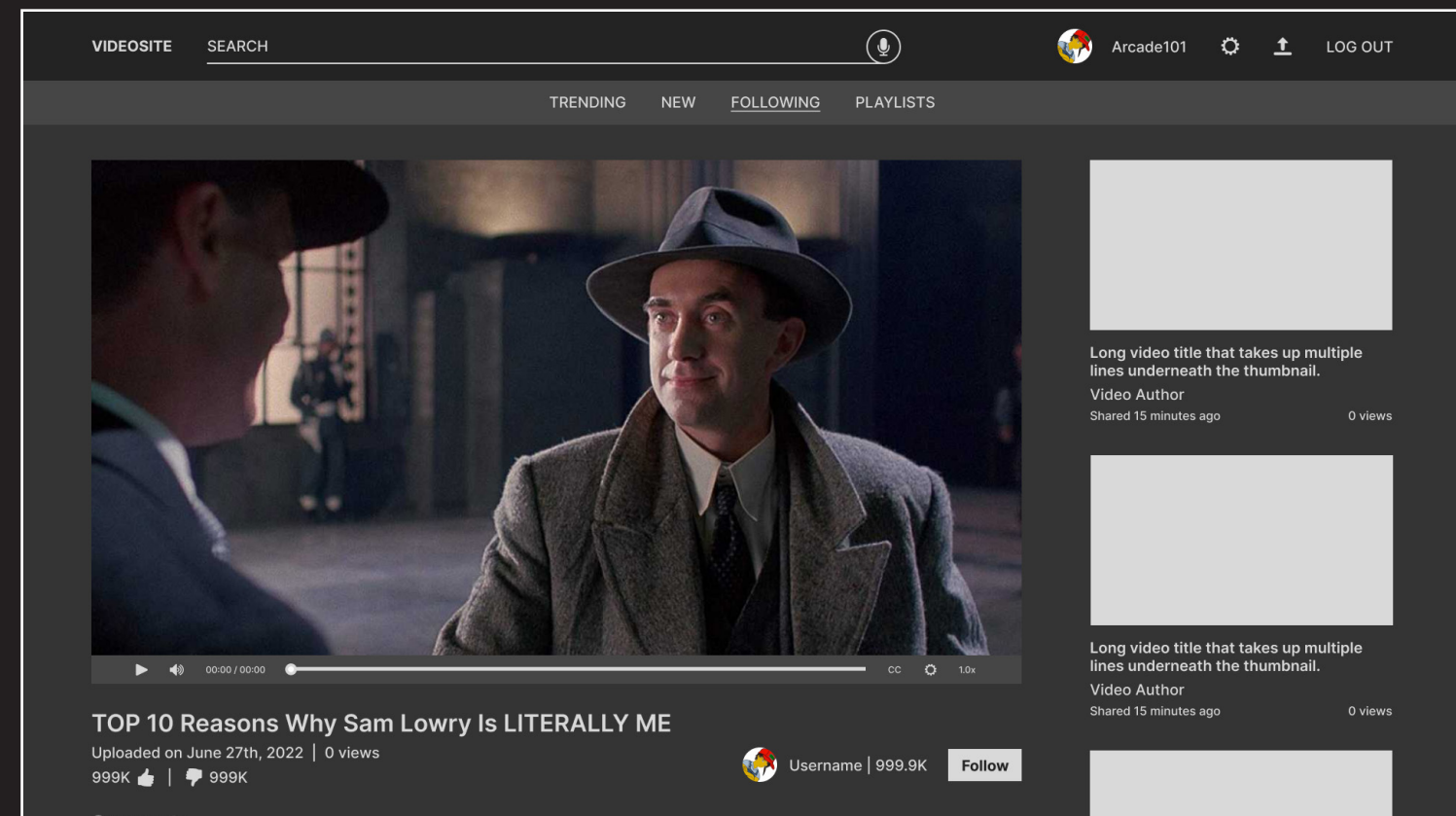
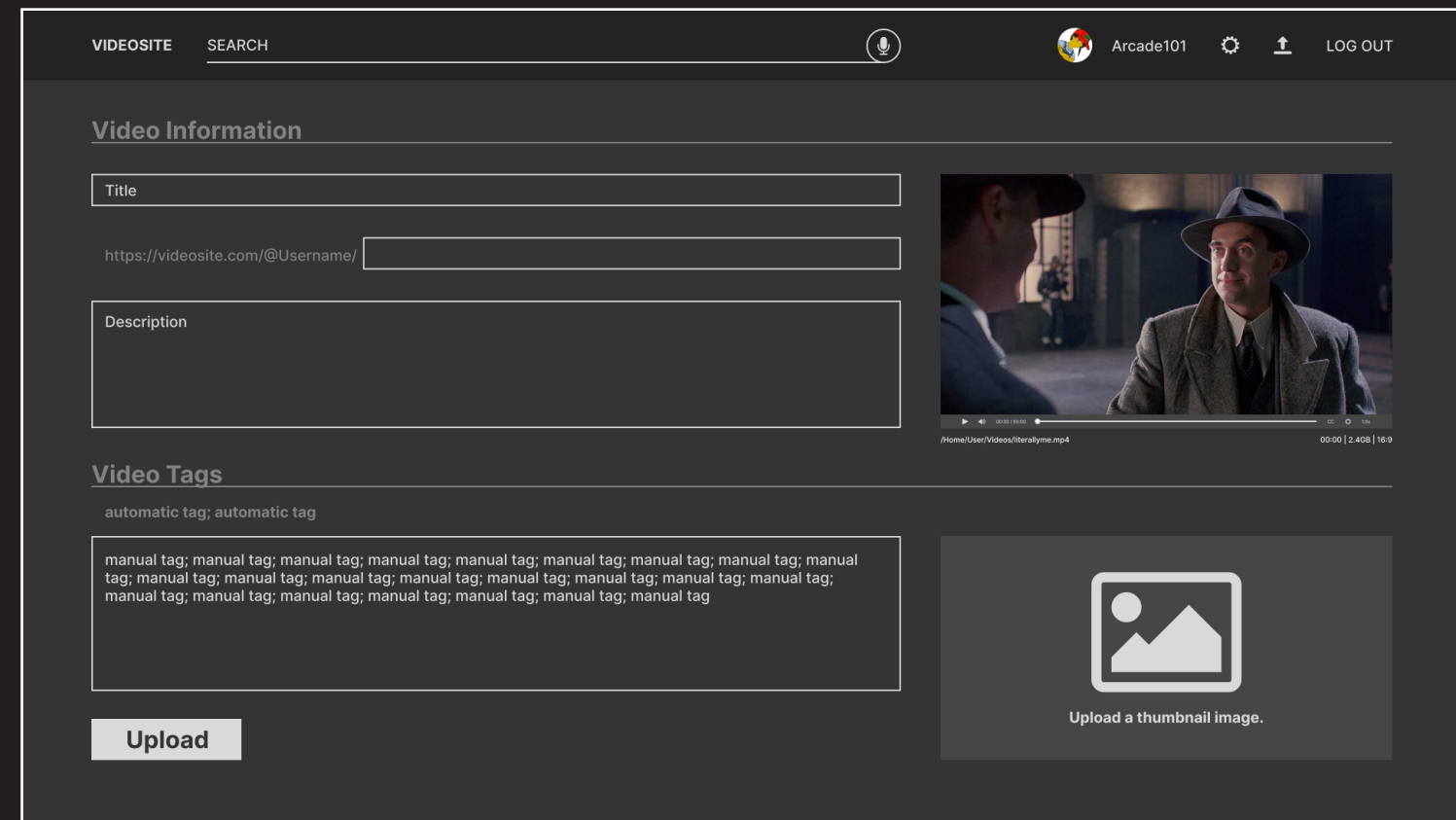
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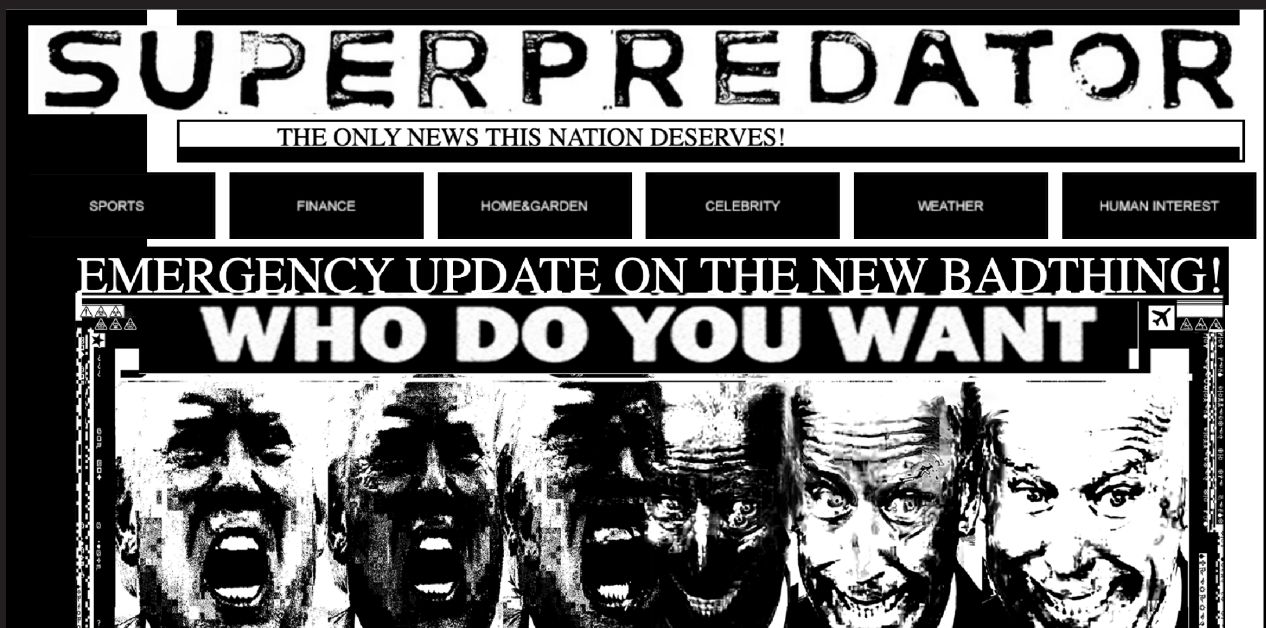


KEY GEN
成果物
compact disc



Orbital

Time becomes	1.43
PLANET OF THE SHAPES	9.36
LUSH 3-1	8.39
LUSH 3-2	4.40
IMPACT (The earth is burning)	10.27
REMIND	7.57
WALK NOW...	6.48
MONDAY	7.05
HALCYON + ON + ON	9.28
Input out	2.11



Visual Style / Moodboard

- Crafted to appear somewhat esoteric or "underground" without losing functionality
- Monochromatic colors provide good contrast and simplicity of form
- Unifont typeface
 - Provides international support through large Unicode coverage
 - Aids simplicity of form without sacrificing legibility

Logo

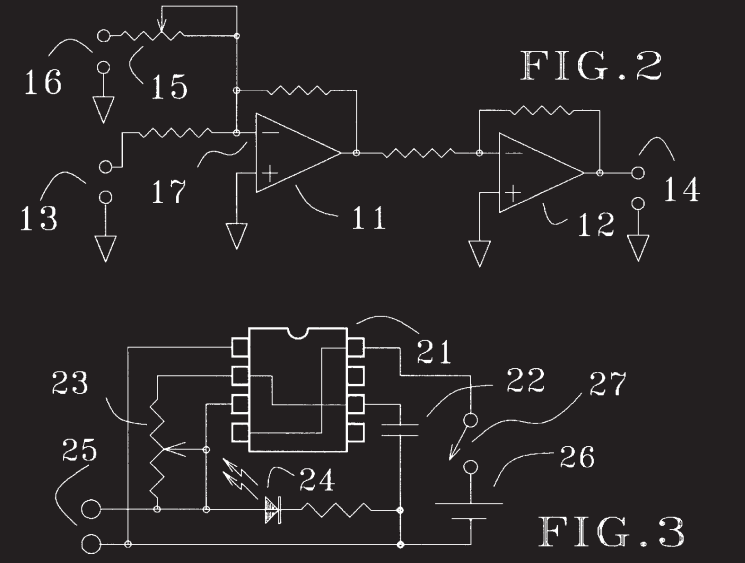
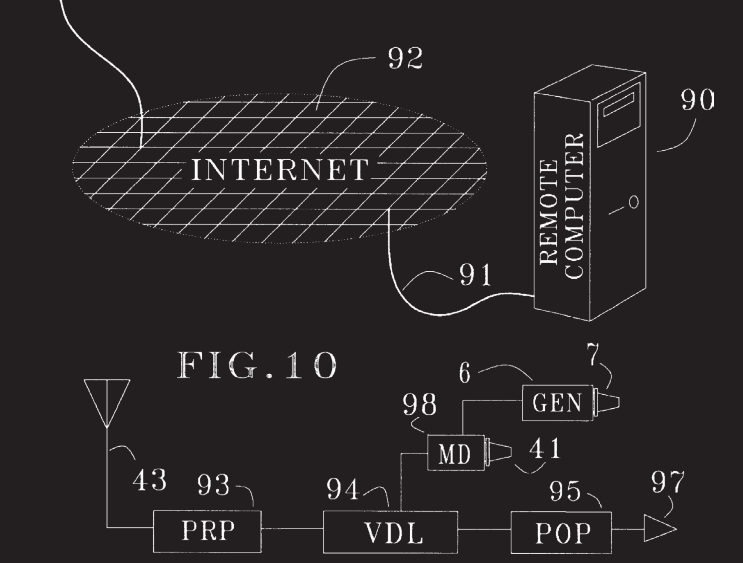
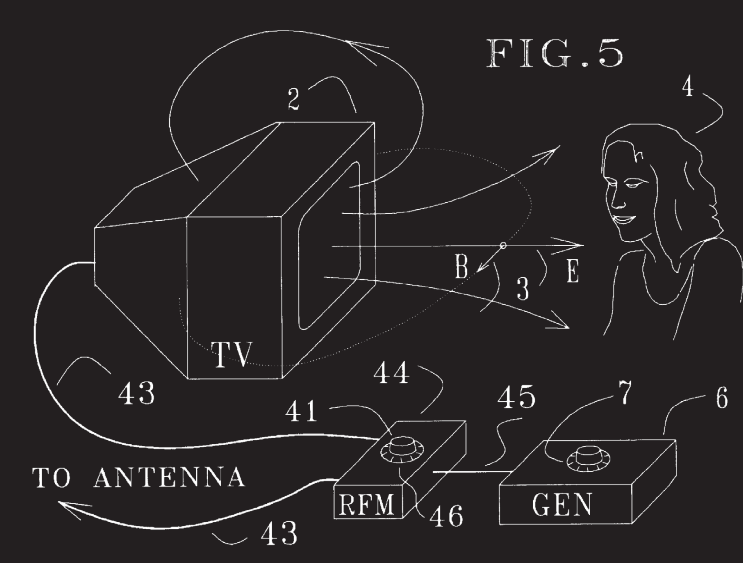
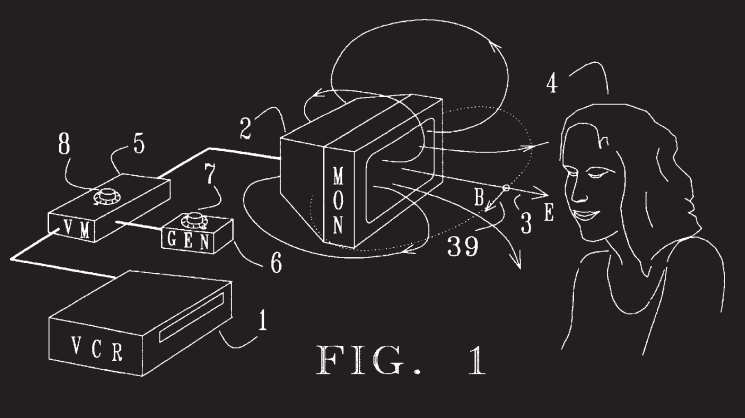
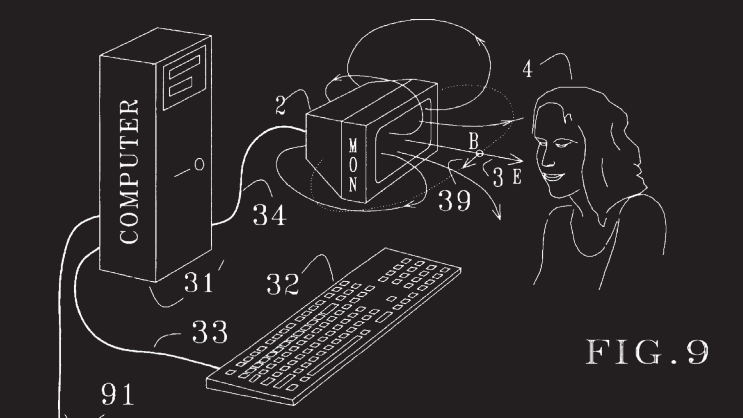
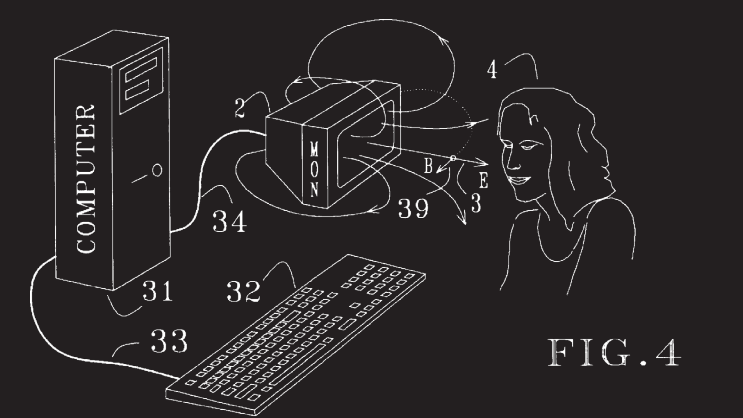
- Diogenes, 1860 painting by Jean-Léon Gérôme
 - Greek philosopher often associated with self-inflicted removal from society
 - Shown adjusting television dial rather than lantern latch
- 1987 Max Headroom signal hijacking on television screen
 - Notorious hijacked television broadcast, culprit still unknown

Slogan

- "Broadcast yourself"
 - Satire of YouTube / establishment video services (hey, they're not using it)

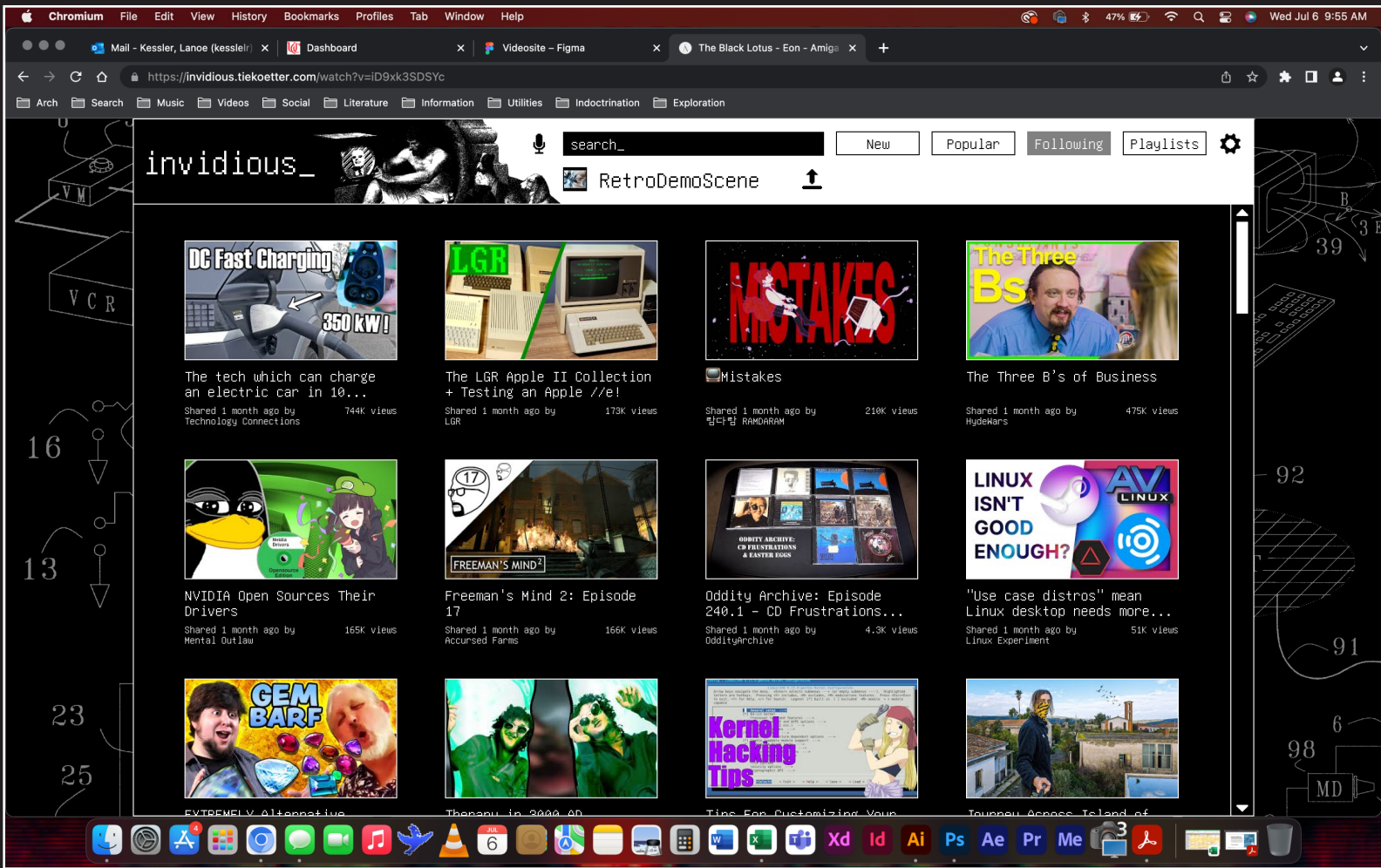
Backgrounds

- Visible in TV application + PC web browser (when fullscreen)
 - Images sourced from U.S. patent #6506148B2

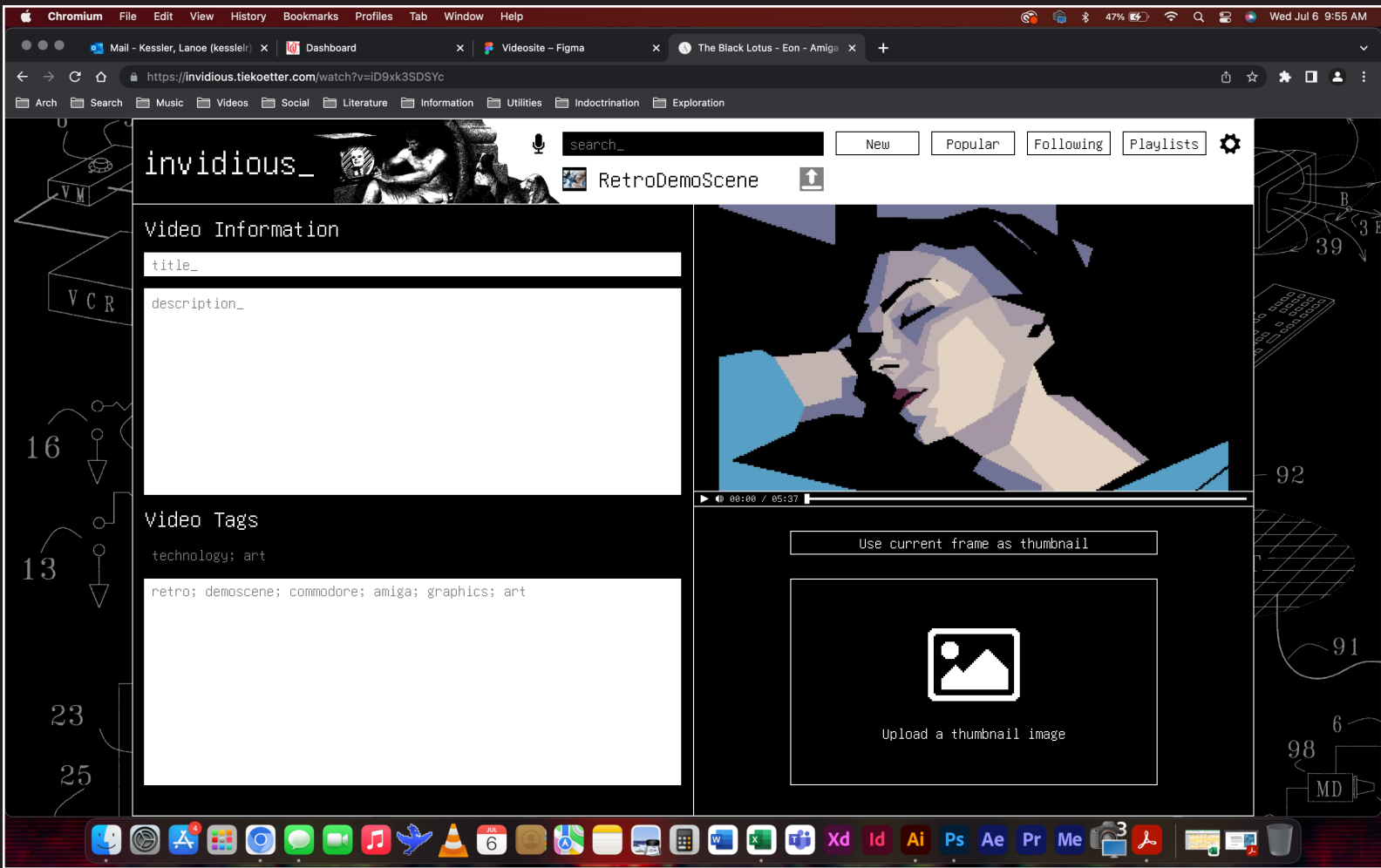


Creator Side, PC Web Browser

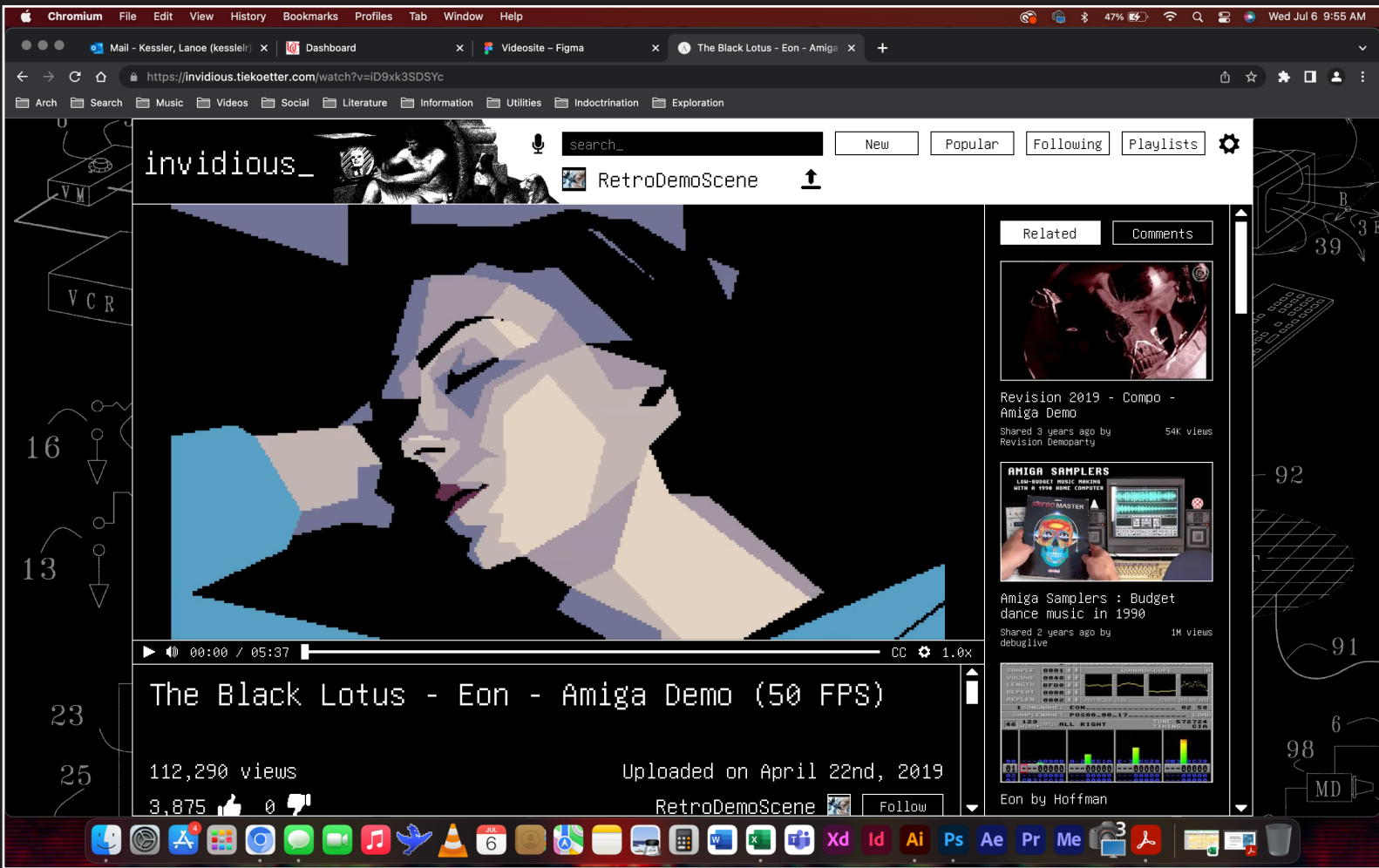
Following



Upload



Video

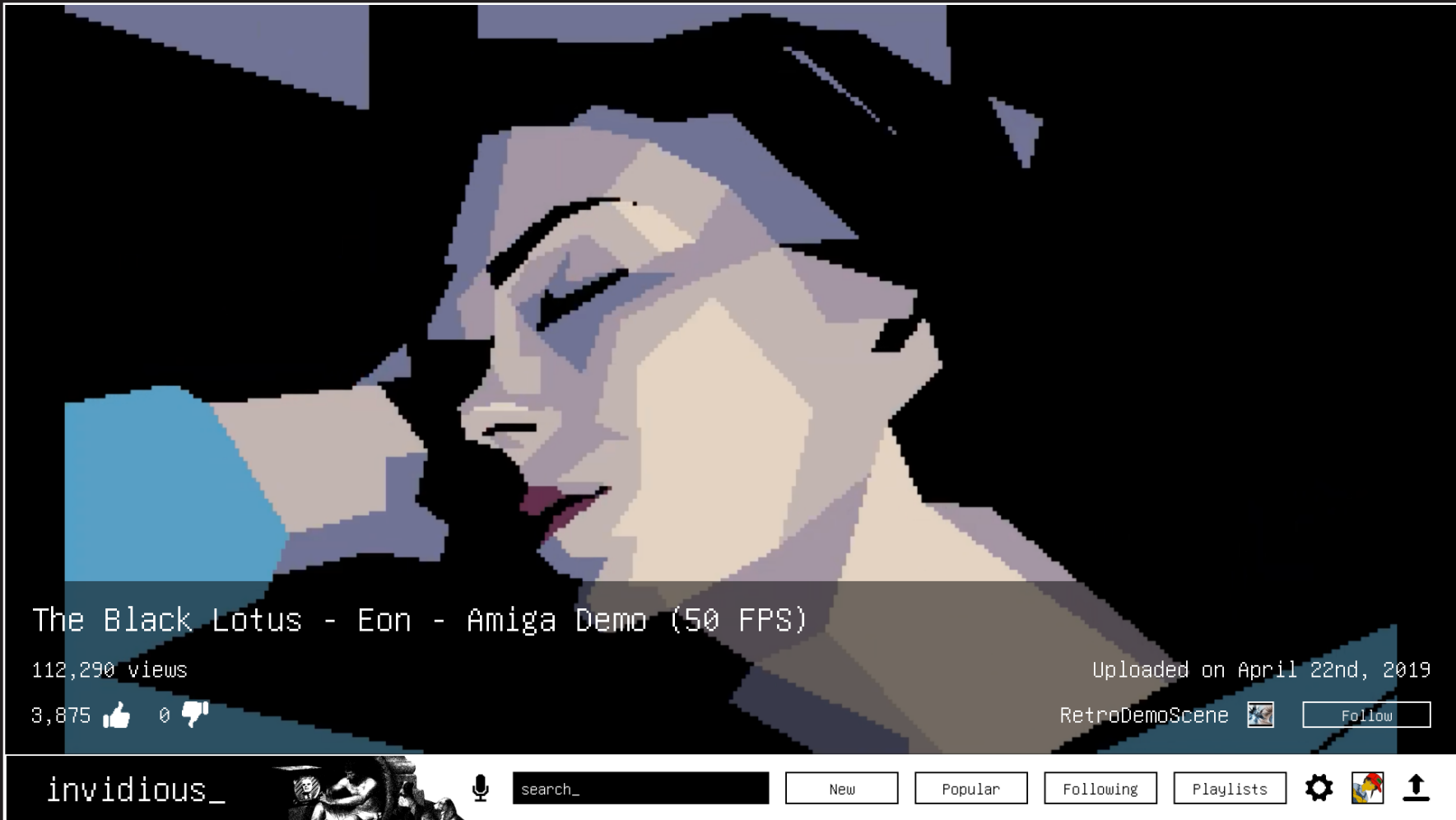


Viewer-Side, TV Application

Following



Video



Creator Side, PC Web Browser (Following)

The screenshot shows a Chromium browser window with the following elements:

- Browser Tabs:** Mail - Kessler, Lanoë (kesslelr) x, Dashboard x, Videosite - Figma x, The Black Lotus - Eon - Amiga x.
- Address Bar:** <https://invidious.tiekoetter.com/watch?v=iD9xk3SDSYc>
- Navigation:** Back, Forward, Refresh, Home icons.
- Site Header:** invidious_ logo, search bar, and navigation buttons: New, Popular, Following, Playlists.
- Video Grid:**
 - DC Fast Charging:** The tech which can charge an electric car in 10... (744K views)
 - LGR:** The LGR Apple II Collection + Testing an Apple //e! (173K views)
 - Mistakes:** Mistakes (210K views)
 - The Three B's of Business:** The Three B's of Business (475K views)
 - NVIDIA Open Sources Their Drivers:** NVIDIA Open Sources Their Drivers (165K views)
 - Freeman's Mind 2:** Freeman's Mind 2: Episode 17 (166K views)
 - Oddity Archive:** Oddity Archive: Episode 240.1 - CD Frustrations... (4.3K views)
 - Linux:** "Use case distros" mean Linux desktop needs more... (51K views)
 - GEM BARF:** GEM BARF (EXTREMELY Alternative)
 - Kernel Hacking Tips:** Kernel Hacking Tips (Therapy in 3000 AD)
 - AV Linux:** AV LINUX (Tips For Customizing Your Journey Across Island of)

Page

- Added background when fullscreen

Header

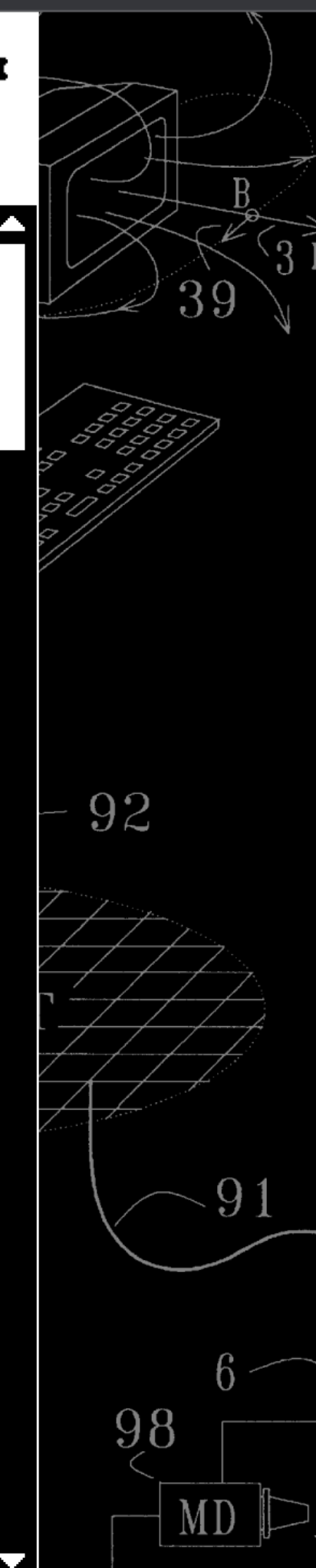
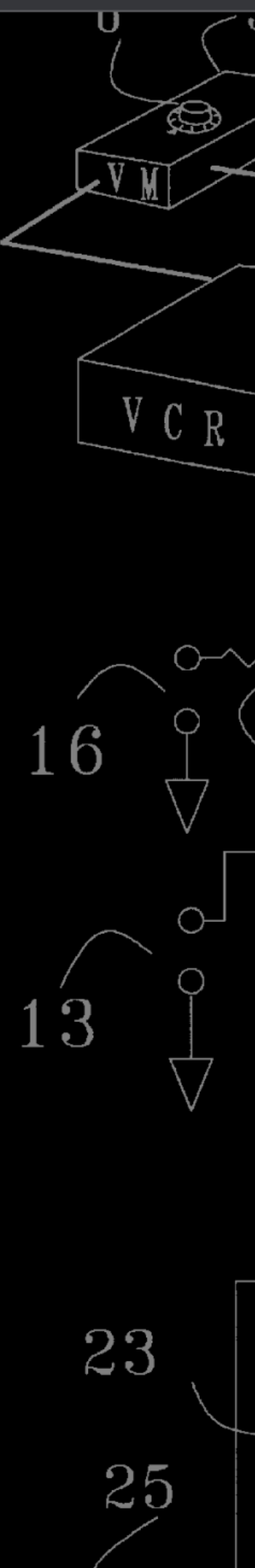
- Reorganization of header elements
- Inclusion of logo and graphic
- Removed quick log out button

Tabs

- Added "New" tab
 - Allows the user to view the latest videos uploaded to the platform at a given moment
 - Intended to further promote undiscovered content

Video Browser

- Added scrollbar



Creator Side, PC Web Browser (Upload)

Chromium File Edit View History Bookmarks Profiles Tab Window Help

Mail - Kessler, Lanoë (kesslelr) x Dashboard x Videosite - Figma x The Black Lotus - Eon - Amiga x +

https://invidious.tiekoetter.com/watch?v=iD9xk3SDSYc

Arch Search Music Videos Social Literature Information Utilities Indoctrination Exploration

invidious_ search_ New Popular Following Playlists

RetroDemoScene

Video Information

title_

description_

Video Tags

technology; art

retro; demoscene; commodore; amiga; graphics; art

Use current frame as thumbnail

Upload a thumbnail image

16

13

23

25

92

91

98

6

MD

VM

VCR

16

13

23

25

92

91

98

6

MD

- Removed video URL option
- URL must be ubiquitous between YouTube and invidious

- Added video preview player
- User can select the current frame for use as a video thumbnail

Creator Side, PC Web Browser (Video)

Chromium File Edit View History Bookmarks Profiles Tab Window Help

Mail - Kessler, Lane (kesslelr) x Dashboard x Videosite - Figma x The Black Lotus - Eon - Amiga x +

https://invidious.tiekoetter.com/watch?v=iD9xk3SDSYc

Arch Search Music Videos Social Literature Information Utilities Indoctrination Exploration

invidious_ search_ New Popular Following Playlists

RetroDemoScene

Related Comments

Revision 2019 - Compo - Amiga Demo
Shared 3 years ago by Revision Demoparty 54K views

AMIGA SAMPLERS
LOW-BUDGET MUSIC MAKING WITH A 1990 HOME COMPUTER
stereo MASTER
Amiga Samplers : Budget dance music in 1990
Shared 2 years ago by debuglive 1M views

0001 VOLUNE 0040 LENGTH 0F00 REPEAT 0000
1 SONGNAME: EOM 02:50
SAMPLE NAME: P0500_00_17 LORD
46 129 TUNE 572724
ALL RIGHT T1ENG CIA

The Black Lotus - Eon - Amiga Demo (50 FPS)

112,290 views Uploaded on April 22nd, 2019

3,875 likes 0 dislikes

RetroDemoScene Follow

Eon by Hoffman

16 13 23 25 92 91 98 6 MD

Windows

- Separated comments, description and related videos into sub-windows
- Allows for simultaneous video playback and viewing of comments, description or related videos

Video Information

- Rearranged video information
- Comments relocated to sidebar

Sidebar

- Related videos and comments are viewed via interchangeable tabs
- Can be formatted vertically in a similar fashion

Viewer Side, TV Application (Following)

COMPUTER

MON

GEN

Accursed Farms

Videochat June 2022

Shared 2 weeks ago

30K views

MAGE KNIGHT APOCALYPSE

Ross's Game Dungeon: Mage Knight Apocalypse

Shared 3 weeks ago

239K views

Free 17 Shared

AWFUL FAWFUL

invidious_

search_

New Popular Following Playlists


Settings Profile Upload

Browser

- Added patterned background



Footer

- Exchanged header for footer









The Black Lotus - Eon - Amiga Demo (50 FPS)

112,290 views

3,875  0 

Uploaded on April 22nd, 2019

RetroDemoScene  [Follow](#)

invidious_   [New](#) [Popular](#) [Following](#) [Playlists](#)   

Overlay

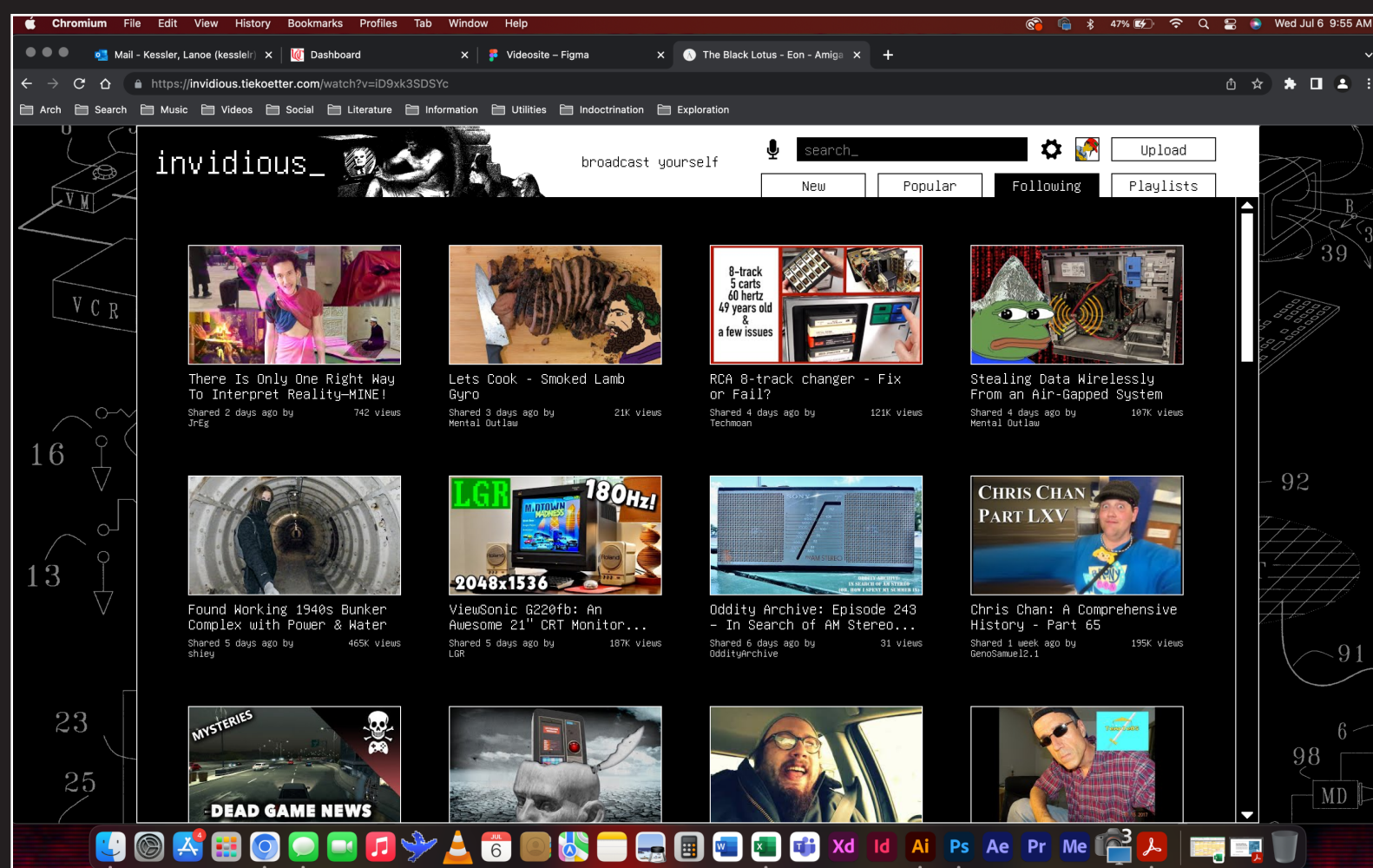
- Added views and follow button to video player overlay

Footer

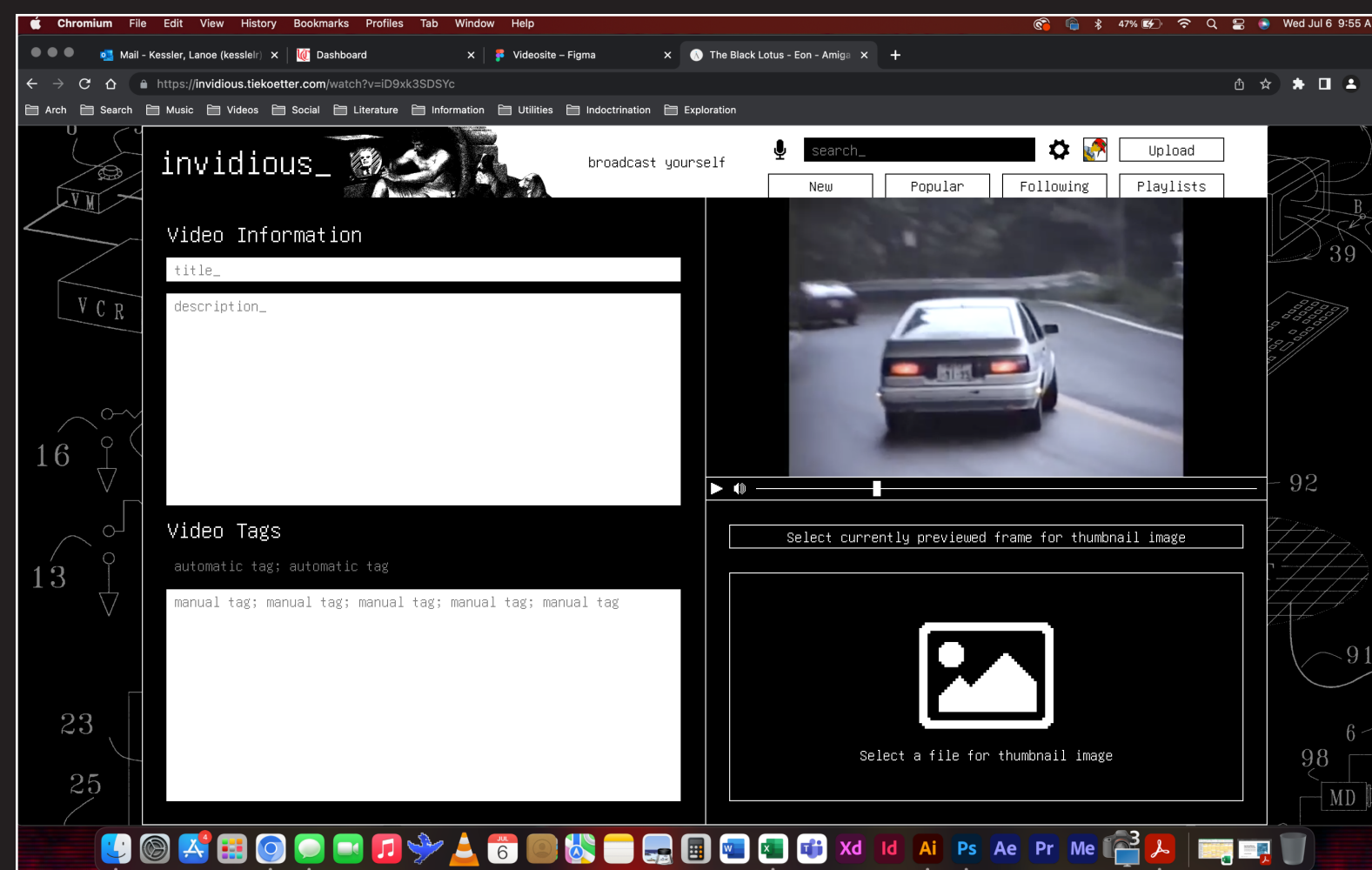
- Exchanged header for footer

Creator Side, PC Web Browser

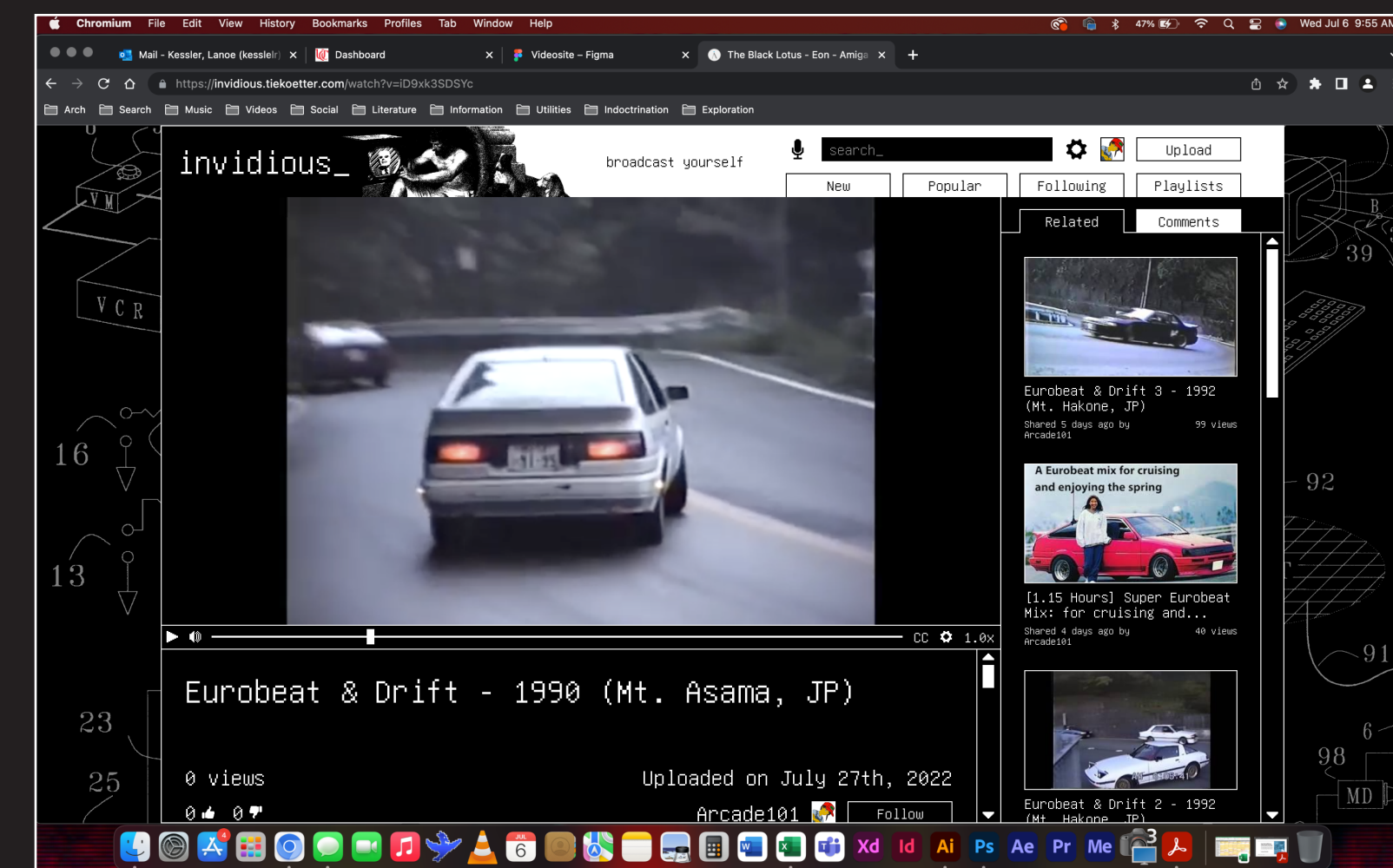
Following



Upload



Video

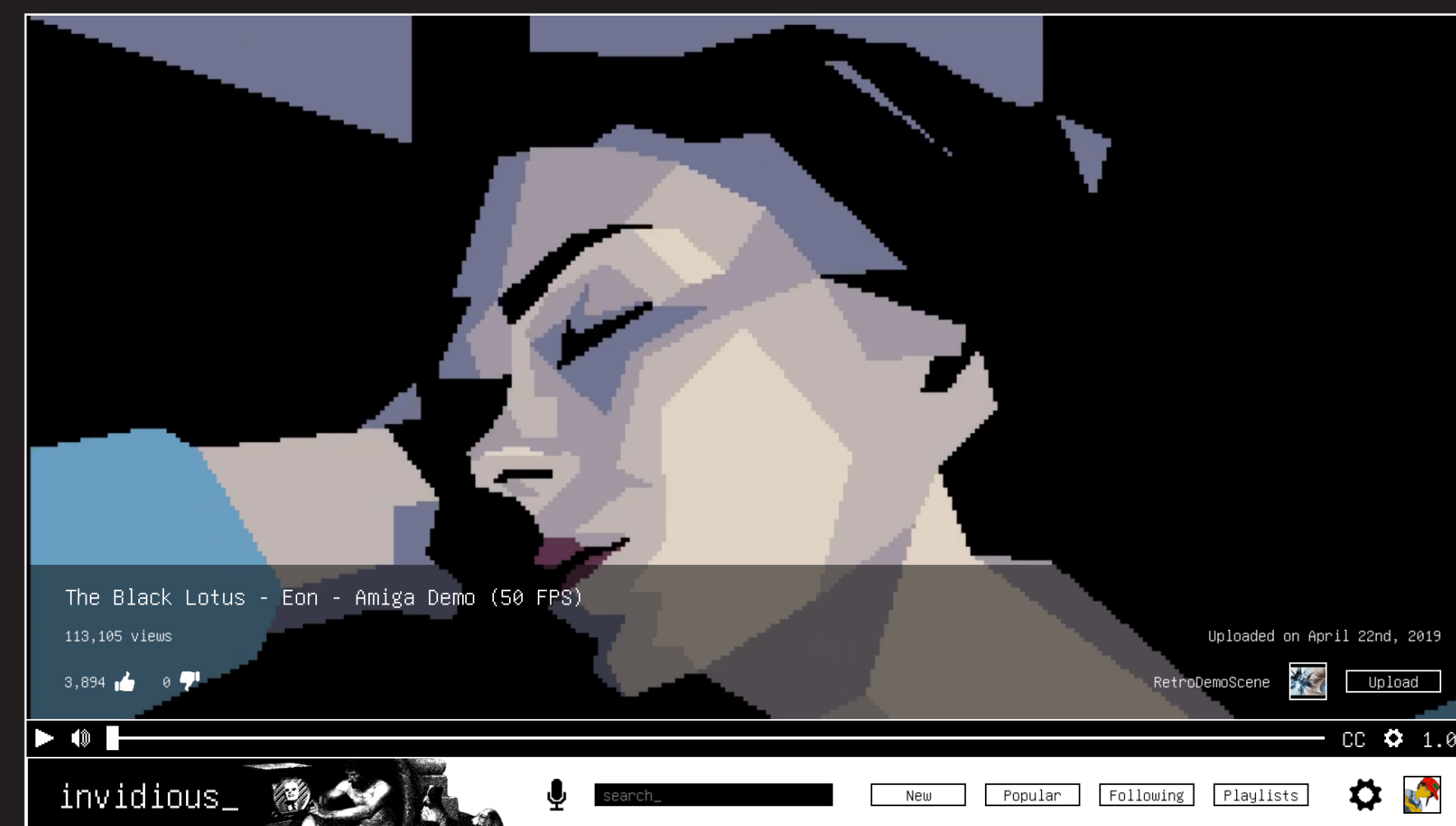


Viewer-Side, TV Application

Following



Video



Creator Side, PC Web Browser (Following)

Chromium File Edit View History Bookmarks Profiles Tab Window Help

Mail - Kessler, Lanoë (kesslelr) x Dashboard x Videosite - Figma x The Black Lotus - Eon - Amiga x +

https://invidious.tiekoetter.com/watch?v=iD9xk3SDSYc

Arch Search Music Videos Social Literature Information Utilities Indoctrination Exploration

invidious_ broadcast yourself search_ Upload

New Popular Following Playlists

There Is Only One Right Way To Interpret Reality-MINE!
Shared 2 days ago by JrEg 742 views

Lets Cook - Smoked Lamb Gyro
Shared 3 days ago by Mental Outlaw 21K views

8-track 5 carts 60 hertz 49 years old & a few issues
RCA 8-track changer - Fix or Fail?
Shared 4 days ago by Techmoan 121K views

Stealing Data Wirelessly From an Air-Gapped System
Shared 4 days ago by Mental Outlaw 107K views

Found Working 1940s Bunker Complex with Power & Water
Shared 5 days ago by shiey 465K views

ViewSonic G220fb: An Awesome 21" CRT Monitor...
Shared 5 days ago by LGR 187K views

Oddity Archive: Episode 243 - In Search of AM Stereo...
Shared 6 days ago by OddityArchive 31 views

CHRIS CHAN PART LXV
Chris Chan: A Comprehensive History - Part 65
Shared 1 week ago by GenoSamuel12.1 195K views

DEAD GAME NEWS

MD

Page

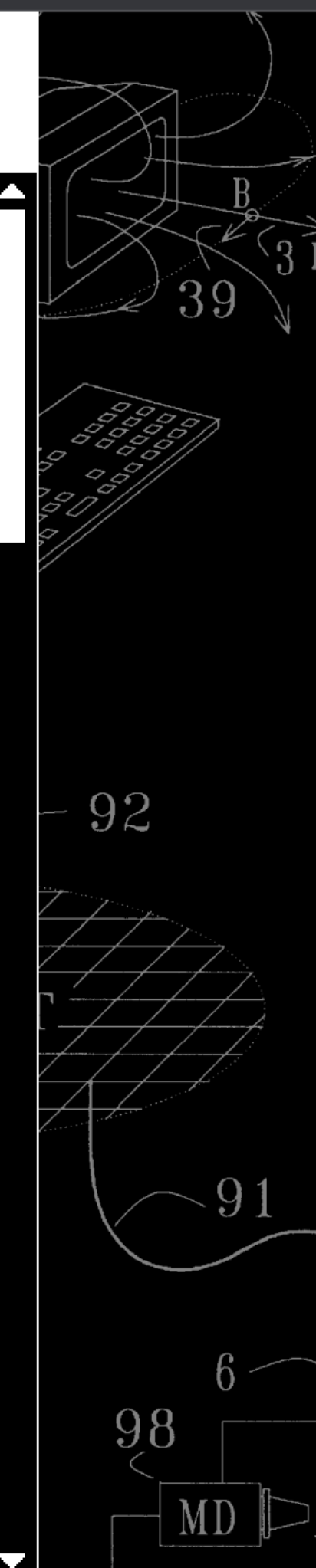
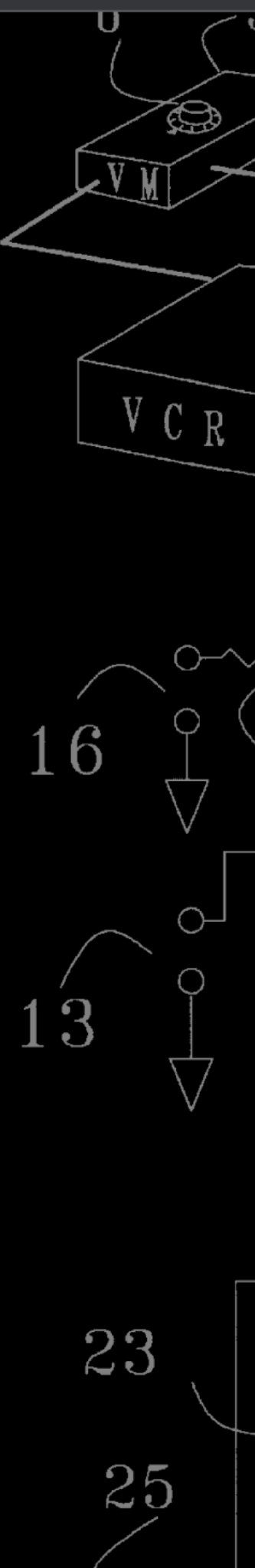
- Added background when fullscreen

Header

- Reorganization of header elements
- Inclusion of banner text
- Exchanged upload icon for button with text
 - Creates more emphasis

Tabs

- Changed button style to tabs
 - Clearer association between categories and currently video browsing



Creator Side, PC Web Browser (Upload)

Chromium File Edit View History Bookmarks Profiles Tab Window Help

Mail - Kessler, Lane (kesslelr) x Dashboard x Videosite - Figma x The Black Lotus - Eon - Amiga x

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Video Information

title_


description_

Video Tags

automatic tag; automatic tag

manual tag; manual tag; manual tag; manual tag; manual tag

Select currently previewed frame for thumbnail image



Select a file for thumbnail image

16

13

23

25

92


91

98

6

MD

(No Significant Changes)



(No Significant Changes)

Make-Fun-of-Millennials Saturday Stream
 Shared 1 week ago by Luke Smith
 22K views

Mental Outlaw

Set -o vi
 !!:s/fo0/bar/
 sudo !-3
 rm !-5*


I love shell shortcuts

Command Line Tricks That Make Me the Coolest Guy...
 Shared 1 day ago by Mental Outlaw
 41K views

RustDesk - The Self Hosted Open Source Team Viewer...
 Shared 3 days ago by Mental Outlaw
 62K views



invidious_ search_ New Popular Following Playlists

(No Significant Changes)









The Black Lotus - Eon - Amiga Demo (50 FPS)





113,105 views

3,894  0 

Uploaded on April 22nd, 2019

RetroDemoScene 

     1.0x

invidious_    



Lanoe Kessler
Summer 2022
CODE 4062-001
Interaction Design

thank you