Scratch, Look & Listen: Improvisatory Poetics and Digital DJ Interfaces¹

Mark V. Campbell

At our contemporary moment in Western society, manufactured obsolescence now rivals manufactured consent as the dominant trope of consuming publics.² The DJ stands in stark contrast to, following Theodor Adorno and the Frankfurt school, the mass deception experienced by the “duped” consumer. Brands like Apple quickly and easily reduce the life span of their products by refusing to repair items older than six years. Yet, despite the semi-annual renditions of slightly tweaked technologies such as iPhones, DJs and other artists find ways to work around the limiting confines imposed by manufacturers.

Since the now epochal scratching of GrandMixer D.ST on Herbie Hancock’s “Rockit” in 1983, the turntable has refused its demise; it is increasingly being used as an instrument in bands and in solo performances. DJs utilize turntables in an interesting fashion, seamlessly moving between the past and the future, birthing foreboding futuristic sounds while resisting a planned disappearance. According to the logic of manufactured or planned obsolescence, the rise of the cassette, the compact disc, and the mp3 should have spelt the demise of the turntable. Instead, hip-hop pioneers such as Grand Wizard Theodore, the inventor of the scratch, and early DJ innovators Grand Master Flash and DJ Kool Herc assisted in the evolution of the turntable. Today, the turntable remains a staple in hip-hop culture, albeit also in digital forms, and has become one of this generation’s newest instruments. Turntablists have transformed the record player from solely a device to consume music into a performance instrument.³ Unlike the majority of consumers, DJs and turntablists operate within the Western economy as both consumers and producers, destabilizing a false dichotomy that has been central to the extension of capitalist logic. Of course, just like the commodification of rapping when Sylvia Robinson formed the Sugar Hill Gang and pressed records, DJ culture, as a part of hip-hop, has also been explored as a “market.” The sonic innovations of DJs from the early 1970s to the late 1990s became commercialized in a digital form. Digital Vinyl Systems (DVS) attempt to recreate DJ innovations (or their environments necessary for innovation) that were invented using vinyl records in the 1980s and 1990s. Undoubtedly, to master a DJ scratch techniques—like chirps or stabs—a significant commitment to practice is absolutely necessary. A simplistic or linear reading of the commercialization of DJ sonic innovations might suggest an easy mastery of DJing or a dilution of DJ skills with the creation of consumer products like the video game DJ Hero.

Sonic innovations in DJ hip-hop culture, such as cutting and scratching, reflect back on unique histories of Afrosonic innovations and subversive uses of sound technologies. An interconnected continuity emerges when we think of the mixing board used in dub music by innovators like Lee Scratch Perry, the dub plate by Ruddy Redwood, or the discarded oil drums in Trinidad repurposed as an instrument. These sonic innovations comment on and are useful tools in the exploration of agency, technological determinism, and consumerism. Mark Anthony Neal usefully suggests that the “black popular music tradition has served as the primary vehicle for communally derived critiques of the African American experience” (x). Stretching Neal’s claim to incorporate Afrodiasporic popular music in the West, we might read “controllerism” as a particular evolution of a critique of conspicuous consumption and manufactured obsolescence that began with Grandmaster Flash’s turntable exploits in the 1970s. When read along a continuum, quelbe, pan, dub, turntablism, remix culture, and controllerism can be read as containing sustained critiques that make ambivalent claims of “technological progress.” Caribbean philosopher Sylvia Wynter’s insights are particularly helpful here:

music subverts the limits that are imposed on the Afro-Creole subject when reduced to the ‘symbolic Negro’ within a code of objectification, from the totality of his possibilities to a unit of labour within the capitalist paradigm of production. (qtd. in Maysles 92)

Today, as digital versions of the turntable saturate the consumer marketplace, two digital interfaces (Traktor’s Final Scratch and Serato) have found their ways into the lives of DJs, not just in hip-hop, but across emergent and diverse genres such as Angola’s now popular kaduro music. In an era of overconsumption and rapid disposability, how might we understand the multiple ways in which the improvisatory techniques of DJs are impacted by digital interfaces? Such a question is especially poignant when we consider that the improvisatory poetics of hip-hop DJs cultivate a sonic and aesthetic terrain for emergent forms of sonic creativity, meaning that one could not envision the development of various DJ techniques without improvisation being at their core of the creative explorations central to innovation. Capturing the impact of improvisatory poetics helps us to gauge the futures of new sets of relations that are at the core of improvising (Small 296).

Of concern here are the intricacies of improvisation within the digital sphere, particularly amongst hip-hop DJs. I ask, “What are the impacts of digital DJ interfaces on the improvisational skills and innovations of DJs?” This inquiry consciously channels and extends Amiri Baraka’s claim that in jazz improvisation “the notes are not merely a

departure from the score, but have multiple mediations and hence multiple meanings” (15). I want to read turntablism and controllerism along this same trajectory to remind us of the meanings behind these sonic practices we have yet to uncover. Further, I ask, “What does the commercialization of DJ skills do to the possibilities for improvisatory poetics amongst future generations of DJs?” These exploratory questions bring into focus the DJ’s improvisatory experimentations at the intersections of late capital, Afrosonic innovation, and digital culture. Thinking through improvisation in a digital setting amongst hip-hop DJs pushes us to acknowledge hip-hop culture as something more than entertainment or a fad that maximizes the accumulation of capital for corporations’ coffers. Harry Allen’s observations back in 1988 are important to remember here, as he suggests that hip-hop humanizes technology, subverting it to make music even when the technology wasn’t designed to make music in that way (qtd. in Rose 369).

DJ interfaces have quickly become the standard for modern day DJs since their introduction in 2004. Prior to the mid-2000s, DJs specialized in hip-hop utilized vinyl recordings to produce their mixes and to entertain patrons at nightclubs. Digital interfaces have made the DJ’s work easier, almost ubiquitously, transforming music enthusiasts into novice users, from consumers to “consumer-producers.” DJs can now carry thousands of songs with them to their events, accumulating a range of genres and eras on a portable hard drive. Important to the success of these digital interfaces is an enormous amount of research and development. For example, the New Zealand based company Serato has positioned their product in a way that allows for the execution of several DJ tricks and mixing styles developed by DJs during their experiments with vinyl (and reel to reel) since at least the late 1950s and 1960s. A prime example is DJ Kid Capri’s style of mixing and cutting records, which consists usually of the first 8-12 bars of a song’s introduction or chorus. Within Serato, five cuepoints can be saved into the digital file of the track, allowing DJs to quickly move to and between specific sections of a record. During DJ Kid Capri’s vinyl sets in the 1990s, his prowess was demonstrated in an ability to drop the needle on the record at a spot visually memorized or marked on the vinyl record. Cuepoints facilitate other DJs’ adaptation and exploration of Kid Capri’s unique DJing techniques and aesthetics.⁴

Such DJing innovations have been crucial to the roll out and success of digital interfaces. In what follows, I first discuss the world of digital DJing, exploring the centrality of experimentation and improvisation. To do this, I spend time detailing two scenarios: live DJing in a radio setting and DJing in a live public event setting. Improvisation is active risk-taking, and these two environments figure into how and under what circumstances DJs improvise using digital interfaces. In the next section, I integrate responses from DJs to surveys and interviews, capturing their intimate and nuanced engagements with and responses to the technology. In the final section, I rethink digital DJ interfaces as ways to continue humanizing technology as a subversive Afrosonic activity while evolving the practice of DJing.

A Culture of Active Experimentation

In Jamaica, since the practice of versioning in the late 1950s, and in the United States, since Tom Moulton’s hand spliced mixes in the 1970s (Manovich 2), experimentation has been a common feature of the craft of DJing and has ensured that ingenuity is a welcomed part of the culture. Dancehalls, soundclashes, DJ battles, and other public events have been central spaces for the performance and testing of sonic experimentation. The winning performance of the World Disco Mixing Championship in 2002 is a great example. Prior to the invention of digital interfaces, Canada’s DJ Dopey developed a six-minute routine that transformed the turntable into a percussive instrument. He used his stylus as a drumstick to tap his vinyl. By intermixing rehearsed routine and improvisatory rhythm, DJ Dopey’s winning routine nicely situated improvisatory DJ poetics alongside a practiced (scored or memorized) routine. For all of the DJ settings I outline above, improvisation is a central feature to mixing songs and hip-hop DJ tricks. To imagine the future of hip-hop DJ culture within a digital milieu is to spend time exploring the improvisatory poetics that make mixing, song selection, and DJ tricks possible.

The improvisations and experimentations of the DJ are deeply interconnected with human affective relations. Philip Maysles reminds us that a “dancer’s elation over an original treatment of old sounds” encourages producers (and by extension DJs) to experiment with familiar sounds in order to imbue them with mystery and surprise (96). DJ Kool Herc echoes this sentiment when he speaks of his desire to keep b-boys dancing to the “funkiest part of the record” during his groundbreaking “merry-go round” sonic adventures in the 1970s (Chang 79). DJ Kool Herc was best known for manually cueing his music to the bridge or breakdown on each track. He would utilize two copies of a song, a mixer, and two turntables to drop his stylus on the song’s “funkiest part.” Herc’s “merry-go round” would then move back-and-forth between the two records, sustaining a repeating break section and a heightened moment of intense dancing by the “break” boys, the youth who chose to save their best dance moves for the breakdown of each track (Chang 80).

The varied and extensive ways in which DJs have experimented with their craft often extend and enhance their audiences’ enjoyment of their music selections. Central to the experimentation process has been the use of various

creative forms intimately connected to Afrodiasporic expressive cultures: call and response, repetition, and improvisation have been central to jazz and hip-hop musics and now are central to how popular musics gain traction in western popular culture. If we were to follow George Lewis' seminal essay, "Improvisation after 1950: Afrological and Eurological perspectives," it is not only useful but also ethical to understand various forms of sonic innovation as historically emergent from an Afrological perspective (93). We cannot and should not disentangle the development of digital DJ interfaces from histories of afrosonic experimentation. Sylvia Wynter provides us with ways to understand Afrodiasporic sonic experimentation as humanizing "the unit of labour"—a term Wynter uses to refer to the enslaved African (qtd. in Maysles 92). The digitization and commercialization of these unique sonic innovations invites a close examination of the impacts and new sets of relations created by digital DJ interface software like Serato.

To see the impact of Afrosonic innovation today, one need only see the massive popularity of audience participation at any live show of a popular music act where audience response is an essential part of the show. Moving from the realm of analogue to that of digital, it is interesting to see how Afrodiasporic expressive forms manifest themselves in the digital arena. Certainly, repetition has been central to the use of samples in hip-hop music and improvised rhyming continues to signify deft ingenuity and generate social capital (Schloss 138). Makers of digital interfaces have capitalized on these aspects of Afrosonic innovation, particularly those from hip-hop culture. Interfaces have been designed to create the most appealing user experiences possible for DJs, making it easier to replicate DJ tricks created using vinyl records since the early 1980s.

A Note on the Interviewees

I chose to survey DJs I have worked with in the past, all of whom have been DJing for more than a decade. Having been a DJ for more than fifteen years, I decided to gather the data for this essay by surveying one dozen DJs from across Canada, including Quebec, British Columbia, Ontario, and Saskatchewan. Respondents included one francophone DJ and two female DJs, and all had experience as vinyl DJs. Ten years of experience was a crucial marker for participants, as digital DJ software has been popularly used for approximately a decade. Surveys were completed on the phone, in person, and via email. I followed up with several surveys comprising short clarifying questions. While the number of respondents is by no means representative, the breadth and depth of DJ respondents provide rich commentary on the emerging relations between DJs and digital culture. All of the DJs surveyed began their careers in hip-hop music, and many of them eventually branched out to include R & B, piu piu, dubstep, and reggae in their repertoires. I've combined my survey data with my own observations of DJs I have worked with on radio and at public events.⁵ I have nestled my responses and observations within a frame of afrosonic innovation that recognizes diasporic and transnational connections, as well as patterns and relations to capitalism.

The DJ Digital Interface

There exist very few academic inquiries devoted to intimately exploring the innovations of DJs using digital software. Luckily, Mark Katz's recent book *Groove Music* and Sophy Smith's *Hip Hop Turntablism, Creativity and Collaboration* illuminate the changing landscape that is DJ culture. *Groove Music* is a meticulous and thorough investigation of the culture of DJing from the 1970s until the mid-2000s. Katz incorporates several stories and DJ perspectives on digital vinyl systems. In contrast, Smith's work focuses more on turntablist team performances and turntablism (as opposed to performative DJs) and devotes a chapter to exploring Turntable Transcription Methodology (TTM).

The more popular digital interfaces, like Tracktor and Serato, emulate the traditional two turntables and a mixer setup, even allowing users to touch and use a vinyl record. This touching of the vinyl is more ceremonial than anything else. One can no longer feel the bass amplifying from the vinyl onto one's fingertips, especially when doing baby scratches. The DJ loses a haptic communication with the grooves in the vinyl, as one long digital signal is filtered through the stylus. Built into the control vinyl are signals that are sent through the needle to the mixer and the associated computer. The computer program identifies the audio signal and captures where in the grooves of the record the stylus has arrived. Users can map any audio file to the audio signal, making it controllable using the associated vinyl or compact discs.

The interface provides an array of effects such as echoes and instant doubles; it also allows its users to play the record in reverse. These techniques borrow from and build upon (primarily) hip-hop DJs and turntablists.⁶ The features on the latest edition of Serato 1.6 (at the time I write this) include instant doubles, cue points, echoes, bass kills, reverb, a stop feature that can imitate a turntable's stop button, and a 4-channel sampler capable of housing 16 different samples.

Colourful patterns denote the signals of music identified on the digital files so that one can see the highs and lows, as well as the entire song's mapping, prior to the song being played. This is significant as DJs can visually find a specific part of a song, especially if it is a solo section or a section with amplified volume. Song length, title, tempo, sync

buttons, recording levels, and crates of music are all part of a bright and busy screen. As Mark Katz and Tobias Van Veen both note separately, it is very easy and common for a DJ to get caught up staring at a screen all night instead of watching the dancers at an event (Attias and Van Veen 10, Katz 226). Yet one should not read these numerous digital features as solely distracting. In fact, the continued and clever use of such features creatively enhances a performance by developing new skill sets (often referred to as controllerism). As Van Veen and Bernardo Alexander Attias rightly argue, “controllerism creates new genres of tactile performativity” (Attias and Van Veen 5).

In the Mix: DJ Improvisatory Skills and the DVS World

Within hip-hop culture, improvisation is a consistent feature of all of the culture’s elements, with the bboy and emcee cyphers enjoying the most widely acknowledged connections to improvisation (Caine, Johnson). Graph writers and DJs are also well steeped in improvisatory poetics, but their lack of commercial marketability underwrites their invisibility in popular culture. Scholars such as Tricia Rose, Paul Gilroy, Mark Anthony Neal, and others have all commented on the ways in which improvisation and marketable personae are key to how hip-hop is circulated as a commodity. Regardless of the level of visibility and popularity, DJs and turntablists, like other musicians, as Derek Bailey notes, improvise “intuitively,” not according to a “theory of practice,” but in a fashion in which “traditional procedures are integrated with [one’s] immediate mood and emotional needs” (xi). Hence, the cypher and jam session offer hip-hop culture a physical and discursive space for artistic creations where traditional procedures meet intuitive improvisation. For example, within a turntablist jam session, artists seamlessly move between exploration and repetition of known techniques: their “mistakes” uncover new sounds or techniques. Similarly, the cypher or bboy circle, as Imani Johnson suggests, is an improvisational, competitive, cultural arena full of energizing matter that encourages spontaneity and other creative responses to the feeling or vibe of the cypher, or battle (2).

Reflecting on a number of years of participant observation, DJing provides a rich and multilayered field of improvisatory poetics. When mixing two records, it is uncommon, or at least bad form, to reproduce a mix of the same order of records in another public setting. Song selection is a key index of a DJ’s repertoire, a way to distinguish oneself as a connoisseur or tastemaker. At times, different genres, eras, or versions of a song are mixed into one another, creating opportunities for improvisatory ordering and for interesting mixes and remixes. From the DJs surveyed, the majority mentioned they often move between eras, genres, and tempos, depending on the crowd’s mood. A survey question was posed to help identify some of the ways in which practice and improvisation existed side by side for hip-hop DJs using digital interfaces. Respondent DJs noted that they selected songs beyond their digitally organized “crates,” and thus improvised song selection at times. DJs would physically manipulate the new song they wished to introduce into the existing sonic environment, matching the beats per minute and layering sounds in a harmonious way. This is significant because, as unscored music, the DJ’s physical manipulation of records varies each time she touches a vinyl or controller record. When mixing two records, DJs can and do choose a specific point in both records in which to introduce a new song. Sometimes the mix occurs during a chorus, whereas at other times it may occur during the final bars of the song.

Beyond song selection and mixing, respondents mentioned that they employ a range of different scratches and tricks as they move between songs, delight a crowd of dancing patrons, or battle against another DJ. The kinds of scratches used, such as stabs, baby scratches, chirps, and transformer scratches, are rehearsed in specific settings and practiced independently of a song, or mix. Depending on comfort and skill level, DJs employ these above-mentioned scratches and numerous others in an assortment of ways. From my experiences in DJ settings, no scratches are used mutually exclusively, and the environment and context often become the most important factors to their deployment. As an unscripted musical innovation, these unscored scratches come into existence impromptu, demonstrating a level of skill DJs proudly announce, for they often “speak with their hands,” as The Fresh Prince would aptly describe of Jazzy Jeff in 1986 at their Live at Union Square performance.

DJ techniques, such as stabs, scratch fade outs, doubles, and bass kills, are further ways in which improvisation is deeply embedded within DJ performances. These techniques transform the playing of records into an art form while keeping alive the vestiges of African American and Afrodiasporic vernacular and sonic cultures. Deployment of repetition nicely complements improvisatory mixing and scratches, working to heighten the anticipation of a new song into the mix. Context is important to how and when DJs improvise in their sonic environments, in battles, on the radio, at an outdoor event, or inside a nightclub: these are but some of the many situations that dictate the use of different DJ techniques.

In a live mix show, such as DJing on the radio, the environment differs greatly from a performance in front of a dancing crowd. Not only is the radio DJ unable to gauge the listeners’ reactions (face to face), but the visual stimuli and overall noise level are also considerably lower. Radio DJs create mixes that often rely on their own tastemaking abilities and their previous experiences in clubs or other public settings. In both scenarios, radio and public performance, specific requests from dancing patrons or listeners on the radio can often lead to unexpected tracks

played and unique mixes or remixes. Improvisation, then, occurs amongst radio DJs sometimes in their song selection, but also in their choice of mixing technique or timing.

In open format radio, usually in a community radio context, DJs are free to mix any songs they choose. In contrast, in commercial radio there are specific singles stations add to their predetermined rotation. The live DJ segment, usually broadcast during rush hour or during the lunch hour, often diverges from the charting singles to produce a mixture of songs not heard throughout the rest of the day. In either case, DJs often create one or more sets of music that sometimes follow a specific theme or era. More often than not, these sets are rehearsed before going live on the radio. In the middle of mixing records, the DJ may decide to begin her mix during the chorus or on a verse of the track currently playing, improvising the momentary sonic environment. The context is critical: time and timing are central, especially if the mix is interrupted by commercials, by an emcee's commentary, or by self-selected sound effects. Mixing a new record into the chorus of a crowd favourite in front of a live crowd might interrupt the mood of the crowd. Similarly, the introductory bar count of the new track to be played or the availability of an instrumental version of a song can significantly shape how and when a DJ will mix a record.

Moving from vinyl to a digital interface has meant that DJs can loop the first eight bars of any song and create a longer instrumental mix. Instant doubles also enhance the mixing possibilities for DJs. The instant-doubles feature allows DJs to quickly load two copies of the same record and instantly match their tempos, and it is also a cost saving measure, as DJs no longer have to purchase two copies of the same record, allowing for more elaborate displays of skill. Using this feature, DJs can create "the break," mimicking DJ Kool Herc's "merry-go-round" technique mentioned earlier. Herc explains this technique:

I cut off all anticipation and played the beats. I'd find out where the break in the record was at and prolong it and people would love it. So I was giving them their own taste and beat percussion wise. (Kool Herc qtd in Davey D)⁸

Unfortunately, the majority of today's most popular hip-hop songs don't feature a break or instrumentalist solo. The "funkiest part" of a record or the key feature of a song is uncommon in contemporary hip-hop records. Instead, it is commonplace for hip-hop DJs to bring back or repeat the first 8 bars of a track to heighten or emphasize a portion of a track or to demonstrate a DJ's skills.

Instant doubles also allow DJs to quickly find and repeat a word or create an echo effect on specific words. By keeping one record slightly ahead or behind the other, DJs emphasize words or sounds by moving their fader between the two decks and creating a short echo. In a program like Serato, instant doubles is a feature that removes the work of the DJ manually moving one record to match the timing of another. By simply loading the track onto the virtual deck and clicking off the instant doubles option in settings, however, one can replicate the same kinds of techniques that hip-hop DJs create using vinyl. A digital interface can ensure instant doubles by intricately timing tempos and dealing with minute differences in rhythmic patterns, a feature all respondents used, but does not eliminate all of the skill and technique required in the analogue years of DJ setups.

In the process of doing doubles, hip-hop DJs decide impromptu what parts of the record's sounds or lyrics will be echoed. In the analogue environment, this often depends on how long it takes to synch both records. In a digital environment, doubles can often be utilized for a specific moment in a record such as a chorus, time, and timing. Doubles can also be tightly controlled using the software. While improvisatory creative decisions are possible in both digital and analogue environments, in the digital environment less familiarity with the vinyl record is not a hindrance to producing a DJ technique. Some DJ respondents found the instant doubles feature to be a "dumbing down" of DJ culture, a hint at varied perspectives on the evolution of DJing. Yet, as mentioned above, such meticulous attention to tempo, timing, and rhythm required to accomplish a technique like doubles can be lost on a veteran DJ who can rely on years of practice and training. For newer DJs, the digital interface does not completely remove the numerous skills needed to create DJ tricks developed in the 1980s and 1990s.

Like instant doubles, cue points allow DJs to quickly move to a specific section of a track. Numbered 1-5 on the Serato interface screen, these arrows (up to five) can be used as placeholders for specific moments on the track. In turntablist battles prior to 2004, stickers were placed directly on the wax record, acting like placeholders for a specific sound or groove. This digital feature replaces, in an analogue environment, the use of stickers, significantly reducing the amount of time required to cue another record or begin a DJ trick.

Using cue points allows DJs to repeat specific musical segments, words, or sounds and to, in effect, create a sampler. In a turntablist battle scenario, cue points are played like notes when the cues are on specific sounds. When cue points capture a specific word or phrase, this enables the DJ to engage in lyrical warfare, allowing the records to speak for the DJ, as was the case with DJ Dopey's DMC routine in 2003.⁹ Manipulating Jay-Z's "The Watcher," DJ

Dopey launches his into sonic warfare: his word phrasing boldly states, “Things ain’t the same for gangsters, but I’m too famous to shoot these prankstas.”¹⁰ The young Filipino Canadian prepares his audience for a battle, heightening the anticipation of his routine. The word phrasing continues with, “When these beats bang, it’ll drive you insane,” with DJ Dopey ventriloquizing his message once again through lyrics by Jay-Z and Dr. Dre. Stickered cue points allow for various other selected samples of Jay-Z’s rhymes: “the best to emerge, the world is mine” and the song’s chorus, “I see you watching me,” provide further context of Dopey’s decidedly boisterous stage persona. With such rich texture and complicated rearrangements of lyrics, it is unsurprising that some of my respondents felt that some digital features were “dumbing down” the culture.

Beyond the turntablist battle scenario, cue points used to select phrases can be triggered during a live performance to heighten the level of anticipation as a section of a song is repeated. In the turntablist battle scenario, the use of cue point is rehearsed and perfected, but in the live DJ performance, while much of the technique is practiced, the duration of the cue point use is often improvised. The immediate context often dictates the possibilities of using cue points to repeat a phrase, loop a section of a record, or cut to a specific moment in the song.

If we were to listen to any mixtape created using vinyl records, such as DJ Premier’s mixtape, “Step Ya Game Up,” we can clearly hear how repetition and improvisation come together.¹¹ He uses a track from a Toronto emcee, Arcee, called “Super Educated,” and decides to repeat sections of Arcee’s lyrics that speak, in his opinion, to the essence of hip-hop culture. DJ Premier repeats the following lines using a variety of different scratch techniques: “Yo, I represent the reason rappers write signs for” (1:07) and “original rhythms and rhymes sure to enhance your experience” (1:49). Each time DJ Premier repeats each of the above lines, he cuts into and interrupts the existing lyric at a different point, using different scratches. While the technique may or may not have been rehearsed, the number of times phrases are repeated and the type of scratches utilized suggest they are unscripted. No immediate pattern emerges from the numerous scratches on “Super Educated.” Moving in and out of improvised and practiced expressions, Premier follows and demonstrates one of the core features of African American creative expression in hip-hop culture. It is these sorts of deft hip-hop DJing tricks that digital DJ interfaces like Serato have attempted to foster with their mass marketed software. By meticulously controlling the latency of a vinyl control record connected to the software, Serato makes it possible to manipulate sound files in a fashion similar to vinyl.

DJ Premier’s exemplary cuts on “Super Educated” are embedded within an Afrosonic history where repetition, call and response, and improvisation are highly valued creative expressions. Although I single out what appears to be a solo artist’s idiomatic improvisational creative acts, I want to steer clear of being lured into a romantic ideal of the solo or isolated genius of the artist. Ruben Gaztambide-Fernandez reminds us of the seductive grasp of enlightenment’s conception of the artist as an exceptional individual, one separate or distinct from his or her community (240-241); this is clearly not the case in hip hop culture. When thinking through issues of the individual and improvisation, Daniel Fischlin is instructive in reminding us that group dynamics in improvised group music (and by extension the community in the case of hip-hop) place pressure on “reductive notions of the individual” (4). DJ Premier’s performance—comprising his word selection and range of scratches to emphasize specific lyrics from Arcee—is an intertextual signification that relies on and is in conversation with hip-hop orthodoxies of cultural self-critique. Hip-hop music is unique in that it is one of the few musics that will critique itself and its industry within its performance art. Emcees and DJs create rhymes and mixes that highlight what they see as problems within hip-hop culture, and they will protect what they believe to be the culture’s core values. DJ Premier chooses his words carefully when he decides to scratch on words and phrases like “I represent” and “original rhymes” to reflect his reputation as a guardian of hip-hop culture in a poignant fashion. Without exhausting a conversation on hip-hop orthodoxies writ large here, I want to stress how the DJ’s improvisational poetics are simultaneously in conversation with streams of consciousness in hip-hop cultures and embedded within Afrosonic histories and trajectories.

Visual Crates and BPM Mixing

Central to digital DJ interfaces is access to digital files of music on a DJ’s hard drive. As mentioned earlier, DJs have access to tens of thousands of files at their fingertips when using programs like Serato. This means that DJs who might have specialized in one genre of music and travelled with only those records are now able to increase and diversify the repertoire they bring to gigs. Mark Katz has already outlined the notable benefits of digital crates for DJs who travel by airplane to their gigs, yet there is a great deal more to consider in terms of these benefits vis-à-vis improvisation (245).

As both a radio and a performative DJ, I have found digital crates just as central to improvisatory mixing as the numerous features mentioned above. During performances, digital crates matter most when a DJ is deciding what to play next and searching for particular tracks. Crates can include information (user-generated) on each track’s beats per minute (bpm), genre, year, and album. Such information reduces the time DJs spend on deciding what track to play next and is especially useful when the DJ is unfamiliar with the entire track. For those DJing since the analogue

era, mixing records using a digital interface according to bpm is seen as a form of cheating, a lazy way to decide on song order. By organizing the records in a crate according to bpm, DJs may only mix tracks that can be seen on the screen, which means a limited range of tempos. This either eliminates or greatly reduces the likelihood of an innovative transition, especially if the bpm range exceeds that which can be seen in the crate (without scrolling through the crate). In the analogue DJing environment, half of the work of DJing is locating the right records, grooves, mixes, and versions, especially in a dark nightclub on black vinyl. The innovation and improvisation that results from finding a mix or a transition between two records with different tempos and instrumentation is a significant measure of one's prowess.

Access to a greater number of songs can mean less familiarity with each track, possibly fostering less improvisatory moments in mixing and song transition. As one DJ surveyed explains, when discussing organizing crates by bpm, "it means you kind of stop exploring different mixes, it's lazy" (DJ Jake D' Snake). Digital crates increase the amount of information available for each song, listing several song features as part of the crate information. The respondent's lament reflects a reality prior to digital interfaces in which DJs sometimes had to search their crates and try different records and mixes before the tempos of both records could be matched. This moment of trying different mixes or records means a moment of improvised song selection. The respondent's investment in "exploring different mixes" suggests that the moment of improvised music selection is a valued yet increasingly scarce part of the DJ's performance. The desire for an improvisatory aesthetics to govern a DJ's song selection, as suggested by this respondent, and which is upended by a digital interface, points to an unsettling of the DJ-dancer relationship. A focus on laziness may serve to demarcate spaces of authenticity and authority, but it also masks the improvisational poetics, the "work" associated with finding the right mix in a vinyl setting.

Layers

"DJing is no longer as exciting as it used to be." (DJ She)

The various laments from DJs about digital interfaces speak to the relative age and experience of respondents as opposed to the wretchedness of the digital DJ experience. The fact that these DJs chose to continue DJing using interfaces should not be overlooked. The limitations imposed by the age and experience of the DJs surveyed on the data reveals only a part of the story. By observing younger DJs, those who started their careers using digital interfaces, another story becomes clear. On different plains of engagement and experience, both veterans and newcomers creatively tackle the possibilities of an improvisatory poetics in a digital environment. Younger DJs experiment with their turntables, but without the experiential knowledge that shows the ways in which these tricks are achieved or the manner by which something like 'doubles' sound using two vinyls.

One respondent mentions that some DJ tricks achieved from using Serato are just "dumbed down," echoing another respondent's lament of how boring DJing has become. These respondents focused their critiques on a mode of authenticity that is imagined to contrast greatly with contemporary digital DJ practice. Rather than simply dismissing the respondents as nostalgic, it is important to recognize how their continued work in the industry, alongside continued improvisatory experiments, pushes DJ culture to evolve. Whether in a battle environment or an outdoor barbeque, the limits and social impacts of technology are continuously challenged. Concurrently, a sense of history is vigorously sustained, sometimes in contentious ways that are imbued with nostalgia or claims to authenticity. Veteran DJs often support one another's creativity by circulating edited tracks that include extended eight-bar introductions that encourage DJ mixes, techniques, and overall creativity.¹²

Despite the readily accessible tools to digitally execute DJ techniques originally developed in analogue scenarios, it does not appear as though improvisation amongst hip-hop DJs is in any danger of becoming extinct. Automated syncing options make the future of house, techno, and trance DJs precarious, a worry Van Veen has clearly expressed (Attias and Van Veen). My observations are limited to hip-hop cultures in general and cannot speak to other genres such as soca, techno, or reggae. Undoubtedly, much like the resilience of the turntable in hip-hop culture, improvisatory sonic innovation amongst DJs appears to be resilient and to have simply evolved. For example, in observing 22-year-old DJ Romeo's cue points don't simply mark a point in the record; they become tools to splice and reorder a song in real time. I mention DJ Romeo's age here to demonstrate that although he claims to have been DJing since age 12, the circulation of new vinyl dramatically declined after 2004. However, DJ Romeo appears quite invested in improvisatory DJ techniques, and his age provides a greater incentive to innovate and experiment than those DJs whose careers are already established.

Of the DJs surveyed, the majority actually found that they take the same amount of risks: they improvise just as much using digital interfaces as when using vinyl. In fact, it appears as though the digital environment encourages or allows for greater or more diverse forms of improvisatory sonic innovation. Despite having to spend more time watching their computer screens, respondents did not uniformly suggest how digital interfaces affected DJs' crate selection. For

some, personal interest superseded genre or era in terms of records and crates selected at a function.

Interestingly, several DJs mentioned their disdain for having to spend more time with their computers in preparation for a routine or event. Both Mark Katz and Aram Sennrich captured similar sentiments in their discussions with DJs. Finding, editing, and sorting digital music files further disconnects the DJ from the physicality of vinyl records. With more than 80,000 digital music files, some DJs report feeling more like an IT professional due to the amount of time needed to sort through their files before a gig (DJ DTS).

Although the majority of responses to my survey of veteran DJs range from indifferent to negative, I take into consideration my personal observations and theoretical frame to better situate the vantage point of my research. When using the discursive frames Sylvia Wynter provides—that Afrosonic innovations and explorations are best understood as being interconnected to a historical continuum deeply entrenched in capital—it becomes easier to see a more complex terrain (qtd. in Maysles 92). Turntablists and hip-hop DJs subvert the constraints of late capital's manufactured obsolescence, just like Trinidad's innovative Pan men creatively and subversively maximized modernity's excess oil drums with the creation of the steel pan. Similarly, controllerists today refuse the dominant logic of digital technologies in a manner that significantly resembles aforementioned Afrosonic innovations.

Future Considerations on Humanizing Technologies

In terms of the impact of digital interfaces on innovation and creativity, age and experience appear to play a significant role in how involved DJs become in the interface. Digital DJ interfaces have interrupted the tight bond DJs previously formed with their records, especially since a DJ's intimacy with the grooves on any given piece of vinyl can determine his or her success during a performance. While DJing appears to have lost its lustre to some respondents, innovation and creativity continue to be central to how the DJ manipulates sound, especially when we look at how cue points are being used: not just to find spots on a record, but to dramatically rearrange songs. Emergent forms of sonic creativity are slowly but surely adjusting to the digital environment.

It is promising to envision a future for improvisatory sonic innovation in hip-hop cultures, especially as digital interfaces and controllers have become the primary option for professional DJs. By creating a digital interface that amplifies the sonic innovations of (primarily) hip-hop DJs, companies like Serato enhance the possibility of further improvisatory innovations in DJ culture, despite many DJs' laments about auto-beat matching features. DJing and hip-hop cultures in general have, since Afrika Bambaataa's earliest performances with the Soulsonic Force, had an interesting relationship to the future. Innovations with digital production and drum machines, as well as avant-garde offshoots like turntablism, have positioned the culture in unique ways. Hopefully, this means the future of improvisation within hip-hop culture continues to extend and amplify the innovations of DJs, emcees, and producers in ways that allow the world to participate.

Notes

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² This term refers to the manufacturing practices of corporations who intentionally create updated versions of existing products in regular and predictable intervals. For example, Apple, the makers of iPhones and MacBooks, will often release updated versions of their products and create short thresholds of product support, making it difficult for owners of older products to continue their use. I also use manufactured and planned obsolescences interchangeably to signal design features built into a given product to shorten its life span. Corporations utilize this strategy to generate long-term sales.

³ In 1993, DJ Babu from the Beat Junkies coined the term Turntablist to describe the DJ who creates music using the turntable (Vandemast-Bell 240).

⁴ I use DJ Kid Capri as an example while still fully cognizant that DJ Kool Herc and Grand Master Flash were dropping needles on memorized grooves for their records in the 1970s. I have chosen to highlight DJ Kid Capri's method because his quick mixes and needle dropping were part of his brand and stage persona. Herc was better known for his loud speakers, while Flash became known for his cutting and scratching innovations.

⁵ I have hosted and DJed on a radio show called the Bigger Than Hip Hop Show since 1998, when the show was

originally called the Soul of Hip Hop Show.

⁶ Notably, the equalizer settings and embedded features are deeply indebted to the innovations of DJs who work in house, electro, and trance genres.

⁷ The full transcription of the interview is available at <http://www.daveyd.com/interdirect.html>.

⁸ DJ Dopey's full routine is available at <http://youtu.be/Ldcps06D-BA>.

⁹ Word phrasing is a technique used in DJ battles whereby words and phrases pre-recorded on vinyl are manually and rhythmically recontextualized to convey a new sentence or phrase.

¹⁰ "Mixtape" here refers to a promotional mix of music recorded by a DJ that features music from different artists and demonstrates the DJ's prowess on the turntables. I make this distinction to not confuse mixtape with promotional mix tapes that feature the songs of one artist and are used for the promotion of an upcoming album. Mixtape should also not be confused with the practice of editing video clips into a highlight reel, sometimes also referred to as a mixtape.

¹¹ A recent example is DJ Grouch's edit and remix of Drake's "Draft Day," available at <https://soundcloud.com/dj-grouch/draft-day-8-bar-intro-grizart>.

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