

Applying Usability & Accessibility Principles

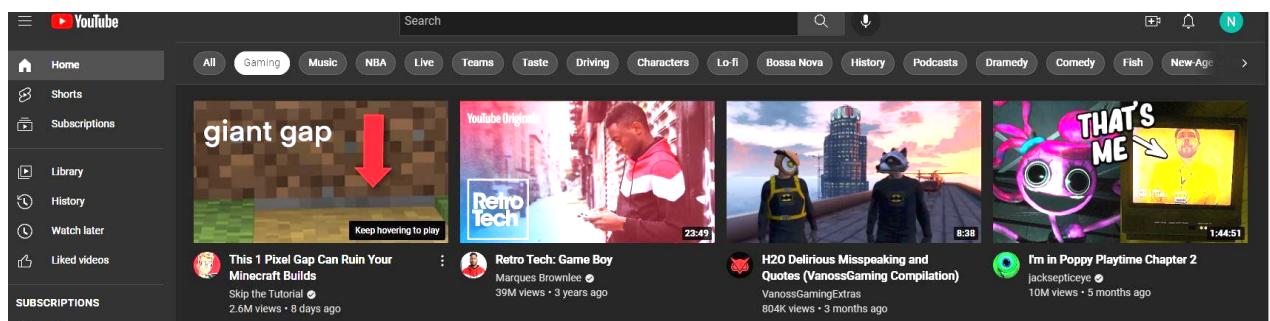
Software systems are created for the purpose to be helpful to its users. That means it must meet the accessibility and usability principles we have discussed in class in Section 3.3.4 on “The Eight Golden Rules of Interface Design” regarding usability principles, and the W3C’s WCAG standards regarding the four accessibility principles. Together, applying both usability and accessibility principles into a software system only increases its usefulness and user experience. Youtube.com is a great example of a software system platform that successfully applied both usability and accessibility principles in their software product.

Usability Principles

1. Strike for consistency

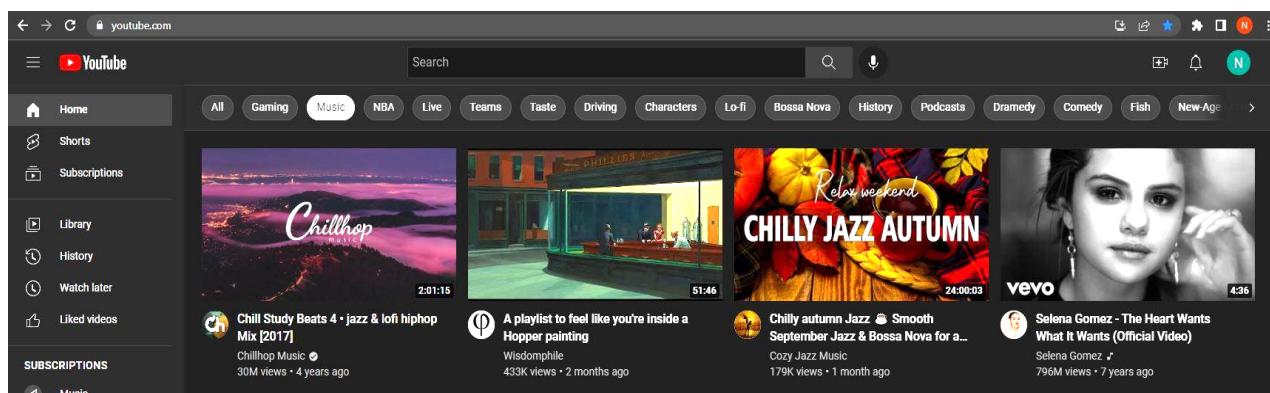
Youtube.com applied the usability principle of consistency in their product’s layout. The consistency sequences of actions Youtube.com uses on their web platform can be seen through: the text prompts and fonts, the menus options, and layouts in screen sizes and placements of buttons and mini-screen plays that are employed throughout the website. Video animations and playbacks are also very consistent. The action of switching between tabs is also very consistent throughout the website.

Gaming Video Tab



(“The list of videos on the gaming tab.”)

Music Video Tab

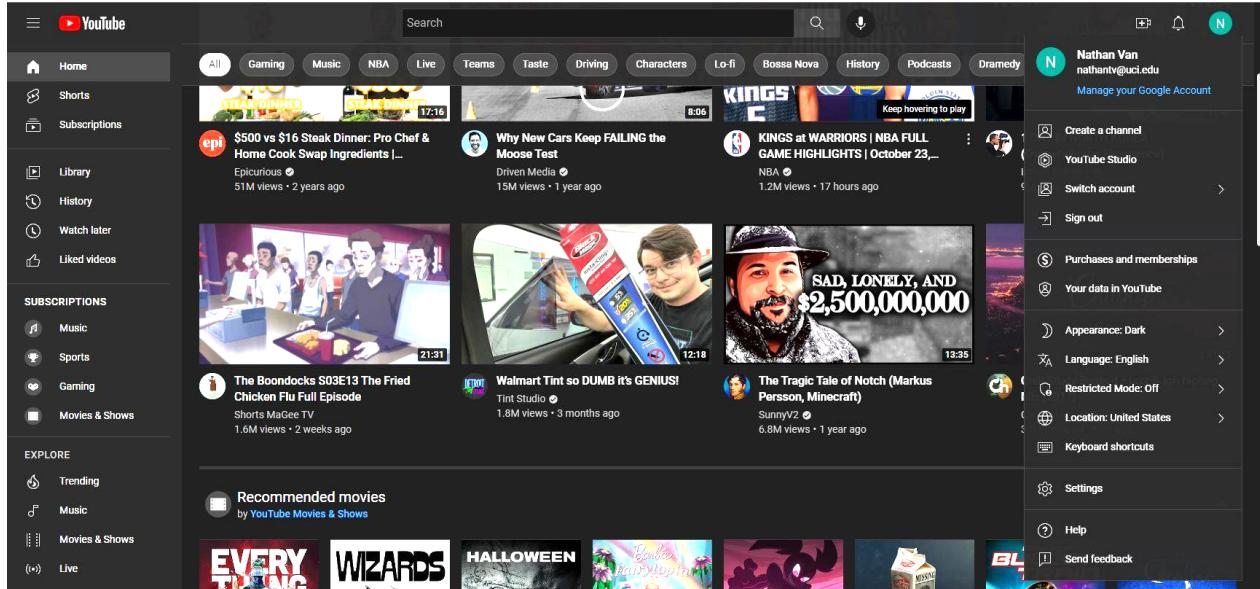


(“The list of videos on the music tab.”)

2. Seek universal usability

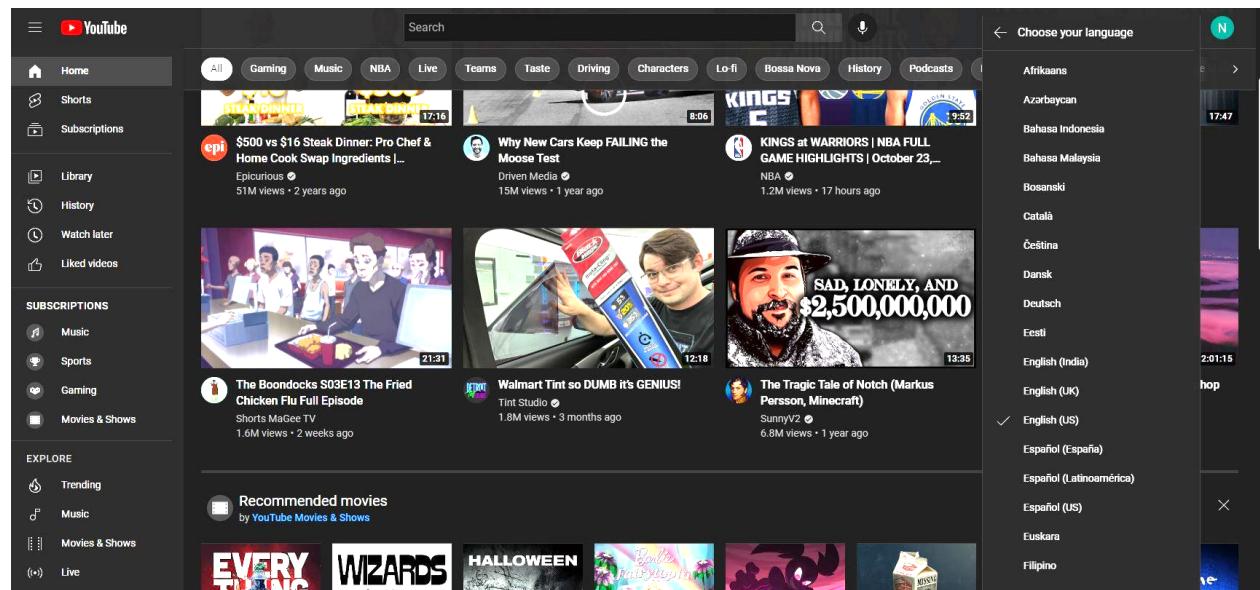
Youtube.com makes it very easy for people from different geography, international users, and non-English native users to choose their preferred language and location. Youtube.com's dark mode theme helps users with sensitive eyesights to use its site in the dark without harming their eyes. Keyboard shortcuts option allows advanced users to navigate through the site more easily. All these are universal usability features that make it applicable to many different types of people. The more universally usable Youtube.com is, the more users it can address and attract at the same time.

Appearance/Language/Location/Keyboard Settings



("Allow user to change the language.")

Choose your language

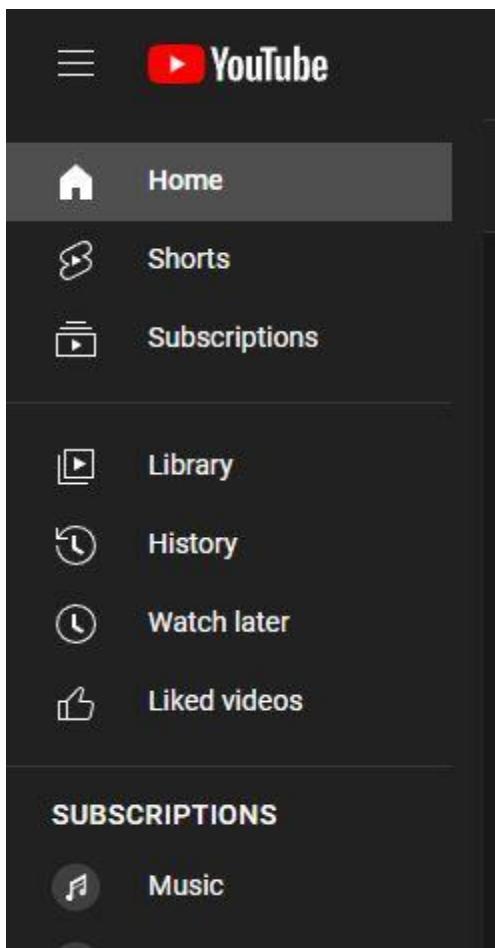


("Different language options are available.")

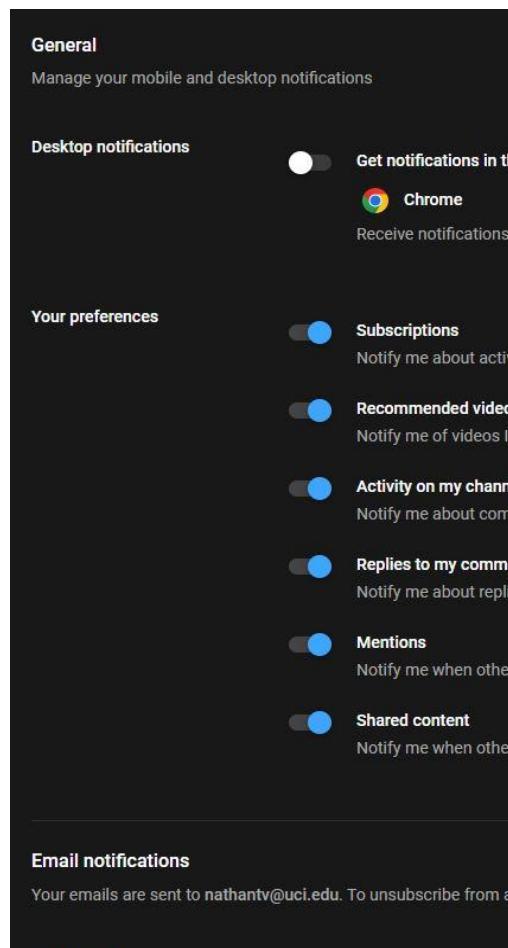
3. Permit easy reversal actions

Youtube.com permits its users to undo general settings at ease with on/off switch features. Its menu categories can be easily switched back and forth without errors and relieves the user anxiety in complex software systems. By having these user-friendly features, Youtube.com users are encouraged to explore the site more freely. Easy reversal of actions comforts users and entrusts them to explore the other settings and features on the platform. Ultimately, it helps retain users' activeness on YT.

Menu Bar

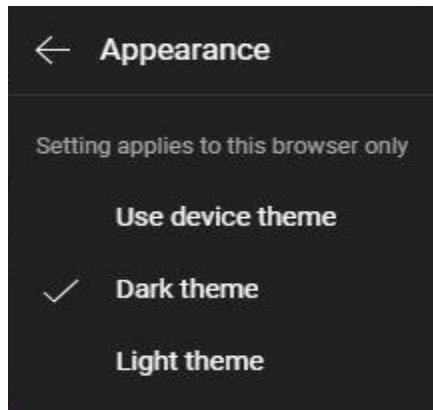


General Settings

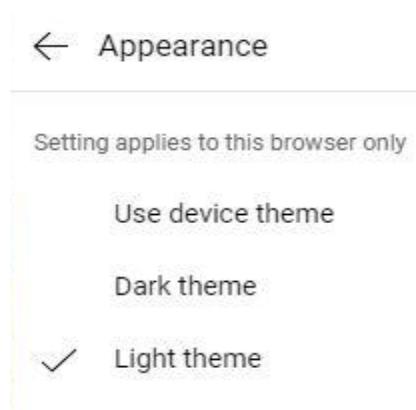


(‘Allow the users to change to different menu options at ease.’)

Dark Mode Theme



Light Mode Theme

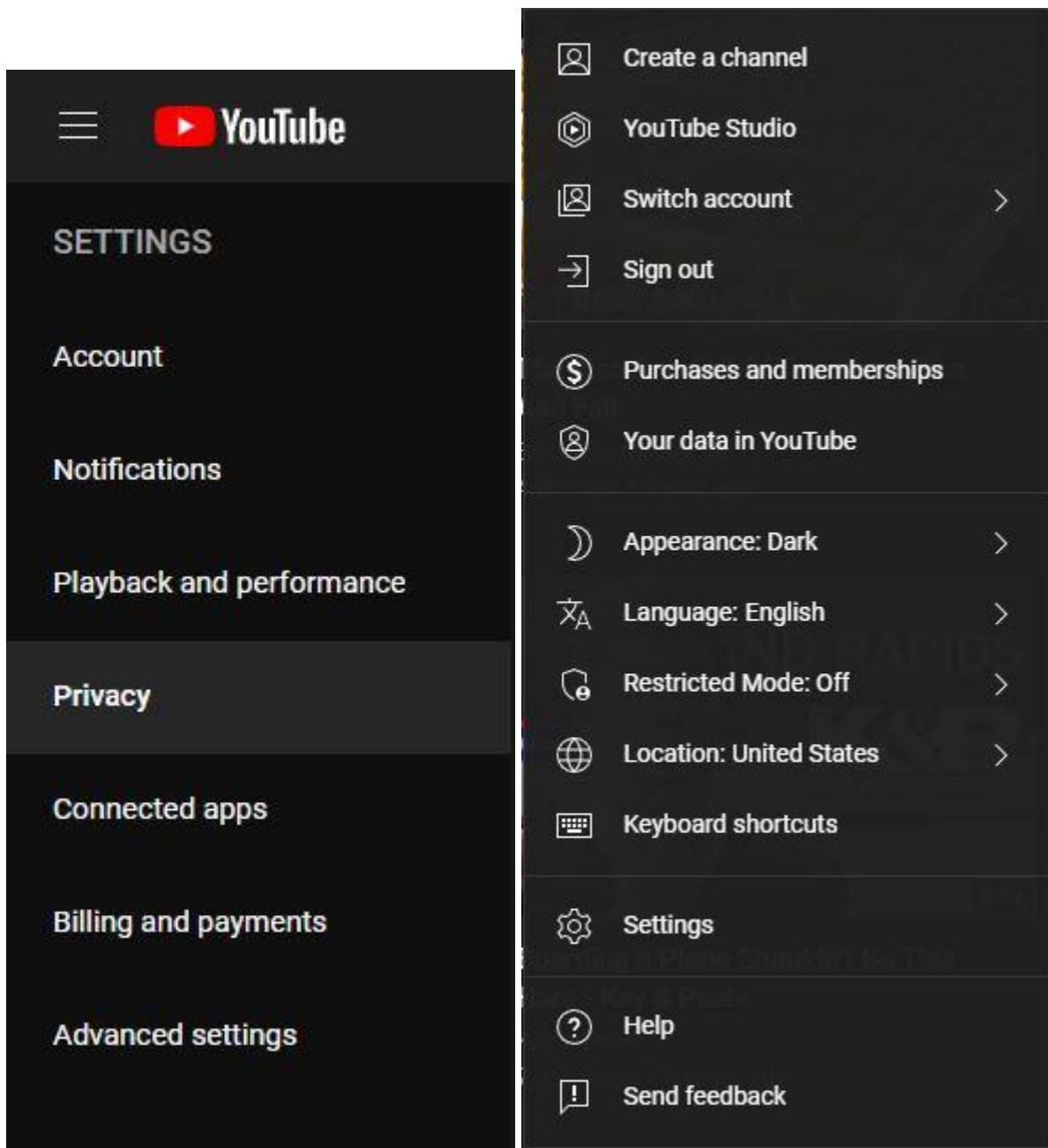


(‘Allow users to change from theme to theme at ease.’)

4. Keep users in control

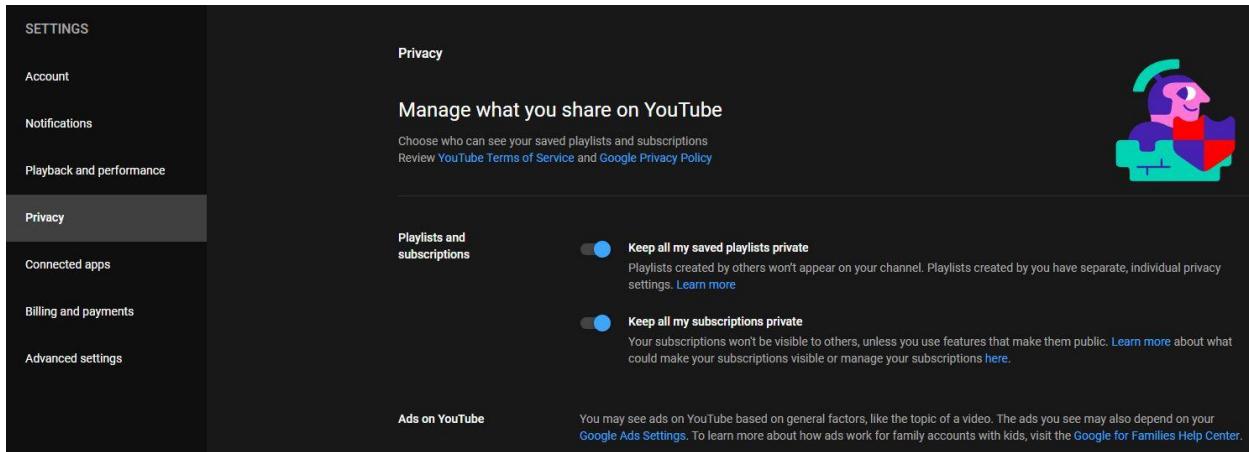
Youtube.com allows the users to have full control of their account preferences and data privacy. Youtube makes setting customizations very usable by normal users; the process is seamless. Users can even customize keyboard shortcuts to be used on Youtube.com website. All these setting features give the users the true power to control their information and personal preferences. In addition, Youtube.com allows users to connect their account to third-party apps, which create additional usages of Youtube.com. The feeling of in-control makes the users trust the platform even more.

General Settings and Account Settings



(‘General Settings and Account Specific Settings allow for a dynamic user experience.’)

General Settings



SETTINGS

Account

Notifications

Playback and performance

Privacy

Connected apps

Billing and payments

Advanced settings

Privacy

Manage what you share on YouTube

Choose who can see your saved playlists and subscriptions
Review [YouTube Terms of Service](#) and [Google Privacy Policy](#)

Playlists and subscriptions

Keep all my saved playlists private
Playlists created by others won't appear on your channel. Playlists created by you have separate, individual privacy settings. [Learn more](#)

Keep all my subscriptions private
Your subscriptions won't be visible to others, unless you use features that make them public. [Learn more](#) about what could make your subscriptions visible or manage your subscriptions [here](#).

Ads on YouTube

You may see ads on YouTube based on general factors, like the topic of a video. The ads you see may also depend on your [Google Ads Settings](#). To learn more about how ads work for family accounts with kids, visit the [Google for Families Help Center](#).

(‘Detail descriptions below every general setting features.’)

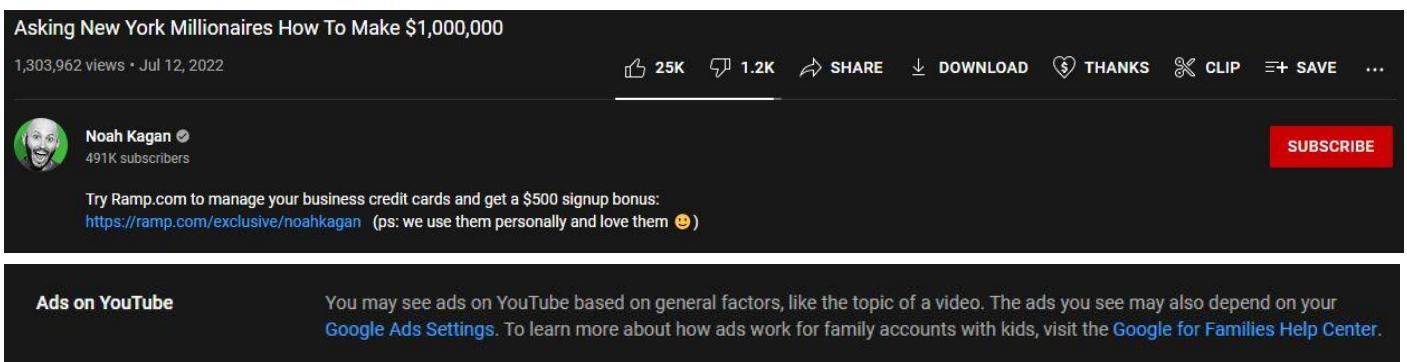
Accessibility Principles

1. Perceivable

Distinguishable - Use of Color & Visual Presentation

Youtube.com font and link colors are vividly distinguishable from the background color which follows W3C's standards. The contrast ratio of the button Subscribe, for example, meets the minimum requirement for background and font contrast ratio when using Web Accessibility Checker. The visual presentation of the video playback windows distinguishes it from the surrounding elements of the website. The placement of the transparent control bar helps retain the video quality and video visibility even when the user skims through the video. All these features found on Youtube.com addressed the distinguishable issues and satisfied the perceivable accessibility principle.

Links and Video Descriptions Text



Asking New York Millionaires How To Make \$1,000,000

1,303,962 views • Jul 12, 2022

Noah Kagan   491K subscribers

Try Ramp.com to manage your business credit cards and get a \$500 signup bonus:
<https://ramp.com/exclusive/noahkagan> (ps: we use them personally and love them 😊)

SUBSCRIBE

Ads on YouTube

You may see ads on YouTube based on general factors, like the topic of a video. The ads you see may also depend on your [Google Ads Settings](#). To learn more about how ads work for family accounts with kids, visit the [Google for Families Help Center](#).

(‘Links are in blue, normal texts are in white, system texts are in gray.’)

Visual Presentation



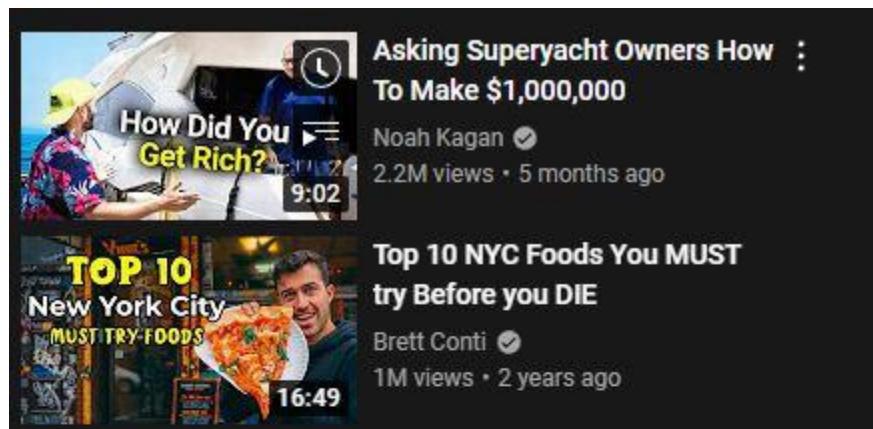
(‘Video playback controls are vividly shown in white color.’)

2. Operable

Navigable - Headings and Labels

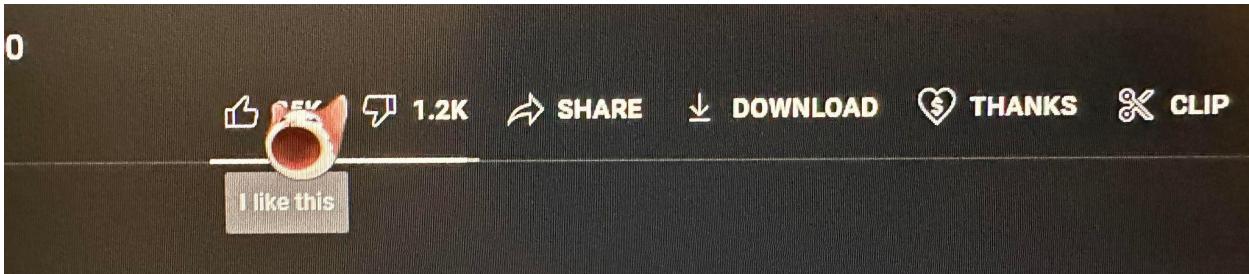
The headings and labels on YouTube.com are clearly shown in white text. Video owner names, view numbers, and video posted time lengths are labeled in gray text. Hovering over icons under the video playback window prompts a descriptive text to users for navigability purposes. All these navigable features help users to easily navigate through the site without unpurposely clicking on an unfamiliar icon; since all icons come with a prompted message showing its functionality. This makes YouTube.com headings and labels more operable.

Video Thumbnails

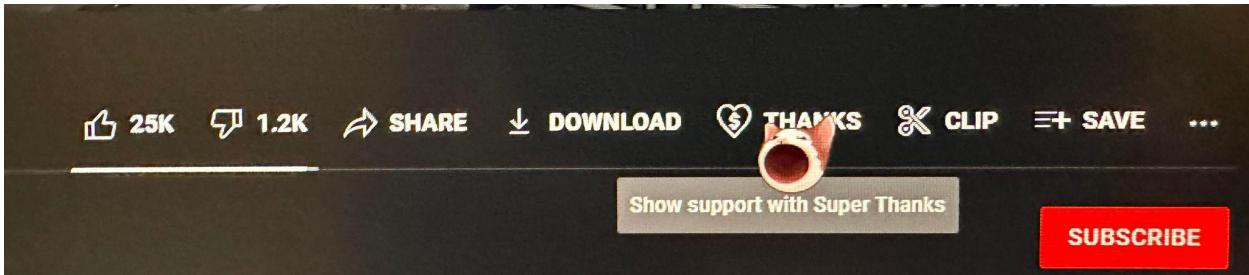


(‘Preview video thumbnails and video descriptions’)

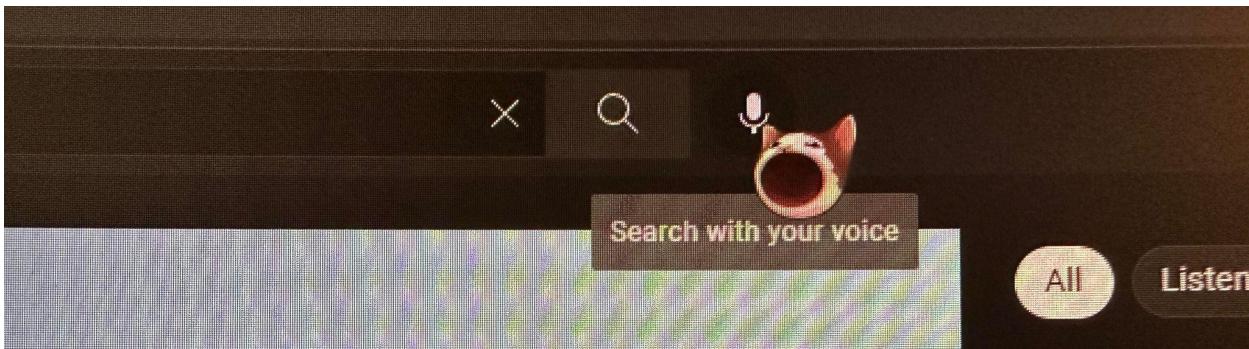
Hover Toggle Description of Buttons



(‘When hover over the LIKE icon a “I like this” prompt displays’)



(‘When hover over the THANKS icon a “Show support with Super Thanks” prompt displays’)



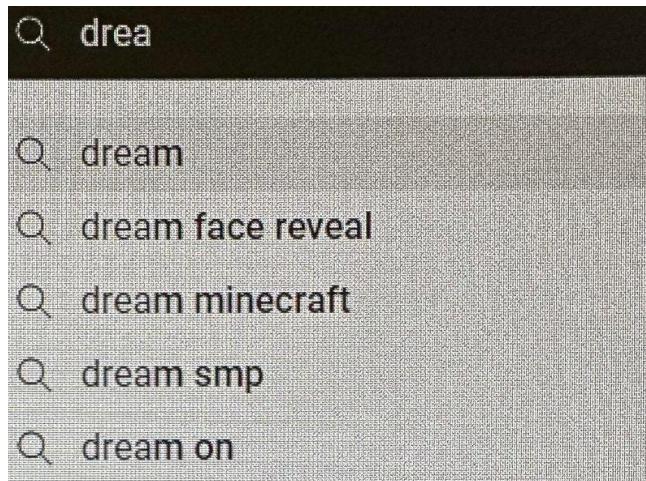
(‘When hover over the VOICE icon a “Search with your voice” prompt displays’)

3. Understandable

Input Assistance - Error Suggestion, Error Identification, Error Prevention

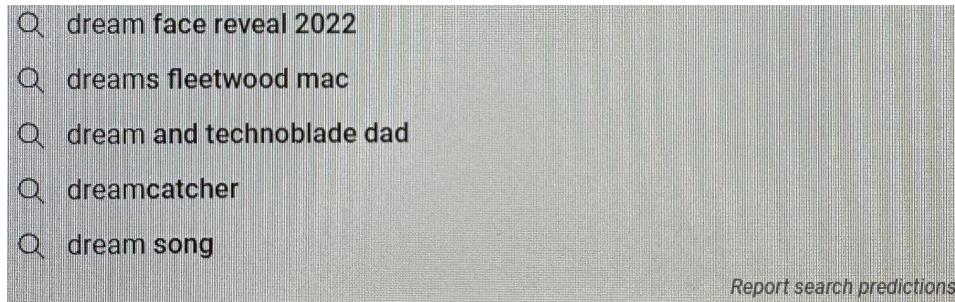
Youtube.com’s input assistance recommends its users with error suggestions, alerts its users with error identification, and allows its users to report errors for error prevention purposes. All these features are under the understandable principle of accessibility. Error suggestions help users to quickly identify their input errors and a list of relevant pickable options to choose from. Error identification displays the error inputs when users queried their search inputs, allowing for a second layer of error detection. Finally, the error prevention method of allowing the users to report for system errors in detection the user’s input helps system admins to better perfection their software system. All these features make searching and querying through Youtube.com’s database of videos more accessible.

Error Suggestion



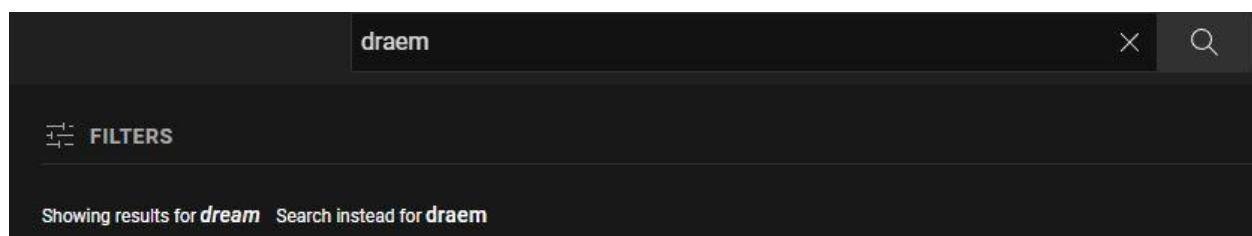
(Suggest to users different possible correct words.)

Error Prevention



(Allow users to report the query search to prevent future errors.)

Error Identification



(Show users the different possible correct results.)

References:

1. Ben Caldwell, Loretta Guarino Reid, Gregg Vanderheiden, Wendy Chisholm, John Slatin, Jason White. W3C Recommendation, June 19, 2018, www.w3.org/TR/WCAG21.
2. Shneiderman, B., Plaisant, C., Cohen, M., Jacobs, S. M., & Elmquist, N. (2018). *Designing the user interface: Strategies for effective human-computer interaction*. Pearson.