LIVENESS AND THE MACHINE
Improvisation in Live Audio-Visual Performance

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Abstract

Live audio-visual performance is an emerging area of new media arts practice that crosses between, and draws upon, multiple artistic traditions and trajectories. Under a range of nomenclatures – VJing, Live Cinema, Live Media, Expanded Cinema – artists work solo and collaboratively with sounds and images, and significantly, they do this in a performance context. Liveness, then, with its associated notions of improvisation, spontaneity, singularity and ‘the event,’ plays a key role in how live audio-visual performance is understood, valued and marketed. Liveness is a selling point, a mark of difference that separates live performance from the recorded or ‘mediated’, such as music albums, films, television. But how live is live? And, to what degree is the live premised on what is programmed, prepared for, pre-arranged or composed? What assumptions are buried in the celebration of the live, the moment, the real-time? In this paper, with reference to my own practice as a collaborating performer in live audio-visual contexts, I shall discuss the relations between liveness and preparedness in live audio-visual performance.

Keywords
liveness, live cinema, audio-visual, performance, improvisation, VJ

Introduction

Live audio-visual performance – the concurrent production, projection and amplification of moving images and sound by one or more performers – is an emerging area of arts practice that dovetails together a diverse range of historical and artistic trajectories. Moving images and sounds have been produced live and in tandem and, in some intended relation for a long time now, in contexts as diverse as the 18th century magic lantern shows and phantasmagoria, Javanese wayang (shadow puppets), silent film with musical accompaniment, Japanese benshi performances, Scriabin’s synaesthetic symphonies, the psychedelic ‘liquid light’ shows and Andy Warhol’s Exploding Plastic Inevitable in the 1960s, and the experiments of Woody and Steina Vasulka with real-time video and performance in the 1970s. However, the recent explosion of portable digital and online technologies has prompted live audio-visual performance to become a widespread and identifiable phenomenon. Under a range of nomenclatures—Live Cinema, Live Media, Live A/V, VJing, Expanded Cinema, Projector Performance, Visual Music—that each signify subtle variances in context and intent, artists work with sound, music, and with combinations of abstract and representational imagery. Most importantly, they do this live; in galleries, theatres, clubs, at festivals, indoors and out, projected on screens, domes, balloons and buildings. Ultimately, live audio-
visual performance (live a/v) is something that happens in ‘real-time,’ on the fly, in the moment. Live a/v is not about replicating some studio recording, film or music video (Auslander, 2008: 34), nor is it about producing a performance for recording and later distribution (Halter, 2008: 151); it is about performance and ephemerality, about the construction and experience of an apparently singular ‘event.’

As such, live a/v is founded on narratives borrowed from a number of other traditions. Most significantly, live a/v takes the idea of ‘liveness’ from all other performance contexts, as an activity that happens only when performers and audience are gathered in some context, joined in some spatio-temporal or tele-communicational coincidence. Liveness is a quality of the live, and as such is difficult to pin down and define, as mythical and fleeting as it is clear and evident, both a banal trope of the global real-time televisual/internet apparatus and 24-hour news cycle, and a cornerstone of performance theory. In a broad sense, liveness is a contract between performers and audiences, an agreement to treat this moment, and the events that constitute these moments, as self-evidently and empirically ‘special’ by virtue of their occurrence within a shared context and spatio-temporal relation. As Philip Auslander notes, however, the terms of this contract are frequently obfuscated by reference to “clichés and mystifications like ‘the magic of live theatre,’ the ‘energy’ that supposedly exists between performers and spectators in a live event, and the ‘community’ that live performance is often said to create among performers and spectators” (Auslander, 2008: 2). In reference to live electronic/classical music, John Croft, in ‘Theses on Liveness’, provides more nuance to the term when he distinguishes between procedural liveness, defined as “the material fact that live sound is being transformed in real time”, and aesthetic liveness, “a situation in which... aesthetically meaningful differences in the input sound are mapped to aesthetically meaningful differences in the output sound” (Croft, 2007: 61). While Croft’s discussion is in the main limited to the context of the performance of classical and electro-acoustic composed works (improvisation plays little role in his discussion or definition of liveness), and is primarily concerned with signal processing, we can see how procedural liveness would be identified with a kind of technical liveness, where computers perform pre-defined tasks on behalf of a performer, while aesthetic liveness would imply an artistic performance which incorporates technical liveness and further relies on a performer making aesthetic decisions on the basis of what is happening in the moment.

Accordingly, live a/v draws upon notions of spontaneity and creativity in the moment, and thus explicitly draws on the idea of improvisation as it is understood in musical contexts, especially jazz, but also in something like DJing. While improvisation is a broad notion – generally celebrated as an artistic practice but also somewhat derided as a social practice (‘making it up as you go along’) – within musical contexts it is used to refer to “the simultaneous conception and performance of a work” (Smith and Dean, 1997: 3). While many performance forms are premised on the expression and representation of a script, score or choreography, and thus limit decisions to questions of interpretation, improvisation is understood to involve a much higher degree of aesthetic decision-making, and these decisions are made while the performance occurs. Live a/v, in eschewing the pre-recorded broadcast or screening, relies on the possibility of structuring a

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1 It is notable that DJs usually mix the performative with the practice of playing entire pre-recorded musical tracks, so their performances tend to have less ‘granularity’ than those of VJs and live a/v artists, hence DJing will not be discussed here except inasmuch as the VJ/DJ combo is a widely experienced live a/v performance.
performance around decisions made in the moment. It is dependent on the creative capacities of the performers and their willingness to take the risk that they have sufficient command of their artistic ‘tools,’ and the possibilities these tools represent, to structure a satisfying experience for an audience without exhaustive forethought.

Within live a/v, there is a correlative emphasis on the ‘handmade’ also, a sense of something produced purposively and with intention, designed for localised and personalised experience rather than mass consumption. One of live a/v’s drawcards, then, is that it is a singular, ephemeral event, destined and designed to disappear, designed also to stand out from the morass of pre-produced, demographised, manufactured and replicated commodities both in terms of entertainment artefacts but also, more broadly, in terms of the rise of mass produced and globally distributed goods that we witness as a function of global capital. It is ironic, however, that built-in obsolescence and the upgrade cycle of contemporary technologies represents an increased ephemerality in the very consumer culture live a/v stands against). You have to ‘be there’ to experience it, and it is this singularity, this disappearance, as Matthew Reason argues, that is often understood to give live performance its “authenticity” (Reason, 2006: 24-5) or, in Walter Benjamin’s terminology, its “aura” (1936).

Given live a/v’s reliance on notions of liveness, spontaneity, improvisation, immediacy, authenticity and singularity inherited from a number of traditions, then, it is worth asking whether the critiques of these notions undertaken in relation to other traditions, and especially in relation to improvisation in music, hold also when discussing live a/v. In his Liveness: Performance in a Mediatized Culture (2008), Philip Auslander undertakes a thoroughgoing critique of the valuation of the ‘live’ over what he calls the ‘mediatized,’ arguing that the notion of the live only comes into being after, and is entirely reliant on, the possibilities provided by representation and recording on various media. Of course, as I have described it, live audio-visual performance is always already entirely mediatized, as it is premised on the use of a range of apparatuses for producing audio and visual media. There is no non-mediatized live a/v performance; the elements of a live a/v performance will always pass through some media substrate, even if that substrate is simply a hard drive or the graphics card of a computer, and will always rely on the screen/projector dyad of the cinematic apparatus, and will thus always connote traditional pre-recorded media in some fashion. Likewise, many writers on improvisation testify to the problematic of distinguishing between spontaneous creation and pre-existing structure or motif; the term ‘comprovisation’ has arisen as a way of recognising the intricate interweaving of the com-posed with the improvised. Again, live a/v is premised on the pre-existence of structural arrangements or media samples, and so again will trouble assumptions of a ‘pure’ spontaneity in improvisation.

In this paper I explore some of these issues of liveness and mediatization, of spontaneity and preparation, with reference to my own practice as a live audio-visual performer using digital media tools. In particular I will refer to a recent collaboration I have undertaken, the ‘Diffuse’ event, a one-off, collaborative performance between myself, visualist Jaymis Loveday, and electronic musicians Lawrence English and Rafael Anton Irisarri, held at Southern Cross University in

2 Footage from Diffuse can be viewed here (http://www.youtube.com/watch?v=6xo53k4pyY) and here (http://www.youtube.com/watch?v=eAzcEj0FT_o&feature=related).
August 2010. I discuss this event and these artists because this event was conceived from the beginning as an improvisation and ‘live’ event, a coming-together of like-minded artists who were all experienced both as live performers and as improvisers with digital tools, but who, nevertheless, had never collaborated previously. As such, the Diffuse event serves as a highly appropriate lens through which to approach questions of improvisation and preparation, across media and modes and using digital tools. The next section established this framework by analyzing liveness in relation to definitions of improvisation.

Improvisation and Liveness

Discussions of both improvisation and live performance frequently highlight a series of binary oppositions underpinning how these practices are understood. Analyses of improvisation question the relation between the apparent spontaneity, unexpectedness and singularity of the improvisation, and the degrees of composedness or preparedness that may underpin an improviser’s performance. Likewise, critical writings on live performance have focused on the relation between assumptions of liveness and practices or processes of ‘mediatization’, where the immediacy, ephemerality and temporal fleetingness of live performance is contrasted with the durational and representational capacity of various media – audio/visual/digital. A related binarism—which opens up the scope of this discussion to considerations of the archive and so perhaps takes us beyond the performative moment as such, but which is pertinent nevertheless—is that between disappearance and documentation, that is, the simultaneous celebration of live performance as a form designed and destined to disappear, and the existential bemoaning of this very disappearance and subsequent scramble to document, preserve and archive (see Reason, 2006). In what follows I wish to explore these oppositions and their necessary deconstruction, after which I will relate them to the contexts, practices and technologies of live audio-visual performance.

Improvisation is a complex notion, its myriad complexities and iterations stemming from, as indicated, the temporal confluence of conception-and-performance/generation of an artwork. It is this temporal confluence, also, which constitutes the ‘real-time’ aspect of improvisation, where real-time occurs “when the interval between the triggering of an event and its processing/reception falls beneath the threshold of sensible perception” (Mackenzie, 2002: 168). Of course, this temporal confluence between conceiving of something and doing it is precisely what runs the risk of a kind of absolute banalisation of the notion of improvisation. Aren’t we all improvising all of the time? As Fred Frith notes in an interview about teaching improvisation, “in the end, improvising is what we all do. It’s how we get through life, even within the rigid structures where we may have to work... I like to keep the focus on improvisation as the act of making stuff up” (quoted in Chan, 2008: 2). While such a broad view of improvisation may be strategically useful in Frith’s pedagogical context, where it can serve as a salutary reminder to improvisation students that they are already improvisers of a sort, it also runs the risk of dissipating the significance of improvisation as a creative practice. If everything is improvisation then nothing is improvisation, and the potential for a language to discuss the intricacies of live performance is likewise dissipated. What is important to remember, then, is that improvisation is not merely ‘making stuff up’ but that it is doing it in a certain context, where the improviser’s behaviour is both reactive and purposive. As Alfonso Montuori notes, improvisatory activity requires focus and discipline, it is not the stuff of the everyday but rather a special
way of being and acting in the moment, a kind of creative attention/inattention to the present:

To improvise means to draw on all our knowledge and personal experience, and focus it on the very moment we are living in, in that very context. It requires a different discipline, a different way of organising our thoughts and actions. It requires, and at its best elicits, a social virtuosity which reflects our state of mind, our perception of who and where we are, and a willingness to take risks, to let go of the safety of the ready-made, the already written, and to think, create, and “write” on the spot. (Montuori, 2003: 244)

As part of artistic forms and practices, then, improvisation can be found in multiple art-forms, in jazz, in the traditional musics of many nations and ethnicities, such as the Indian raga, but also in the visual and performing arts. In Improvisation, Hypermedia and the Arts since 1945, Hazel Smith and Roger Dean note improvisation’s importance in the work of abstract expressionist painters such as Jackson Pollock, who developed techniques of dribbling and splashing paint that relied on a kind of painterly ‘performance’ and real-time exploration of the exigencies and possibilities of the technique (Smith and Dean, 1997: 110). They argue that such approaches in ‘action painting’ are improvisatory in that they “start off with no preconceived notion of what the painting is going to be like”, so the work is conceived as it is produced (109). Like live performance, this is painting as duration rather than the development of a finished object. Also improvisatory, according to Smith and Dean, are the practices of environmental artists such as British artist Andy Goldsworthy or Australian artist Sieglinde Karl, who improvise with the natural materials they find in a specific environment, and the environment processes that subsequently affect constructed material objects. These artists also operate on a refusal of preconception: Karl says her process when working in a particular landscape has “no preconceived idea—the forms emerge through play, observation and contemplation”, while Goldsworthy likewise emphasises the emergence of processes and materials through approaching what is immediately at hand: “I take the opportunities each day offers; if it is snowing, I work with snow, at leaf-fall it will be leaves; a blown-over tree becomes the source of twigs and branches” (quoted in Smith and Dean, 1997: 116).

The use of what is ‘at hand’ here constitutes an improvisatory creativity, coupling the mundane sense of improvisation as ‘making do’ or makeshift extemporising (Montuori, 2003: 245) with a more intuitive and ingenious sense of improvisation as a kind of multi-sensory and conceptual ‘listening in’ to an environment. This environmental listening is directly comparable to the kinds of listening advocated in musical improvisations, especially in collaborations. Cornelius Cardew calls this ‘awakeness’ or ‘preparedness’, an awareness of the necessity to act on the basis of some as yet unforeseen event or stimuli (Cardew, 1971). Japanese audio-visual improviser Keiko Uenishi sees her work always within a context, as a response not only to her fellow improvisers but to the space she finds herself in, as environmental listening:

I am performing not to make a statement but I’m improvising with the environment in which I am placed. I am not only playing to myself or fellow musicians but also play to the space and the environmental and surrounding sound, and how the echoing is going. (Masaoka, 2006: 6)

3 Although, ironically, Cardew uses the term preparedness to refer to being prepared for what is unforeseen.
These notions of improvisation as duration not object, of a refusal of preconception, of working with what comes to hand, are inflected with other associations, often to do with the unexpected and unforeseen and, therefore, with risk. Indeed, it is frequently noted that the Latin root of improvisation is the term improvisus, which means that which is not foreseen (see Montuori, 2003: 240; Ramshaw, 2006: 11, n.19). Again discussing improvisation as it relates to the complexity of life in general, Montuori highlights how life “requires of us the ability to react appropriately to unforeseen events, and actually generate those events—to act creatively and innovatively” (Montuori, 2003: 241). He defines creative improvisation in jazz as “the generation of the unpredictable, the unusual, the unforeseen, within the pre-existing structures of the song form” (239). Similarly, Sara Ramshaw quotes saxophonist Steve Lacy, who argues that improvisation sits “on the edge—in between the known and the unknown and you have to keep pushing it towards the unknown otherwise it and you die” (Lacy in Ramshaw, 2006: 3). This embracing of the unknown and unforeseen involves a certain degree of risk, and this highlights another key aspect of how improvisation is understood, with Scott Thompson arguing that improvisation has “an immanent risk of musical failure” (Thompson, 2008: 1). Montuori likewise argues that improvisation “involves a constant dialogic between order and disorder, tradition and innovation, security and risk” (Montuori, 2003: 246). Improvisers are encouraged to ‘let go’, to destabilise existing patterns of thought and action and explore new expressive territory: “At the very heart of the creative process, is this ability to shatter the rule of law and regularity in the mind” (Barron, in Montuori, 2003: 242).

Of course, what needs to be kept in mind in these celebrations of the spontaneity, the unforeseeability, and the risk of the improvised performance, is that in each case each term is either tempered by its opposite, necessarily juxtaposed against that which is foreseen or foreseeable, or is conceptually incoherent anyway; is there any such thing as the categorically ‘unforeseen’? Would or could we recognise it if we saw it? The truly unexpected, the truly unforeseen, could surely not be recognised as such, and so is strictly speaking impossible, or (im)possible as Derrida might say; desirable in its very impossibility, necessary as a yardstick but equally spectral, an instance of ‘original repetition’ or ‘iterability’ where it is both recognisable and unrecognised (Ramshaw, 2006: 8). It is for these reasons that most commentators on improvisation temper claims to spontaneity, originality and unforeseeability with the recognition that there must remain, at the core of improvisation, something that is known and knowable, something that is preconceived, some base structure to either build on or attack, and, moreover, that this is a necessary part of the dialectic that makes improvisation what it is.

As indicated above, Montuori notes that improvisers draw on “knowledge and personal experience” (2003: 244) and innovate always on the basis of some prior tradition; hence improvisation is not, strictly speaking, invention, it is innovation. In this sense, Montuori questions the linguistic and conceptual formulation of ‘invention’ in relation to l’aveni - the ‘to come’ (ibid). Steve Lacy’s comment about the unknown, above, recognises also the necessity of the known, as the unknown can only be conceived of in terms of what is known. Likewise, we could question the apparent lack of pre-conception in the work of the environmental artists mentioned above, when even being in some landscape, putting oneself in a certain place in order to respond to it, must involve some degree of expectation or recognition of that space in order that it be artistically useful, not to mention the artists’ pre-existing skill, discipline and capacity to respond to what is at hand. As Smith and Dean note,
...all improvisations have in common the fact that they are a particular type of procedure which requires skill and practice. This is often obscured in discussions which suggest that improvisation is an unprepared sequence of events which are entirely spontaneous. (Smith and Dean, 1997: 26)

Just as the figures of author and artist as inspired creative geniuses have been thoroughly problematised in structuralist and post-structuralist thought over the past 40 years, so too has improvisation as spontaneous creative activity been critiqued, both as an a-historical fantasy that denies the importance of tradition, and—in relation particularly to the role of African-Americans in the development of jazz in the mid-20th century—as a racist construction of the ‘primitive’, ‘instinctive’ and ‘unconscious’ jazz musician (Ramshaw, 2006: 2). Some kind of composition, some degree of pre-conception will always haunt improvisation, even in its most experimental or exploratory moments, just as composition will always involve some opening up to the unfamiliar, and it is on this basis that Scott Thompson claims that “there is no justifiable difference, in theory, between composition and improvisation” (Thompson, 2008: 1) and Vijay Iyer claims that “the binary between composition and improvisation is false” (Miller and Iyer, 2009: 8). Sara Ramshaw, in ‘Deconstructin(g) Jazz Improvisation: Derrida and the Law of the Singular Event’, undertakes a lengthy Derridean analysis of the relation of jazz to law, arguing that there can be no improvisation in jazz without some basis in the determinacy of law, just as the regularity and order of law and the juridical decision can only be upheld by the capacity of law to open up to “what is beyond”, to respond to the Other of law (Ramshaw, 2006: 7). Her deconstruction of the binarism of improvisation and law, however, is designed not to render the distinction meaningless or redundant, but rather to uphold its necessity despite it all; that is, she argues that it is the very impossibility of improvisation as purely singular which gives it cogency and value, which gives it a horizon, “for if improvisation were truly possible, in the sense of being wholly improvised or original, there would be no call for spontaneous invention or, by analogy, for jazz” (ibid: 8).

To extend Ramshaw’s use of Derridean terminology into a terrain that resonates with our discussion of performance and digital media tools, we could further understand improvisation as the possibility of joining ‘the event’ with ‘the machine.’ In ‘Typewriter Ribbon: Limited Ink (2)’, Derrida discusses Rousseau’s Confessions and Paul de Man’s commentary on this text, but he does so under two figures that populate both texts; the event (“what is happening”) and the machine (“the calculable programming of an automatic repetition”) (Derrida, 2002: 72). Derrida notes that we would think these concepts to be antinomic because “what happens ought to keep, so we think, some nonprogrammable and therefore incalculable singularity”, yet he also asks, characteristically, whether it is possible to think these things together: “Will we one day be able, and in a single gesture, to join the thinking of the event to the thinking of the machine?” (ibid). While the ensuing discussion is concerned with the use Rousseau makes of the literary excuse, the simultaneous performativity (in Austin’s sense of an utterance which performs an act in merely being spoken—see Austin, 1962) and automaticity of excuses, Derrida frames the event and the machine in terms that recall the performance situation. He notes that the event is linked to intentionality and affect, to organicity, to its capacity to produce an aesthetic affect in someone, while the machine is comparably anaesthetic, unintentional and inorganic, without affect in its automaticity. These two poles, the event and the machine, reflect the poles of the argument regarding improvisation: the singular, unforeseen, improvisatory event
and the machine of pre-conception, programmability and the law. The impossibility of the purely unforeseen event, and its necessary reliance on the machine which makes possible any recognition of the event as event, recalls Ramshaw’s juxtaposition of improvisation and the law. What emerges is the necessity of thinking together the event and the machine, singularity and repetition, and to identify the aesthetic and affective charge of the point where event and machine might meet: “To think both the machine and the performativ event together remains a monstrosity to come, an impossible event. And therefore the only possible event” (Derrida, 2002: 74).

The same deconstructive approach can be applied to the question of liveness—a question that is asked in terms of all ‘live’ performance, but which is particularly relevant in terms of live performances that are improvised, that have no determinative script from which they operate, and thus have no ‘original’ form of which they are a ‘representation’. Liveness is generally understood to consist of a number of factors, many of which are coterminous with elements of improvisation. Live events are understood to ‘happen’ at the same time as they are perceived, they happen ‘in the moment’ and, when improvised (that is, conceived while they are performed), they happen in ‘real-time’. Moreover, they only happen when they happen; they are transient, ephemeral, they disappear, and no document of ‘what happened’ can ever be a direct reflection of this happening in the fullness of its context. Numerous writers on both improvisation and live performance attest to this logic: Cornelius Cardew argues that

\[\text{Improvisation is in the present, its effect may live on in the souls of the participants, both active and passive (i.e. audience), but in its concrete form it is gone forever from the moment that it occurs, nor did it have any previous existence before the moment that it occurred, so neither is there any historical reference available. Documents such as tape recordings of improvisation are essentially empty, as they preserve chiefly the form that something took and give at best an indistinct hint as to the feeling and cannot convey any sense of time and place.} \]
\[(\text{Cardew, 1971: online})\]

Echoing Cardew some 20 years later, Peggy Phelan’s oft-quoted statement about the ontology of performance is similarly declarative about the presentness and ephemerality of performance:

\[\text{Performance’s only life is in the present. Performance cannot be saved, recorded, documented, or otherwise participate in the circulation of representations: once it does so, it becomes something other than performance. To the degree that performance attempts to enter the economy of reproduction it betrays and lessens the promise of its own ontology. Performance’s being, like the ontology of subjectivity proposed here, becomes itself through disappearance.} \]
\[(\text{Phelan, 2001: 147})\]

Liveness, then, is binarily related both to the past, what is or isn’t preconceived, and to the future, what can or cannot be recorded, documented and archived. Liveness is hemmed in in the present, corralled and defined by the temporalities it is apparently not. The live, improvised event is that unheralded occurrence that refuses the mediation – on ontological grounds, according to Phelan – which would render it indebted to past or future, and instead, remains staunchly a thing that disappears as it occurs.
But is this really the case? In *Liveness: Performance in a Mediatized Culture*, Philip Auslander asks whether the celebration of the 'live' in live performance is not a kind of blindness to the degrees of mediatization operating always in the background of what is considered live. He notes that the notion of the live only comes into being with the introduction of recording technologies. “Prior to the advent of those technologies (e.g., sound recording and motion pictures), there was no such thing as ‘live’ performance, for that category has meaning only in relation to an opposing possibility” (Auslander, 2008: 56). Liveness requires mediatization (the event requires the machine), it is not ontologically prior to mediatization but rather conceptually reliant on it. In his analysis of Phelan’s argument about performance refusing the economy of reproduction (which in itself is problematic given the likelihood that any given performance will function as either or both a cultural or economic commodity and must perforce operate within a general system of reproducibility, exchange and equivalence), he notes that performances of whatever sort – theatrical, poetic, musical, dance – will always rely on some means of expression that is sense-able and therefore reproducible, and therefore always-already reproduced (ibid: 45).

Again, following Auslander’s deconstructive logic, this is the ‘différance’ of liveness, its iterability, its population by and indebtedness to the traces of mediation and reproduction. It is not, then, that live performance can convey no justifiable frisson of excitement or uniqueness for an audience and cannot convey a sense of liveness, a sense of presentness, of ephemerality and singularity, but rather, simply, that the ontological liveness of the live is a fiction, the projection of a desire that cannot (and, indeed, must not) be fulfilled. Thus Matthew Reason, in *Documentation, Disappearance and the Representation of Live Performance*, discusses the ‘promise’ of the present in live performance, arguing that while the general repeatability of performances testifies to the impossibility of an absolutely new ‘now,’ what liveness provides is a promise of the now that is tantamount to a kind of contract or suspension of disbelief:

*Performance promises to be the present, promises to be unrepeatable presentation. This is what performance promises even when it is recognised that it will not be fulfilled literally…. In a willing contract between the audience and the performance this promise of presence is not a delusion, but instead an event that creates faith; it is a promise that also carries with it its own reward.* (Reason, 2006: 19)

Live A/V Performance

Live audio-visual performance is generally figured using many of the terms and concepts discussed above, emphasising improvisation, uniqueness, unpredictability, singularity, ephemerality and contextual responsiveness. For example, discussing club-based VJ performance, Daniela Tordino argues that “the improvisation and unpredictability of sounds and images, combined with the audience and the space itself, turns the moment of performance into a unique event, impossible to be relived in all its depth” (Tordino, 2007: online). Likewise, in interviews, VJs and live a/v artists testify to these same assumptions. VJ duo Zelabo state that, “although the pre-production work is tremendous, the work is really accomplished when it is played live. All our media are pieces of a narration we improvise live, depending on the music. Consequently, every performance is different” (quoted in Faulkner, 2006: 116), and French collective Pixopath reiterate
this logic: “Our performances are improvisation: nevertheless, we follow the beat, and react to the gimmicks, the verses, the refrains and the breaks. We don’t use software to synchronize pictures to the beat. Our mixes are handmade” (ibid: 119).

What emerges, however, both in thinking through the live a/v situation and in reading such accounts, is the clear and unproblematic relation between improvisation and pre-conception or preproduction, and thus also between liveness and mediatization. Live a/v is self-evidently mediatized in its very conception, premised on technologies of reproduction, recording and representation, and as such, has from the beginning gone beyond the binarism of live versus mediatized identified by Auslander. Live a/v artists work with a range of pre-existing materials, from video and audio samples that are looped, mixed, processed and filtered in real-time, to ‘patches’ in visual-programming environments such as Max/MSP-Jitter, Processing, VVVV and Isadora, that represent pre-given sets of possibilities for the manipulation of live a/v data streams. Live sampling of audio or visual material represents a kind of recursive mediatization and comprovisation, where what is produced live is mediatized within the performance and becomes raw material for further live manipulation. Aesthetic decisions are made on the fly, but these decisions may just as likely be made within the framework of a pre-given structure as devised part of the momentary ‘flow’ of a performance. Members of the audio-visual improvisation collective The Lucid Dream Ensemble, from Northwestern University in Illinois, attest to this happy marriage of pre-conception and improvisation, specifically using the term ‘comprovisation’ to signal their working method. Members Virgil Moorefield and Jeffrey Weeter observe:

The person generating the visuals, like other members of the group, had a set of moves which he deployed as he saw fit, according to a general plan devised by the ensemble. This is comprovisation: a plan is made for the general shape of the performance, but tightly composed sections alternate with improvisational segments which are planned out in a general way, while allowing considerable freedom of movement in the local context. (Moorefield and Weeter, 2004: 276)

As such, we can understand live a/v as a concrete instantiation of what Bolter and Grusin refer to as ‘remediation,’ where a desire for ‘immediacy’ and transparency of experience is coupled with and frequently achieved through the ‘hypermediacy’ of the juxtaposition of multiple media forms and technologies (Bolter and Grusin, 1999: 5). The Lucid Dream Ensemble even conceive of their work in these terms, noting that their desire to provide “an immersive experience of such compelling clarity that [their] audience finds itself in a new, unmediated world” can only be realised through a plethora of technologies where the performers are “seen staring at computer screens, surrounded by controllers, sensors and plugs, reminding [their] audience of the medium with every twist of a knob” (Moorefield and Weeter, 2004: 274)

Diffuse: An Improvising Collaboration

I turn now to the ways in which my own practice as a collaborative audio-visual performer bears out many of these observations, and how improvised live a/v performance may differ from more traditional musical improvisation. I am interested in how audio and visual artists improvise separately and together, in the
different kinds of contextual 'listening' required by working in each mode, and also in how digital media technologies structure and influence this process.

‘Diffuse’ was a performance and seminar I organised at Southern Cross University in Lismore in August 2010, for which I invited ambient electronic musicians Lawrence English and Rafael Anton Irisarri to collaborate with two live visualists, myself and Jaymis Loveday. SCU has a performance space with a huge white infinity wall\(^4\) around two sides, and my intention was to use surround sound and multiple projections on the infinity wall to create an immersive audio-visual environment for the audience (see Figure 1). As with the Lucid Dream Ensemble, my desire was precisely to marry a multi-sensory immersion, an immediacy, a filling of the audio and visual field with a kind of technological spectacle, a hypermediacy, a performance that was clearly a function of digital media tools. Lawrence and Rafael each performed a solo set accompanied by the two visualists, followed by a collaborative set with all four of us. We also gave a seminar on live audio-visual performance, which has been transcribed, and I have conducted follow-up email interviews with the other performers as well.

![Figure 1: Diffuse event multi-screen set-up](image)

While clearly premised on media technologies of recording and representation, the performance was conceived of as an improvisation on a number of levels. Only English and Loveday had ever played together, so none of us had deep familiarity with the others on any concrete level, other than a general sense of what the other performers’ styles or aesthetics were. Moreover, none of us discussed the planned performances with each other beforehand, beyond a general indication of how long each set would go for and the general sense that we were to create an ambient, immersive experience for the audience. This was one level of risk or chance

\(^4\) Not limited to a small screen, but useable to screen images in unframed format from floor to ceiling.
operating in the performance; at the very base level was an assumption that we could work together, that we were each experienced enough as performers, and familiar enough with our tools, to be able to collaborate and ‘listen’ to each other while still structuring a dramatically coherent experience for the audience. What emerged from the seminar and follow-up interviews I conducted, was that each performer sees this as a primary task in improvised performance; the necessity of thinking about the experience as a whole for the audience, and structuring the performance appropriately with reference to the dynamics of rising and falling tension. Irisarri observes, “To me, a live performance should be an immersive, unique experience for the audience. Furthermore, it should be given the same care and attention as if it was going to be documented…. I try to build an experience that goes from micro to macro and vice versa. One that develops slowly, builds into a climax and ends.”

Noting the relation between collaborators, English responds, “Once the concert setting is in place and there are people present with a reasonable expectation of hearing something compelling, I feel strongly that there should be some glue (no matter how small) uniting the piece.” Likewise, as a visualist, Jaymis notes that the performance, should be a balance between everyone. It’s part of being dexterous, and being physically skilled in the actions of live visuals. If a musician suddenly drops something out of the mix, or suddenly adds something to the mix, you should always have something ready so that you can work with them, have something to bring in that will heighten, and keep it at the same level as what they’re doing.

For my own part, my visual set was shaped by my sense of the overall aesthetic and emotional ‘arc’ of the performance as a whole; this is a kind of non-narrative and cross-modal audio-visual storytelling where, rather than a dramatic arc, what the performance aims for is a kind of affective arc. The “immanent risk of musical (and visual) failure” identified by Thompson (2008: 1) is still present, and functions as a key aspect of liveness for both audience and performers alike because it provides a necessary degree of challenge to rise to, a certain danger and sense of possibility. Yet it is a calculated risk providing all performers share a common sense of their orientation and responsibility towards each other and the audience.

This risk is also mitigated by the relation between preparedness and improvisation. While all the performers conceived what they intended to do as an improvisation—and given we hadn’t played together before nor planned the performances in any way, there was no choice but for this collaboration to be improvisatory—all performers in ‘Diffuse,’ including myself, came to the performance with a different set of pre-conceived or pre-arranged materials, and therefore a different set of intentions regarding how they would be used live. I put together two ‘patches’ in visual programming environment VVVV, plus a set of video clips for live looping and processing in VJ software Modul8. The VVVV patches both produced abstract ‘colour music’ imagery generatively, one using audio-reaction where the amplitude of the music triggers visual transformations, and the other using a series of low-frequency-oscillators to generate geometrical patterns. Both patches could run ‘on automatic’ if need be (providing there was sound to drive the audio-reactive patch), so constituted a high degree of mediatization or “machinalité” (Derrida, 2002: 74).

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5 Irisarri, R A (2010) Email interview with author, 2 December. All subsequent quotations from this source.
6 English, L (2010) Email interview with author, 14 November. All subsequent quotations from this source.
7 Quoted in Diffuse: a seminar on live audio-visual performance with Lawrence English, Rafael Anton Irisarri and Jaymis Loveday, Southern Cross University, Lismore, August 2010.
Both patches, though, as well as the loops in Modul8, could be manipulated live using keyboard commands and MIDI devices, so they were essentially ‘visual instruments’ where I had defined the parameters with which I could improvise. Moreover, using something like audio-reaction introduces a very concrete level of chance or aleatoric production into the performance, because when visuals are produced as a function of sound that is produced live, then there is no possibility of strict pre-conception. Another way of phrasing this would be to say that I built a machine for generating events.

The other performers work the same way, utilising the capacities of digital media for both the playback and live processing, mixing and layering of pre-arranged material, and for the processing and looping of live streams of audio and video. In place of, or in addition to, the kinds of musical knowledges and disciplines of chordal structures and progressions that often underpin musical improvisations, the work of digital media improvisers is underpinned by the preparation of existing media and knowledge of how to mix, process, filter and effect the media. Lawrence prepares for a performance by “work[ing] on pieces ahead of time – several conjoined layers that can be brought into and out of relief with each other. I rarely rehearse, though I do spend a lot of time editing and preparing material for live events” (English, 2010). Rafael works with pre-recorded samples and live guitar, often played with a bow. Composition and improvisation work hand in hand: “My live performance consists of improvisation, so I do a lot of prep work – patches, soundbanks etc, – so I have a wide palette…. At the same time, I’m running live signals from my guitar and sampling/looping my own playing, so it’s a combination of both, improvising and composition” (Irisarri, 2010). Jaymis does the same thing with visuals, as he uses an array of surveillance cameras on the performers, bringing multiple live video feeds together with pre-edited clips, and processing both together:

When I’m improvising with visuals I’ll draw on combinations of layering, blending and routing which I’ve found through prior practice or performance… ‘Editing live’ is probably the closest mechanical description of what I’m doing on stage. I’m taking pre-produced and live materials and putting them together in an artistic way. ‘Editing’ isn’t a very sexy term though, so I can live with ‘composing live’.

Of course, as much as preparedness and pre-conception mitigate a real-time risk on one level, they introduce an aesthetic risk on another, and an element of the unexpected or unforeseen, because if all members of an ensemble bring along different materials, and are each unaware of what the other will bring to the mix, there is no knowing what the result will be. At the seminar before the performance, Lawrence announced that he would be working with a set of his audio samples of wind from Patagonia (which sounds very exotic, though I was left wondering whether Patagonian wind sounds any different to Australian wind…). In contrast, alongside my colour music VVVV patches, I had decided to work with animations produced from a set of photos taken at Hong Kong airport in 1998, highly clinical photos of vast empty airport spaces, banks of payphones, rows of escalators under cold fluorescent light (see Figure 2). These are decidedly different ‘samples,’ and so bringing them together in a live juxtaposition or audio-visual montage would necessarily involve an element of risk. And yet they actually share comparable aesthetic qualities in a cross-modal and affective space, both connoting a ‘coldness’

8 Loveday, J (2010) Email interview with author, 25 November. All subsequent quotations from this source.
and ‘emptiness’ that can be felt regardless of which mode – audio or visual – they are perceived in.

Another assumption and aspect of the risk involved, then, was the assumption that we shared or could generate a shared aesthetic language and, also, that this aesthetic language could operate across visual and audio media; that is, that there is such a thing as a cross-media aesthetic, that images and sounds can ‘talk’ to each other on the same ‘frequency’. Obviously this happens all the time, but it begs the question of the relation between improvising with sound, improvising with image, and improvising between image and sound. In a collaboration like ‘Diffuse’, where does the improvisation ‘take place’? In asking each performer how they ‘reacted’ to the other media form, quite different responses emerged, which highlights the distribution of the senses and attention in live a/v. Both musicians noted that they concentrated very much on their own sound, and had less attention for the visuals.

*When I do that style of performance (all improvisation), I'm so focused into what I'm doing and concentrating so hard, that I literally zone out and everything else in the room becomes a blur. Goes into the background so to speak – otherwise I become too self-conscious with what I'm doing and then my performance starts to feel too contrived and unnatural in a way.* (Irisarri, 2010)

Lawrence took the same approach in his solo set although, in the group session, perhaps because he was no longer solo and so had more ‘space’ to look around in, he “was very aware of the visuals and looked for linkages” (English, 2010). As a visualist, however, Jaymis sees his role as very much about ‘listening’ and responding appropriately to the music in terms of aesthetic elements such as tone and contrast: “I think that the visuals follow the music, so I generally try to create something which matches the tone of the sound very closely. There are occasions
where I’ll ‘pull focus’ and create a contrast, but I generally try to produce a seamless work” (Loveday, 2010). Jaymis also used a live feed from my own visuals as an additional input: “I was able to use his feed as a base at various times during Lawrence and Rafael’s sets. I wasn’t so much ‘reacting’ to the visuals, they were used as the seed which triggered my layer and feedback chains” (Loveday, 2010: see Figure 3). Likewise, my own visual mix was very much aimed as a visual analogue to the sound, picking up on and responding to aesthetic elements like timbre, tone, density, complexity, tempo, and dynamics.

On the concrete level of attention capacity, then, it is worth noting that there are differences in how different sense stimuli are received, and the kinds of attention each sense requires and leaves free. In working with digital tools, sound artists need to pay attention both aurally to the sound they are producing, and visually to the interfaces through which their sound is channeled. Furthermore, because screened visuals are precisely located in space, sound artists must split their visual attention between the interface and the screen if they are to pay attention to what the visualists are doing. Because sound is essentially non-directional or immersive, however, visualists are better able to listen and respond to the sound while still paying full attention to their software/hardware setup and visual output. What this suggests is that, in a collaborative audio-visual improvisation, there are most likely numerous improvisations happening simultaneously; there is improvisation by each artist within their own medium, and there is a cross-media or cross-modal improvisation where it is primarily the visualists who are able to respond to what the sound artists are doing, and so produce images that bear some direct aesthetic relation to the sound. As with Jaymis’s observation that ‘tone’ can translate from sound to visuals, we can see how ‘density’ of sound can be easily translated into ‘density’ of image, just as aural ‘timbre’ can translate into visual ‘texture’. It is a quality specific to live a/v improvisation that these potential relations between media and modes, these juxtapositions and translations of aesthetics, are constantly tested out, iterated and expanded upon.
This cross-modal improvisation and translation of aesthetics is also facilitated by the way digital media technologies 'level' differences by turning all media into data. Digital tools in audio and visual media work in common with layers, loops, processes and filters—or, in the case of visual-programming 'patching' environments, with generators and processors, with nodes, parameters and properties. “Once one understands Logic, for example, it’s not so hard to get a grip on Final Cut Pro; each program is aware of both sound and video, while stressing opposite sides of the equation” (Moorefield and Weeter, 2004: 278). More than that, though, digital tools reduce that very opposition, treating sound and video as made of the same stuff. What this means is that there is a deeper level of preparedness and improvisation operating here; conditioning whatever visual and sound artists do live in terms of working with pre-existing materials and their spontaneous manipulation is the actual construction of their ‘instrument.’ Rafael recounts an early impetus to start working with the possibilities of marrying analogue instruments with digital technologies:

_I remember when I first heard this record by My Bloody Valentine, a friend played it for me, and it had this elephant-like sound, and I had no idea what was doing this elephant-like noise, but I wanted to play whatever that was! Then I learnt it was done with a guitar and a sampler, and that was how I got interested in these things._ (in Diffuse seminar, 2010)

We need to understand this guitar-sampler machine as an innovation on a traditional instrument and a structural opening up to possibility. Every traditional instrument has a large range of possible uses and methods, and one of the elements of musical improvisation has always been to experiment with the capacities of the instrument; once it is merged with digital technologies, however, these methods become essentially infinite and take on qualitatively new potentialities, crossing media and modes. Coupled with live camera feeds, sampling and looping technologies and audio-reactive visual patches, a saxophone can quickly become a saxo-piano-video-Phone that can be further manipulated live to change its composition once again. In contrast to Richard Dudas, who sees digital instrument design as a form of composition (Dudas, 2010: 30), I would argue that this is improvisation with the very instrumentality of the instrument, the exploration and creation of new affordances within a collaborative milieu. And again, while the instrument’s component parts will be pre-determined to some degree by the elements that are brought together and the capacities of the hardware and software underpinning it, this composedness will be matched by the performer’s improvisation both on or with the instrument, and in the instrument’s ongoing de- and re-construction within the performance. To recall Croft’s earlier distinction between procedural and aesthetic liveness, such improvisation with the instrumentality of the instrument in the midst of performance clearly places live a/v in the latter camp, where technical possibilities are explored and employed creatively in the presence of an audience.

Conclusion

Live a/v is a notably concrete meeting of and ‘thinking together’ the event and the machine, in the Derridean terminology introduced earlier, and it is the multitude of ways in which the event and the machine meet that represent live a/v's ongoing
promise and necessity, its urgency and excitement as an emerging arts and performance practice. Premised on the broad availability and accessibility of digital technologies, live a/v is in part a function of the machine, the programmed and programmable, the preconceived and pre-given. And yet it is out of the machine that the event will spring, because the sudden juxtaposition of pre-conceived materials will perforce introduce something new and unexpected into the performance. Furthermore, with the use of random or generative algorithms, the machine can be used to generate events that must also be incorporated into the performance and reacted to aesthetically by the performer, meaning there is a constant feedback between event and machine. As the Diffuse event exemplifies, live a/v in no way shies away from mediatization and pre-recorded media, which traditionally may have been thought to reduce the liveness or degrees of improvisation of the performance; rather, it produces liveness through mediatization, recursively enlivening the mediatized, ‘eventalizing’ the machine. Further, live a/v embraces the inherent risk of improvisatory contexts, building chance and the accident into a malleable digital instrumentality, as the Diffuse event demonstrated for the collaborating artists.

The ongoing debate amongst performance and improvisation theorists regarding the liveness/mediatised relation is essentially rendered moot in the live a/v scenario, where media technologies and preparation of materials are defining factors. Live a/v’s value lies precisely in the degree to which it references and draws upon pre-recorded, pre-edited traditional media, and uses the language and display mechanisms of these forms. Yet live a/v performance also refuses to participate in that economy by ensuring each instantiation is different and that digital tools are used by performers not to reduce contingency but to always open up to possibility.

Bibliography


