How Google Fights Piracy

Google

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Introduction



Introduction

The internet has enabled people worldwide to connect, create, and distribute new works of art like never before in human history. Google continues to be a key part of that growth and success by enabling legitimate distribution of all kinds of content, and by doing more than ever to fight piracy.

Successfully decreasing incidents of copyright infringement has required providing more and better legitimate alternatives to infringing content, as well as more effective tools for combating piracy. For example, a global 2018 study found the percent of internet users who engage in piracy has been falling, while spending on legal content is rising in nearly all countries and content categories studied. Nonetheless, Google takes the ongoing challenge of fighting online piracy seriously—investing significant resources in tools to report and manage copyrighted material and working with other industry leaders to set the standard for how tech companies fight piracy. This report describes some of these efforts and explains how Google creates opportunities for creators around the world.

¹ Institute for Information Law, "Global Online Piracy Study," August 2018, https://goo.gl/mPPT7Q

> A global 2018 study found the percent of internet users who engage in piracy has been falling, while spending on legal content is rising in nearly all countries and content categories studied.

Google's Anti-Piracy Principles

Five principles guide Google employees, as well as our substantial investments of time, money, and computing power, in fighting piracy:

1. Create More and Better Legitimate Alternatives

Piracy often arises when consumer demand goes unmet by legitimate supply. The best way to battle piracy is with better, more convenient, legitimate alternatives to piracy, which can do far more than attempts at enforcement can. By developing products with compelling user experiences like Google Play Music and YouTube, Google helps drive revenue for creative industries and steer people toward legitimate alternatives. Google also supports the larger ecosystem by providing the cloud infrastructure that other legitimate services depend on to deliver fast, reliable streaming to their customers.

2. Follow the Money

Rogue sites that specialize in online piracy are commercial ventures, which means that one effective way to combat them is to cut off their money supply. Google is a leader in rooting out and ejecting rogue sites from our advertising and payment services, and we help establish best practices across the industry.

3. Be Efficient, Effective, and Scalable

Google strives to implement anti-piracy solutions that work at scale. For example, as early as 2010, Google began making substantial investments in streamlining the copyright removal process for search results. As a result, these improved procedures allow Google to process copyright removal requests for search results at the rate of millions per week.

4. Guard Against Abuse

Fabricated copyright infringement allegations can be used as a pretext for censorship and to hinder competition. Google is committed to ensuring that it detects and rejects bogus infringement allegations, such as removals for political or competitive reasons, even as it battles online piracy.

5. Provide Transparency

Google is committed to providing transparency. In our external Transparency Report, Google discloses the number of requests it receives from copyright owners and governments to remove information from its services to inform ongoing discussions about online content regulation.²

² For more information, go to: https://transparencyreport.google.com

- ³ Computer & Communications Industry Association, "The sky is rising," October 2014, https://goo.gl/4geQaK
- Juniper Research, "OTTs Vs TV Networks ~ 3 Winning Strategies," https://goo.gl/AxbsMt
- ⁵ PwC, 'Perspectives from the Global Entertainment & Media Outlook 2018–2022,' June 2018, https://goo.gl/LCf3Y|
- 6 International Federation of the Phonographic Industry, "Global Music Report 2018," April 2018, https://goo.gl/bDix9X
- AtKearny, "The ASEAN Digital Revolution," 2016, https://goo.gl/108J6W>
- European Audiovisual Observatory, "Trends in the EU SVOD Market," November 2017, https://goo.gl/XN2768
- ⁹ Bureau of Economic Analysis, "Defining and Measuring the DIgital Economy," March 2018, https://goo.gl/b5QyxT
- Re:Create Coalition, "Inaugural Study Finds Nearly 15 Million Americans Earning Billions in the New Creative Economy," February 2018, https://goo.gl/FVvtEg
- ¹¹ IFPI, "Global Music Report 2018: State of the Industry," April 2018, https://goo.gl/7CNAdj

The State of the Industry and Online Innovation

More music, video, written works, apps, and software are being created by more people in more places than ever before.³ This boom in the creative economy has generated an enormous amount of revenue worldwide. Digital video revenues are expected to soar from \$64 billion to \$119 billion between 2017 and 2022,⁴ while global music streaming revenues have more than doubled from 2015 to 2017.⁵ A separate music industry report similarly found that in 2017 alone, global streaming revenues surged by over 41% globally, contributing to a more than 8% rise in industry-wide revenues.⁶

This trend holds true around the world. In Southeast Asia, digital products and services are projected to contribute an additional \$1 trillion to the region's GDP by 2025.7 Across EU 27 nations, online subscription video revenue has risen 128% annually.8 In the U.S., where the internet is one of the greatest success stories of economic growth, the digital economy has grown 370% faster than the economy as a whole, contributing well over \$1 trillion per year to America's GDP.9 In fact, a recent study showed that 14.8 million independent creators based in the U.S. earned nearly \$6 billion from posting their art and other works online in 2016.10 And in Latin America, a 2018 industry report measured an astounding 18% growth in recording revenues, driven by a 49% surge in streaming revenue—the largest growth of any region in the world.11

The internet has created new streams of revenue for creators and fundamentally changed how fans enjoy videos, music, and other media; people can now watch entire seasons of TV shows on Netflix and Google Play, or stream the entire catalogue of an artist's music on Spotify or YouTube Music. Services like YouTube export cultural content between countries at an unprecedented scale, with expansions into more countries and languages than ever before. These changes are good for creators, consumers, and the creative industry.

Digital video revenues are expected to soar from \$64 billion to \$119 billion between 2017 and 2022, while global music streaming revenues have more than doubled from 2015 to 2017.

YouTube for Artists, "Exploring Latin music's explosive YouTube growth," November 2017, https://goo.gl/kHeqVr Google builds platforms where people can legitimately purchase, consume, and discover entertainment and culture. We also pioneer innovative approaches to monetizing online media. Google's ability to elevate digital artists using its platforms can be seen in the YouTube-powered explosion in the popularity of Latin American music around the world. In 2017, daily YouTube view counts for top Latin acts skyrocketed, growing 316% in India, 268% in Indonesia, 257% in the Philippines, 206% in Egypt, 150% in Israel, 120% in the United Kingdom and 116% in Australia.¹²

Easy access to convenient, legitimate music, videos, and other media is one of the most effective weapons to fight infringement.

Easy access to legitimate music, videos, and other media is one of the most effective ways to reduce infringement. The music industry has demonstrated the efficacy of this approach by licensing a variety of music services, including free, advertising-supported streaming services (like YouTube Music, Spotify Free, and Pandora), download stores (like Apple's iTunes), and on-demand subscription products (like YouTube Music Premium and Spotify Premium). This ensures that media can reach the largest and most diverse array of fans at every price point.

The effects of these licensing deals on online piracy is clear. For example, Spotify's success in Sweden, Australia, and the Netherlands has resulted in a significant drop in piracy rates in these countries, demonstrating that a greater availability of legitimate forms of streaming media causes rates of piracy to plummet. ¹³ Numerous other examples show that this effect is common:

 A 2018 report from the University of Amsterdam similarly found that as European spending on legal content grew between 2014 and 2017, the percent of Europeans committing piracy decreased.¹⁴

- 13 Copia, "The Carrot or the Stick?" October 2015, https://goo.gl/VXEe58; Mediavision, "Music Sweden File Sharing & Downloading," 2011, http://goo.gl/XTUVH; Spotify, "New Spotify study sees encouraging downwards trend in music piracy in the Netherlands," July 2013, http://goo.gl/lmsYbB; Billboard, "Streaming Services Make Inroads Into Piracy Down Under, Spotify's Will Page Tells Bigsound" September 2014, http://goo.gl/UGstju; TorrentFreak, "Spotify Helps to Beat Music Piracy, European Commission Finds." October
- 14 University of Amsterdam Institute for Information Law, "Global Online Piracy Study" July 2018, https://goo.gl/X2ddDU

2015, https://goo.gl/kvFuvD>

- 15 EY, "Un manque à gagner a minima de 1,18 milliard d'euros," June 2018, https://goo.gl/eZHMyW>
- Coalition of Creators and Content Industries, "Piracy observatory and digital content consumption habits 2017," April 2018, https://goo.gl/s/u6Wy>
- Australian Department of Communications and the Arts, "Consumer survey on online copyright infringement 2018," August 2018, https://goo.gl/nsWDbZ
- ¹⁸ IDATE, "Online Content Study: Changes in the distribution, discovery, and consumption of lawful and unauthorised online content," November 2015, https://goo.gl/PYxmg2>
- Mike Weatherley, "Strides in the right direction," July 2015, http://goo.gl/s0Lo4M
- TorrentFreak, "Three Large File-Sharing Sites Announce Shutdown," March 2016, https://goo.gl/OMFpND
- ²¹ For more information on these industry efforts, see: https://www.betterads.org
- For more information on the Better Ads Standards, see: https://www.betterads. org/standards
- ²³ TorrentFreak, "Chrome's Default 'Ad-Blocker' is Bad News for Torrent Sites," July 2017, https://goo.ql/DbNqYn>

- A French study found that the number of pirates declined by 8% from 2016 to 2017. Pirates also reportedly streamed less infringing content than the year before and were more willing to pay for content.¹⁵
- A 2018 report by a Spanish anti-piracy group reported noticeable declines¹⁶ in the number of people who accessed unauthorized content. A survey from the Australian government also found an overall drop in this number in 2018.¹⁷
- A study released by the U.K. regulator OFCOM noted several features of content-delivery services that could be improved in order to further reduce piracy, including working with creators and rightsholders to increase the catalogues of available works, and decreasing the window of time between when a television show, song, or movie premieres and when it is available for download.¹⁸

Another way to combat infringement is to "follow the money" to starve infringing sites of their income. The Police Intellectual Property Crime Unit in the United Kingdom estimated in 2015 that shutting off advertising revenue would close 95% of these infringing sites. 19 Indeed, this approach has proven effective. For example, in March 2016, three of the most popular file-sharing sites in Europe shut down, citing problems monetizing their service through advertising. 20

Google has joined other industry leaders in the "follow the money" approach to fight online piracy by ejecting infringing sites from Google's advertising services and promoting industry-wide advertising standards through groups like the Coalition for Better Ads.²¹ We've also built an ad blocker into the Chrome browser that filters ads from web pages that do not comply with industry quality standards, as anecdotal evidence suggests these ads are disproportionately found on infringing sites.²³ The end result—a virtuous cycle produced by better incentives for legitimate businesses—reaches far beyond Google's own ad networks.

Copyright by the Numbers

Revenue We Have Generated

Scope of Our Effort

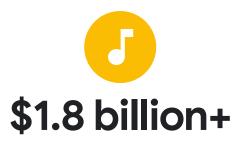


\$3 Billion+

The amount YouTube has paid rightsholders who have monetized use of their content in other videos through Content ID.



The amount we've invested in building Content ID, including staffing and computing resources.



From Oct 2017 to Sep 2018, YouTube paid out over \$1.8 billion in ad revenue to the music industry. The music industry has earned over \$6 billion in total ad revenue from YouTube.



The number of partners using Content ID to manage and monetize their works. These partners include major network broadcasters, movie studios, music publishers, and record labels. They have provided 80 million+ active reference files for our Content ID database.

Actions We Have Taken



882 Million URLs

Content owners have notified us about 882 Million URLs in 2017 alone. Google removed more than 95% of these webpages, meaning we pushed back on around 54 million removal requests that were incomplete, mistaken, or abusive.



10 Million Ads

In 2017, Google rejected more than 10 million ads that we suspected of copyright infringement.



of copyright issues handled through Content ID

98% of copyright claims on YouTube in 2017 were made through Content ID, which gives creators a way to manage and control their works without having to send takedown notices. More than 90% of all Content ID claims result in monetization, generating significant revenue for YouTube partners.

Working with Government and Industry



Working with Government and Industry

Google is actively involved in discussions with policymakers around the world on how best to fight online piracy and connect people with legitimate content. Some recent examples include:

- In September 2017, Google entered into a partnership with the Centre
 National du Cinema and the French anti-piracy association ALPA to build
 a "one-stop shop" for small copyright holders in France. This enabled
 them to protect their content with tools designed for larger copyright
 owners and organizations, such as YouTube's Content ID and Search's
 Trusted Content Removal Program.
- In February 2017, Google joined a Voluntary Code of Practice along
 with the Motion Picture Association, British Phonographic Industries
 Ltd, Microsoft Bing, and other representatives of creative industries. In
 cooperation with the U.K. Intellectual Property Office, the Code assesses
 the effectiveness of search engines' voluntary efforts to combat piracy
 while also providing a forum to strengthen industry cooperation. Both
 search engines have passed all quarterly independent effectiveness tests
 to date.
- In March 2016, Google partnered with the Australian Digital Alliance (ADA)
 to organize a copyright forum in Canberra with the participation of industry
 leaders, policymakers, and international experts. It provided an opportunity
 for Australian and New Zealand government officials and advisers to
 meet with experts on copyright reform and learn from their experiences
 reforming copyright laws.
- In April 2015, Google participated in the U.S. Department of Commerce's Internet Policy Task Force multi-stakeholder process to improve the operation of the Digital Millennium Copyright Act's (DMCA) notice-andtakedown system.²⁴ These discussions resulted in a list of best practices for DMCA notice-and-takedown processes.²⁵
- In March 2015, Google supported the "follow the money" process initiated by the French Minister of Culture. As a member of IAB France, Google signed a charter of best practices to fight online copyright infringement. Signatories to this charter committed to the establishment of clear and transparent principles to prevent advertising services from engaging with "rogue sites."
- The DMCA is a U.S. law that provides qualifying online service providers like Google with a safe harbor from monetary liability for copyright infringement claims. One of the requirements of these safe harbor provisions is that the service provider (Google, in this case) remove or disable access to allegedly infringing material upon receiving a request that meets certain requirements. Laws governing other jurisdictions, such as Europe's E-Commerce Directive, have similar safe harbors for service providers.
- United States Patent and Trademark Office, "U.S. Commerce Department Announces Digital Millennium Copyright Act Multistakeholder Forum Results," April 2015, https://goo.gl/NQZB2r

The White House, "Coming Together to Combat Online Piracy and Counterfeiting," July 2013, https://goo. gl/86x1QE>

²⁷ EU Growth, "Memorandum of Understanding on online advertising and intellectual property rights," July 2018, https://youtu.be/5-yXMWk3cW0>

- In July 2013, Google worked with the White House's Office of the U.S.
 Intellectual Property Enforcement Coordinator (IPEC), and other leading ad networks, to participate in Best Practices and Guidelines for Ad Networks to Address Piracy and Counterfeiting. Under these best practices, ad networks maintain and post policies prohibiting websites that are principally dedicated to engaging in online piracy from participating in the ad network's advertising programs.²⁶
- In June 2018, Google joined a broad coalition of advertising businesses, rightsholders and industry groups in signing a voluntary Memorandum of Understanding (MoU) with the European Commission. The MoU endorses a "follow the money" strategy to stem the flow of ad revenues to sites and apps engaging in piracy and counterfeiting. Google actively engaged through the months-long negotiation process that led up to the deal and was the only major tech company to sign the MoU.²⁷

Google is also actively working with other industry leaders to standardize processes for identifying pirated works and to develop best practices for online advertisers. Some examples include:

- In May 2018, Google partnered with the Audiovisual Anti-Piracy Alliance, a group of European businesses that provide audiovisual services and the security technologies for delivering them. We committed to working with the Alliance's members across the E.U. to tackle piracy through best practices and ongoing collaborative efforts.
- Since 2015, Google has participated in the Trustworthy Accountability Group's (TAG) Anti-Piracy Working Group. A 2017 report commissioned by TAG showed that anti-piracy steps taken by the digital advertising industry have reduced ad revenue for pirate sites by between 48 and 61 percent.²⁸
- Since 2015, Google has participated in multiple WIPO workshops for experts and intellectual property offices (IPOs) from ASEAN member states focusing on the value of copyright and how it spurs innovation.
- In February 2015, Google worked with a cross-industry group in the United Kingdom called the Digital Trading Standards Group (DTSG) to create self-regulatory best practice principles for online advertisers to help ensure that ads do not appear on allegedly infringing websites.

²⁸ Trustworthy Accountability Group, "About the Certified Against Piracy Program," https://goo.gl/S01we5

YouTube



YouTube

YouTube empowers the world to create, broadcast, and share video in furtherance of its mission to give everyone a voice and show them the world. Today, more than 400 hours of video are uploaded to YouTube every minute, spanning every conceivable topic from politics to comedy, from sports to religion. More than 1.9 billion people visit YouTube every month, whether it be on their mobile device, their living room TV, or their computer. Each day these users watch more than a billion hours of video and generate billions of views. YouTube is a truly global platform—local versions exist in more than 90 countries, and people can navigate YouTube in 80 different languages (covering 95% of the internet population). More than 70% of watchtime happens on mobile devices. YouTube Go, our app for emerging markets, is now available in over 140 countries around the world. As a result of this global reach, 85% of YouTube's views are from outside the United States.

YouTube's Impact for Creators

Today, millions of channels from over 90 different countries earn revenue from their videos—from some of the world's biggest record labels, movie studios, and news organizations, to independent musicians and creators who are, in essence, small local businesses. The amount of revenue YouTube drives toward creators has continued to grow. The number of channels earning more than \$100,000 per year on YouTube is up 40% year-over-year, and the number of channels earning more than \$10,000 annually grew by more than 35%.

Many of these creators have translated their success on YouTube into entirely new revenue streams and business opportunities. On top of the revenue share they receive from advertisements that display in front of and alongside their videos on YouTube, these top creators have diversified their success through new projects that range from brand endorsement deals to best-selling books. For example, teen creator JoJo Siwa has partnered with retailers like WalMart and Claire's to sell her signature hair bows to fans around the world. Her followers use the hair bows to signal that they support JoJo's anti-bullying message.²⁹

²⁹ AdAge, "Q&A with the Girl Behind that Big Hair Bow", December 2017, https://goo.gl/tqDFbS

To further invest in and support this global creative community, we have opened YouTube Spaces in Berlin, Dubai, Los Angeles, Mumbai, London, New York, Paris, Rio de Janeiro, Tokyo, and Toronto. The YouTube Spaces are collaborative production facilities available to YouTube creators for free where they can learn from industry experts, share ideas over coffee with fellow YouTubers, and use the latest equipment to create their next great video. Before creators can produce a video in the YouTube Spaces, they are required to complete a copyright training to ensure they know the rules for respecting other artists' work. As of August 2018, creators have produced over 26,000 videos filmed in the YouTube Spaces, generating over 3 billion views and more than 150 million hours of watchtime.









Photos of YouTube Space Paris. For more information, visit youtube.com/space.

How YouTube Benefits the Music Industry

YouTube has partnerships with every major record label, as well as hundreds of collecting societies, independent labels, and music publishers, to help share recorded music and music videos with fans on YouTube. Through licensing agreements with our partners in the music industry as well as the tools we offer, like Content ID, creators and rightsholders are compensated when fans visit YouTube to watch music videos. From October 2017 to September 2018, YouTube paid out over \$1.8 billion in ad revenue to the music industry. The music industry has earned over \$6 billion in total ad revenue from YouTube. Combined with revenue from our growing subscription service, YouTube Music Premium, and money earned from monetizing fan uploads, YouTube is contributing a meaningful and growing revenue stream for the industry while providing a powerful platform to engage with fans around the world.

Through the recently launched YouTube Music, as well as the main site, YouTube is the premier destination for fans to discover, share and listen to legitimate sources of the music they love. For example, as of July 2018, the music video for Taylor Swift's "Shake It Off" had been viewed more than 2.5 billion times, over 10 times more listens than on the leading streaming services. There are now more than 100 YouTube videos with 1 billion or more views—there were only 15 videos to reach this mark as of 2015. According to MIDIA, music videos reach 1 billion views 10 times faster on YouTube today than in 2010. The music industry, recognizing that fans turn to YouTube to engage with their favorite artists and albums, now includes YouTube views in Billboard's Top 100 Charts and the U.K.'s Official Charts Company ratings. YouTube has also introduced its own charts in 44 countries to highlight trending music, as well as top songs, artists, and music videos.

YouTube has paid over \$6 billion to the music industry from advertising alone.

- 30 Taylor Swift, "Shake It Off," ; Headline Planet, "Taylor Swift's "Shake It Off" Reaches 200 Million Spotify Streams," July 2018, https://goo.gl/LfWFKo
- 31 YouTube Playlist, "One Billion Club," https://goo.gl/Q6KHJ6
- In 2010, it took an average of 1,841 days for a music video to reach 1 billion views; in 2017, it took an average of just 171 days. Mark Mulligan, "State of the YouTube Music Economy 2.0: A Turning Point for All Parties," August 2018, https://goo.gl/5oHPrU>
- 33 YouTube for Artists, "YouTube charts launch in 44 countries," May 2018, https://goo.gl/yRGDaE

- ³⁴ Billboard, "Beyonce's Coachella Set Is the Most-Viewed Performance on YouTube Live Stream," April 2018, https://goo.gl/opEV5U; YouTube Music Charts & Insights, May 2018, https://goo.gl/BUzeGM>
- ³⁵ ABC News, "Pop Star Justin Bieber Is on the Brink of Superstardom," November 2009, https://goo.gl/f1w1So; YouTube for Artists, "Camila Cabello: Made in Miami," February 2018, https://goo.gl/zamXxU; YouTube for Artists, "Dua Lipa: From sharing covers to being covered," June 2017, https://goo.gl/6uA8Pz
- ³⁶ YouTube for Artists, "Stormzy: Gang Signs & Prayer," September 2017, https://goo.gl/PcZntR; YouTube for Artists, "YouTube at The Great Escape," May 2017, https://goo.gl/qikMYM
- ³⁷ Engadget, "YouTube's 'Artist on the Rise' program spotlights new music stars," May 2018, https://goo.gl/vSqWjD
- 38 YouTube for Artists, "New official artist channels on YouTube," January 2018, https://goo.gl/NQtNqJ
- 39 For more information: https://charts.youtube.com/ and https://goo.gl/TVspXb
- 40 YouTube for Artists, "YouTube and Ticketmaster," November, 2017, https://goo.gl/5tghuJ
- 41 YouTube Creator Blog, "VidCon 2018: Helping creators earn more money and build stronger communities," June 2018, https://goo.gl/n55G9R>

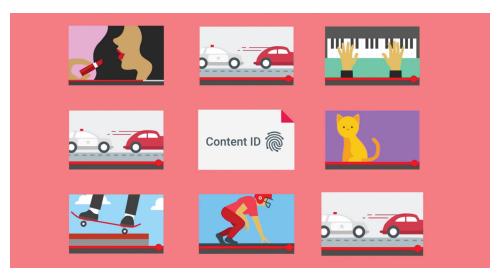
YouTube also provides the technology and audience that makes it a sought-after destination for premium music events, such as Beyoncé's history-making performance at Coachella, which was live-streamed to a global audience and attracted 458,000 concurrent live viewers. Another artist, Childish Gambino, premiered his award-winning music video, "This is America," coordinated with a live performance on Saturday Night Live. The simultaneous debut created a pop-culture moment, with the video earning over 85 million views in its first week and reaching #1 on the YouTube Songs chart in 11 countries, including the United States, the United Kingdom, Australia, South Africa, Ireland, and Norway.³⁴

YouTube is also a platform with incredible promotional value for new artists and entire music genres. Thanks to famous predecessors like Justin Bieber, Camila Cabello, and Dua Lipa, starting a music career on YouTube is now a well-established path to success and a meaningful funnel of new talent for the music industry. In the U.K., grime music has found a home on YouTube, driven by trailblazers like Skepta and Stormzy and fueled by channels that highlight new rappers. To support and help more artists get discovered at every phase of their career, YouTube created a new monthly program called Artist on the Rise, which aims to shine a light on emerging musicians and bands on the Trending tab, driving new audiences to a diverse lineup of music's most important new voices. To support and help more artists lineup of music's most important new voices.

Along with promoting artists and their work, YouTube also helps them reach fans in innovative, data-driven ways. In 2017, YouTube launched Official Artist Channels, which help make it easier for fans to find music from their favorite artists by uniting their full body of work (from official videos to live performances, to individual songs and albums) under one channel.³⁸ Services like YouTube Music Insights and YouTube Analytics can help artists prepare for upcoming milestones in their career, including planning releases & tours, selling merchandise items to fans, and live streaming.³⁹ YouTube encourages labels and publishers to offer artists and songwriters direct access to YouTube Analytics. In 2017, YouTube partnered with Ticketmaster to create a feature that displays upcoming concert listings alongside an artist's official music video on YouTube. With one simple click, fans can go to Ticketmaster to purchase tickets to events.⁴⁰ YouTube has also partnered with Teespring to help creators sell custom merchandise to viewers directly from their YouTube channel.⁴¹

Over 98% of copyright issues on YouTube are handled through Content ID.

YouTube Helps Creators and Rightsholders Manage Copyrighted Works



Copyright owners can use Content ID to easily identify and manage their content on YouTube: youtu.be/9g2U12SsRns.

Content ID

In 2007, YouTube launched Content ID, a first-of-its-kind copyright management system that gives rightsholders the tools they need to effectively monitor and manage their works on YouTube. Using Content ID, rightsholders can be automatically notified of user-uploaded videos that contain their creative work and can choose in advance what they want to happen when those videos are detected.

Over 98% of copyright issues on YouTube are handled through Content ID, rather than the notice-and-takedown process. Within Content ID, 98% of claims in 2017 were automated—meaning that Content ID automatically identified the work and applied the copyright owner's preferred action, without the need for intervention by the copyright owner.

Here's how Content ID works: rightsholders deliver reference files (audio-only or audiovisual) of works they own, metadata describing that content, and what action they want YouTube to apply when Content ID finds an appropriate match. The library of reference material in the system includes more than 80 million files of audio and visual content.

YouTube then compares videos uploaded to the site against those reference files and automatically identifies the work and applies the rightsholder's preferred action for that content.⁴² Rightsholders can choose between three actions when an upload matches their content:

- 1. make money from it;
- 2. leave it up and track viewing statistics; or
- 3. block it from YouTube altogether.43

These policies can be flexibly applied depending on how the content has been reused. Rightsholders can configure rules based on the amount of their content used in a video, or on the percent of the video their content accounts for. To avoid claiming videos which may not be infringing, Content ID users have the flexibility to review certain claims, rather than taking automated action.

Thanks to the different options that Content ID gives copyright owners, it's not just an anti-piracy solution, but also a revenue-generation tool. Through Content ID, creators and rightsholders can earn money even when their work hasn't been properly licensed by the uploader. In 2017, rightsholders choose to monetize 90% of all Content ID claims, opening up a multitude of new revenue streams for themselves. In the music industry, rightsholders choose to monetize over 95% of Content ID claims. We have paid out over \$3 billion to rightsholders who have monetized use of their content in other videos through Content ID. The size and effectiveness of Content ID are unparalleled in the industry, offering an efficient way to earn revenue from the unanticipated, creative ways that fans reuse songs and videos.⁴⁴

⁴² For more information: https://goo.gl/A48tna>

⁴³ For more information: https://goo.gl/nzDGrS>

⁴⁴ Christophe Muller, "YouTube: 'No other platform gives as much money back to creators," April 2016, http://goo.gl/N9QoF8

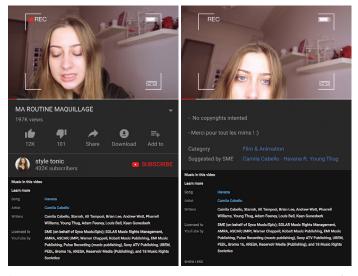
- 45 "Spencer's Home Depot Marriage Proposal," https://youtu.be/l4HpWQmEXrM
- Billboard, "Alan Walker: From Bedroom Producer to Official Sia Remixer," December 2016, https://goo.gl/sCFKuN; "Alan Walker - Faded," December 2015, https://youtu.be/60ltHLz5WEA
- ⁴⁷ To learn more, see: https://goo.gl/9Y92sG>
- 48 To learn more, see: https://youtu.be/QuOn93KPIr4

- Billboard, "A Meme Pushes Fleetwood Mac's 'Dreams' Onto Hot Rock Songs Chart," April 2018, https://goo.gl/yJzc45
- Le Figaro, "I Will Survive de Gloria Gaynor cartonne depuis la victoire des Bleus en Coupe du monde," July 2018, https://goo.gl/MDmz5p>

These "unofficial videos" can yield large dividends for artists. Australian indie-pop singer Betty Who's song "Somebody Loves You" attracted new attention when it served as the soundtrack of a marriage proposal video that has been viewed over 14 million times. Amateur British EDM producer Alan Walker distributed his track "Fade" through the YouTube channel NoCopyrightSounds, allowing it to be reused freely by other YouTube creators in their videos. It grew so popular that he acquired a global fan base, signed a record deal with a major label, and accrued nearly 2 billion views on his official upload of the song. To help fans discover new music, YouTube uses Content ID data to display information about songs that appear in fan-uploaded videos, including the title, artists and songwriters, and the record labels and music publishers who represent them. To Content ID also enables rightsholders to automatically link back to their official channel from user-uploaded videos that feature their content.

Through memes and dance challenges, YouTube is unveiling new ways to turn songs into hits. Songs like Rae Sremmurd's "Black Beatles" and Drake's "In My Feelings," were not intended for release as singles, but reached the top of the charts thanks to fans creating viral dance videos that resulted in tens of millions of extra Content ID-claimed views. Similar successes include Maître Gims's "Sapés Comme Jamais," Zay Hilfiger's "Juju on that Beat (TZ Anthem)," iLoveMemphis's "Hit the Quan," Silentó's "Watch Me (Whip/Nae Nae)," Pharrell Williams's "Happy," Beyoncé's "Single Ladies (Put a Ring on It)," Baauer's "Harlem Shake," Ayo and Teo's "Rolex Challenge," and Soulja Boy's "Crank That (Soulja Boy)." Artists have even seen new success for past releases, like when Fleetwood Mac's "Dreams," released in 1977, returned to Billboard's Hot Rock Songs chart thanks to renewed interest in the song after its use in a popular meme. After the French national men's soccer team won the 2018 World Cup, fans made video tributes to their team featuring Gloria Gaynor's "I Will Survive," released in 1978, leading to a renewed surge of interest in the song.

⁵¹ «Fast Company, "YouTube is using Al to police copyright—to the tune of \$2 billion in payouts," July 2016, https://goo.gl/5emYdZ> Moreover, YouTube is improving Content ID constantly, and has invested over \$100 million in Content ID to maintain its status as the best-in-class copyright management tool. Content ID can now catch efforts to evade detection like changing a video's aspect ratio, flipping images horizontally, and speeding up or slowing down the audio. 51 With advancements in machine learning, Content ID can now detect copyrighted melodies, video, and audio, helping identify cover performances, remixes, or reuploads they may want to claim, track, or remove from YouTube. Creators and rightsholders have gained enormous benefits from YouTube's thriving community of cover performers by recognizing song melodies even when they differ from the official sound recording.



"Music in this video" uses the data and technology behind Content ID to help fans learn more when a song catches their ear in a video.

- 52 Chloe x Halle, "Beyonce "Pretty Hurts (Chloe x Halle Cover)," December 2013, https://youtu.be/uPwuduhx0vw
- ⁵³ Rolling Stone, "How Chloe x Halle Caught Beyonce's Ear," June 2016, https://goo.gl/xBa899
- Rappler, "Sungha Jung: Growing up on YouTube," February 2016, https://goo.gl/vNYmRM
- For more information on Content ID, see: https://goo.gl/iLnmJc>

Since YouTube's inception, talented amateur musicians have uploaded cover songs, helping them reach new audiences and start to create their own original music. Teen sisters Chloe x Halle were discovered after Beyoncé saw them perform her song, "Pretty Hurts," a video which received over 15 million views and was claimed by the music publisher through Content ID.⁵² She was so impressed she signed them to her record label and now they've released their first EP of original music.⁵³ South Korean high schooler Sungha Jung started out posting guitar covers of his favorite songs and now has a following of over 5 million subscribers, several albums of original music, and worldwide tours.⁵⁴ Because YouTube recognizes that cover songs mutually benefit both songwriters, publishers, and performers, Content ID allows both parties to earn revenue on videos where it has identified a match with a song composition, but not the official sound recording.⁵⁵

- For more information on disputing a Content ID claim, see: https://goo.ql/6lBubT
- 57 BBC, "White noise video on YouTube hit by five copyright claims," January 2018, https://goo.gl/ZtoQqS
- Wikimedia Foundation, "Can Beethoven send takedown requests? A first-hand account of one German professor's experience with overly broad upload filters," August 2018, https://goo.gl/9xwnma>
- For more information on material ineligible for Content ID, see: https://goo.gl/7NLHeE
- O YouTube Creator Blog, "Update: Improving Content ID for creators," November 2016, https://goo.gl/u4GehP>

While Content ID generally represents an attractive bargain for both copyright owners and fan uploaders, like any content filtering system it is susceptible to error. If video uploaders get a Content ID claim that they believe is invalid, they can choose to dispute that claim. Fewer than 1% of Content ID claims are disputed, and of that number, over 60% resolve in favor of the uploader. User disputes highlight areas for improvement, both for YouTube's matching technology and for copyright owners' rights management practices. For example, an Australian musician who produces original white noise tracks disputed several incorrect Content ID claims generated by distinct white noise. In another case, a German music professor who uploaded public domain recordings of classical music had to dispute a series of Content ID claims from various music labels, even though the recordings were no longer protected by copyright.

YouTube aims to deactivate invalid Content ID reference material, such as works in the public domain and insufficiently distinct audio or video.⁵⁹ Over the past few years, YouTube has invested in proactive detection of this material through a combination of automation and human review. In addition, YouTube has made significant improvements to the dispute process to increase the fairness to all parties, such as allowing videos to continue to earn revenue while a Content ID claim is under dispute.⁶⁰

Fewer than 1% of Content ID claims are disputed.

- 61 Japan Forward, "Fuji Rock 2018 Livestream Highlights: Enjoy Japan's Most Famous Rock Festival from Home," July 2018, https://goo.gl/5rzxoJ>
- Vozpópuli, "LaLiga se vale de Google para evitar el pirateo del fútbol en YouTube," May 2017, https://goo.gl/hP434N>
- ⁶³ For more information on Content ID and live streams, see: https://goo.gl/PH9SZk
- 64 For more information on the Copyright Match Tool, see: https://goo.gl/vRxWU3">https://goo.gl/cSi4gJ

Content ID and Live Streams

Thanks to continued efforts to improve Content ID, we are now able to scan all YouTube live streams for matches to copyrighted content. This includes live broadcasts like a sporting event or music festival. For instance, in 2018, the Fuji Rock Music Festival was live streamed on YouTube, and the rightsholders used Live Content ID to keep unauthorized streams off the platform. Many premier sports leagues like LaLiga in Spain now also use Content ID to automatically detect and block full-length copies of their live-broadcast games. When content from the Content ID database is identified, a placeholder image may replace the live stream until the content is no longer detected. In some cases, infringing live streams may be terminated and the YouTube channel owner may temporarily lose access to the live streaming feature.

Copyright Match Tool

YouTube recently launched its Copyright Match Tool, which uses the power of the Content ID matching system to find near identical re-uploads of creator videos on YouTube. 64 Instead of uploading a reference file to YouTube, creators who are the first to upload a video to YouTube are shown subsequent uploads of their videos. Creators can then review the matching videos and file takedowns for any they wish to remove. They can also choose to contact the uploader. In this way, creators remain in control of the works they create on YouTube. This new tool simplifies copyright management so that creators can focus their time on making great videos.

YouTube Copyright Policies

The vast majority of media uploaded to YouTube does not infringe anyone's copyright. Nevertheless, YouTube takes its role in educating people about copyright seriously and creates strong incentives to discourage infringing activity. As a result, YouTube has a number of policies in place designed to discourage copyright infringement and terminate repeat offenders:

- 1. When YouTube removes a video in response to a valid copyright removal notice, we notify the user and apply a "strike" to the account of the user who uploaded the video;
- 2. By completing an online "Copyright School" program, the user can both learn about copyright and become eligible to have one strike expire from their account; and
- 3. After three strikes, the user's account is suspended and all the videos uploaded to the account are removed.

For Google's webform to submit a takedown notice, see: https://www.youtube.com/copyright_complaint_form The YouTube Copyright Center and Copyright Takedown Notices

While the vast majority of copyright issues on YouTube are resolved via Content
ID, the remaining 2% are addressed through DMCA takedown requests. Copyright
owners and their representatives can submit takedown notices through the
YouTube Copyright Center, which offers an easy-to-use webform,⁶⁵ as well as
extensive information aimed at educating people about copyright.

In 2017, YouTube received over 2.5 million DMCA takedown requests from over 300,000 copyright claimants, requesting the removal of more than 7 million video URLs. While the vast majority of the time we remove this content, we also find a large number of requests represent a misunderstanding of the process or sometimes even outright abuse. YouTube carefully reviewed these takedown requests and either asked for more information or rejected requests targeting more than 300,000 of those videos.



Glove and Boots explain copyright in the YouTube Copyright Center: https://youtube.com/yt/about/copyright.

YouTube Content Verification Program

In addition to an easy-to-use public webform, YouTube offers a Content Verification Program for creators and rightsholders who have a regular need to submit high volumes of copyright removal notices and have demonstrated high accuracy in their prior submissions. This program makes it easier to search YouTube and quickly identify allegedly infringing videos. With a recently upgraded user interface and integration with the search functionality of Content ID, the Content Verification Program is an efficient and effective way for creators and rightsholders to control their works on YouTube.

Stream Ripping

"Stream ripping" refers to the practice of converting streaming media to a downloadable format to make copies of works, typically music. It can occur in different technical forms—including through sites, tools, apps, and services. This can negatively affect YouTube and its content partners, as it allows content to be used outside of our advertising or payment ecosystem. YouTube's Terms of Service prohibit the downloading or copying of videos without the prior written consent of YouTube or the respective copyright licensor, and we take technical steps to prevent this behavior. Once notified of an infringing tool or service that violates our Terms of Service, we take action, including disabling access to the YouTube API (if applicable). In addition, we work with the music industry to identify and respond to stream ripping entities. YouTube also takes action when stream ripping sites are infringing YouTube's trademarks.

YouTube Values Transparency and Guarding Against Abuse

YouTube Counter Notification Procedure

YouTube strives to be as transparent as possible when we remove content for copyright infringement. For that reason, we notify our users when we take action on their videos. If a video uploader believes that a copyright owner has submitted an invalid DMCA takedown request for their video, they can file a counter notification via a webform to explain why the copyright owner made the wrong call. 66 Unless the copyright owner files a lawsuit against the uploader, we may reinstate the video.

In 2017, YouTube received over 150,000 counter notifications for more than 200,000 videos. In an effort to reduce the burden on rightsholders to review and respond to misguided appeals, YouTube has invested in teams to carefully review counter notifications and ensure that they not only include all legally-required elements, but also provide a sound rationale for reinstatement. More than 2 /₃ of the counter notifications we receive don't pass this basic review, and we reject them outright to save time for rightsholders.

Examples of Invalid Notices

YouTube takes the abuse of our tools seriously. Partners who abuse these tools will have their access to the tools disabled. As part of our effort to help the YouTube community and copyright owners alike develop best practices as a community, we've published some examples of abusive and overreaching copyright takedown requests:

For more information on counter notifications, see: https://goo.gl/CKW3se

- A major fast food company sent a takedown notice in an attempt to remove a popular music video. The music video showed a blacked-out version of the company's logo in a scene staged in one of their restaurants.
 We asked the company to consider whether the use of their logo is protected by fair use, but never heard back. We did not remove the video.
- An American novelty gift company sent a takedown notice aimed at a video promoting a cutting board shaped like an ampersand, claiming it infringed on their similar-looking cutting board design. Copyright protects original expression, not ideas. We did not remove the video.
- A rogue employee at a Turkish content network sent copyright takedown notices to remove videos critical of the government of Azerbaijan, which were posted by several dissident news channels. Although the videos were initially removed, we later reinstated them. The content network closed its office in Azerbaijan to avoid further abusive removals.
- The grandchild of a deceased French architect attempted to remove a
 video that discussed the rehabilitation of a building her grandfather had
 designed. The claimant was unable to explain why the use of a photograph
 of the building wasn't protected by a specific exception to copyright
 infringement. We did not remove the video.

YouTube's Fair Use Protection

As demonstrated above, YouTube sometimes receives takedown requests targeting videos that seem like clear examples of fair use or fair dealing, or that fall under similar exceptions to copyright infringement. U.S. courts have held that rightsholders must consider fair use before they send a copyright takedown notice, so in many cases (though it's a very small percentage of copyright takedowns overall), we ask rightsholders to confirm they've done this analysis.

In some very special cases, we've asked the video's creator to join a new effort that protects some of the very best examples of "fair use" on YouTube from copyright takedown requests.⁶⁷ Through this initiative, YouTube indemnifies creators whose fair use videos have been subject to takedown notices for up to \$1 million of legal costs in the event the takedown results in a lawsuit for copyright infringement. This ensures those creators have a chance to protect their work and provides a set of helpful examples to the community of creators on YouTube that demonstrate both the importance and limits of fair use doctrine.

⁶⁷ For more information on fair use, see: https://goo.gl/J4t2eH>

Google Web Search



Google Web Search

Users worldwide perform trillions of searches per year on Google Search. Indeed, Search helps more than a billion people worldwide find licensed videos, music, images, and other media. For example, between our Search and Google News services, Google sends over 10 billion clicks per month to news publishers' websites. Moreover, services like Subscribe with Google help these sites quickly convert those visits into subscribing customers.

Infringing Results Do Not Appear for the Vast Majority of Media-Related Queries

Hundreds of billions of webpages are organized in the Search index; only an extremely small portion of these have any connection to piracy. Even for media-related queries, the vast majority of the top search results pages show only legitimate results. This is thanks to both our constant improvements to the algorithms that power Google Search and the efforts of rightsholders to prioritize and target their copyright removal notices.

Presenting Legitimate Alternatives

Google believes that providing convenient, compelling, legitimate alternatives is one of the best means of fighting piracy. Accordingly, Google has launched a number of initiatives to present legitimate alternatives to people as part of search results, including providing advertisements on queries for movies and music to link people to legitimate means of purchasing content or finding movie showtimes in local theaters. Google also collaborates with copyright owners and music services to help them understand how to use SEO (search engine optimization) techniques to get their offerings into search results for "long tail" queries where they may not be appearing today.

Between our Search and Google News services, Google sends over 10 billion clicks per month to publishers' websites.

for rare, "long tail" queries, adding terms like "watch" or "free" or "download" to a movie title or performer's name. The first problem with this argument is that many legitimate services now allow fans to watch or download movies for offline playback—sometimes for free. These types of queries are not in themselves indicative of piracy. Second, while the search results for these rare queries could include potentially problematic links, it is important to consider how rare those queries are. Look at the relative frequency of these top Google searches:⁶⁸

Nevertheless, some critics paint a misleading picture by focusing on the results

68 Note: top search terms are drawn from Google's 2017 "Year in Search" report: https://trends.google.com/trends/yis/2017/GLOBAL; search query comparison data is based on searches made between January and August 2018.

The relative frequency of any search query can be compared using the Google Trends tool, available at https://www.google.com/trends/

Top 3 Most Google Searched Musicians in 2017

"ariana grande" was searched **7,184X** more often than "ariana grande torrent" "linkin park" was searched **5,269X** more often than "linkin park free download" "lady gaga" was searched **3,785X** more often than "lady gaga torrent"

Top 3 Most Google Searched TV Shows in 2017

"stranger things" was searched **15,474X** more often than "stranger things watch free"

"13 reasons why" was searched **7,277X** more often than

"13 reasons why watch free"

"big brother brasil" was searched 30,473X more often than

"big brother brasil torrent"

Top 3 Most Google Searched Songs in 2017

"despacito" was searched **2,927X** more often than "despacito torrent" "shape of you" was searched **2,017X** more often than "shape of you torrent" "perfect" was searched **1,732X** more often than "perfect torrent"

Top 3 Most Google Searched Movies in 2017

"it" was searched 3,313X more often than "it free download"

"wonder woman" was searched 10,719X more often than

"wonder woman watch free"

"beauty and the beast" was searched 8,021X more often than

"beauty and the beast watch free"

Oscar Nominees for Best Picture in 2018

"lady bird" was searched 11,707X more often than "lady bird watch free"
"the post" was searched 10,353X more often than "the post free download"
"three billboards outside ebbing, missouri" was searched 20,274X more often than "three billboards outside ebbing, missouri watch free"
"the shape of water" was searched 8,588X more often than
"the shape of water watch free"



"ariana grande" was searched

7,184x

more often than "ariana grande torrent"



"stranger things" was searched

15,474x

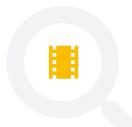
more often than "stranger things watch free"



"despacito" was searched

2,927x

more often than "despacito torrent"



"it" was searched

3,313x

more often than "it free download"

Google does not want to include links to infringing material in our search results, and we make significant efforts to prevent infringing webpages from appearing. The heart of those efforts is cooperation with creators and rightsholders to identify and remove results that link to infringing content and to present legitimate alternatives.

Handling a High Volume of Requests at Scale

Although the vast majority of media-related queries yield clean results, there are some infrequent queries where the results do include problematic links. For these "long-tail" queries, Google collaborates with copyright owners to address the problem in a few ways. To help copyright owners submit these copyright removal notices, Google has developed a streamlined submission process built around an online webform that copyright owners can use to submit removal notices for nearly all of Google's services.⁶⁹

The information we ask for in our webform is consistent with the DMCA and similar laws and provides a simple and efficient mechanism for copyright owners from countries around the world to submit notices to us. Since 2011, more than 135,000⁷⁰ different submitters have requested we remove webpages from search results for copyright violations. Google has never charged copyright owners for providing these services, and we continue to invest substantial resources and engineering efforts into improving our procedures for receiving and processing copyright removal notices.

- ⁶⁹ For Google's webform and more information on submitting a removal notice, see: https://support.google.com/legal
- ⁷⁰ Google Transparency report: Content Removals Due to Copyright, https://transparencyreport.google.com/copyright

Removing Content From Google This page will help you get to the right place to report content that you would like removed from Google's services under applicable laws. Providing us with complete information will help us investigate your inquiry. If you have non-legal issues that concern Google's Terms of Service or Product Policies, please visit We ask that you submit a separate notice for each Google service where the content appears. What Google product does your request relate to? ○ Blogger/Blogspot Google+ ○ G Web Search A Google Ad Ogle My Business (reviews, questions & answers (Q & A), and business listings) O 🙆 Drive and Docs O p Google Play: Music O > Google Play: Apps Google Shopping image Search ○ ❖ Google Photos and Picasa Web Albums See more products

Since launching this submission tool for copyright owners and their agents, we have removed over 3 billion URLs that infringed copyright from Search. In 2017 alone, about 882 million webpages were requested to be removed from over 586,000 unique domains, or top-level sites. The number of URLs listed in takedown requests decreased by 9%, reversing a long-term trend where the number of URLs requested for removal increased year-over-year. Google removed over 95% of these webpages upon review. The remaining 54 million webpages were rejected or reinstated because we either needed additional information, were unable to find the page, or concluded that the material was not infringing.

We have removed over 3 billion URLs that infringed copyright from Search results.

Trusted Copyright Removal Program Partners

In addition to our content removal webform, Google provides a tool for copyright owners with a proven track record of submitting accurate notices and a consistent need to submit thousands of webpages each day. Google created the Trusted Copyright Removal Program (TCRP) for Search to further streamline the submission process, allowing copyright owners or their enforcement agents to submit large volumes of webpages on a consistent basis. As of 2017, there are more than 178 TCRP partners, who together submit the vast majority of notices.

Demoting Infringing Websites

In addition to removing pages from search results when notified by the copyright owners, Google also factors in the number of valid copyright removal notices we receive for any given site as one signal among the hundreds that we take into account when ranking search results. Consequently, sites for which Google has received a large number of valid removal notices appear much lower in search results. This "demotion signal" amplifies the power of DMCA takedown notices, because each delisted URL can have an effect on the entire domain.

Sites for which Google has received a large number of valid removal notices appear much lower in search results.

In some cases, such as titles of films identified by content partners as still-in-theater or being prepared for commercial release, the nature of the copyrighted work may further amplify the demotion signal. The demotion signal helps people find legitimate, quality sources of content more easily and helps steer them away from infringing content. One study showed that the availability of affordable, legal content impacts people's choices to watch or listen to legitimate content instead of pirate content.⁷¹

This process has proven extremely effective. Immediately upon launching improvements to our demotion signal in 2014, one major torrent site acknowledged traffic from search engines had dropped by 50% within the first week. In May 2016, we found that demoted sites lost an average of 89% of their traffic from Google Search. In addition, this may have contributed to the 9% decrease in the number of URLs listed in takedown notices from 2016 to 2017. These successes spur us to continue improving and refining the DMCA demotion signal. To date, the demotion signal has led to the demotion of more than 65,000 websites. By the end of 2017, we demoted an average of 500 websites in search results every week, and those demotions apply globally. We have also made it much harder for infringing sites to evade demotion by

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redirecting people to a new domain.

⁷¹ Institute for Information Law, "Global Online Piracy Study," August 2018, https://goo.gl/mPPT7Q

⁷² TorrentFreak, "Google's New Search Downranking Hits Torrent Sites Hard," October 2014, https://goo.gl/o7Ai61>

By the end of 2017, we demoted an average of 500 websites in search results every week.

While we do demote entire sites in search results, we do not completely remove pages from results unless we receive a specific removal request for the page. Even for the websites for which we have received the largest numbers of notices, the number of "noticed" pages is often only a tiny fraction of the total number of pages on the site. It would be inappropriate to remove entire sites under these circumstances.

The combination of efficient processing of takedown notices and the demotion signal gives copyright owners a powerful tool against rogue sites. As new rogue sites emerge, copyright owners can target their removal notices at these new sites, providing Google information we can use to update the ranking signal.

The UK's Voluntary Code of Practice

The power of the demotion signal was recently put to the test as part of the Voluntary Code of Practice that Google entered into, along with Microsoft and major U.K. rightsholder organizations.⁷³ The heart of the Code is a process for testing whether search engines have met "targets for reducing the visibility of infringing content in search results." So far, Google Search results have undergone four rounds of testing. Thanks to the demotion signal and our other efforts to surface legitimate results in response to media-related queries, Google Search has passed the test every time with flying colors—scoring considerably under the thresholds agreed with the IPO.

⁷³ U.K. Intellectual Property Office, "Search engines and creative industries sign anti-piracy agreement," February 2017, https://goo.gl/fgwii2; a redacted version of the code is available here: https://goo.gl/zkg4AH

Removing Piracy-Associated Terms from Autocomplete and Related Search

Autocomplete is a convenience feature in Google Search that attempts to "complete" your query as it's typed, based on similar queries that other people have typed. Related Search shows queries that other people have typed that may be similar to yours. In both features, the query that appears is not one Google is itself suggesting. Instead, it reflects what others have searched for. Google has taken steps to prevent terms closely associated with piracy from appearing in Autocomplete and Related Search and continues to work on refining those steps.

Google has taken steps to prevent terms closely associated with piracy from appearing in Autocomplete and Related Search and continues to work on refining those steps.

Making Legitimate Alternatives More Visible

The best way to reduce piracy is to improve legitimate content offerings. Google has developed a number of new strategies that further promote authorized works in our search results.

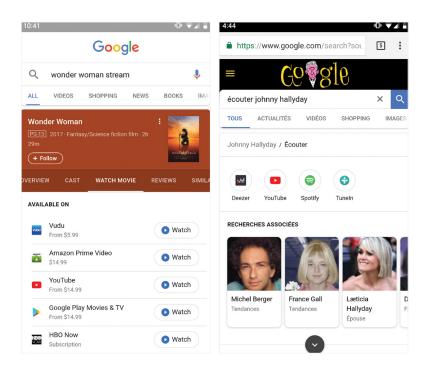
"Knowledge Cards" to Direct People to Licensed Works

Searches for movies, musicians, albums, etc. often return "Knowledge Cards" at or near the top of search results. These cards provide people with facts, images, and quick answers to their queries. Within these cards, we've been testing new ways for creators and rightsholders to quickly enable fans to watch or listen online.

Watch and Listen Actions on "Long Tail" Consumption-Focused Queries

When people search with the intention to watch or listen to media, we may show new cards for those queries directing them to legitimate sources. For example, if someone searches for the movie "Wonder Woman," Google may display a card with links to different services where they can stream, rent, or purchase a licensed copy of the film. These cards may also appear for queries to "stream" or "download" the movie, and also appear for similar music-related queries. Watch and Listen Actions make it easier for fans to find licensed movies and songs online.⁷⁴

74 Because this service is provided through local partnerships, availability of the Watch Actions feature and partner content will vary by region.



75 For example, Google worked with the Music Business Association to help publish guidelines on search engine optimization for music websites; Music Business Association, "SEO for Music Websites (Part II)", May 2014, https://goo.gl/xNG9h8> To help expand efforts like these that lead people to licensed copies of their favorite works, there is more that authorized music, TV, and movie sites can do to help their sites be more effectively indexed by search engines.⁷⁵ Google looks forward to continuing collaborative efforts with copyright owners and delivery services to make licensed works even more visible in search results.

Updates to Google Image Search

Long before innovations like "Knowledge Cards" and Watch Actions, Google introduced Image Search. The goal of Image Search has always been to help people discover information through photos, artwork, memes, GIFs, and other types of images online, while driving more traffic to the creators and owners of these images. We have made a lot of improvements to Image Search over the years, based on public feedback. Recently, we have worked directly with photographers and the stock photography industry to improve our product by encouraging people to view these images in the context of the websites where they are found. We've also added creator and credit metadata whenever present to images on Google Images. These updates give creators more ways to be discovered and connect with people interested in their work.



Google Search Detects Abuse and Values Transparency

Google works hard to detect and prevent abuses of the copyright removal process. As the number of copyright removal requests continue to swell, it becomes both more difficult and more important to detect abusive and erroneous removal notices.

Some of the copyright takedown requests we receive are flawed, incomplete, or downright abusive. A major study by UC Berkeley and Columbia found that nearly a third of copyright takedown requests submitted to Google (28.4%) had characteristics that raised basic questions about their validity. In these circumstances, we may refuse to remove a URL from our search results or choose to reinstate content that we had previously removed. In 2017, Google refused to remove, or reinstated, more than 54 million webpages from our search results.

Like YouTube, Google Search also relies heavily on its counter notification process as a check against mistaken or abusive takedown requests. In 2017, Google reinstated more than 210,000 URLs to our Search index in response to over 26,000 counter notifications filed by website owners.

In 2017, Google refused to remove, or reinstated, more than 54 million webpages from our search results.

Jennifer M. Urban, Joe Karaganis, Brianna L. Schofield, "Notice and Takedown in Everyday Practice," March 2017, https://goo.gl/HYTDUS

Examples of Invalid DMCA Requests

Here are a few examples of requests submitted through our copyright removals process that were clearly invalid. In each case, we did not remove the URL in question from search results:

- An individual claiming to be a candidate for political office in Egypt filed a copyright complaint to delist 2 pages on Egyptian news sites reporting on the individual's arrest record.
- An anti-piracy enforcement firm representing a music label filed a copyright complaint asking to delist a number of articles discussing the release of the work in question, presumably because the word "download" appeared in the text of the article.
- A Ukrainian politician sent us a copyright complaint regarding the use of his image in a number of articles critical of his performance in office.
- A business filed a copyright complaint regarding the use of images of its products in an article discussing that business's attempt to make Google delist a number of pages.
- A poet sent repeated takedown notices targeting criticism and commentary relating to the poet's online copyright enforcement efforts.
- A well-known publisher of children's books sent a takedown notice targeting the use of excerpts by a critic discussing the use of gun imagery in children's literature.
- A physician claiming a copyright in his signature sent a takedown notice aimed at a document related to the suspension of his license to practice medicine.

Detecting inaccurate or abusive notices can be challenging, and we take our commitment to guarding against abuse seriously. This is why we continue to invest more resources to address this issue. When it comes to our Trusted Copyright Removal Program, we have terminated or suspended partners from the program for repeatedly sending invalid or incomplete notices through our high-volume submission mechanisms. In addition, we've built transparency tools so that the community can identify and appeal invalid takedown requests.

Understanding Copyright Removals Through Transparency

When we remove URLs from search results, we believe the public should be able to see who made the removal request and why. Because copyright infringement allegations are the basis for the vast majority of the legal requests that we receive to remove items from search results, we have taken the following steps to ensure transparency:

- 1. Maintaining the Google Transparency Report. In 2012, we added details regarding copyright removal notices to our Transparency Report site.⁷⁷ Updated daily, the site shows the aggregate number of webpages we have been asked to remove, as well as who submitted the notices on behalf of which copyright owners and for which websites. Google's Transparency Report has also proven useful in detecting abusive notices, as journalists, webmasters, and other interested members of the public have examined the data made available there.⁷⁸
- 2. Notifying webmasters of removals. If a website operator uses Google's Search Console, a notification will be provided to webmasters there when a webpage on their domain has received a takedown notice. Webmasters who don't use the Search Console can find removal notices received for their domain in the Transparency Report. These tools empower webmasters to submit a counter-notice if they determine that a page on their site has been removed from Google Search results due to an erroneous copyright removal notice.
- 3. Providing copies of notices to Lumen. Since 2002, Google has provided a copy of each copyright removal notice that we receive for search results to the nonprofit organization Lumen. By gathering together copyright removal notices from a number of sources, including Google and Twitter, Lumen fosters research and examination of removal notices submitted by copyright owners.⁸⁰ Recent Lumen research has focused on how some reputation management companies use DMCA notices and backdated websites to remove lawful but unflattering information about their clients.⁸¹

copyright removals in search," May 2012, <https://goo.gl/rhNAM6>

77 Google Blog, "Transparency for

- 78 For more information, visit: https://transparencyreport.google.com/ copyright
- 79 Google Search Console, https://www.google.com/webmasters/tools

- 80 Lumen Database, https://lumendatabase.org
- 81 Lumen, "Bad Reviews: How Companies Are Using Fake Websites to Censor Content," August 2017, https://goo.gl/eNnuYL

When we remove URLs from search results, we believe the public should be able to see who made the removal request and why.

- **4.** Informing people when results have been removed from their search results. When people perform a search where results have been removed due to a copyright complaint, Google displays the following notice:
 - In response to a complaint we received under the US Digital Millennium Copyright Act, we have removed 1 result(s) from this page. If you wish, you may read the DMCA complaint that caused the removal(s) at LumenDatabase.org.

In response to a complaint we received under the US Digital Millennium Copyright Act, we have removed 1 result(s) from this page. If you wish, you may read the DMCA complaint that caused the removal(s) at LumenDatabase.org.

Not-in-Index URLs

While Google Search processes takedown notices for a large number of URLs every year, a large portion of those URLs have never appeared in Google Search results. This is because Google accepts notices for URLs that are not even in our index at the time of submission. Nevertheless, Google will still proactively block the URL from appearing in our search results and demote other pages from the same domain. Some reporting organizations submit a substantial number of "not-in-index" URLs. In one sample, around 82% of the URLs we delisted were not in our index. Indeed, in 2017, the three organizations submitting the most URLs all had not-index rates of more than 98%. Collectively, these three organizations submitted 312,479,799 URLs for removal, but fully 306,892,799 of those URLs were not in the index in the first place, and thus had never appeared in Google Search Results. While we will continue to act on these notices, they suggest that the volume of URLs we block is not a good proxy for the number of allegedly infringing links we serve.

See: "Google Inc. - Additional Comments [Amended]" in the U.S. Copyright Office's Section 512 Study, February 2017, https://goo.gl/CSJxX6

In one sample, around 82% of the URLs we delisted were not in our index.

Search and Piracy: The Reality

In reflecting on the role search engines can play in addressing the problem of piracy, commentators often overlook some important realities:

1. Search is not a major driver of traffic to pirate sites

Google Search is not how music, movie, and TV fans intent on pirating media reach pirate sites. Research from MPAA found only about 19% of traffic to pirate sites comes from search engines, 83 and if reasonable assumptions are applied, data from this study indicates this number may be closer to 7%. 84 Further, research that Google co-sponsored with PRS for Music in the U.K. confirmed that traffic from search engines is not what keeps these sites in business. 85 These findings were also validated in a research paper published by the Computer & Communications Industry Association. 86

2. Search can't eradicate pirate sites

Search engines do not control what is on the web. Hundreds of billions of webpages are organized in Google's index, and there will always be new sites dedicated to making copyrighted works available as long as there is money to be made doing so. Replicating these sites is easy and inexpensive, and attempts to make them disappear should focus on eradicating the business model that supports them.⁸⁷ Law enforcement and governments are increasingly recognizing this worldwide. For instance, when Google signed a 2018 Memorandum of Understanding (MoU) committing to cut funding to bad actors in Europe, Vice President of the European Commission, Andrus Ansip, praised the efficacy of this approach, noting, "I have always been a strong defender of the 'follow the money' approach and working actively and closely with industry representatives. MoUs are a key pillar in the work on the enforcement of IPRs. And we see that our approach works."⁸⁸ Rather than focusing on Search, a "follow the money" approach is the most promising means of fighting piracy.

- ⁸³ MPAA, "Understanding the Role of Search in Online Piracy," September 2013, https://goo.gl/KMDQyu; See also: DisCo, "MPAA: Online Demand for Movies is a Problem," September 2013, https://goo.gl/1S2LdS
- Note that 19% refers to how many users reach a pirate site within 20 minutes of a TV or film-related query. It could be argued that 20 minutes is an exceptionally long window for finding content on a search engine. This could indicate search results failed to quide the user to a pirate site, and this person used other methods. According to this study, this number falls to less than 10% if the time is reduced to within 7 minutes of a related search, and less than 2% within 1 minute. The study also reports 42% of searches included domain names in the query, meaning these users already knew their destination pirate site, and were using search only as a navigational aid. Thus, if the time horizon is reduced from 20 to 7 minutes, and navigational queries are correctly excluded, the number of sessions influenced by search engines drops to 7%.
- 85 BAE Systems Detica, "The Six Business Models for Copyright Infringement," June 2012, https://goo.gl/S1XKur
- 66 CCIA, "The Search Fixation: Infringement, Search Results, and Online Content," 2013, https://goo.gl/ZVSg0r
- 87 Northeastern University, "Clickonomics: Determining the Effect of Anti-Piracy Measures for One-Click Hosting," 2013, https://goo.gl/sKsRMv
- European Commission, "Statement by Vice-President Ansip at EU Blockathon 2018 on the Memorandum of Understanding on online advertising and intellectual property rights," June 2018, https://goo.gl/4CEMSL

3. Whole-site removals are ineffective and over-censor content

Google's existing copyright removal framework provides copyright owners with an effective and efficient means to remove any infringing page from search results. When it comes to entire websites, Google may demote a site in our search results if we receive enough copyright removal notices for it, but we do not remove full sites from search results for copyright infringement. Although this would reduce our operational burden, whole-site removal is ineffective and can easily result in the censorship of lawful material.

Blogging sites, for example, contain millions of pages from hundreds of thousands of different people, as do social networking sites, e-commerce sites, and cloud computing services. All can inadvertently contain material that is infringing. Even on alleged "pirate sites," several studies have shown that tens of thousands of documents, files, and other types of content are downloaded legally everyday.⁸⁹ And even for the sites for which Google receives the largest number of copyright removal requests, the number of pages identified as infringing is often only a fraction of the total number of pages we index from those sites.⁹⁰

Further, whole-site removal sends the wrong message by favoring over-inclusive private censorship over the rule of law. Embracing such an overbroad approach to address one domestic law violation (copyright) will embolden those who seek similar whole-site removal remedies for violations of other laws (e.g., insults to the king, dissident political speech). This would jeopardize free speech principles, emerging services, and the free flow of information online globally in contexts far removed from copyright.

Finally, removing or blocking an entire site could not only impinge on free speech, it would also be counterproductive. Research led by the European Commission found that shutting down a prominent pirate site only resulted in a "Hydra effect," where several new pirate sites rose to take its place. This multiplication of pirate sites, in turn, made piracy harder and more costly to combat. 91 Similarly, whole site removal from Search results just drives piracy to legitimate sites and social networks that search engines cannot reasonably eliminate from search results. For "rogue" websites dedicated to copyright infringement or counterfeit, a widespread number of experts, policymakers, and industry analysts believe that a "follow the money" approach is a more effective measure to fight them.

⁸⁹ TechDirt, "Yes, There Are Many, Many, Many, Many Legal Uses Of BitTorrent," October 2012, https://goo.gl/X6SMEZ

⁹⁰ For detailed data, see Google Transparency Report: https://transparencyreport.google.com

⁹¹ Luis Aguiar, Jörg Claussen, Christian Peukert, "Catch Me if You Can: Effectiveness and Consequences of Online Copyright Enforcement," January 2018, https://goo.gl/PXFWq5

4. Google Search cannot proactively filter for copyright-infringing works It is a myth that Google could create a tool to filter the web for allegedly infringing material and remove images, video, and text from our search results proactively. Such a system is both infeasible and unnecessary. One problem is that there is no way to know whether something identified as infringing in one place and at one time is also unlawful when it appears at a different place and at a different time. Some uses of material are authorized or permitted by exceptions to copyright like fair use, the freedom of panorama, or the quotation exception. Copyrights are often licensed to different entities for different geographic regions and may also change hands, with different licensors or owners taking different approaches.

Even more fundamental for Search is the problem that Google does not have a copy of every media file available online (in contrast to a product like YouTube, where Google hosts the videos). Google Search indexes the text, images, and links on web pages. Google does not download every audio and video file on the internet in order to identify whether it is the same music or video as one previously targeted by a copyright removal notice. Even if Google were to attempt such a colossal undertaking, rogue sites could easily block Google's indexing crawlers from accessing such files, rendering the effort ineffective.

Proactively filtering the internet for copyright-infringing works would also open Search up to unprecedented abuse. Malicious actors could claim ownership of files made and owned by other people. Protecting against abuse is a hard enough problem at the scale of notice-and-takedown, but it becomes impossible in the case of proactively filtering billions of items from selfies, software code and emails, to 3D printing and CAD files.

Such an unprecedented filtering effort is also unnecessary in light of existing mechanisms developed in collaboration with copyright owners. As detailed above, notice-and-takedown, when combined with the use of a demotion signal that takes previous notices into account, already addresses the problem of rogue sites, preventing their appearance for the vast majority of search queries. Continued "follow the money" efforts are also proving successful.

Google Play



Google Play

Google Play is an online store that connects people with a diverse set of content and applications from various channels including Books, Games, Movies & TV, Music, and News. On Google Play, people can find, purchase, and enjoy entertainment for their computers, tablets, or smartphones. Play has also partnered with all of the major record labels, publishers, and movie studios to offer millions of songs and books, thousands of movies and TV shows, and thousands of news sources for the enjoyment of people using Android devices.

There are more than a billion active Google Play users around the world in more than 190 countries, presenting a tremendous opportunity for creative industries. More than 94 billion apps were downloaded from Google Play between May 2017 to May 2018. Google Play has also expanded rapidly into new countries in the last year: Play Movies is available in 117 countries, and Play Books in 75 countries. All this means that Google Play is a massive boon for content creators.

Play Provides Better Legitimate Alternatives to Piracy

Each channel of Google Play provides people with direct access to licensed movies, TV shows, books, magazines, apps, and games, giving people compelling alternatives to piracy.

Movies and TV Shows

Through partnerships with 200+ film & TV global distributors, including all major studios, Google Play offers tens of thousands of recently released movies and TV shows. It also offers innovative features that take advantage of the digital format to drive user engagement. For example, Info Cards may appear when a movie or TV show is paused to provide more information about the actors and music in a scene.

Books and Magazines

Google Play is home to the world's largest selection of eBooks, with more than 5 million titles available in 75 countries. We have also partnered with news publishers to launch Subscribe with Google, a comprehensive platform to help publishers convert readers into subscribers and keep them engaged across Google and the web. This is important because subscribing is often a frustrating experience for people, resulting in a loss of potential business for publishers. Subscribe with Google dramatically simplifies the log-in and payment process when subscribing to a news publication, eliminating the need for account registration, memorizing new passwords, or entering a new credit card. Partnerships like these foster additional ways for readers to enjoy periodicals across all of their devices and create a new market for magazines and newspapers.

Apps and Games

Google Play is an engine of economic opportunity for application developers because it gives them a free platform to build on and reach Play's 1 billion active monthly users. There are now more than 8 billion new app installs per month globally. From May 2016 to May 2017, the number of developers with over 1 million installs grew by 35%.

In addition to the benefits that Apps & Games provides to creators, several of the most popular apps are delivering licensed music, movies, and TV shows to fans, including. For example:

- Netflix allows subscribers to stream TV and movies;
- HBO GO allows people with a subscription to HBO's licensed TV and movie material to watch these shows on their mobile and tablet devices; and
- Spotify is a subscription music service that offers free, ad-supported access—as well as subscription access—to a huge catalog of licensed music.

Google Play provides game developers with a platform to showcase their creativity and sell their apps directly to gamers. As of March 2018, the number of Android users who installed a game has more than doubled year-over-year.

Play Fights Against Piracy

Our policies prohibit apps that infringe copyright, encourage illegal streaming, or attempt to deceive users by impersonating other apps. Creators and rightsholders can also notify us about content on Play that infringes on their rights. This combination of proactive enforcement and notice-and-takedown makes a big difference.

In addition to proactively removing content that violates our policies, we provide a webform that creators and rightsholders can use to notify us of potentially infringing apps that our proactive processes may have missed. When someone submits a request, our dedicated team reviews the notification and takes appropriate action. To prevent the abuse of our takedown tools and processes, Play recently began requiring authentication for anyone submitting a removal request through our webform. In 2017, more than 14,000 items were removed from the Play Store through the notice-and-takedown process.

In 2017, more than 14,000 items were removed from the Play Store through the notice-and-takedown process.

Advertising



Advertising

Google provides several platforms for advertisers to build awareness of their brands, engage new customers, and generate new sources of revenue. By working with other industry partners, we have helped set industry standards for safe online advertising. We also work diligently to block infringing sites from using our services.

Following the Money

Pirate sites are almost exclusively for-profit enterprises, and as long as they are able to make money, anti-piracy strategies will have limited effect. One of the most effective ways to combat rogue sites that specialize in online piracy is to cut off their money supply. As a global leader in online advertising, Google is committed to rooting out and ejecting rogue sites from our advertising services. We also work with other advertising leaders to craft best practices aimed at raising standards across the entire online advertising industry. For example, Google has worked with regulators and other industry leaders in the European Union, U.K., France, Italy, Southeast Asia, and elsewhere to create self-regulatory principles that help ensure ads do not appear on alleged copyright-infringing websites.⁹²

92 See above section: "Working with Government and Industry"

> One of the most effective ways to combat rogue sites that specialize in online piracy is to cut off their money supply.

⁹³ IAB, "IAB Launches First and Only

Quality Assurance Certification for Ad

Networks And Exchanges," April 2011,

https://goo.gl/Vg7TWx

⁹⁴ The White House, "Coming Together to Combat Online Piracy and Counterfeiting," July 2013, https://goo.gl/86x1QE

95 Trustworthy Accountability Group, "TAG Anti-Piracy Working Group," https://goo.gl/oekrli

For more information on DTSG brand safety, see: https://goo.gl/narFxp

Best Practices

In April 2011, Google was among the first companies to certify compliance in the Interactive Advertising Bureau's (IAB's) Quality Assurance Certification program, through which participating advertising companies take steps to enhance ad buyer control over the placement and context of advertising in order to build brand safety.⁹³ This program helps ensure that advertisers and their agents are able to control where their ads appear across the web.

In July 2013, Google worked with the White House's Office of the U.S. Intellectual Property Enforcement Coordinator (IPEC), and other leading ad networks, to participate in Best Practices and Guidelines for Ad Networks to Address Piracy and Counterfeiting. ⁹⁴ Under these best practices, ad networks will maintain and post policies prohibiting websites that are principally dedicated to engaging in online piracy from participating in the ad network's advertising programs. By working across the industry, these best practices help reduce the financial incentives for pirate sites by cutting off their revenue supply.

In 2015, Google began participating in ongoing discussions and the development of best practices arising out of the Trustworthy Accountability Group's (TAG) Anti-Piracy Working Group. This working group is also focused on bringing advertisers, rightsholders, and platforms together to develop additional best practices and tools to prevent the placement of online ads on websites dedicated to piracy or the sale of counterfeit goods. ⁹⁵ TAG also provides a mechanism for participating rightsholders to submit information about infringing URLs in a uniform format. We find that in the vast majority of cases, our own processes have already removed ads from those URLs. However, in the rare instances that we have not, we can usually take action against a site within 48 hours.

We continue to work with both industry and governments on follow-the-money strategies. In February 2015, Google worked with a cross-industry group in the United Kingdom called the Digital Trading Standards Group (DTSG) to create self-regulatory best practice principles for online advertisers to help ensure that ads do not appear on alleged copyright-infringing websites. ⁹⁶ In June 2018, Google joined a broad coalition of advertising businesses, rightsholders, and industry groups in signing a voluntary Memorandum of Understanding with the European Commission. It endorses a "follow the money" strategy to stem the flow of ad revenues to sites and apps engaging in piracy and counterfeiting.

AdSense

More than 2.5 million web publishers use AdSense to make money from their content on the web, making it the chief Google advertising product used by online publishers. The overwhelming majority of those publishers are not engaged in any kind of copyright infringement. AdSense has always prohibited publishers from using AdSense to place ads on pages that contain pirated works, and Google proactively monitors the AdSense network to root out bad publishers.

Since 2012, Google has terminated over 13,000 AdSense accounts and ejected more than 100,000 sites from our AdSense program for violations of our policy on copyrighted material. The vast majority of these ejections were caught by AdSense's own proactive screens. Almost all AdSense ad formats include a link that permits a copyright owner to report sites that are violating Google's policies. Copyright owners may also notify Google of violations through a webform. Each time Google receives a valid copyright removal notice for Search, we also blacklist that page from displaying any AdSense advertising in the future.

AdSense ads appear on fewer than one-tenth of 1% of the pages that copyright owners identify in copyright removal notices for Search.

Google does not want to be in business with rogue sites specializing in piracy. Thanks to our ongoing efforts, Google is succeeding in detecting and ejecting these sites from AdSense. While a rogue site might occasionally slip through the cracks, the data suggests that these sites are a vanishingly small part of the AdSense network. For example, AdSense ads appear on fewer than one-tenth of 1% of the pages that copyright owners identify in copyright removal notices for Search. Of course, when Google does find such a violation, we take action against the AdSense publisher as well. Through integration with Search's tools for processing DMCA takedown notices, Google will stop serving ads on pages that receive a valid DMCA notice. This includes cutting off ads to entire sites that have been demoted in Search. We also use classifiers to detect potential sites and route them to human review. Through these efforts, about 7,000 sites had AdSense disabled in 2017.

Google Marketing Platform and Google Ad Manager

Through Google Marketing Platform and Ad Manager, Google offers a suite of online advertising platform solutions for both advertisers and web publishers. The principal customers for these services are large advertisers, ad agencies, large publishers, and ad networks. It is virtually unheard of for these sorts of commercial entities to be operating roque sites specializing in copyright infringement. Nevertheless, Google prevents publishers from using these services to display ads on pages that have been identified as infringing, just in case.



Google Ads

Google Ads is Google's premier advertising product, delivering the advertisements that appear next to Google Search results as well as the text advertisements on our network of partner sites across the Web. Google has zero tolerance for copyright-infringing ads in Search, and has dedicated considerable human and engineering resources across the company to develop and implement measures to root out infringing ads. In 2017, Google disapproved more than 10 million ads that we suspected of copyright infringement or that link to infringing sites. People can also notify Google of ads that they believe infringe their copyright through a webform.⁹⁷ We have also implemented changes to ensure that if an ad receives a valid DMCA takedown notice, the ad gets blocked permanently from Google Ads

97 For more information, see: https://goo.gl/477ex3>

> In 2017, Google disapproved more than 10 million ads that we suspected of copyright infringement or that link to infringing sites.

Fighting new forms of piracy



Fighting New Forms of Piracy

Kodi Add-Ons

Combating illegal streaming on open-source media players like the Kodi box shows both the challenge and the importance of a balanced approach in the fight against piracy. Open-source set top boxes themselves are legal and the XBMC Foundation, which developed the Kodi media player application, has taken steps to deter its use for streaming piracy. Nonetheless, pirates have created add-ons to enable Kodi boxes to access infringing works. Google has taken a number of steps to prevent this form of piracy:

Shopping: We removed set-top boxes with suspicious add-ons from Google Shopping.

Play: We proactively sweep the Play Store for apps with pre-installed Kodi add-ons that give access to infringing sites and remove them before they are made available.

Streaming Abuse

In recent years, Google has focused on identifying infringing streaming from Google Drive. Specifically, we established the first full-time abuse engineering team dedicated to tackling these illegal streams. We met with external stakeholders, including not only U.S. film studios and their industry associations, but also streaming providers both in the U.S. and the E.U., who felt their services were suffering from competition with the pirates. We relied heavily on data these external partners provided us, which helped us detect patterns of problematic activity on Drive, and make a number of changes to Drive architecture and policies. We were able to identify and take action against problematic accounts and also set up monitoring to look for suspicious changes in streaming activity and take action against specific files as needed.

After we strengthened our enforcement on Drive, we saw pirates attempt to exploit other hosted products, even Google Maps. 98 We were able to apply the measures we took with Drive to many of these products and significantly curtail suspicious activity.

⁹⁸ TorrentFreak, "Spammers Populate Google Maps with Pirate Links," April 2017, https://goo.gl/mmMLu8>

Piracy on Other Google Products

Google receives a smaller volume of copyright takedown notices requesting removal of content from other products through a publicly-accessible webform. In 2017, we performed the following removals:

- Drive: nearly 4,000,000 URLs removed
- Google Photos: over 200,000 URLs removed
- · Sites: nearly 200,000 URLs removed
- Blogger: over 150,000 URLs removed
- MyMaps and Google Maps: nearly 4,000 URLs removed
- Shopping: over 1,000 URLs removed

Conclusion



Conclusion

Today, Google's services are generating more revenue for creators and rightsholders, connecting more people with the content they love, and doing more to fight back against online piracy than ever before. YouTube and Google Play have helped millions of creators worldwide to reach global audiences and generate revenue. Along with new Google Search features, these platforms have made it easier for fans to find licensed copies of their favorite music, videos, books, and other creative works. By building industry-leading tools like Content ID and our Search demotion signal, working with policymakers and setting industry standards to cut off revenues to bad actors, we are tipping the scales against online piracy. Through continued innovation and partnership, we're committed to rolling back bad actors while empowering the creative communities who make everything we love about the internet today.

Links to More Information

For more information, you can visit the links below:

Google Transparency Report

https://google.com/transparencyreport/removals/copyright/

YouTube Copyright Center

https://youtube.com/yt/copyright/

Google Legal Request Webform

https://support.google.com/legal

