YouTube's ContentID Copyright Infringement Flagging System
Using its corporate-assuaging origins in Viacom v. YouTube as a jumping-off point for the way it's been used and altered over the years

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I: Background and Analysis

The idiosyncrasy of the Internet often invites colorful analogies in its description: high seas and piracy, Wild West and lawless frontier. This is not undeserved; despite great strides over the course of its development, the Internet remains unexamined and unregulated in many ways, and the regulations that do exist are largely self-governed. Copyright law in particular has proven contentious for lawmakers who are forced to balance digital rights management on a massive scale with the rights of end users. Nowhere is this conflict more apparent than in the practices of the video-sharing juggernaut YouTube.

Background

In 1998, in response to the growing problem of widespread digital copyright infringement and in the interest of providing efficient injunctive relief, Congress passed the Digital Millennium Copyright Act ("DMCA") to amend Title 17 of the U.S. Code.[1] The DMCA is two-pronged: first, it criminalizes circumventing digital protection or encryption of copyrighted material for any reason and extends the reach of remedies in copyright suits, and second, it provides "safe harbor" for internet service providers by limiting their liability from suits that could otherwise arise from infringement.[2]

However, the aging nature of the DMCA has resulted in serious struggles in implementation. Its drafters did not anticipate the evolution or sheer scale of file sharing, video streaming, or even the ease of displaying images on a website, nor could they foresee unique challenges these technologies press on the boundaries of practical copyright law.
YouTube, LLC, launched in 2005 and acquired by Google in 2006, is caught in the unenviable position of working within the constraints of the DMCA to curb widespread copyright infringement without alienating media companies or compromising the appeal of its services. To maintain safe harbor protection, YouTube is required to expeditiously remove any material a copyright holder claims is an infringement and terminate access for repeat offenders.[3] If YouTube does not, as a matter of policy, quickly remove copyrighted material and delete the accounts of infringers, they lose safe harbor status and become liable for each and every claim of copyright infringement filed against its users.

Whether YouTube's policies warranted safe harbor protection was the subject of Viacom Int'l. Inc. v. YouTube, Inc., filed in 2007 following Google's acquisition of YouTube. The suit sought damages for over 150,000 clips of Viacom's copyrighted material that users had uploaded to YouTube without authorization, the violations of which Viacom alleged YouTube had full knowledge.[4] While the suit was initially contentious, in an effort to ease tension and mitigate damages, YouTube implemented two distinct systems: ContentID and copyright strikes.

ContentID

ContentID is YouTube's primary system for tracking copyrighted material. Companies that hold the rights to a large volume of music, movies, television, video games, or other copyright-protected content can issue claims of ownership against uploaded videos containing their materials.[5] While claims can be filed manually, the vast majority are automated.[6]

To participate in the automated system, content holders send copies of their audio/video called "reference files" to YouTube, which are then stored in databases.[7] When a user uploads a video, that video is subject to ContentID sweeps, wherein the system automatically scans the database for audio matches, video matches, "partial" matches, and even checks for matches
where audio and video quality is disparate, like a camera recording in a theater or background music in a live recording.\[8\]

Copyright holders select settings to determine what happens when ContentID finds a match. YouTube can mute the audio of the matched upload, block it, track its viewing data, or monetize it.\[9\] Monetizing a video allows the claimant to run advertisements against it, the profits of which go directly to the claimant; alternatively, if a video is already monetized by the creator, ContentID will redistribute ad revenue to the claimant.\[10\]

In YouTube's support materials, monetization is consistently framed as "promotional opportunities" for artists—a "win-win" situation wherein uploader content remains live, and copyright holders profit both financially and through increased exposure.\[11\] However, ContentID is not available to all artists or other copyright holders. To participate in the ContentID program, an applicant must own exclusive rights to a substantial body of original material that is frequently uploaded by the YouTube user community.\[12\] This dynamic serves to allow substantial owners to efficiently handle large-scale infringement, but by its own design it naturally creates an inequity of remedy.

YouTube seems to recognize the inequity of its dispute process. If a user receives a ContentID claim they believe is invalid, they can file a dispute. Previously, if a copyright holder filed a claim on a video already monetized by the creator and the creator disputed the claim, neither the claimant nor the creator earned any revenue from advertisements.\[13\] In 2016, YouTube updated the system so that, when a ContentID claim is disputed, the revenue from the video diverted to escrow for the duration of the dispute.\[14\] Upon resolution, the held revenue is given to the victor of the dispute.\[15\] However, even if the dispute is resolved in the original uploader's favor, they are not reimbursed for any revenue lost from before the uploader
discovered the claim and filed the dispute. There is no neutral arbitrator in the dispute process; disputes and appeals of disputes are filed directly to the claimant, who then decides whether the claim is valid. Claimants can choose to release the claim, uphold it, or issue a copyright strike.

**Copyright Strikes**

YouTube's second, more severe system is punitive copyright strikes. A copyright strike is a demerit of sorts issued to a user account when a copyright holder files a formal legal request for YouTube to take down the user's infringing video. Sometimes referred to as "DMCA takedown strikes", copyright strikes serve the purpose of compliance with the DMCA's safe harbor provisions. Like ContentID, while strikes can be filed manually, the system is largely automatic and works in-hand with ContentID's match algorithms.

When a strike is filed, YouTube records it on the user account, and the video is suppressed. While the strike is active, YouTube revokes several privileges from the account, including the ability to upload videos timed longer than fifteen minutes, livestreaming privileges, and access to the ContentID appeals process. Even if the strike expires or is removed, the account holder will still be unable to appeal future ContentID claims for six months after the strike's expiration or termination. Three strikes results in permanent removal of the user's account. Deleting the infringing video does not remove the strike from an account; the only way to remove a strike without disputing it is to complete YouTube's "Copyright School" educational module, at which point it will expire after 90 days, or appeal directly to the copyright holder for a retraction of their claim.

Because takedown strikes are actually the result of a formal legal request and not an internal content management system like ContentID, disputing a strike requires submitting a
counter-notification as a matter of law.\footnote{26} A counter-notification is a legal request to reinstate the video and is only appropriate if the strike was mistakenly issued, either through misidentification or fair use exception.\footnote{27}

Fair use is an affirmative defense permitting the reproduction and distribution of copyrighted materials for specific purposes including criticism, commentary, news reporting, and scholarship.\footnote{28} The plaintiff, not the defendant, bears the burden of proving that the claimed work does not fall under the scope of fair use, which is a four-factor statutory test including analyses of the nature of the use (including whether it is for commercial or non-profit use), the nature of the copyrighted work, the amount and substantiality of the use, and the effect on the work's value.\footnote{29} Satire, editorial reviews, and education typically fall under this scope.

Unfortunately, while the majority of ContentID claims and copyright strikes are legitimate, a significant number of claims are for content that fits within the scope of fair use or is otherwise an erroneous claim.

II: The Enforcement Problem

Over 500 hours of video are uploaded to YouTube every minute.\footnote{30} As of July 2015, partners using ContentID claimed over 400 million videos.\footnote{31} YouTube asserts that only 1% of claims are disputed\footnote{32}, but disputes over more than 4 million videos, most of them a source of income for their creators, is not a small problem.

Large, multinational multimedia corporations already have the advantage of resources over ground-level content creators, but YouTube's self-enforcement systems tilt the balance of fairness even further in their direction, while leaving users insufficient remedy for false claims.

ContentID False Claims
The support materials YouTube provides to content creators state, "If you dispute a claim without a valid reason, the content owner may choose to take down your video. If this happens, your account will get a copyright strike." In practice, this means that when a claimant receives an appeal, they can either remove the claim or issue a takedown strike against the account with little to no oversight. There is minimal transparency both in YouTube's support details and during the dispute process itself, and many users involved in continuous copyright disputes report that it is very difficult to educate a response from anyone but automated robots. Further complicating the process is that while a claimant may file infinite claims, a user can only have three active appeals of an upheld dispute at a time. The opaque and disparate nature of the system has proved a breeding ground for abuse.

In August of 2013, the National Music Publisher's Association filed suit against Fullscreen, Inc, an "MCN" (or multi-channel network), for alleged infringement of copyrighted music. Later that year, in a move widely regarded as reconciliatory as they moved to settlement, YouTube began allowing ContentID sweeps against MCNs. MCNs are umbrella networks of channels who have banded together for certain advantages like shared ad revenue and cross-promotions, and they are a vital part of YouTube's monetized, economically-integrated ecosystem. Distinguished from average users, MCNs produce professional content with huge viewships, and they had previously enjoyed immunity from ContentID in exchange for decreased revenue from advertisements. When YouTube eliminated that immunity, the effect was immediate: within a day, thousands of channels were hit with claims and strikes on hundreds of their individual videos.

The immunity from ContentID had been necessary because many MCNs produce derivative content, like film, television and video game reviews. In many cases, trailer and
gameplay footage had been provided by its publishers for publicity purposes, and those publishers urged content creators to contest the claims. Many of the claims were allowed through a ContentID loophole in which publishers must specifically to whitelist channels with authorization to use their content. Failure to opt a channel into permissions inevitably results in an automated claim against them. The 33rd most-viewed channel in the world, WatchMojo, was issued so many automatic claims for its transformative and often authorized clips that it was terminated within two days.

A further unintended consequence of opening MCN claims was that, while many claims came directly from publishers, the majority of claims were actually against music used within uploads. Not only did the music licensing arms of large publishers unintentionally file claims against authorized users, but so third party distributors of independent music, often against their own artists.

A quintessential example of this kind of false claimant is TuneCore/Indmusic, a partnership of distribution agents that collects royalties on behalf of independent artists. Musicians contract with TuneCore for distribution of their music, and TuneCore authorizes Indmusic to issue copyright notices on its behalf—sometimes to its own clients. One such claim recipient is Gavin Dunne, an independent musician who received seven ContentID claims in one day on his behalf against his own original music. Other creators who used authorized clips of his music also received claims, with one user reporting over 100 claims on a song Dunne had produced for his channel. All of the revenue from ad views was redirected to TuneCore, including earned revenue from Dunne's own videos. Thousands of other channels repeated similar stories where claims were filed against authorized uses, and no revenue was diverted to the actual creator.
TuneCore is an example of an unintentional claimant, but YouTube's opt-out loophole has also created somewhat of a cottage industry for malicious copyright trolls. For years, users have reported claims filed by companies that seemed to have neither content ownership nor any transparent corporate presence at all. These groups cast wide nets, filing claims over small sections of videos and monetizing them or redirecting existing monetization. A notable few include AdRev, Agora Aggregator, GoDigital, Digital Mind Entertainment, and Rumblefish, whose bogus claims range from songs in the public domain to chirping birds in the background of a nature video. This is an end-run around the DMCA counter-notification process, as ContentID allows the alleged rights holder to arbitrate their own claim.

While these groups often back down when disputed and release the claim, they sometimes uphold them, forcing a channel to use one of its three available appeals and leaving them vulnerable to copyright strikes.

Copyright Strike Abuse

Takedown strikes serve the purest purpose of the DMCA, but YouTube's strike infrastructure, particularly the ease with which one can file them, leaves room for abuse.

Filing a copyright strike does not require verification of proper claim or copyright; YouTube requests an e-signature as sole verification that a claimant owns the rights it purports, and only asks a rights holder to consider "whether fair use, fair dealing, or a similar exception to copyright applies" before submission. Popular critic Brad Jones ("CinemaSnob") received a takedown strike for a movie review that used no footage or clips whatsoever. There is no incentive to refrain from false claims, as there are no penalties for letting a counter-notification lapse, nor is there any limitation on the number of strikes a rights holder can file at any time. The same copyright holder can file three copyright strikes against a single user for a single
infringement if the holder has three separate channels, as many large companies like Viacom often do.\textsuperscript{[61]} Copyright strikes also cripple users' potential remedies: acquiring a strike revokes the ability to appeal ContentID claims, even when the strike arises from ContentID claims themselves.\textsuperscript{[62]}

Because strikes can be filed manually and without penalty, they are frequently used as a form of censorship against critical content. One notable example is filmmaker Derek Savage, who filed several takedown strikes against users for negative reviews of his film, \textit{Cool Cat Saves the Kids}.\textsuperscript{[63]} More than one channel was either taken down or demonetized, but despite Savage allowing every counter-notification to lapse without filing suit, his account has faced no repercussions or penalties.\textsuperscript{[64]}

One highly publicized incident of strike abuse is that of Fine Brothers Entertainment ("FBE"). Producers of the immensely popular \textit{React} YouTube series\textsuperscript{[65]}, Ben and Rafi Fine filed trademark protection for "React" video content in July of 2015.\textsuperscript{[66]} The trademark itself was controversial, as the primary goal was to launch a platform and sell "React" licenses to YouTube users for "reaction videos" (a broad category of entertainment content wherein single persons or groups of people are filmed reacting to various events).\textsuperscript{[67]} These videos already existed en masse, and before the trademark process was complete FBE parent company Fullscreen, Inc. manually filed strikes and ContentID claims on several reaction videos and videos critical of the trademark attempt.\textsuperscript{[68]} After a wave of backlash, FBE ultimately rescinded their trademark and released all claims.\textsuperscript{[69]}

Most egregiously, in October of 2016, the channel SRbros Entertainment was taken down after a second channel, ZM Productions, issued three copyright strikes against it.\textsuperscript{[70]} The claim itself was frivolous, as no copyrighted material had been used whatsoever, but following the first
two strikes SRbros Entertainment received an email from ZM Productions demanding $1000; in exchange, they would refrain from issuing a third and final strike.\[71\] SRbros contacted YouTube regarding the situation but received no response before the strike was issued and their channel was terminated.\[72\]

These abuses are not mere inconveniences; the majority of the strike instances listed above were against users whose livelihood is reliant in part on YouTube revenue. These flaws and loopholes in YouTube's infrastructure can have tangible consequences on its users' income.

### III: Proposals and Policy Changes

In the last two years, YouTube has acknowledged and begun taking more proactive steps toward fixing its structural copyright issues.

Three months after YouTube opened ContentID to MCNs, the site issued a letter to MCN channels addressing the flawed rollout and providing several new tools to facilitate more transparent disputes, including a requirement that certain rights holders audit their reference files before being allowed to make any new claims.\[73\]

In addition to amending the ContentID dispute policy to set ad revenue in escrow, YouTube is also launching a fair use protection and education program.\[74\] The problem indemnifies a few select content creators for up to $1 million dollars in legal fees in the event that a takedown strike results in copyright infringement litigation.\[75\] One of the selected creators is Internet personality James Stanton ("Jim Sterling"), who received so many retaliatory and high-profile ContentID claims and copyright strikes for critical fair use content that YouTube hosts his content in its support materials as an example of fair use.\[76\] However, while educational, the program only indemnifies hand-selected creators and does not address the
copyright strike system's demonetization of accounts, the amount of time required to dispute a claim during which period no revenue can be earned, or the difficulty of dispute resolution prior to a formal lawsuit.

Change in copyright law itself might prove a catalyst for quicker change in YouTube policies. In 2007, Stephanie Lenz uploaded a video to YouTube of her son dancing to a Prince song in the background on the radio.[77] The recording was low quality, not monetized, and 29 seconds long.[78] Prince's current publishing administrator, Universal Music Group, first issued a takedown strike, and when Lenz countered, protested reinstatement with a second notice citing infringement.[79] The Electronic Frontier Foundation, a non-profit digital rights group[80], filed suit on her behalf alleging that Universal materially misrepresented the fair use doctrine in their takedown notices.[81] The litigation is ongoing and currently in appeals, but in 2015 the Ninth Circuit affirmed that Universal must in good faith consider whether content is considered fair use before issuing a takedown strike.[82] Universal appealed the decision to the Supreme Court, and while they have not yet granted or denied certiorari, as of November 2nd the Court has invited the Solicitor General to file a brief regarding the case.[83]

Conclusion

Copyright disputes, once a well-settled practice area, have very quickly found themselves in turmoil, and few technologies are deeper in the epicenter than YouTube. Its ContentID and copyright strikes are powerful tools to reduce and monitor copyright infringement, but for content creators they remain flawed in many ways. In an era where technology is redefining reproduction and transformation, the future of copyright law and fair use is murky. What is clear is that YouTube, while cognizant of its need to improve and innovate its systems, is still struggling to do so.
Sources


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11. Id.


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81. Lenz, 815 F.3d at 1157 (2015).