

Hip-Hop YouTube:

Black Vernacular Technological Creativity Confronts Algorithmic Bias in Automated Copyright Administration

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Once upon a time, before copyright caught up with musical practice, there was a Golden Age of Sampling. Or, so the story goes. There is little consensus about when it ended, but most agree that it is behind us (D'Errico 2015; Marshall 2006). One flashpoint was the ›sampledelic‹ moment of the late 1980s, which witnessed Public Enemy's *Fear of a Black Planet* (1990) and The Beastie Boys' *Paul's Boutique* (1989), sample-obsessed records that Kembrew McCleod and Peter DiCola (2011, 207–208) argued could not have been made during the litigious early 2000s. Sampledelic records were so replete with cuts from other albums that their effects on musical authorship became the subject of debate for years to come. By the century's turn, so many critics had observed Roland Barthes' ›death of the author‹ at work that ethnographer Joseph Schloss (2000, 85–86) had to swim upstream to show that sample sources were not only guarded like trade secrets, but were also valued for their materiality – their audible traits – above and beyond their intertextual resonances. Despite conflicting claims about one being more important than the other, such records performed both textual and material work (Williams 2013). But, if there has long been agreement that sample-based hip hop is dead, when did it die? Or, what replaced it? Or, more fundamentally: did it really die?

Today, MIDI sequences and loops are the primary means by which new popular music is produced: allusive sampling has grown elusive (Williams 2015, 210). While ›remix‹ culture has normalized practices of copying, sharing, and borrowing long characterized by lobbyists and legislators to be those of bad actors (e.g., ›pirates‹, ›hackers‹), copyright algorithms like YouTube's Content ID now construe every producer of user-generated content (UGC) to be a potential bad actor. Unlike legislators and jurists, such copyright algorithms are putatively ›color blind‹. Yet, as legal scholar Anjali Vats argues, the rhetorics of citizenship undergirding copyright remain »organized through a racial epis-

teme that consistently protects the (intellectual) property interests of white people and devalues the (intellectual) property interests of people of color« (2020, 3).

This article observes how the automation of copyright administration on YouTube doubles down on Vats' dichotomy, preempting the very possibility of what Henry Louis Gates, Jr. termed »repetition with a signal difference« (1988, 56). I argue that hip-hop youth cultures now explore forms of mimicry at a practical and technical remove from traditions of sampling and remix. I examine new genres of hip-hop practice via YouTube, verifying a ›post-sample-based‹ period in rap to be one defined by circumscribed fair use. YouTube's amateur hip-hop artists instead employ a variety of creative techniques for subverting automated content-detection (ACD) algorithms; by situating their practice in the context of algorithmic listening, I reconcile sociotechnical structure and user agency, showing how new constraints produce new genres of practice relationally. I consider, in turn, the audio ›type beat‹ and the video ›fan vid‹.

Producers use ›type‹ in UGC metadata (e.g., ›Kanye West-type beat‹), simulating a celebrated beatmaker's style, to exploit a tension between legibility and search visibility. On the one hand, a type beat caters to demand among emcees for instrumentals to rap over while providing beatmakers raw material for sampling. On the other hand, it yields a siphon-like effect on revenue from official videos, quasi-illicitly monetizing UGC. But whereas the type beat turns on strategic recreation of well-known styles, ›fan vids‹ (Lothian 2018) instead set the copyrighted audio itself to video pastiche. Here, the gambit to avoid ACD involves subtle time-stretching of media. Video subversion enlists rapid-fire montage while compression artifacts thwart scanning via reduced encoding bitrates (Kane 2019, 105–125). Content ID thereby gives rise to new/hybrid genres of musical practice. Yet most such efforts are precarious at best: algorithms adapt as humans verify what they miss (Roberts 2019). I conclude by asking whether such users enact the relation Lauren Berlant (2011) termed ›cruel optimism‹, when individual aspiration runs counter to flourishing.

To study how automated copyright shapes musical practice, I engage in participant observation in virtual field sites: specifically, I read and comment upon the textual traces and media practices of a heterogeneous, pseudonymous, and loosely-knit community of hip-

hop ›hackers‹ across YouTube and Reddit to show it to be what anthropologist Christopher Kelty has termed a ›recursive public‹, one, »constituted by a shared concern for maintaining the means of association« – here, circulation of copyrighted music and participatory production of derivative works – »through which they come together as a public« (2008, 28). This public emerges through the practice surveillance scholar Simone Browne (2015, 18–20) terms ›sousveillance‹, or watching the watchers. By listening to algorithmic listening, artist-practitioners model strategies for subverting ACD algorithms, teaching each other what the algorithms cannot overhear.

As automated copyright administration impinges upon the creative possibilities enjoyed by amateur hip-hop producers, musical style and genre ebb and flow in new directions. The sound of contemporary hip hop underwent a dramatic series of changes during the second decade of the twenty-first century – for myriad reasons that overdetermine it as an object of analysis. By scrutinizing musical *practice*, we can illuminate how the choices musicians make answer to legal and political-economic forces that risk being missed altogether by surface analysis of style and genre. Moreover, such an approach helps us to remember that hip-hop practice has long endured undue scrutiny from jurists and rights-holders, permitting us to better understand the algorithmic automation of copyright administration as an extension of forces that have shaped what beatmakers and emcees have done with beats since the pioneering hip-hop generation.

Hip-hop beatmaking practices – whether material (e.g., manipulating recorded samples) or textual (e.g., performing allusive borrowing) – depend upon a loose understanding of fair use in copyright law. So too does YouTube: Google’s rise owed much to its own creative understanding of the fair-use exceptions the company enjoyed for its indexing and thumbnailing of data (Gray 2020, 65–96). YouTube today is both public culture and a proprietary service. It is at once an archive of cultural memory akin to a public good (Sayf-Cummings 2013, 8–9; Drott, 2024) and a profit-driven enterprise. It is shot through with such contradictions, for the recursive publics of YouTube’s UGC producers interact with multiple algorithms, yielding a complex sociotechnical system (Burgess and Green 2018; Gillespie 2007), one in which human actors and non-human actants coproduce structure and agency. I propose that YouTube’s Content ID is itself a text that can be

understood via the musical lens of hip hop. Examination of music under Content ID in turn helps to explain contemporary hip-hop practice.

To these ends, I make two interventions. Specifically, I observe that hip-hop beatmaking after the ›death of sampling‹ depends upon competing logics, what I term ›verisimilitude‹ and ›mimesis‹. Each of these terms helps to describe how traditions of textual allusion in hip-hop sampling have shaded over to practices of mimicry that borrow as much textual content as possible without triggering the scrutiny of automated censors. Type-beat producers and vidders endeavor to make their work legible to a wide audience via practices of ›cloning‹ other's recordings. Yet these ›cloned‹ beats and vids only ever asymptotically approach the borrowing that characterizes recorded sampling. They audibly resemble, but do not reproduce, past recordings. This marks these practices out as distinct from self-referential traditions of textual allusion in hip hop. Type beats and fan vids are *verisimilar* to their sources, but they are no longer necessarily constructed from these sources.

Dissident speech about systems like YouTube's Content ID – itself circumscribed by Content ID's ›chilling effect‹ – takes us only so far; understanding how users subvert ACD systems shows us much more about how they work. This article's key insight is that ACD systems yield non-negligible rates of false-positive ›matches‹, mistaking fair uses for infringement; ACD subversion shows us how these algorithms listen for code – not music, nor audio – and altogether ignore matters of law. ACD preempts fair use, signaling the ›privatization of copyright‹ (Tang 2023). I conclude by comparing vidders and type-beat artists to one of YouTube's most popular ›hip-hop‹ channels, operated under the alias »Lofi Girl«, illustrating how deracinated hip hop best answers to Content ID.

Sampling as a Musical Practice

Most popular accounts (e.g., Wallace and Costello 1990) of the sample-based Golden Age are quick to attribute it to the arrival of relatively low-cost hardware samplers to the market for DIY recording equipment in the mid-to-late 1980s. But the technological-determinist thesis is lacking for several reasons. For one, these technologies were hardly affordable. More importantly, the thesis exaggerates the rupture between cutting breaks and looping samples, obscuring the continuity between shared practices of musical

pastiche and textual allusion. It further fails to recognize sampling, sound-recording copyright, and fair use as coeval. Kool Herc and Grandmaster Flash discovered turntablism just as sound recording copyright was codified in law and just prior to the clarification of fair use by legislators.¹ For decades, legal constructions of the infringer-as-bad-actor rhetorically conflated piracy with theft, but legislators had no way of knowing what turntablism would set in motion. This disjuncture between law and practice haunts contemporary hip hop (Powell 2018). It plays out today in the gulf separating those who can afford to license samples from those whose borrowings go unauthorized. Amateur hip-hop producers have adapted to avoid expensive sample clearances, instead building beats from catalogue music.

Via sampling and interpolation, single beats sometimes bring entire genres into being. The break from The Winstons' »Amen, Brother« (1969) was the material basis for drum and bass and jungle music. Just as the presence of the »Amen« break signals genre affiliation in electronic dance music, the so-called »Triggerman« beat helps define the hip-hop genre of New Orleans-Memphis bounce. Borrowed from New York duo The Showboys' 1986 »Drag Rap«, the Triggerman's association with the South US became so fixed that it became available for allusive sampling by artists from anywhere, first through local response songs (e.g., Three 6 Mafia's »Drag 'Em From the River« [ca. 1993]) and, later, by contemporary artists such as Drake (»In My Feelings« [2018], »Nice for What« [2018]), Chris Brown and Young Thug (»Go Crazy« [2020]) and Beyoncé (»CHURCH GIRL« [2022]). YouTuber »Heit The Great« crowd-sourced more than 20 Triggerman samples; WhoSampled.com lists as many as 190.²

Type beats emerged on YouTube in response to search queries seeking out sample lineages, efforts to obtain music in the style of another artist. The proliferation of online discourse analyzing sample genealogies speaks to the inability of music information-retrieval (MIR) algorithms to wholly rationalize music recommendation and discovery. While WhoSampled.com crowd-sources and aggregates YouTube videos, YouTubers

¹ Sound Recordings Act, Pub. L. No. 92–140, 85 Stat. 39 (1971); Copyright Act of 1976 Pub. L. 94–553, 90 Stat. 2541.

² Heit The Great: *Drag Rap: 20 Triggaman Samples in New Orleans Bounce, Memphis Crunk & More*, YouTube, www.youtube.com/watch?v=5VfTlRkcrs4 (23.10.2018).

like Heit must work within the constraints of Content ID, Google's copyright administration system. Heit does so by keeping his clips to fewer than two seconds. Heit's work conveys how the ›Triggerman‹ beat has become akin to a public good, a wellspring for creativity. Yet the Showboys still want to get paid; the Winstons never reaped the rewards of the afterlife of »Amen, Brother«, nor have the Showboys been compensated for the afterlife of »Drag Rap«. Hip-hop practice very often frustrates, and is frustrated by, copyright. Content ID enables as it constrains. Here, it makes it more difficult than ever for amateur artists to participate in the Triggerman lineage. It instead incentivizes cloning of Triggerman beats, yielding painstaking reproductions (rendered with sufficiently distinct timbres as to elude ACD) through a practice Elliot Powell, quoting Timbaland, has described as ›ghosting‹ (2018). The basic elements of the Triggerman beat exhibit extraordinary economy of means: TR-808 drums meet resonant pitched percussion repeating a twisting chromatic figure. In its elegant simplicity, the Triggerman lends itself to ghosting. What distinguishes the ecology of Triggerman clones from type beats is the absence of a recognized beatmaker's signature style; by now, it is more akin to a folk text than the type beats that index a single author that have followed in its wake. Like with the ›Amen‹ break before it, it amounts to more than a historical infelicity that The Showboys have not seen their fair share of its success, but rather a failure of copyright. Fundamentally at issue are parody and sampling as paradigms of fair use.

Content ID's Chilling Effect

Scrutinizing users who evade Content ID helps us to understand those who utilize their YouTube platforms to condemn it outright.³ Both the content of political speech on YouTube and manipulations to the medium itself must be weighed in equal measure if we are to understand ACD as a sociotechnical system, one that structures user agency as it is shaped by user inputs. What is said depends on who or what is ›listening in‹; how it is said matters as much or more than what is uttered. Ghosted samples mask textual borrowings, weaving wolves into sheep's clothing. ›Lossy‹ audio compression obscures sample

³ Rick Beato: *My Video Was Demonetized by 16 Record Labels ... I'm pissed*, YouTube, www.youtube.com/watch?v=R3NnrWrkKZM (23.06.2022).

sources. Rapid-fire cuts, rotoscoping and ›datamoshing‹ thwart visual pattern recognition. Type beats and fan vids have proliferated on YouTube by reconciling competing imperatives to verisimilitude and mimesis, perpetuating a clandestine sameness: *contra* allusive sampling practices that produce a hypertext, these recursive practices instead endeavor to supplant sources without betraying methods. ›See what I did there‹-style bravura is replaced with virtuosic fungibility, where simulacrum (Baudrillard 1983) happily stands in for original. Hip hop practice renews and remediates textual strategies for fair use online.

Performer	Date	Title	Viewcount
Lil Poppa and Polo G	6/25/19	›Eternal Living‹	26,941,240
Bodega B	9/21/20	›Eternal Living (UnOfficial Remix)‹	3,439
MVR Dev	10/10/20	›Eternal Living (MVMix) – MVR Dev‹	2,403

Figure 1: YouTube Type-beat Remixes Derived from »Eternal Living« (2019)

Consider just how much (largely) unpaid creativity goes into the work of these content creators. As an example of the gulf separating YouTube partners' content from the type-beat-derived productions that refer to it, consider the three videos represented in Figure 1: Lil Poppa's and Polo G's 2019 »Eternal Living« has amassed 26 million views, while the nearest derivative works have attracted nearly 6,000 combined views, leaving little incentive for algorithmic policing.⁴ As a pinned comment on one widely-viewed type beat attests (›Good luck to everyone trying to become a artist one day I wish the best to all of u«) such performances often signal user aspirations to being ›discovered‹ within a putatively meritocratic star system predicated on the success of only a handful⁵ (Taylor 2015, 51–63). The work of the ›vidder‹ Axxgawd illustrates both ACD subversion and its potential to generate millions of views – or, that is, it did until the user's most successful vid was removed for alleged infringement in February, 2020.

⁴ Bodega B: *Eternal Living (UnOfficial REMIX)*, YouTube, www.youtube.com/watch?v=RicCgLXI7fg; (21.09.2020), MVR Dev: *Eternal Living (MVMix)- MVR Dev*, YouTube, www.youtube.com/watch?v=GrH2xO6yg50 (11.10.2019).

⁵ alanfor, *mac miller x solange type beat – ›all's well‹*, YouTube, www.youtube.com/watch?v=x1Yq2F78JzE (19.08.2020).

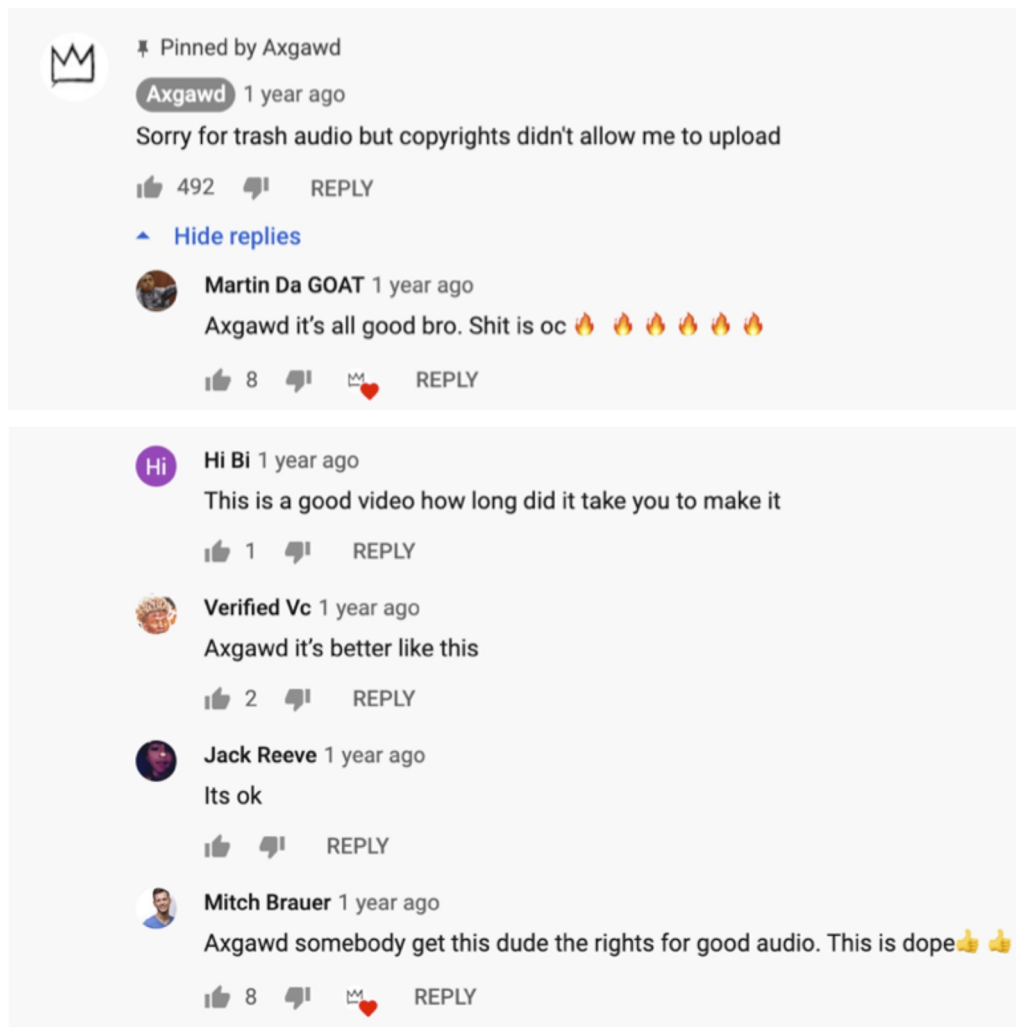


Figure 2: Pinned Comment and Replies in the »Shoota« Comments Section

This vid, set to Playboi Carti's and Lil Uzi Vert's 2018 »Shoota«, was assembled from clips from multiple source videos. Many of these cuts feature ornamented key frames, or pivot still images, cut out via ›rotoscoping‹, or the superimposition of video sources. Such decorated edits generate surplus ›noise‹ in the balance of official to user-generated content, thwarting image-scanning algorithms with digital artifacts. From 2019 to 2022, I observed the Aygawd vids built from protected content winnow away from the user's home page, leaving behind Aygawd-shot-and-edited videos produced for aspiring emcees like the aforementioned type-beat remix artists.⁶ Figure 2 shows a screen capture of Aygawd's pinned message to fans, taken November 22, 2019.

⁶ www.youtube.com/c/Aygawd.

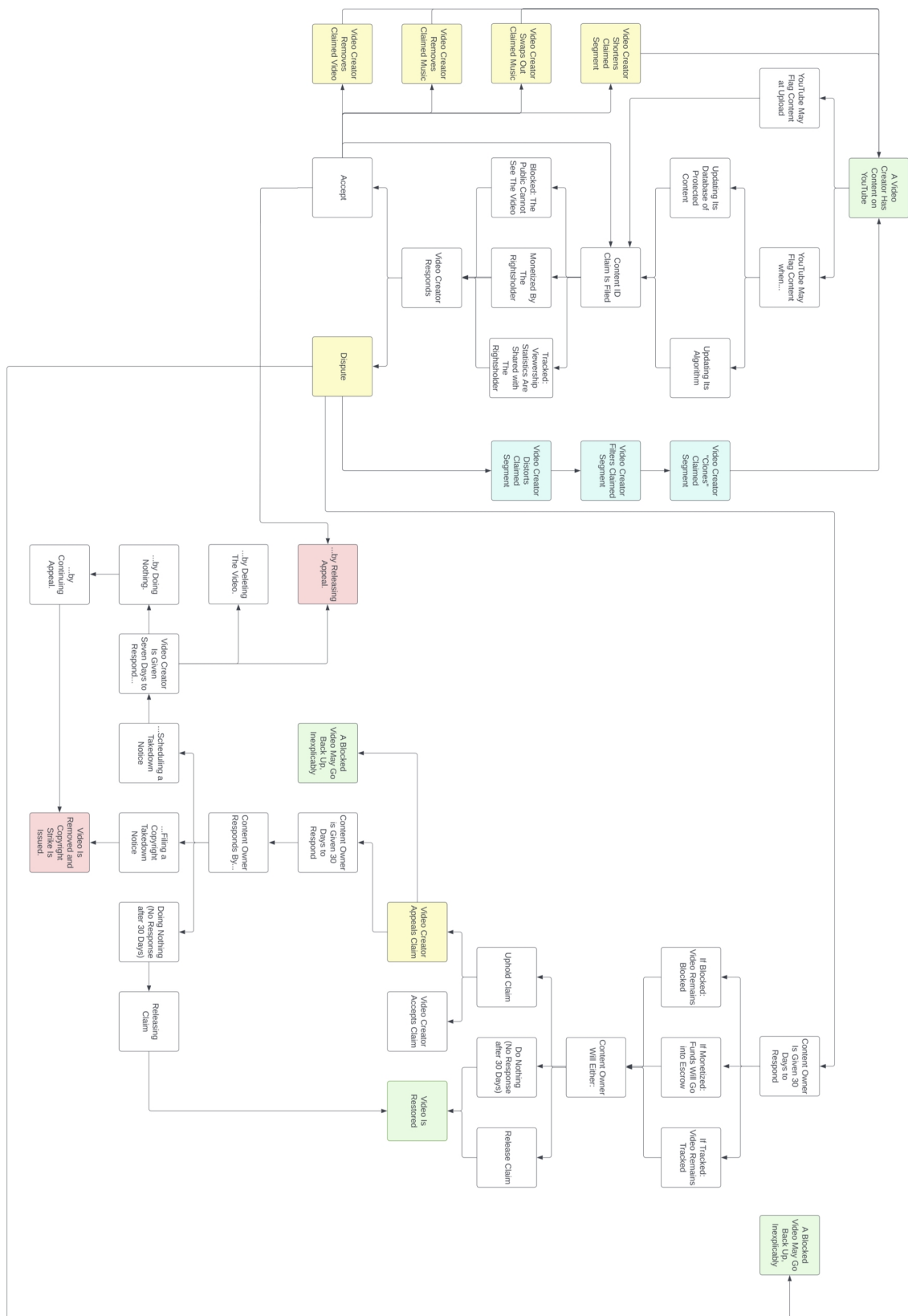


Figure 3: YouTube's Content ID Decision Tree and User Process Flow

The persistence of Axxgawd's fan vids on the platform suggests that the vidder's efforts to subvert ACD succeeded only until they amassed enough views as to attract the attention of brand managers. This hypothesis is predicated on the results of my own experiments: I uploaded cuts of various lengths to find that Content ID can identify sources from as little as two seconds of media. Vidders show great ingenuity in working within these constraints (see Fig. 3).⁷

Assembling sub-one-second cuts, Axxgawd musically varies clip length using ›stutter‹, or repetition of frames, ›shudder‹, or vibrating camera effects, and reverse-playback edits, accumulating such extensive adjustments to the video sources as to suggest it was the traditional, qualitative judgment of ›substantial similarity‹ that here prompted takedown orders. Millions of forfeited views are valuable enough to motivate third-party policing: in the case of Axxgawd's vid for Uzi's »Sauce It Up«, its more than ten million views even led Uzi himself to host the video for a time (»It was on lil uzis channel for like 3 days...«) What instead accounts for the takedown is in fact what Axxgawd described as the vid's ›trash audio‹, the gambit of the vidder's manipulations to elude ACD.⁸ (»Sorry for trash audio copyrights didn't allow me to upload«) (Fig. 4).

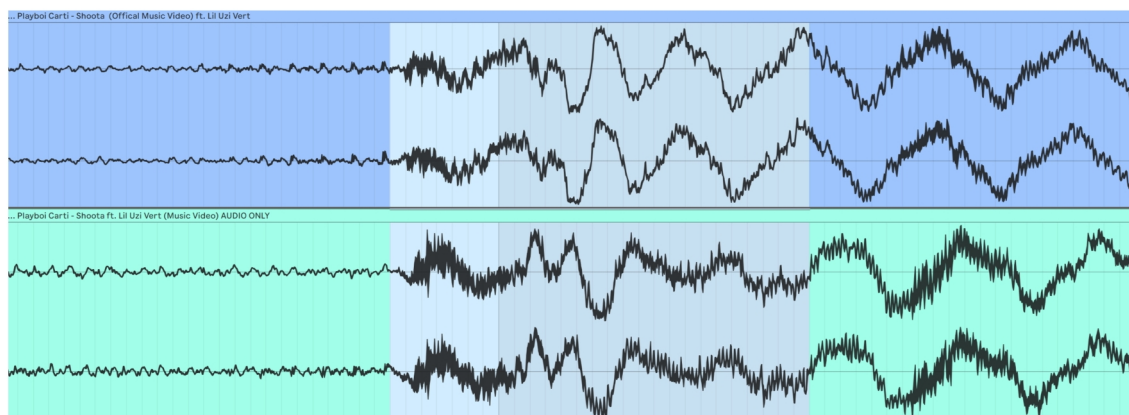


Figure 4: Amplitude over Time: Axxgawd's »Shoota« (top) vs. Playboi Carti's (bottom)

Industry researchers have noted that ACD algorithms measure ratios of rhythmic onsets across several audio frequency bands (Engstrom and Feamster 2017, 16); if enough of

⁷ Adapted from Trendacosta 2020.

⁸ The waveforms in Figure 4 differ in equalization; peaks and valleys follow similar contours, but some are inverted, suggesting that Axxgawd doubled the source audio, creating a phase-cancellation effect.

those detection bands are thwarted by unorthodox approaches to equalization and ›time-stretching‹, a borrowed audio file can retain its resemblance to its source while eluding algorithmic detection, achieving verisimilitude absent mimesis – the audible semblance of a referent without any machine-legible traces thereof. In the case of Axxgawd’s audio mixes, the midrange vocals are so overwhelmed by brittle treble as to have prompted the vidder to include subtitles clarifying the scarcely audible lyrics, a compromise that proved polarizing among listeners; one even ventured a comment on another Axxgawd video requesting a version of the »Shoota« vid with clean audio. Still, more than a few commenters preferred the ›trash‹ version (»Axxgawd, it’s better like this.«), while others remarked that they thought they had seen an official video. Such comments illuminate a crucial dimension of Axxgawd’s multimedia practice: the user’s vids select from sources lacking official videos while cutting together footage from songs that have received such treatments, producing the illusion that each pastiche video is itself a novel ›official release‹, achieving mimesis absent verisimilitude, an audible suggestion of representation belied by the visual source material. Axxgawd’s audio subversion has the effect of emphasizing Maaleq Raw’s beatmaking over and above Uzi’s and Carti’s rap performances, intensifying the vid’s musical effects – especially, the beat drops – bringing the musicality of video, whether hard synch’d or dancing to its own rhythm, to the fore of the (re)mix.

Ambivalent responses to Axxgawd’s »Shoota« vid illustrate how type beats and fan vids enact the affective relation Sianne Ngai (2020, 1) theorizes in terms of the ›gimmick‹, a cultural form that at once invites, and thwarts, aesthetic judgment. The Reddit subforum r/makinghiphop is filled with debates over the ethics of sampling and the creative ramifications of YouTube’s algorithmic automation of copyright administration. Many participants enforce a familiar species of musical idealism, reminiscent of ›rockism‹ of yore, that casts aspersions toward type beat producers, calling instead for users to produce art for art’s sake; a few boast of earning as much as \$1,000 per month in type-beat-derived advertising revenue.⁹ Vidders are underrepresented here, suggesting their work is seen – at least

⁹ Type Beat Producers ...Why do we get criticized?; www.reddit.com/r/makinghiphop/comments/e8lx73/type_beat_producerswhy_do_we_get_critici/ (05.10.2023); ›[AMA] I’m a type beat producer with 40k subs. Ask me anything; www.reddit.com/r/makinghiphop/comments/htjllms/ama_im_a_type_beat_producer_with_40k_subs_ask_me/ (05.10.2023); »The TRUTH about ›type beats‹ ...If you think making type beats is whack, this is for you;

among users of r/makinghiphop – as that of amateurs, not of artists in their own right. To be sure, the popularity of Axxgawd's »Shoota« on YouTube troubled such firm distinctions between art and commerce.

The video¹⁰ opens conventionally enough, with a title card, yet by the first entrance of the vocals, it is clear that this audio mix is wildly unbalanced – the vocals are scarcely audible, the midrange frequencies scooped out of the mix. At 00:24, the first instance of »data-moshing« occurs. These decorated, rapid-fire edits reflect rap vidding's genealogy in commercial hip-hop video production, from which two videos are noteworthy for popularizing the technique: Nabil Elderkin's work for Kanye West's »Welcome to Heartbreak« (2008) and Shomi Patwary's video for A\$AP Mob's »Yamorghini High« (2016).¹¹ One soon notices frequent datamoshing, where »delta« frames, or those that map the screen position of figures, are duplicated in a »bloom« or »smear« effect spanning cuts (Fig. 5).¹² Such edits generate surplus »noise« in the balance of official to user-generated content, thwarting ACD with digital artifacts while hewing to a recognized psychedelic style.



Figure 5: Nabil Elderkin, for Kanye West, »Welcome to Heartbreak« (2008)

Many sample-based beats repeat a two- or four-bar loop. Built around a single-measure piano loop, »Shoota« does more with less. From the harmonic stasis enacted by the perpetual oscillation between the pitches of a minor third, the piano lays down a harmonic pedal point over which Carti and Uzi elaborate pentatonic vocal melodies. Axxgawd's

www.reddit.com/r/makinghiphop/comments/15c59t4/the_truth_about_type_beats_if_you_think_making/ (05.10.2023)

¹⁰ The video has been removed from YouTube due to alleged copyright infringement.

¹¹ Kanye West: *Welcome to Heartbreak ft. Kid Cudi*, YouTube, www.youtube.com/watch?v=wMH0e8kIZtE (16.06.2009); A\$AP Mob: *Yamorghini High (Official Video - Explicit) ft. Juicy J*, YouTube, www.youtube.com/watch?v=tt7gP_IW-1w (11.05.2016).

¹² Screen capture taken from Kanye West, *Welcome to Heartbreak ft. Kid Cudi*, YouTube, www.youtube.com/watch?v=wMH0e8kIZtE (16.06.2009), 0:54.

audio subversion enhances the melodic quality of these sing-song rap vocals, burying them in the incessant piano loop. This is rap music about the ›vibe‹, not the text (Chayka 2021). Of late, rap vocals have fervently explored sung melody, one affordance of increased interest, since circa 2007, in what Catherine Provenzano (2019) has termed The Autotune Effect (TATE) – vocals that artistically exploit the audible artifacts that Antares Audio’s Autotune and Celomony’s Melodyne plugins leave behind. TATE arguably raises expressive vocal performance above intelligible declamation, marking out a new era in rap in which lyricism is no longer prized in the same sense as it was during the sample-based Golden Age. The preeminence of TATE performance invites a reappraisal of how beatmaking evolved during the litigious early years of the twenty-first century; here, I explore the possibility that rap’s increased privileging of melody over text declamation itself reflects the decline of sample-based fair use. I propose that this decline made literal and figurative ›space in the mix‹ for sung rap vocals’ newfound primacy. That Content ID’s suppression of fair use has not attracted more controversy speaks to how rap has moved on from the era in which textual allusion flourished; ACD forecloses on the possibility of renewed interest in sample-based allusion, cutting off contemporary practice from rap tradition.

Content ID as Extrajudicial Adjudication of Fair Use

The ethnographic study of what Nick Seaver (2017, 10, emphasis by the author) has described as ›algorithms *as part of* culture‹ is limned by the secrecy that surrounds both the development – and, here, the subversion of – said algorithms. Content ID was deemed a trade secret in court proceedings for *Viacom International, Inc. v. YouTube, Inc.*, decided on appeal in 2012.¹³ Software developers like Google have long pursued legislative and contractual prohibitions on tampering with consumer technologies that enforce copyright protections (Gillespie 2007). Type beats and fan vids indirectly shed light on a phenomenon that colloquially carries only its trade name. Yet it is merely one way to

¹³ See Case 1:07-cv-02103-LLS Document 117 of 676 F.3d 19 (2nd Cir., 2012) for the motion to render Google’s proprietary algorithm a trade secret; see also Pasquale 2016.

enforce copyright. ACD systems yield a high return of false-positive ›matches‹, mistaking fair uses for infringement.

The case of Axxgawd's vid for Carti's and Uzi's »Shoota« represents such a false positive – it is a fair use algorithmically misconstrued as infringement – or, so it could be persuasively argued in a US court of law. Axxgawd's case never saw its day in court; Content ID preempts both infringement and the fair-use defense. Moreover, while copyright exceptions like fair use vary across international jurisdictions, it is noteworthy that subverting copyright technology is expressly prohibited in the jurisdictions of the 115 contracting parties to the 1996 World Intellectual Property Organization Copyright Treaty. So, while Axxgawd's vid could arguably be defended as a fair use, the vidders' very efforts to subvert Content ID arguably undermine this claim. Let us nevertheless consider why Axxgawd's vidding could be defended as fair use. In US copyright jurisprudence fair use is subject to a four-factor test, concerning the purpose of use, the nature of the copyrighted work, the amount borrowed from the original, and its effect on the market for the copyrighted work.¹⁴ Construed as an audio work, Axxgawd's »Shoota« is a commercial use that borrows liberally from the original with a demonstrable effect, measured in lost views, on the market for the original. Yet considered as a video work, it is non-rivalrous and non-excludable; there is no comparable treatment thereof. It can justifiably be construed as a parody that only aspires to be the ›official‹ video.¹⁵ »Shoota«, ostensibly, is a fair use.

Still, US case law attests to the possibility for even audio incidentally featured in video-graphic UGC to be construed as infringing. The most famous instance is *Lenz vs. Universal Music Corp.*, the case of the Prince-dancing baby. In 2007, Stephanie Lenz posted a 29-second clip of her 13-month-old son dancing to Prince's »Let's Go Crazy« (1984). A recording of a recording, the audio was of such poor quality that it could not compete in the market for the original. After Universal Music sent a takedown notice to YouTube, Lenz sent a counter-notice claiming fair use. Decided on appeal in 2015, the case established the precedent that rights holders have a »duty to consider – in good faith and prior

¹⁴ Pub. L. 94–553, 90 Stat. 2541, §107.

¹⁵ *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569 (1994).

to sending a takedown notification – whether allegedly infringing material constitutes fair use.«¹⁶ Content ID precludes this dance of notice and counter-notice, preempting fair use.

»Shoota« directs our attention to three shortcomings of Content ID. First, it adjudicates fair use by deferring to the rights holder. If Axxgawd's vid was suppressed, the rights holder disputed the claim to fair use; if it was, in fact, self-censored, the chilling effect of Content ID is all the more palpable. Second, »Shoota« shows that Content ID is ineffectively calibrated as a ›fingerprinting‹ technology: ACD listens for rhythmic syntax above and beyond other musical parameters like timbre, predisposing it to match samples as infringements and biasing it against beatmaking. Finally, Content ID is neither impartial nor transparent, but it is efficient. Google has long argued that human review of all of YouTube's content is impossible; for now, so too is fair use.¹⁷

Content ID serves YouTube partners above and beyond what is required by law (Dorow and Giblin 2022, 124–141; Suzor 2019, 59–78). Users are increasingly aware that virtually all UGC producers, save for viral superstars, get paid precious little under the system. YouTube enforces a 1,000-view threshold for remuneration – a threshold that returns only two to twelve dollars in advertising revenue to the content creator and/or rightsholder (Molina 2025); only 11% of YouTube videos are ever monetized¹⁸ (Koh 2019). While some express frustration about new constraints on fair use, others – like type-beat producers and fan vidders – quietly work around them. Low-viewcount UGC producers and YouTube's hip-hop hackers each operate at the ›long tail‹ of the online media market, where their efforts return only a subsistence yield. Each has a fixed ceiling: the best type-beat producer is as unlikely as the best bedroom *auteur* to be anointed to stardom. By contributing to discourse celebrating copyrighted works, they feed the engines of the star system their ingenuity otherwise subverts. Does such an understanding augur the limits of hip-hop as a digital practice? Hardly. But it does point to the need to better understand how beatmaking moved on, from a self-referential tradition predicated on textual allusion, to one of mimicry absent fair use. YouTube helps us to name this

¹⁶ *Lenz v. Universal Music Group*, 801 F.3d 1126 (9th Cir. 2015), 25.

¹⁷ See *Viacom v. YouTube*, 676 F.3d 19 (2nd Cir., 2012).

¹⁸ This is not to imply that remuneration rates follow a linear curve; rather, they are mystified.

period. Call it the ›post-sample-based‹ era.¹⁹ The arrival of the ›death of sampling‹ hypothesis itself marks the onset of our era, in which copyright either forces beatmakers to remediate via ghosting, or, to censor themselves.

Hip Hop as Content after the Death of Sampling

In hip-hop scholarship, Wayne Marshall first flagged the phenomenon that The Roots bandleader Ahmir ›questlove‹ Thompson had bluntly pointed out online in 2000: »anti sampling laws is killing hip hop, folks« (2006, 878). It seemed The Roots offered a novel alternative: ›analog‹ mimicry of sample-based beatmaking via ›instrumental hip-hop‹. The drum-and-bass, fade-out outro to »You Got Me (feat. Erykah Badu)« (1999) achieves through sheer ensemble virtuosity a style strikingly akin to that of the freewheeling hacker-producers of Warp Records' so-called ›Intelligent Dance Music‹. Twenty-five years later, The Roots' experiment remains singular, while ›instrumental hip hop‹ – beats absent vocals – has acquired a more prosaic meaning as a subgenre unto itself known as ›lo-fi‹. Its biggest exponent is ›Lofi Girl‹, a YouTube alias, her sobriquet stripped of its original adjectival sense (i.e., ›Lo-fi Hip Hop‹), operated by a Paris UGC producer known only as ›Dimitri‹ (Bromwich 2018).

Lofi Girl's YouTube presence comprises seamless playlists of instrumental hip hop, some livestreamed, others recorded for posterity, the most popular among them a series of ›study aid‹ playlists corresponding to affects or moods associated with different times of day (e.g., ›12:00am Study Playlist‹). The music hews closer to the style of the late *auteur* beatmaker J Dilla than to that of The Roots' experiment in instrumental hip hop. Dilla's beats have been thoroughly dissected by hip-hop's participatory cultures, which have documented even the most obscure of his samples, raising him to the center of canons of hip-hop authorship (D'Errico 2015; Ferguson 2014; Charnas 2022). This cannot be said for any of the music in Lofi Girl's vast repertory. Hers is instead music by aspiring producers mimicking Dilla and others: low-cost licenses curated to provide a continuous

¹⁹ I am indebted to Mike D'Errico (2015) for asking when the ›post-Golden Age‹, in fact, began – and to Braxton Shelley (2020) and Alexis Lothian (2018), whose work first brought type beats and fan vids to my attention.

listening experience and a neutral affect. It is homogenized content, hip hop absent any connection to any tradition of textual allusion. It is nothing less than Muzak.

And it is indisputably popular – Lofi Girl can boast of 14.4 million subscribers. Muzak scholars provide instructive models for understanding the audibly innocuous. First, Robert Fink's (2005, 169–207) analysis of the mid-century recorded revival of Baroque ›wallpaper music‹ shows how meanings can be recuperated from recordings intended to be immune to interpretation. For Fink, the *barococo* revival indexed a reorientation toward a mode of repetitive listening that prefigured minimalism. He exhumes a discourse that interpellated audiences to carefree, superficial investment in musical meaning. Rather than pose the challenge of romantic repertory and structural listening, *barococo* music reflected back to consumers the fulfillment of their needs. Anthologies like The Melachrino Strings' 1958 *Music for Relaxation* count among the earliest entries in the history of what Tia de Nora (2000, i, 51, 52, 62) in turn diagnoses as a prevailing listener orientation in our time: music for ›self-regulation‹. Thus Lofi Girl's first playlist identified itself as ›lo-fi hip hop beats to study to«. One might suppose that her repertory reconciles student life with a hip-hop lifestyle; still, one strains to understand it as hip hop. Rather, it is hip hop pre-paid in full: shorn of its subversiveness, (micro-)licensed, easy to consume, and freely available in prodigious quantities. It bears mention that Lofi Girl's anime-inspired visual appearance is phenotypically ›white‹. ›Her‹ YouTube presence is thus doubly marked as ›safe for all‹ through its anodyne performance of race and gender: Lofi Girl is ›hip hop‹ for anyone.

Were it so simple. Lofi Girl is not, in fact, ›white‹ in any straightforward way. She might be better understood as ›not Black‹, since hip-hop artists have long experimented with anime as a visual style, rerouting its racializing assemblage into autobiographically Black characters (compare Kanye West's teddy-bear persona from his 2007 *Graduation* with the cover image of Lil Uzi Vert's 2020 *LUV vs. The World 2*). Empirical research (Lu 2009) suggests that Caucasian viewers tend to interpret the anime racializing assemblage as ›white‹, while Northeastern Asian viewers tend to perceive it as ›Asian‹. This makes it an ideal representation for a globalized audience for ›instrumental hip hop‹, free of the

cultural baggage that accompanies the US sonic color line and its histories of appropriation (Fig. 6).



Figure 6: Lofi Girl circa 2023

Cue Jonathan Sterne's (1997) study of Muzak at the Mall of America. Sterne shows how sonic architecture contributes to the eponymous mall's nationalistic branding: the second-biggest mall in the world purports to serve a global audience, albeit exclusively with sounds and images of American exdcess. Lofi Girl is to hip hop what the Mall is to sound; her channel – with its autoplay continuity and seamless transitions – produces further consumption of her channel, just as sonic architecture interpellates visitors to ›shop until you drop‹. Her channel is not a complex of links comprising a musical hypertext; it is anathema to sampling as a means of preserving history and memory. And it is incentivized by Content ID. By playing nice with the censors, Lofi Girl captured her market.

Lofi Girl's channel shows how a UGC platform can grow to viral proportions, even spawning a virtual record label. This success invites two conclusions. On the one hand, Lofi Girl is useful as a limit case for music UGC producers: the most that most music-content creators can hope for is pseudonymous micro-celebrity coupled with modest advertising revenue. On the other hand, it illustrates the utility of composition by omission, promoting music free of any frame of intertextual reference, and thus any copyright liability, save for the minimal licensing cost of what is ultimately catalogue music. Present are all of the elements that constitute a beat without any of the stylistic markers of a celebrity author (e.g., Kanye West's re-pitched vocals, Dilla's asymmetrical, ›stuttering‹ sequences, Ahmir Thompson's reinvented ›Amen‹ breaks). Lofi Girl thus commands the market for ›lo-fi‹, confirming the ubiquity of deracinated hip hop.

Conclusion: Cruel Optimism?

Meanwhile, type-beat producers and fan vidders strain against ACD in bids for recognition by search and curation algorithms. By preempting allusive sampling, Content ID exhibits copyright's familiar bias against practices of parody and textual allusion in beat-making (Carter 2017). If Lofi Girl represents hip hop liquidated of its vanguard status as Black vernacular technological creativity (Fouché 2006), type-beat producers and fan vidders corroborate the death of allusive sampling, representing what proliferates in its censored absence. If we follow Guthrie Ramsey, Jr. (2004, 1–4) in recognizing the importance of sampling as a source of intergenerational continuity and dialogue in African-American communities, we can conclude that faulty ACD algorithms are not merely technologies of censorship, but also technologies of anti-Blackness. This places Content ID in (supposedly) good company, for Safiya Noble (2018) has analyzed endemic racial bias in Google Search results. Algorithms carry the limitations of their creators' worldviews. Cataloguing their failures is becoming tiresomely commonplace even as it remains urgent. Automated copyright carries with it not only a programmatic bias against fair use, but a technical bias against intertextuality.

One cannot stress enough that hip hop has largely moved on from its era of allusive sampling. To some extent, this happened gradually: Arvin Alaigh (2018) productively built upon Sumanth Gopinath's work (2013, 252–255) on the pivotal genre of ›ringtone rap‹, illuminating a decline in sample-based tracks on the *Billboard* charts in the first decade of the century – a trend that Soulja Boy's »Crank That« (2007) confirmed rather than catalyzed. Increasingly, producers rely on catalogue music for beats.²⁰ To an extent, Content ID only verifies this more gradual shift. But as human-algorithm interactions come under increasing critical scrutiny, it is noteworthy that ACD militates against the very possibility of a return to heightened textual allusion in beatmaking. YouTube's terms of service are clearly hostile to the very types of creativity – technological and textual subversion – from which hip hop originated (Rose 1994). What will become of YouTube's aspiring producers, type-beat artists, and vidders?

²⁰ Consider Lil Nas X's »Old Town Road« (2018).

Most will give up, as Axxgawd's story suggests. Some will persist in aspiring to be pulled out of obscurity. Yet, again, by contributing to discourse celebrating copyrighted works, they feed the engines of the star system their ingenuity otherwise subverts. Indeed, by making art in conditions inhospitable to such creativity, they enact the relation Berlant (2011, 24) described as one of ›cruel optimism‹, the affective relation that obtains when the pursuit of an elusive object of desire diminishes one's ability to flourish. Their content, whether suppressed or self-censored, is reduced to music for the sake of musicking. Berlant's theory reminds us that little-known musicians often catalyze the double motion of attention and celebrity that fires online discourse. Hip hop may be as ubiquitous as Lofi Girl, but its unpaid debts – long neglected by copyright – are mounting. User-generated content hosts such contradictions (Winston and Saywood 2019). Content ID exploits them.

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