Rethinking live electronic music: a DJ perspective
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Abstract
The author critiques the conventional understanding of live electronic music through empirical research on his own DJ practice and investigates others working in the field. In reviewing the opinions of theorists and practitioners in both the live electronic music genre and DJ-ing he argues against the body/machine dialectic that has determined much of the thinking in the former. The author forms a notion of the DJ as a real-time composer working beyond traditional binary distinctions who brings the human body and machine into a mutual relationship. Through practice-led research he charts an investigation beginning in physical human gesture and culminating in digital machine repetition. He concludes that mechanical and digital repetition do not obscure human agency in the production of live works and that this concern is imaginary.

Key words:
Live, Electronic, DJ, Gesture, Digital, Repetition.

Introduction
Often configured as both a response and a challenge to electronic music performance predicated on the playback of recordings and automated processes, Live Electronic Music is a product of the belief that the body is participating once again in the music making process, that the human is having a physical effect on the music, not just pressings buttons to facilitate the playback of recordings. In this “genre” the human body is often held in opposition to repetitive, machine-made music, where the goal is to foreground the body as site of production and “enable new and volatile connections” (Collins, d’Escrivan 2007, 50). Advocates of live electronic music such as Bob Ostertag (2002) and Nic Collins (2007) have made a clear distinction between performance predicated on unpredictability, on the one hand, and performance grounded in preordained playback on the other. The idea that much electronic music performance, dominated by mechanical/digital repetition and the playback of recordings, ostensibly opposes and obstructs the human body in the production of
music is, however, too simplistic a reduction. It is a rationale informed by a historically situated distinction between the live and the recorded whereby ‘the notion of the live is premised on the absence of recording and the defining fact of the recorded is the absence of the live’, as Steve Wurzler astutely put it (Auslander 1999, 3). Furthermore, from a Live Electronic perspective, approaches to electronic performance grounded on the replaying of precomposed materials lacks spontaneity and the thrill of the unforeseen. In their respective writings Ostertag and Collins laud those who physically produce sounds and overcome the apparent fixity of recordings, as witnessed in their favourable appraisals of Hip Hop and experimental turntable practice. However, any critical position that grounds itself in the positions taken by Ostertag and Collins will rely too much on ideas which are no longer sustainable given recent technological and aesthetic developments; what such a position would fail to grasp about our present conditions is that playback and repetition need not exclude embodied agency, and that domination of the machine/mechanical need not necessarily be the sole modality through which agency can be foregrounded.

The notion of the DJ as someone who just plays other people’s records, and who therefore only “repeats” the work of others, has been the source of much anxiety and self-criticism within my own practice-led research, to the extent that much of my earlier practice was preoccupied with inscribing physical gesture into recorded materials in order to prove to an audience that I was producing it live; I tended to focus on ways to make my embodied agency legible through avoiding the repetition and replaying of sonic materials that is arguably a strong characteristic of “the digital”. More recently, however, I have been exploring ways to bring embodied agency into a productive relationship with what we might characterise as digital repetition, a move inspired by the work of Jeff Mills and Ritchie Hawtin (two leading Detroit Techno DJs), Steve Reich’s tape phasing technique, and development work carried out at STEIM (the Studio for Electro-Instrumental Music) in Amsterdam. I should now like to examine in a little more detail the ideologies underlying the human-machine opposition that is implicitly challenged by my recent creative work.

The Body and the Machine
There are (at least) two distinctions made between musicians deploying turntables in their practice. For many, the Club DJ is merely a slave to the machine, encroaching on and debasing ‘real’ performance practice by reproducing other peoples’ music.\textsuperscript{3} Culturally, there is a marked difference between a DJ and a \textit{turntablist}. Where a DJ plays other peoples’ records, a turntablist, or turntable instrumentalist, is regarded as a craftsman deploying the turntable as a tool for his or her own creative expression, revivifying the recorded object through physical gesture. This distinction first occurred in Hip Hop culture; Babu of the Californian turntable crew The Beat Junkies coined the term, scribing ‘Babu The Turntablist’ on his mixtapes,\textsuperscript{2} a move that saw him axe the ‘DJ’ prefix so as to set himself apart from those who just ‘played records’. Similarly, Rob Swift of rival New York turntable crew The X-Ecutioners describes how ‘during the early nineties you had Club DJs, House DJs, Radio DJs … we wanted to have a concrete, specific identity’\textsuperscript{3}

Marxist critique has maintained that machines eliminate human agency from production, that they remove the notion of skill from the act of making. The warm, animated, chaotic human body is held in opposition to the cold, repetitive, lifeless machine. Karl Marx proposed a distinction between the tool and the machine whereby a tool is something that extends our capabilities whereas we are subject to the machine. Drawing on Marx, Tim Armstrong writes that the machine ‘is independent of the human and has an external source of power. The tool, on the other hand, is knitted to the body, extending its powers’ (Armstrong 1998, 79).

For Ostertag, the tension between the human body and the machine is what ‘structures our time and civilization’ (Ostertag 2002, 14). In a paper entitled \textit{Human Bodies, Computer Music} he identifies what he believes is a serious problem in electronic music making:

I think most musicians working with electronics are probably not very satisfied with the state of electronic music today, and the crucial missing element is the body. Many of us have been trying to solve this problem for years but we have been notoriously unsuccessful at it. How to get one’s body into art that is as technologically mediated as electronic music, with so much technology between your physical body and the final outcome, is a thorny problem (Ostertag 2002, 11).
The motivation behind Ostertag’s exposition derives from a comment made by his collaborator Pierre Hérbert. Paraphrasing Hérbert, Ostertag writes, ‘the measure of a work of art is whether one can sense in it the presence of the artist’s body. If so, then it is a success, and if not, it’s a failure’ (Ostertag 2002, 11). Ostertag is bitterly denunciatory toward music grounded in mechanical or digital repetition, in particular he ‘detests’ electronic dance musics for the ways in which they ostensibly subordinate the body to the machine; clearly he is anxious about the erasure of the body by recording and reproductive technologies but perhaps more importantly he believes machines obscure the legibility of gesture and so eradicate the physical aspect of performance (Ostertag 2002, 12).

Aside from his general abhorrence for electronic dance music it is the layers of technological mediation between hand and sound that concerns Ostertag. Observing the immediacy in playing the theremin he remarked that it ‘used actual skin capacitance as the central element in controlling the instrument … one could literally stick one’s fingers right into [it]’ (Ostertag 2002, 13). However, to further problematise the practical dilemma identified by Hérbert, Ostertag writes:

> It is not that it is impossible to put a sense of one’s body into art made with assistance from machines. Hérbert is talking about a sense of the corporeal presence of the artist emanating from the work. It is not necessary that an artist “touch” an image or instrument in order to achieve this result, but it certainly helps (Ostertag 2002, 11).

The more susceptible a technology is to the control of the hand the more it appears to extend the performing body. This explains how, in Hip Hop, the turntable is now considered an instrument in its own right; through the immediacy of his or her actions the Hip Hop turntablist renders the turntable less visible as a technology by reducing the amount of apparent mediation between an action and the resulting sound. The Scratch, moving a record back and forth with the hand, is a physical gesture analogous to a bow moving across strings under tension, or as John Oswald has put it:

> A phonograph in the hands of a “HipHop/scratch” artist who plays a record like an electronic washboard with a phonographic needle as a plectrum, produces sounds which are unique and not reproduced – the record player becomes a musical instrument (Oswald 2007, 132).
Oswald’s comment marks the apotheosis of anxiety that Club-oriented DJs encounter when entering the sphere of ‘live’ performance. DJ Sniff of STEIM in Amsterdam illustrated this when he said ‘the claim that a DJ just “plays” other peoples’ music is what haunts me day and night’ (Lippit 2009). Evidently, the correlation of physical gesture and sound is a sign that the Hip Hop turntablist has overcome the technological; he produces sound via the skill of his hand, rather than simply reproducing it. In other words, in not simply playing other peoples’ records, but creating ‘unique’ sounds, seemingly ex nihilo in front of an audience, the turntable becomes a musical instrument, a tool rather than a machine; ‘[t]he turntable is a musical instrument as long as you can see it being a musical instrument’, explains Rob Swift. In DJ terms, the title ‘musician’ is therefore reserved for those who have chosen to make virtuosity, let us call it mastery of a technology, their primary musical discourse. By contrast, Club DJs are criticised for their lack of musicianship, evident both from Nicolas Collins’s earlier remark about the validity of Club DJ practice and from performance theorist Stan Godlovitch’s statement that ‘[t]he DJ may call attention to a certain sound, frame it, occasion it, exhibit it, display it, show it off, but, the DJ does not make it - with or without skill’ (Godlovitch 1998, 113). Part of the problem here has to do with the Club DJ being in actuality a real-time composer but, because they are doing this live, they tend to be appraised in relation to their performance rather than their compositional skills. Interestingly Ostertag does in fact allude to a kind of compositional performance but fails to comprehend its significance. Framing it against traditional modes of performance practice he writes:

[I]f we are “playing” by intervening in ongoing automated processes, then most of what is going on requires no input from the performer, and subtle interventions on the performer’s part are more likely to add compositional coherence to the result than big dramatic ones.

Perhaps part of the difficulty lies in the fact that the DJ has played a significant role in the dissolution of the composer/performer dichotomy, and the emergence of a differently configured relationship between composition and performance, but the notion of performance skill has remained relatively unchanged, as witnessed in the above statement by Ostertag. Like Ostertag, Godlovitch believes a direct connection between cause and effect is an indication of skill, of creativity, believing that if actions are not the ‘immediate products’ of the hand they will ‘record no story about
the … immediate physical intervention’ (Godlovitch 1998, 100). His evaluation is therefore grounded on the notion of performance skill, and little credit is given for the creativity evidenced by the newer figuration of the DJ as real-time composer.

**Sound as Gesture**

Given that the turntablist is deemed a craftsman, using the turntable as a tool to produce sounds through gestural hand interaction, I surmised that physical intervention and tactile control would be one way to address my own particular anxiety concerning mechanical/digital repetition, reproduction, and fixity. Indeed it seemed many improvisers of electronic music have sought to touch sound or bring a sense of their ‘corporeal presence’ through the music, an anxiety grounded in a belief that analogue/digital repetition obscures physicality. In the late 1960s, for example, Michel Waisvisz and Geert Hamelberg constructed the Crackle Circuit (later to become the Crackle Box), a circuit of “…‘malformed” oscillators that were very unstable and highly sensitive for finger connections’ (Waisvisz 2004). By directly touching different parts of the circuit with his fingers, Waisvisz formed new connections; the skin acting like a patch cable through which the capacitance of the electronics, and therefore the sounds emitted, was controlled by pressure. I therefore sought ways to move beyond ‘repetition’ and to challenge the fixity of recordings so that I might play a more active role in the production of sound.

In turntable scratching, the vinyl record is a particular kind of interface between physical gesture and the sonic trace of that gesture in the sound that flows out of the loudspeakers. The turntablist’s gesture is the means by which they bring the recording back into the live; it is the trace of the human action that imprints itself upon the recorded material as, for Walter Benjamin, ‘the handprint [spur] of the potter clings to the clay vessel’ (Leslie 1998, 6). Experimental Turntablism is often characterised by incessant intervention in prerecorded sound which foregrounds both the materiality of the vinyl medium and the body as site of production, whilst resisting the intended purpose of the turntable as an autonomous playback device. Of all the experimentalists, I have been most captivated by the live performances of eRikm, for the physicality of his performances, and for the manner in which he interacts with, negotiates, and deconstructs the vinyl record, decimating any notion of fixity in the medium. Exploring interface is a constituent element of his particular type of Turntablism, to the extent that the sound world he creates results almost entirely from gestural action; there is a direct correlation between his bodily manoeuvres and the sonic results, between cause and effect. Utilising a set-up that encompasses two Technics SL-1200 series turntables, a Rane Empath DJ mixer, and three Korg Kaoss Pad effects boxes, his performances might be figured as being ‘hyper-virtuosic’; there is never a static moment for he is continuously intervening in the recorded material, denying it the right to play back in its intended state. I propose that eRikm’s musical objective is sound as gesture, therefore the materials recorded on the vinyl he uses are not, in themselves, so important. This is evident in his apparent disregard for genre distinctions and in the way he treats his vinyl, discarding the records he has used by casting them to the floor as though they were just rubbish. In my own practice as a turntablist, therefore, I embraced what might have been an excessively corporeal approach, for a time, in an attempt to move beyond simply “playing records”, but the
musical results of this approach also raised their own problems, not least of which was in the sporadic, episodic nature of the music produced in this way, which I quickly found lacked the structure and narrative that I value. I was to eventually become disenchanted with music produced in this way. Frustrated, I was eager to find a way out of the quandary in which I found myself, the solution eventually coming from the most unlikely of places, given the arguments presented earlier: digital repetition.

Through an encounter with improviser/composer Robert van Heumen I began to take a renewed interest in repetition. During his artistic residency at Culture Lab Newcastle we played together as a duo. Curious to see if his Lisa X system (STEIM’s custom live sampling software) could match the immediacy of the turntable, I challenged him to a digital versus analogue duel. As we played I became aware of Robert’s use of repetition. He appeared to be using it on his own terms rather than succumbing to it, throwing my own material back at me and allowing it to repeat before distorting it via his joystick manipulations. He would take samples without my knowing and reintroduce the material into our improvisations, creating conditions for longer-term, “narrative” structures to emerge, the sampled material acting like a memory of where we had been and an indication of where we were heading. The experience was a revelation, for it provided insight into how digital repetition might be used in improvised music making, something that my investigations into gesture as sound had led me to avoid. It would seem that Robert had found a way to get his embodied agency into a productive association with recording and repetition without the need for direct analogue inscription; a sense of ‘corporeal presence’ as Ostertag would have it. This was a critical turning point in my artistic development for it made me want to explore repetition, or more explicitly, digital repetition, the very thing I had understood as lacking capacity to convey human agency and anathema to improvisation and live electronic music.

**The Human Body in Repetition**

My encounter with Robert van Heumen gave impetus to my interest in how repetition was being used in Detroit Techno music, a genre synonymous with repetitive rhythms, machines and music technology. Researching the work of two of the genre’s leading figures, Jeff Mills and Richie Hawtin, I uncovered something truly unexpected. Through centering my critique on repetition I had failed to take into account those artists who work within, and express themselves through, analogue/digital repetition.
What is more, Bob Ostertag’s writing on the subject - his aversion to electronic dance music because of the precision of its beats, and his claim that the body is ‘missing’ - contributed to my own dissociation from electronic dance music as well as ‘regular’ DJ practice. However, in the course of my investigations it became apparent that Mills and Hawtin, far from being subject, as it were, to repetition, were able to articulate agency within it, conveying a similar sense of rigour toward creative practice as those affiliated with the early 1980s New York ‘Downtown’ scene (Nic Collins) or STEIM in Amsterdam (Michel Waisvisz). Moreover, these DJs were confronting the body/machine problematic head-on as an experiential fact, rather than falling on one side or another of a priori binary distinctions that, in effect, obscured the picture. Nevertheless, much of Jeff Mills’s work is an unequivocal attempt to foreground his physical, human agency. For example, his *Purpose Maker* label (a sub-label of *Axis* established in 1995) pays homage to the physical, human body with record sleeves and labels replete with close up shots of different body parts. Elaborating on the label’s launch Mills remarked:

> The theme of the exhibition is the physical aspects of the person known as “The DJ”. The hands, ears, arms and fingers were the parts of the body that I felt were the most important and that should be displayed in a manner where each part stands alone. These are the parts that physically make the music happen (Cyclone, 2009).

It is obvious that Mills considers the physical, human body as essential to the performance of Techno music, undermining the sustainability of Ostertag’s position that this music excludes the body of the creator, and testifying to his performance background in Hip Hop Turntablism where his efforts to command the machine - making the turntable transparent by overcoming its technical limitations through virtuosity alone - were carried into Club DJ practice. Mills’s decision not to edit-out mistakes – clashing beats and skipping needles - in his *Live at The Liquid Rooms – Tokyo*, I believe stands as an explicit foregrounding of his human agency within repetition. He is hailing the listener to notice the ‘liveness’ of his performance; his own flaws and the defects that result from technological failure. Physical intervention into the medium (where fixity and repetition are disrupted or modified) and technological failure thus stand as indicators that he is doing it live.
Whereas Mills’s practice is rooted in analogue Turntablism, Richie Hawtin has relinquished the analogue turntable in his search to uncover new modes of expression in the digital paradigm. Utilising Native Instruments’ Traktor Pro DJ software he has embraced the looping function, allowing him to access and remix material non-linearly by exploiting the random access potential of digital audio, ‘constructing, deconstructing, [and] reconstructing’ (Hawtin 2008) on the fly. He brings a sense of the corporeal into digital repetition by deploying a ‘virtuosity in finding’ approach to music making; creating loops in real-time and using repetition against itself, not unlike Steve Reich’s ‘phase’ technique, except that Hawtin has the tools to negotiate and intervene in the forms by deciding when he wants to re-synchronise the loops. Mills and Hawtin’s music is undoubtedly repetitive, however, rather than understanding this as somehow standing for that which is mechanical or digital and therefore radically ‘other’, it functions in a constant dialectic with embodied human agency. In Mills this is much more apparent because of a direct engagement with analogue media. However, like van Heumen, Hawtin has proven that digital repetition need not obscure human agency for it can be made to work on the artist’s terms.

**Digital Repetition and Human Agency in Practice**

In November 2008 I completed an artistic residency at STEIM with an agenda to explore new DJ technologies. Prior to heading out to Amsterdam I took an interest in the Korg Zero4 DJ mixer. With hybrid capabilities it appeared to offer precisely what DJs have been eagerly anticipating: on the one hand, a regular mixer offering the kind of tactility one would expect from analogue equipment, on the other hand, a MIDI controller providing hands-on access to the digital realm. Apprehensive about the promise of new technology I nevertheless went ahead and purchased the device. Perhaps the most appropriate experience to emerge during my STEIM residency came through my experimentations with the Zero4’s internal sampler through which I found a way to reintroduce digital repetition into my practice and have it work alongside my turntable interactions. The interface design of the sampler allowed me to seize and shape sounds issuing from vinyl with the loop divide controls, sustaining this otherwise ephemeral material. Furthermore, I had discovered a way to bring the unpredictable - a sense of discovery - into digital repetition whilst enjoying embodied
agency. For example, once the Zero4’s sampler is engaged the sounds coming from vinyl are no longer heard; only when the sampler is disengaged does the sound return. I exploited this function for it allowed me to work with unforeseen sounds by momentarily disengaging the sampler to allow a new sound to emerge.

Having explored a variety of hardware/software and hybrid DJ technologies my preferred performance set-up now consists of two Pioneer CD turntables (CDJ-1000 Mk3) and a Korg Zero4 DJ Mixer - for me these devices afford the kind of immediacy I demand as an improviser whilst providing the best of what the analogue and digital have to offer. What I find most appealing about the CDJ is the combination of random access capability and hands-on interaction. Using memory location markers or ‘hot cues’ I can store/recall samples on the fly, and adjust loop start and end points via the 7-inch jog wheel, giving me greater access to (and control over) digital repetition. In addition, the Zero4 is the hub of my set-up, its effects, EQ and sampler granting further possibilities for working and transforming recorded materials in real-time.\textsuperscript{12}

\textbf{Conclusion}

Much of the misunderstanding and hostility surrounding club DJ practice, in general, is the result of a failure by those on the outside to locate it somewhere between live performance and composition. DJ-ing has dissolved the distinction insofar as it involves real-time composition, yet the lack of an overt link between cause and effect or between physical gesture and sound, especially in digital forms, continues to generate concern amongst cultural commentators. From my investigations in the live electronic music genre I became aware of a particular dislike for Club DJ practice; whereas those around me had lightly mocked my apparent lack of musicianship and my penchant for music made with machines, live electronic musicians were resolute in their claims that the Club DJ was categorically not a musician, DJ-ing was not a live art form, and electronic dance music artificial. For Bob Ostertag, the physical human body is obscured by electronic technological mediation, the rupturing of cause and effect making it difficult to determine the human agency behind electronic music production. Seduced by the rhetoric surrounding the genre I rejected analogue/digital repetition in favour of gestural interaction, inscribing gesture into recorded materials
in order to prove to an audience that I was producing it live. In my work with Robert
van Heumen I gained new insights into the way in which digital repetition can be used
in improvised music making, as he had effectively uncovered a way to bring his
embodied agency into a productive relationship with repetition. This experience
compelled me to reconsider the Club DJ art form that I had hitherto disregarded.
Evaluating Jeff Mills’s and Richie Hawtin’s use of repetition in Detroit Techno music
I came to appreciate their respective practical endeavor; that the apprehension towards
analogue/digital repetition was more imaginary than factual. For just like van
Heumen, they were making repetition work on their own terms. In my quest to
address my own anxiety with respect to live performance - to overcome repetition,
reproduction, and fixity - I came to realise that an investigation into physical gesture
was incomplete without its apparent other; that music makers must at least explore
and combine the cogent attributes of repetition in the analogue and the digital
domains with the tactile engagement of the human body.
1 Notes

Nicolas Collins, for example, does not consider Club DJ-ing a live art form as it involves ‘replaying the music of others’ (Collins 2007, 50).

2 *Scratch*, by Doug Pray, 2002, 87 min. (DVD, Momentum Pictures UK).

3 Ibid. My emphasis. The desire to differentiate on grounds of authenticity and skill is not unique to Hip Hop Turntablism as Club DJs sometime prefer the term ‘deejay’ in order to distinguish themselves from the radio DJ, which in turn denigrates the skill involved in the latter.

4 *Scratch*, Pray. My emphasis.

5 For example, see eRikm solo performance, YouTube, http://www.youtube.com/watch?v=X2BmRDXlIMI&feature=player_embedded (14th December, 2008).

6 Where I was resident as a PhD candidate from 2007-2009.


8 To borrow Philip Auslander’s term.

9 Nick Couldry’s idea of ‘a virtuosity in finding’ or ‘the ability to imagine new sounds and discover an individual voice’, as David Borgo puts it, offers an alternative take on the idea of virtuosity. Where greater or lesser degrees of unpredictability is concerned the objective cannot be to command (for this is an impossible pursuit) but rather to negotiate, (Borgo, 2005, 33).

10 He achieves this using a ‘macro’ technique – mapping multiple functions to one parameter so that all four loops will reset at the push of a button.


References


**Recordings**

