

YouTube is an American online video sharing and social media platform owned by Google. Accessible worldwide,[7] it was launched on February 14, 2005, by Steve Chen, Chad Hurley, and Jawed Karim, three former employees of PayPal. Headquartered in San Bruno, California, United States, it is the second most visited website in the world, after Google Search. YouTube has more than 2.5 billion monthly users,[2] who collectively watch more than one billion hours of videos every day.[8] As of May 2019, videos were being uploaded to the platform at a rate of more than 500 hours of content per minute,[9][10] and as of 2021, there were approximately 14 billion videos in total.[10]

In October 2006, YouTube was purchased by Google for \$1.65 billion (equivalent to \$2.31 billion in 2023).[11] Google expanded YouTube's business model of generating revenue from advertisements alone, to offering paid content such as movies and exclusive content produced by and for YouTube. It also offers YouTube Premium, a paid subscription option for watching content without ads. YouTube incorporated Google's AdSense program, generating more revenue for both YouTube and approved content creators. In 2022, YouTube's annual advertising revenue increased to \$29.2 billion, more than \$9 billion higher than in 2020.[1][12]

Since its purchase by Google, YouTube has expanded beyond the core website into mobile apps, network television, and the ability to link with other platforms. Video categories on YouTube include music videos, video clips, news, short and feature films, songs, documentaries, movie and teaser trailers, live streams, vlogs, and more. Most content is generated by individuals, including collaborations between "YouTubers" and corporate sponsors. Established media, news, and entertainment corporations have also created and expanded their visibility to YouTube channels in order to reach greater audiences.

YouTube has had unprecedented social impact, influencing popular culture, internet trends, and creating multimillionaire celebrities. Despite its growth and success, the platform is sometimes criticized for allegedly facilitating the spread of misinformation, the sharing of copyrighted content, routinely violating its users' privacy, enabling censorship, endangering child safety and wellbeing, and for its inconsistent or incorrect implementation of platform guidelines.

#### Founding and initial growth (2005–2006)

From left to right: Chad Hurley, Steve Chen, and Jawed Karim, the founders of YouTube.

YouTube was founded by Steve Chen, Chad Hurley, and Jawed Karim. The trio were early employees of PayPal, which left them enriched after the company was bought by eBay.[13] Hurley had studied design at the Indiana University of Pennsylvania, and Chen and Karim studied computer science together at the University of Illinois Urbana-Champaign.[14]

According to a story that has often been repeated in the media, Hurley and Chen developed the idea for YouTube during the early months of 2005, after they had experienced difficulty sharing videos that had been shot at a dinner party at Chen's apartment in San Francisco. Karim did not attend the party and denied that it had occurred, but Chen remarked that the idea that YouTube was founded

after a dinner party "was probably very strengthened by marketing ideas around creating a story that was very digestible".[15]

Karim said the inspiration for YouTube came from the Super Bowl XXXVIII halftime show controversy, when Janet Jackson's breast was briefly exposed by Justin Timberlake during the halftime show. Karim could not easily find video clips of the incident and the 2004 Indian Ocean Tsunami online, which led to the idea of a video-sharing site.[16] Hurley and Chen said that the original idea for YouTube was a video version of an online dating service and had been influenced by the website Hot or Not.[15][17] They created posts on Craigslist asking attractive women to upload videos of themselves to YouTube in exchange for a \$100 reward.[18] Difficulty in finding enough dating videos led to a change of plans, with the site's founders deciding to accept uploads of any video.[19]

The YouTube logo used from its launch until 2007;[citation needed] it returned in 2008 before being removed again in 2010.[citation needed] Another version of this logo without the "Broadcast Yourself" slogan was used until 2011.

YouTube began as a venture capital-funded technology startup. Between November 2005 and April 2006, the company raised money from various investors, with Sequoia Capital and Artis Capital Management being the largest two.[13][20] YouTube's early headquarters were situated above a pizzeria and a Japanese restaurant in San Mateo, California.[21] In February 2005, the company activated [www.youtube.com](http://www.youtube.com). [22] The first video was uploaded on April 23, 2005. Titled "Me at the zoo", it shows co-founder Jawed Karim at the San Diego Zoo and can still be viewed on the site.[23][24] In May, the company launched a public beta and by November, a Nike ad featuring Ronaldinho became the first video to reach one million total views.[25][26] The site launched officially on December 15, 2005, by which time the site was receiving 8 million views a day.[27][28] Clips at the time were limited to 100 megabytes, as little as 30 seconds of footage.[29]

YouTube was not the first video-sharing site on the Internet; Vimeo was launched in November 2004, though that site remained a side project of its developers from CollegeHumor.[30] The week of YouTube's launch, NBC-Universal's Saturday Night Live ran a skit "Lazy Sunday" by The Lonely Island. Besides helping to bolster ratings and long-term viewership for Saturday Night Live, "Lazy Sunday"'s status as an early viral video helped establish YouTube as an important website.[31] Unofficial uploads of the skit to YouTube drew in more than five million collective views by February 2006 before they were removed when NBCUniversal requested it two months later based on copyright concerns.[32] Despite eventually being taken down, these duplicate uploads of the skit helped popularize YouTube's reach and led to the upload of more third-party content.[33][34] The site grew rapidly; in July 2006, the company announced that more than 65,000 new videos were being uploaded every day and that the site was receiving 100 million video views per day.[35]

The choice of the name [www.youtube.com](http://www.youtube.com) led to problems for a similarly named website, [www.utube.com](http://www.utube.com). That site's owner, Universal Tube & Rollform Equipment, filed a lawsuit against

YouTube in November 2006, after being regularly overloaded by people looking for YouTube. Universal Tube subsequently changed its website to [www.utubeonline.com](http://www.utubeonline.com).<sup>[36][37]</sup>

### "Broadcast Yourself" era (2006–2013)

YouTube's headquarters in San Bruno, California

On October 9, 2006, Google announced that they had acquired YouTube for \$1.65 billion in Google stock.<sup>[38][39]</sup> The deal was finalized on November 13, 2006.<sup>[40][41]</sup> Google's acquisition launched newfound interest in video-sharing sites; IAC, which now owned Vimeo, focused on supporting the content creators to distinguish itself from YouTube.<sup>[30]</sup> It is at this time YouTube issued the slogan "Broadcast Yourself". The company experienced rapid growth. The Daily Telegraph wrote that in 2007, YouTube consumed as much bandwidth as the entire Internet in 2000.<sup>[42]</sup> By 2010, the company had reached a market share of around 43% and more than 14 billion views of videos, according to comScore.<sup>[43]</sup> That year, the company simplified its interface to increase the time users would spend on the site.<sup>[44]</sup> In 2011, more than three billion videos were being watched each day with 48 hours of new videos uploaded every minute.<sup>[45][46][47]</sup> However, most of these views came from a relatively small number of videos; according to a software engineer at that time, 30% of videos accounted for 99% of views on the site.<sup>[48]</sup> That year, the company again changed its interface and at the same time, introduced a new logo with a darker shade of red.<sup>[49][50]</sup> A subsequent interface change, designed to unify the experience across desktop, TV, and mobile, was rolled out in 2013.<sup>[51]</sup> By that point, more than 100 hours were being uploaded every minute, increasing to 300 hours by November 2014.<sup>[52][53]</sup>

YouTube logo from 2015 until 2017

During this time, the company also went through some organizational changes. In October 2006, YouTube moved to a new office in San Bruno, California.<sup>[54]</sup> Hurley announced that he would be stepping down as chief executive officer of YouTube to take an advisory role and that Salar Kamangar would take over as head of the company in October 2010.<sup>[55]</sup>

In December 2009, YouTube partnered with Vevo.<sup>[56]</sup> In April 2010, Lady Gaga's "Bad Romance" became the most viewed video, becoming the first video to reach 200 million views on May 9, 2010.<sup>[57]</sup>

### Susan Wojcicki and going mainstream (2014–2018)

YouTube logo since 2017

Susan Wojcicki was appointed CEO of YouTube in February 2014.<sup>[58]</sup> In January 2016, YouTube expanded its headquarters in San Bruno by purchasing an office park for \$215 million. The complex

has 51,468 square metres (554,000 square feet) of space and can house up to 2,800 employees.[59] YouTube officially launched the "polymer" redesign of its user interfaces based on Material Design language as its default, as well a redesigned logo that is built around the service's play button emblem in August 2017.[60]

Through this period, YouTube tried several new ways to generate revenue beyond advertisements. In 2013, YouTube launched a pilot program for content providers to offer premium, subscription-based channels.[61][62] This effort was discontinued in January 2018 and relaunched in June, with US\$4.99 channel subscriptions.[63][64] These channel subscriptions complemented the existing Super Chat ability, launched in 2017, which allows viewers to donate between \$1 and \$500 to have their comment highlighted.[65] In 2014, YouTube announced a subscription service known as "Music Key", which bundled ad-free streaming of music content on YouTube with the existing Google Play Music service.[66] The service continued to evolve in 2015 when YouTube announced YouTube Red, a new premium service that would offer ad-free access to all content on the platform (succeeding the Music Key service released the previous year), premium original series, and films produced by YouTube personalities, as well as background playback of content on mobile devices. YouTube also released YouTube Music, a third app oriented towards streaming and discovering the music content hosted on the YouTube platform.[67][68][69]

The company also attempted to create products appealing to specific viewers. YouTube released a mobile app known as YouTube Kids in 2015, designed to provide an experience optimized for children. It features a simplified user interface, curated selections of channels featuring age-appropriate content, and parental control features.[70] Also in 2015, YouTube launched YouTube Gaming—a video gaming-oriented vertical and app for videos and live streaming, intended to compete with the Amazon.com-owned Twitch.[71]

The company was attacked on April 3, 2018, when a shooting occurred at YouTube's headquarters in San Bruno, California, which wounded four and resulted in the death of the shooter.[72]

#### Recent history (2019–present)

By February 2017, one billion hours of YouTube videos were being watched every day, and 400 hours worth of videos were uploaded every minute.[8][73] Two years later, the uploads had risen to more than 500 hours per minute.[9] During the COVID-19 pandemic, when most of the world was under stay-at-home orders, usage of services like YouTube significantly increased. One data firm[which?] estimated that YouTube was accounting for 15% of all internet traffic, twice its pre-pandemic level.[74] In response to EU officials requesting that such services reduce bandwidth as to make sure medical entities had sufficient bandwidth to share information, YouTube and Netflix stated they would reduce streaming quality for at least thirty days as to cut bandwidth use of their services by 25% to comply with the EU's request.[75] YouTube later announced that they would continue with this move worldwide: "We continue to work closely with governments and network operators around the globe to do our part to minimize stress on the system during this unprecedented situation." [76]

Following a 2018 complaint alleging violations of the Children's Online Privacy Protection Act (COPPA),<sup>[77]</sup> the company was fined \$170 million by the FTC for collecting personal information from minors under the age of 13.<sup>[78]</sup> YouTube was also ordered to create systems to increase children's privacy.<sup>[79]</sup><sup>[80]</sup> Following criticisms of its implementation of those systems, YouTube started treating all videos designated as "made for kids" as liable under COPPA on January 6, 2020.<sup>[81]</sup><sup>[82]</sup> Joining the YouTube Kids app, the company created a supervised mode, designed more for tweens, in 2021.<sup>[83]</sup> Additionally, to compete with TikTok, YouTube released YouTube Shorts, a short-form video platform.

During this period, YouTube entered disputes with other tech companies. For over a year, in 2018 and 2019, no YouTube app was available for Amazon Fire products.<sup>[84]</sup> In 2020, Roku removed the YouTube TV app from its streaming store after the two companies were unable to reach an agreement.<sup>[85]</sup>

After testing earlier in 2021, YouTube removed public display of dislike counts on videos in November 2021, claiming the reason for the removal was, based on its internal research, that users often used the dislike feature as a form of cyberbullying and brigading.<sup>[86]</sup> While some users praised the move as a way to discourage trolls, others felt that hiding dislikes would make it harder for viewers to recognize clickbait or unhelpful videos and that other features already existed for creators to limit bullying. YouTube co-founder Jawed Karim referred to the update as "a stupid idea", and that the real reason behind the change was "not a good one, and not one that will be publicly disclosed." He felt that users' ability on a social platform to identify harmful content was essential, saying, "The process works, and there's a name for it: the wisdom of the crowds. The process breaks when the platform interferes with it. Then, the platform invariably declines."<sup>[87]</sup><sup>[88]</sup><sup>[89]</sup> Shortly after the announcement, software developer Dmitry Selivanov created Return YouTube Dislike, an open-source, third-party browser extension for Chrome and Firefox that allows users to see a video's number of dislikes.<sup>[90]</sup> In a letter published on January 25, 2022, by then YouTube CEO Susan Wojcicki, acknowledged that removing public dislike counts was a controversial decision, but reiterated that she stands by this decision, claiming that "it reduced dislike attacks."<sup>[91]</sup>

In 2022, YouTube launched an experiment where the company would show users who watched longer videos on TVs a long chain of short un-skippable adverts, intending to consolidate all ads into the beginning of a video. Following public outrage over the unprecedented amount of un-skippable ads, YouTube "ended" the experiment on September 19 of that year.<sup>[92]</sup> In October, YouTube announced that they would be rolling out customizable user handles (e.g. @MrBeast6000) in addition to channel names, which would also become channel URLs.<sup>[93]</sup>

On February 16, 2023, Wojcicki announced that she would step down as CEO, with Neal Mohan named as her successor. Wojcicki will take on an advisory role for Google and parent company Alphabet.<sup>[94]</sup>

In late October 2023, YouTube began cracking down on the use of ad blockers on the platform. Users of ad blockers may be given a pop-up warning saying "Video player will be blocked after 3 videos". Users of ad blockers are shown a message asking them to allow ads or inviting them to subscribe to the ad-free YouTube Premium subscription plan. YouTube says that the use of ad blockers violates its terms of service.[95][96]

### Senior leadership

YouTube has been led by a CEO since its founding in 2005, beginning with Chad Hurley, who led the company until 2010. After Google's acquisition of YouTube, the CEO role was retained. Salar Kamangar took over Hurley's position and held the job until 2014. He was replaced by Susan Wojcicki, who later resigned in 2023.[94] The current CEO is Neal Mohan, who was appointed on February 16, 2023

### Video technology

YouTube primarily uses the VP9 and H.264/MPEG-4 AVC video codecs, and the Dynamic Adaptive Streaming over HTTP protocol.[97] MPEG-4 Part 2 streams contained within 3GP containers are also provided for low bandwidth connections.[98] By January 2019, YouTube had begun rolling out videos in AV1 format.[99] In 2021 it was reported that the company was considering requiring AV1 in streaming hardware in order to decrease bandwidth and increase quality.[100] Video is usually streamed alongside the Opus and AAC audio codecs.[98]

At launch in 2005, viewing YouTube videos on a personal computer required the Adobe Flash Player plug-in to be installed in the browser.[101] In January 2010, YouTube launched an experimental version of the site that used the built-in multimedia capabilities of Web browsers supporting the HTML5 standard.[102] This allowed videos to be viewed without requiring Adobe Flash Player or any other plug-in to be installed.[103] On January 27, 2015, YouTube announced that HTML5 would be the default playback method on supported browsers.[102] HTML5 video streams use Dynamic Adaptive Streaming over HTTP (MPEG-DASH), an HTTP-based adaptive bit-rate streaming solution optimizes the bitrate and quality for the available network.[104]

The platform can serve videos at optionally lower resolution levels starting at 144p for smoothening playback in areas and countries with limited Internet speeds, improving compatibility, as well as for the preservation of limited cellular data plans. The resolution can be adjusted automatically based on detected connection speed or set manually.[105][106]

From 2008 to 2017, users could add "annotations" to their videos, such as pop-up text messages and hyperlinks, which allowed for interactive videos. By 2019, all annotations had been removed from videos, breaking some videos that depended on the feature. YouTube introduced standardized widgets intended to replace annotations in a cross-platform manner, including "end screens" (a customizable array of thumbnails for specified videos displayed near the end of the video).[107][108][109]

In 2018, YouTube became an International Standard Name Identifier (ISNI) registry, and announced its intention to begin creating ISNI identifiers to uniquely identify the musicians whose videos it features.[110]

Users can verify their account, normally through a mobile phone, to gain the ability to upload videos up to 12 hours in length, as well as produce live streams.[111][112] Users who have built sufficient channel history and have a good track record of complying with the site's Community Guidelines will also gain access to these aforementioned features as well.[113] When YouTube was launched in 2005, it was possible to upload longer videos, but a 10-minute limit was introduced in March 2006 after YouTube found that the majority of videos exceeding this length were unauthorized uploads of television shows and films.[114] The 10-minute limit was increased to 15 minutes in July 2010.[115] Videos can be at most 256 GB in size or 12 hours, whichever is less.[111] As of 2021, automatic closed captions using speech recognition technology when a video is uploaded are available in 13 languages, and can be machine-translated during playback.[116]

YouTube also offers manual closed captioning as part of its creator studio.[117] YouTube formerly offered a 'Community Captions' feature, where viewers could write and submit captions for public display upon approval by the video uploader, but this was deprecated in September 2020.[118]

YouTube accepts the most common container formats, including MP4, Matroska, FLV, AVI, WebM, 3GP, MPEG-PS, and the QuickTime File Format. Some intermediate video formats (i.e., primarily used for professional video editing, not for final delivery or storage) are also accepted, such as ProRes.[119] YouTube provides recommended encoding settings.[120]

Each video is identified by an eleven-character case-sensitive alphanumerical Base64 string in the Uniform Resource Locator (URL) which can contain letters, digits, an underscore (\_), and a dash (-).[121]

In 2018, YouTube added a feature called Premiere which displays a notification to the user mentioning when the video will be available for the first time, like for a live stream but with a prerecorded video. When the scheduled time arrives, the video is aired as a live broadcast with a two-minute countdown. Optionally, a premiere can be initiated immediately.[122]

### Quality and formats

YouTube originally offered videos at only one quality level, displayed at a resolution of 320×240 pixels using the Sorenson Spark codec (a variant of H.263),[123][124] with mono MP3 audio.[125] In June 2007, YouTube added an option to watch videos in 3GP format on mobile phones.[126] In March 2008, a high-quality mode was added, which increased the resolution to 480×360 pixels.[127] In December 2008, 720p HD support was added. At the time of the 720p launch, the YouTube player was changed from a 4:3 aspect ratio to a widescreen 16:9.[128] With this new feature, YouTube began a switchover to H.264/MPEG-4 AVC as its default video compression format. In November

2009, 1080p HD support was added. In July 2010, YouTube announced that it had launched a range of videos in 4K format, which allows a resolution of up to 4096×3072 pixels.[129][130] In July 2010, support for 2160p UHD was added, with the videos playing at 3840 × 2160 pixels.[131] In June 2014, YouTube began to deploy support for high frame rate videos up to 60 frames per second (as opposed to 30 before), becoming available for user uploads in October. YouTube stated that this would enhance "motion-intensive" videos, such as video game footage.[132][133][134][135] In June 2015, support for 8K resolution was added, with the videos playing at 7680×4320 pixels.[136] In November 2016, support for HDR video was added which can be encoded with hybrid log–gamma (HLG) or perceptual quantizer (PQ).[137] HDR video can be encoded with the Rec. 2020 color space.[138]

YouTube videos are available in a range of quality levels. Viewers only indirectly influence the video quality. In the mobile apps, users choose between "Auto", which adjusts resolution based on the internet connection, "High Picture Quality" which will prioritize playing high-quality video, "Data saver" which will sacrifice video quality in favor of low data usage and "Advanced" which lets the user choose a stream resolution.[139] On desktop, users choose between "Auto" and a specific resolution.[140] It is not possible for the viewer to directly choose a higher bitrate (quality) for any selected resolution.

Since 2009, viewers have had the ability to watch 3D videos.[141] In 2015, YouTube began natively supporting 360-degree video. Since April 2016, it allowed live streaming 360° video, and both normal and 360° video at up to 1440p, and since November 2016 both at up to 4K (2160p) resolution.[142][143][144] Citing the limited number of users who watched more than 90-degrees, it began supporting an alternative stereoscopic video format known as VR180 which it said was easier to produce,[145] which allows users to watch any video using virtual reality headsets.[146]

In response to increased viewership during the COVID-19 pandemic, YouTube temporarily downgraded the quality of its videos.[147][148] YouTube developed its own chip, called Argos, to help with encoding higher resolution videos in 2021.[149]

In April 2023, YouTube began offering some videos in an enhanced bitrate "1080p Premium" option for YouTube Premium subscribers on iOS.[150] In August 2023, the feature became available to subscribers on desktop platforms.[151]

In certain cases, YouTube allows the uploader to upgrade the quality of videos uploaded a long time ago in poor quality. One such partnership with Universal Music Group included remasters of 1,000 music videos.[152]

## Live streaming

YouTube carried out early experiments with live streaming, including its YouTube Live event in 2008,[153] a concert by U2 in 2009, and a question-and-answer session with US President Barack Obama in February 2010.[154] These tests had relied on technology from 3rd-party partners, but in



September 2010, YouTube began testing its own live streaming infrastructure.[155] In April 2011, YouTube announced the rollout of YouTube Live. The creation of live streams was initially limited to select partners.[156] It was used for real-time broadcasting of events such as the 2012 Olympics in London.[157] In October 2012, more than 8 million people watched Felix Baumgartner's jump from the edge of space as a live stream on YouTube.[158]

In May 2013, creation of live streams was opened to verified users with at least 1,000 subscribers; in August of the same year the number was reduced to 100 subscribers,[159] and in December the limit was removed.[160] In February 2017, live streaming was introduced to the official YouTube mobile app. Live streaming via mobile was initially restricted to users with at least 10,000 subscribers,[161] but as of mid-2017 it has been reduced to 100 subscribers.[162] Live streams support HDR, can be up to 4K resolution at 60 fps, and also support 360° video.[143][163]

## User features

### Comment system

See also: Criticism of Google § YouTube user comments

Most videos enable users to leave comments, which have attracted attention for the negative aspects of their form and content.[specify] In 2006, Time praised Web 2.0 for enabling "community and collaboration on a scale never seen before", and added that YouTube "harnesses the stupidity of crowds as well as its wisdom. Some of the comments on YouTube make you weep for the future of humanity just for the spelling alone, never mind the obscenity and the naked hatred".[164] The Guardian in 2009 described users' comments on YouTube as:[165]

Juvenile, aggressive, misspelt, sexist, homophobic, swinging from raging at the contents of a video to providing a pointlessly detailed description followed by a LOL, YouTube comments are a hotbed of infantile debate and unashamed ignorance—with the occasional burst of wit shining through.

The Daily Telegraph commented in September 2008, that YouTube was "notorious" for "some of the most confrontational and ill-formed comment exchanges on the internet", and reported on YouTube Comment Snob, "a new piece of software that blocks rude and illiterate posts".[166] The Huffington Post noted in April 2012 that finding comments on YouTube that appear "offensive, stupid and crass" to the "vast majority" of the people is hardly difficult.[167]

Google subsequently implemented a comment system oriented on Google+ on November 6, 2013, that required all YouTube users to use a Google+ account to comment on videos. The stated motivation for the change was giving creators more power to moderate and block comments, thereby addressing frequent criticisms of their quality and tone.[168] The new system restored the ability to include URLs in comments, which had previously been removed due to problems with abuse.[169][170] In response, YouTube co-founder Jawed Karim posted the question "why the fuck do I need a google+ account to comment on a video?" on his YouTube channel to express his negative opinion of the change.[171] The official YouTube announcement[172] received 20,097

"thumbs down" votes and generated more than 32,000 comments in two days.[173] Writing in the Newsday blog Silicon Island, Chase Melvin noted that "Google+ is nowhere near as popular a social media network like Facebook, but it's essentially being forced upon millions of YouTube users who don't want to lose their ability to comment on videos" and added that "Discussion forums across the Internet are already bursting with the outcry against the new comment system". In the same article Melvin goes on to say:[174]

Perhaps user complaints are justified, but the idea of revamping the old system isn't so bad. Think of the crude, misogynistic and racially-charged mudslinging that has transpired over the last eight years on YouTube without any discernible moderation. Isn't any attempt to curb unidentified libelers worth a shot? The system is far from perfect, but Google should be lauded for trying to alleviate some of the damage caused by irate YouTubers hiding behind animosity and anonymity.

Later, on July 27, 2015, Google announced in a blog post that it would be removing the requirement to sign up to a Google+ account to post comments to YouTube.[175] On November 3, 2016, YouTube announced a trial scheme which allows the creators of videos to decide whether to approve, hide or report the comments posted on videos based on an algorithm that detects potentially offensive comments.[176] Creators may also choose to keep or delete comments with links or hashtags in order to combat spam. They can also allow other users to moderate their comments.[177]

In December 2020, it was reported that YouTube would launch a new feature that will warn users who post a comment that "may be offensive to others." [178][179]

## Community

On September 13, 2016, YouTube launched a public beta of Community, a social media-based feature that allows users to post text, images (including GIFs), live videos and others in a separate "Community" tab on their channel.[180] Prior to the release, several creators had been consulted to suggest tools Community could incorporate that they would find useful; these YouTubers included Vlogbrothers, AsapScience, Lilly Singh, The Game Theorists, Karmin, The Key of Awesome, The Kloons, Peter Hollens, Rosianna Halse Rojas, Sam Tsui, Threadbanger and Vsauce3.[181][non-primary source needed]

After the feature has been officially released, the community post feature gets activated automatically for every channel that passes a specific threshold of subscriber counts or already has more subscribers. This threshold was lowered over time,[when?] from 10,000 subscribers to 1500 subscribers, to 1000 subscribers,[182][non-primary source needed] to 500 subscribers.[183]

Channels that the community tab becomes enabled for, get their channel discussions (previously known as channel comments) permanently erased, instead of co-existing or migrating.[184][non-primary source needed]

## TestTube

Experimental features of YouTube could be accessed in an area of the site formerly named TestTube.[185][186] For example, in October 2009, a comment search feature accessible under /comment\_search was implemented as part of this program. The feature was removed later.[187] Later the same year, YouTube Feather was introduced as a "lightweight" alternative website for countries with limited internet speeds.[188] Following the transition to the Polymer layout, TestTube was disabled, and the URL redirects to video playback settings. TestTube was replaced by a new system that requires users to be premium members to enable or disable experiments.

## Content accessibility

YouTube offers users the ability to view its videos on web pages outside their website. Each YouTube video is accompanied by a piece of HTML that can be used to embed it on any page on the Web.[189] This functionality is often used to embed YouTube videos in social networking pages and blogs. Users wishing to post a video discussing, inspired by, or related to another user's video can make a "video response". The eleven character YouTube video identifier (64 possible characters used in each position), allows for a theoretical maximum of 6411 or around 73.8 quintillion (73.8 billion billion) unique ids.

YouTube announced that it would remove video responses for being an underused feature on August 27, 2013.[190] Embedding, rating, commenting and response posting can be disabled by the video owner.[191] YouTube does not usually offer a download link for its videos, and intends for them to be viewed through its website interface.[192] A small number of videos can be downloaded as MP4 files.[193] Numerous third-party web sites, applications and browser plug-ins allow users to download YouTube videos.[194]

In February 2009, YouTube announced a test service, allowing some partners to offer video downloads for free or for a fee paid through Google Checkout.[195] In June 2012, Google sent cease and desist letters threatening legal action against several websites offering online download and conversion of YouTube videos.[196] In response, Zamzar removed the ability to download YouTube videos from its site.[197] Users retain copyright of their own work under the default Standard YouTube License,[198] but have the option to grant certain usage rights under any public copyright license they choose.

Since July 2012, it has been possible to select a Creative Commons attribution license as the default, allowing other users to reuse and remix the material.[199]

## Platforms

Most modern smartphones are capable of accessing YouTube videos, either within an application or through an optimized website. YouTube Mobile was launched in June 2007, using RTSP streaming for the video.[200] Not all of YouTube's videos are available on the mobile version of the site.[201]

Since June 2007, YouTube's videos have been available for viewing on a range of Apple products. This required YouTube's content to be transcoded into Apple's preferred video standard, H.264, a process

that took several months. YouTube videos can be viewed on devices including Apple TV, iPod Touch and the iPhone.[202]

The mobile version of the site was relaunched based on HTML5 in July 2010, avoiding the need to use Adobe Flash Player and optimized for use with touch screen controls.[203] The mobile version is also available as an app for the Android platform.[204][205]

In September 2012, YouTube launched its first app for the iPhone, following the decision to drop YouTube as one of the preloaded apps in the iPhone 5 and iOS 6 operating system.[206] According to GlobalWebIndex, YouTube was used by 35% of smartphone users between April and June 2013, making it the third-most used app.[207]

A TiVo service update in July 2008 allowed the system to search and play YouTube videos.[208]

In January 2009, YouTube launched "YouTube for TV", a version of the website tailored for set-top boxes and other TV-based media devices with web browsers, initially allowing its videos to be viewed on the PlayStation 3 and Wii video game consoles.[209][210]

During the month of June that same year, YouTube XL was introduced, which has a simplified interface designed for viewing on a standard television screen.[211] YouTube is also available as an app on Xbox Live.[212]

On November 15, 2012, Google launched an official app for the Wii, allowing users to watch YouTube videos from the Wii channel.[213] An app was available for Wii U and Nintendo 3DS, but was discontinued in August 2019.[214] Videos can also be viewed on the Wii U Internet Browser using HTML5.[215][non-primary source needed] Google made YouTube available on the Roku player on December 17, 2013,[216] and, in October 2014, the Sony PlayStation 4.[217]

YouTube launched as a downloadable app for the Nintendo Switch in November 2018.[218]

#### International and localization

In early years of operation, Google faced some criticism for 'encouraging the dominance of US values', by prioritising English over other languages. On June 19, 2007, at a conference in Paris, Google CEO Eric Schmidt launched YouTube localization, with stated aims including customizing the YouTube experience by country, including country-specific comments, metrics, and video rankings. From 2007, YouTube's localization was rolled out.[219][220]

A 2015 report on YouTube's localization showed it to be continuing, and expanding.[221] In February 2023, YouTube made it possible to upload a single video in multiple languages. Prior to 2023, the only option for YouTubers to broaden their content's reach to audiences speaking different languages was to launch an entirely separate secondary channel for each language and upload dubbed versions of their videos across all those channels. MrBeast called multi-language dub tracks a "giant win" for creators. With the introduction of the dubbing localization option, many creators switched from uploading to separate channels to uploading to their main channel with dubbed versions