

The Field of Musical Improvisation
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[1] In this essay we present the first contours and coordinates of a theory dealing with the field of musical improvisation (FMI). This theory may offer insight into the complexities of the production, interaction, and reception of improvised music. The point of departure is the idea that the FMI can be regarded as a complex system, a network culture. Understanding the FMI means gaining a clear insight into the collective behavior of its agents, behavior that is not predictable in terms of the dynamics of its component parts. The FMI theory especially wants to take into account the dynamic, interactive, and emergent qualities of performance as well as the historical, cultural, and societal contingencies of musicians, audience, and others belonging to the music world.

[2] The FMI presents the becoming-butterfly of improvisation. The “butterfly effect” refers to the idea that small variations in the initial condition of a dynamical system may cause a chain of events leading to large alterations in the long term behavior of the system. The butterfly effect is related to the work of Edward Lorenz and is based in nonlinear dynamical system theory. ‘It is found that nonperiodic solutions are ordinarily unstable with respect to small modifications, so that slightly differing initial states can evolve into considerable different states,’ Lorenz wrote in his famous 1963 article ‘Deterministic Nonperiodic Flow’. (Lorenz, 1963, 130) Said differently, the movements of the butterfly’s wings in China create a storm in the USA a few weeks later. Or: one note might change the progress of a whole piece.

Following some of David Borgo’s ideas set down in his book *Sync or Swarm* (2005), we think there is a rather strong connection between nonlinear dynamical systems and improvisation. Both deal with the interaction of and changing relationships between various (f)actors in complex ways; that is, both involve multifaceted internal and collective dynamics. Both are systems in which the future emerges out of relationships that develop between individuals, objects, and/or events. And in both systems the interaction of innumerable forces – each leaving its indelible trace on the course of events – is central.

The musical butterfly is a detail in the sound production that, when attended to or acknowledged by musicians, can generate alterations in the development of the music such that eventual outcomes are disproportionate to any initial causes. In other words, during an improvisation, each gesture can imaginably produce significant modifications in the total sound and musical development. (Borgo, 2005, 62–73)

Like other complex dynamical systems, the precise progress and structure of an improvisation is essentially capricious. However, simultaneously, dynamic but also more stable orderings can occur, for example through ‘certain shared understandings, nuanced interactions and interconnections, and a shared cognitive ability to attend to and parse musical sound’ on the participating musicians’ side. (Borgo, 2005, 74) Said differently, the interactive processes during an improvisation can create an evolving order as well. The FMI thus oscillates between order and disorder, between structure and chaos, between delineation and transgression or extension.

[3] The following items will unveil some of the coordinates that determine the FMI. In no particular order:

- how to think the notion of “the field”
- the FMI is an assemblage
- the FMI accommodates actors, factors, and vectors
- the FMI is definitely about interaction and relations
- musical improvisation takes place in a space between
- the FMI has a relation to generative music.

Other information can be found in the bibliography and the biographical (re)marks.

The Field

[1] Talking contours. The concept of “the field” immediately seems to pose the question of the limit. It seems to head for a reflection on the delimitation of a concept or object, in this instance musical improvisation. However, we hope the term “field” allows us first of all to point to the fluid, irregular shapes of this space in which so many forces – human and non-human – interact in the course of its musical production. This essay – which is really not more than an essay, that is, an experiment or tryout – will not be an attempt to demarcate, to classify, to divide, to include and (by that) exclude. Trying to approach the borders of this field will be as impossible as touching a horizon. The field of musical improvisation does not possess Euclidean boundaries, structures, or regularities. (Appadurai, 46) We are talking contours here, outlines. We insist on the instability and the diversity of the concept of field. Perhaps we ought to talk of the “formation” rather than the “form” of the field, of structuring instead of structures.

[2] The FMI as a space of interaction, interaction in the course of performance. (Stubley, 1998, 95; Östersjö, 2008, 113) Listen to the groove that keyboard player John Medeski, bassist Billy Martin, and drummer Chris Wood create on ‘Big Time.’ They become a machine, each one with his own specific contribution to the rhythmic pattern. The music only swings because Medeski, Martin, and Wood are actively listening, adapting their individual grooves to the bigger collective.

<http://www.youtube.com/watch?v=VUqyzY6GoLQ>

Musical and social interaction converge here. Ingrid Monson is right in arguing that the use of the term “feeling” as a synonym for “groove” underscores the emotional and interpersonal character of groove – something negotiated between musicians that is larger than themselves. (Monson, 1996, 68)

Listen to the way sitar player Viram Jasani builds a raga from melodic and rhythmic materials with the aid of tabla player Ustad Latif Ahmed Khan, shenai player Satish Prakash Qamar and a tampura player.

http://nl.youtube.com/watch?v=VH_LA_q_UY

Here, interaction with a history of raga performances, interaction between present and past, determines the musical developments: to extend the limits of the raga without destroying its basic features. Jasani:

And if you take a raga today and look at it in terms of its history you may find that it has changed considerably. But it is changed not by one performer but by a succession of performers. So the changes are imperceptible over any short period of time. They become part of the raga. I think a raga is a product of time and people playing that raga over a period of time. It’s a product of peoples’ changing attitudes and tolerances. (Bailey, 1993, 10)

The FMI as a space in which several different agents can be distinguished. A field of relations. A field of actions, actions of agents involved in the production of musical improvisations. An uncertain interplay that concerns these relationships. So, don't ask how these complex relations and interactions constitute a simple, stable system; ask instead what its dynamics are! The field develops, expanding and shrinking, crossing borders, incorporating aporias and paradoxes. There is no center of operations, no organizing core; there are no defining causes, fundamental bases, no starting points or prime movers. (Plant, 1997, 45) The FMI has a dynamical structure. No beginning, no end.

[3] Improvisations are spreading out from their material form. The audible result of an improvisation is only a dot on a line. Think of linking elements, principles of dynamic agglutination. (Bourriaud, 2002, 20–1) Unlike a collection of objects that are closed in on themselves, it is our aim to show that the form of the FMI also exists in the encounter and in the dynamic relationship enjoyed by a musical proposition with other formations, artistic or otherwise. (Bourriaud, 2002, 21) Improvisation can as well be social, political, religious, gendered, racial, spatial, physical, and so on. The becoming political of free improvisation and the becoming racial of Afrological approaches are only two very obvious examples. The FMI is thus without central points, organizing principles, stable hierarchies. Nodality instead of centrality. It is a composition that continually shifts as a consequence of the activities of the (f)actors that are working in and on it. The FMI is generative.

[4] No longer bound together in linearity or classifications, the FMI needs to be laterally traversed. (Plant, 1997, 46)

Interaction

[1] The FMI deals primarily with understanding how things come together rather than with taking things apart. It shifts the focus from isolated agents to changing relationships between these agents, that is, to complex internal dynamics. In *The Other Side of Nowhere*, Daniel Fischlin and Ajay Heble support the idea that improvisation is less about original acts of individual self-expression than about an ongoing process of community building. (Fischlin and Heble, 2004, 17) We agree.

The FMI aims at an ecological understanding of improvisation. Many emergent events only reveal themselves while studying the dynamics of collective groupings. Think systems, organizations, assemblages, networks. Read Vygotsky: the interpersonal comes before the intrapersonal! And especially in group settings, the sheer volume and variety of interactions, influences, intentions, and potential (mis)interpretations that come into play challenge us to engage with the complexities of collective dynamics. (Borgo, 2005, 62)

Experience complex visual and aural interaction in John Zorn's *Cobra*.

<http://www.youtube.com/watch?v=1m1pjR1AQbc>

Watch the effects of hold-up card boards, raised and pointed fingers, the touching of mouth, nose, or ear, and the putting on of a cap and a ribbon. Listen to the results of the constantly changing solos, duos, trios, and collective improvisations either imposed by the prompter (here: John Zorn) or initiated by the musicians themselves. The centers of this musical and social networking emerge only as consequences of the events themselves: the conductor is more of a coordinator. Sometimes an initiator, more often an intermediary – the role of the prompter shifts from center to periphery and back, depending on the initiatives of the musicians. When Zorn raises the card with an “R” on it, he selects players to come in at the downbeat, while all the others should stop. This can be Zorn's own initiative, but when one musician touches his mouth and raises two fingers this should lead to the same action (the prompter is allowed, though, to ignore the call), which means that the initiative moves to the player in question. Although the prompter can overrule or ignore the musicians' initiatives, the latter have another weapon: putting on headbands turns them into guerrillas, meaning that they can play whatever they like.

Cobra is not about structure and topology; it is about the dynamics, the interactions that take place. Process over product. As Dana Reason observes: ‘The group dynamic may push the improviser to relinquish control over the shape of the piece, adding pieces to a puzzle in which no one “owns” a finalized version.’ (Fischlin and Heble, 2004, 73) The structure depends on the interactive strategies, the striated spaces that the musicians traverse. *Cobra*: an artistic forum rather than an artistic form; a social and sonic space in which a wide range of real-time cooperative (and conflicting) situations can be explored. *Cobra* as a field of continual negotiation made manifest in the flow of sounds and its rapidly changing organization. *Relational aesthetics*, as Nicolas Bourriaud has labeled it.

[2] Interaction in the FMI is, however, not restricted to direct contact between humans or between musicians and sounds. Interaction takes place on many more levels and in many more dimensions, for example in reference to history, conventions, education, and instruments.

In the four-hand organ improvisation

<http://www.youtube.com/watch?v=lAWr9rK2fsM>,

American composer, pianist, and computer artist Mike Garson and Dutch organist, composer, and music theorist Willem Tanke audibly discuss and redefine the role and position of the church organ in and through contemporary music. No longer locked up in and restricted by a clerical or religious context, the organ contributes to the development of free improvised music. At the same time, Garson and Tanke are thus restoring and challenging the church organ tradition. Playing conventions are expanded by Tanke's introduction of the so-called "rolling wrist technique", a subtle way of playing fluent clusters, suggesting micro-tones. The nature of the musical sounds as well as the nature of the playing techniques indicates an exploration of the instrument. Garson and Tanke are provoking the instrument's possibilities, experiencing its resistance. Employing technique is not supposed to overcome this resistance; it encourages the most creative meeting with the instrument's resistances. The material reality of the instrument is not accidental or unfortunate, to be dispensed with or overcome by technique. There simply is no music without resistance and struggle, accord and discord, push and pull. Musicians and instrument meet in a space between. (Evens, 2005, 160–2)

[3] Interacting with the past. Laying bare the shortcomings of scores. Musically criticizing most current and past performance practices. Showing a deep acknowledgment on one's own relationship with and to a given music culture. Pianist and Mozart-expert Robert Levin makes the tradition respond to both continuity and change by improvising on and in Mozart sonatas.

<http://www.npr.org/programs/specials/milestones/991124.motm.improv.html>

Instead of the standardization of many of today's performances, Levin advocates improvising (as Mozart did) during the cadenzas and while encountering the many passages he left in sketched or schematic form. Like Mozart, one should rely on the whims of live performance to fill in the specific expressive content anew at each performance. Like Mozart, that means also taking a historically informed and stylistically consistent approach, one that remains faithful to the composer's own musical language. Levin:

There is nothing more risky than improvisation, but there is nothing more devastating to music's dramatic and emotional message than avoidance of risk. This is not to say, however, that any kind of improvisation is better than none. It is fascinating to hear an improvised performance, but surely it matters whether the utterance is idiomatic to the language of the piece. (Levin, n.d., n.pag.)

According to David Borgo, improvisation 'is not simply an alternative approach to composition, but rather the ongoing process of internalizing alternative value systems through music.' (Borgo, 2005, 192) Levin makes clear that this statement applies to Mozart as well. What should be kept in mind, however, is that the internalization of alternative value systems always already takes place in a social, cultural, and historical matrix. In other words, interactive behavior pervades and permeates every improvisation, and also a solo performance.

The FMI is an assemblage

[1]

What is an assemblage? It is a multiplicity which is made up of many heterogeneous terms and which establishes liaisons, relations between them [...]. Thus, the assemblage's only unity is that of co-functioning: it is a symbiosis, a "sympathy". It is never filiations which are important, but alliances, alloys; these are not successions, lines of descent, but contagions, epidemics, the wind. (Deleuze, 2002, 69)

Musical improvisation is a contagion. The FMI is an assemblage: no indivisible substance, but an unlimited surface on which a play of relations takes place, without hierarchy, transcendence, eternity, or stable order. Order and coherence of the assemblage constitute themselves only secondarily, that is, from out of the existing relations. Put differently, the agents in the FMI work, affect, and operate on each other in constantly changing arrangements.

Assemblages are wholes whose properties emerge from the interactions between parts, for example, interpersonal networks such as can be found in the FMI. In other words, assemblages cannot be defined by nor do they consist of the properties of their constituting parts. Think ecology instead of reductionism. (According to John Cage, music *is* ecology.)

The identity of the agents is emerging from the interaction between sub-agential components. The agent thus never precedes the assemblage; rather the agent should be understood as its derivative or its product: the assemblage "creates" the musician, the instrument, the listener, and they "create" each other. Assemblages do depend on their components' properties but cannot be reduced to them since they involve reference to the interaction and relation between them. Collective behaviors are not predictable in terms of the dynamics of their component parts. (Borgo, 2005, xvii) In more than one sense, musical improvisation takes place in a space between.

On the one hand the assemblage consists of bodies, actions, and passions, an intermingling of bodies reacting to one another. On the other hand, it is marked by acts and statements, by incorporeal transformations attributed to bodies. (Deleuze and Guattari, 1987, 88) These two segments give the FMI consistency.

[2] Besides being a musical assemblage, the FMI can be regarded as a social assemblage playing a material role: it involves a set of human bodies properly oriented towards each other, mainly through nonlinguistic forms. (DeLanda, 2006, 12) The FMI enables an encounter between human beings that takes place in a physical and social setting through the medium of sound. (Small, 1998, 10) In the FMI musicians thus explore a set of relationships. Bodily posture, facial expression and limb movements provide a wide repertory of gestures and responses which give crucial information about the combination of social and musical relationships. To make music is to experience those relationships. (Small, 1998, 137)

Tactile, visual, and audible cues determine the course and development in Miles Davis' 'Tutu', for instance in Miles' "conversation" with Kenny Garrett, an intimate call and

response game; or the sax solo opening the possibility for the drummer and percussionist to start playing double tempo.

<http://www.youtube.com/watch?v=00tzcnyDL68>

[3] In one sense the FMI has well-defined spatial boundaries. It takes place in a concert hall, in a venue, in a theater, in a studio. The performers are assembled in a space, close enough to hear each other and physically oriented towards one another. Attention and involvement are needed to keep the improvisation going. In that sense, the FMI is literally territorial or (re)territorializing and thereby coherent. Simultaneously, however, the FMI knows both stabilizing and destabilizing forces. It is constituted as well by lines of deterritorialization that cut across it and carry it away. These lines are very diverse: some open the territorial assemblage onto other assemblages. Others open it onto a space that is eccentric, immemorial, or yet to come. Still others open it onto abstract and cosmic machines. (Deleuze and Guattari, 1987, 504–5) Any event, or series of events, that destabilizes the improvisation may be considered deterritorializing.

Although spatial boundaries are territorializing, they might as well instigate a deterritorialization. This is what Evan Parker wrote in the accompanying notes of his solo sax CD *Conic Sections*, recorded in the Honeywell Music Room in Oxford: ‘The acoustics of the Rooms are so distinctive that I was pushed away from the kind of playing I’d had in mind; it seemed as though the room itself had something in mind too.’
The hall as a deterritorializing agent; acoustics as a determining factor in the FMI.

[4] Territorial and deterritorializing forces: habits and routinization versus innovation and experiment. Discovering new material, or fresh approaches to old material, in the heat of the moment, from within routines that are hardwired into brain and reflex. Improvising is negotiating between fixity and fluidity, to learn and unlearn, a state of refinement and a state of becoming that have the power to undo each other’s work. (Toop, 2004, 245) The Evan Parker example lets us listen to unexpected encounters, relatively small interventions with enormous implications. The becoming butterfly of a room.

Generative music

[1] Go from an engineering paradigm to a biological paradigm, from design to evolution, from trees to rhizomes. Instead of connecting music to hierarchy and control, imagine it organizing in a decentralized fashion. New technologies among others invite us to regard our interactions with the environment in more decentralized ways. Generative forms – the FMI being one of them – are multi-centered. There is not a single chain of command which runs from the top of the pyramid to the rank and file below. Rather, there are many web-like modes which become active.

[2] Think of the FMI as generating its own form, as a kind of evolutionary mutant, as a generative, self-organizing stream. Improvising takes place within this field, this network, this interpersonal space, this (non)system. In other words, improvised music is ever-different and changing and is created by a system. In that sense there seems to be a connection possible between improvised music and generative music.

[3] ‘Generative music is based on the idea of setting up a system with various parameters that will, through partial removal of authorial decisions, play itself indefinitely.’ (LaBelle, 2007, 287) Think of a system or a set of rules designed and/or initiated by a musician which once set in motion will create music. Done on a computer, the machine is going to improvise within this set of rules. All of these rules are probabilistic, that is, they are rules that define a kind of envelope of possibilities. (Eno, 1996, n.pag.) Brian Eno: ‘What I think is different about generative music is that instead of a set of detailed instructions about how to make something, what you do instead is give a set of conditions by which something will come into existence.’ (Toop, 2004, 184) As predecessors of generative music, Eno names all music where the composer does not specify a thing from the top down.

Generative and interactive music permeates this whole e-essay. Check it out if you haven’t already. Let the music interact with your reading. Map out your own route accompanied by sounds. Or, even better, let the sounds dictate your speed, emphasis, and trajectory. Improvise! Connect! Generate your own (temporary) nodes!

[4] According to the Japanese musician and music scholar Masashi Harada, generative improvisation ‘reorients musical thinking to more expansive parameters: no longer just melody, scales, harmony, rhythm, but vibration, color, breath, gesture, geometry, texture, and sculpturality (volume).’ (Harada, n.d., n.pag.) Interaction and feedback between a performer and her surroundings (Harada mentions instruments, other performers, the audience, and past time in particular) determine the improvisational process. They involve the performer in an ever-expanding web of associations. The proliferation of this web is a nonlinear, associative, and incessant process. The continuity of the process should prevent the music from becoming stagnant. Harada sees as one of the major benefits of generative improvisation the ‘constant change in orientation on the part of the performer’, expanding her vocabulary and thereby ‘proliferating into unexplored territory.’ (Harada, n.d., n.pag.)

According to us, the importance of Harada's text partly lies in the fact that he takes generative music out of the almost exclusive sphere of computer music into the human domain (again). The question remains, however, whether not all improvised music contains generative elements. Most improvised music procreates itself as it is being played to ignite into a living entity that is bigger than the player(s). As musician Olivier Alary remarks: 'Compare it to the weather of the movement of clouds in the sky. The output of such a system can be familiar and different at the same time, but never repetitive.' (Toop, 2004, 197)

Improvisation takes place in a space between

[1] Encounters refer to something which passes or happens between two. Yet, Deleuze stresses that (real) encounters do not take place through pre-established methods, rules, or recipes. Encountering is the opposite of regulating and recognizing. Welcoming or inviting otherness, as Derrida would probably put it. To improvise, some musicians would say. *Im-pro-viso: not-fore-see*. (Evens, 2005, 148) Not knowing what is to come. Hailing the unknown. (A certain passivity.) Between Self and Other; being in the middle, on the line of encounter between an internal world and the external world. (Deleuze, 2002, 52)

However, a certain amount of regulation and recognition is indispensable. (A certain activity.) A safety net is somehow needed although this can never exclude the risk of failure; complete collapse is still possible.

Musical encounters take place in the space between activity and passivity.

[2] The FMI is a field of encounters. One encounters music, people, instruments but also movements, ideas, events, histories, entities. To encounter is to find, but there is no method for finding other than a long preparation. Gilles Deleuze makes this remark in *Dialogues*, talking about the writing process. It is true for musical improvisation as well. To develop new ideas, to discover the possibilities of one's instrument, to listen and react to the input of other players, to search for specific (extended) techniques (in the case of saxophonist Evan Parker and bass clarinet player Ned Rothenberg

<http://uk.youtube.com/watch?v=LKQTzW7CE8I>

circular breathing, overtone manipulation, multiphonics, polyrhythmic fingerings, and various slap and multiple tonguing techniques), to respond quickly to unexpected, sometimes unwelcome developments – one can only open oneself to these kind of encounters after hours and hours of perspiration. Improvisation takes place between inspiration and transpiration. Freedom in musical improvisation is possible only through discipline, through technical knowledge of music theory and of one's instrument as well as through attention to the background, history, and culture of one's music. (Lewis, cited in Fischlin and Heble, 2004, 153)

[3] Improvisation takes place in the middle, in a space between: for example, between composition and performance, that is, between selecting and playing. In improvising music those actions occur simultaneously (or nearly so). According to Bruce Ellis Benson, improvisation therefore falls outside the scope of the binary opposition of composition and performance. First, an improvisation cannot be equated with a performance as the latter is essentially an interpretation of something that already exists. Improvisation on the contrary presents instead of represents; it comes into being only in the moment of its presentation. Second, an improvisation is not a composition either: it lacks the permanence and the (fully) premeditated or decided character of a precomposed work. (Benson, 2003, 23–5)

In our opinion, things are even more complicated than Benson suggests.

- Performers become composers. Especially in contemporary collaborations between “composers” and “performers”, roles can switch easily when it is the performer who suggests certain alterations and modifications to a score, for example on the basis of her or his physical experiences with the music. Improvisation enters their interaction.
- Composers become artistic directors. Instead of prescribing notes, the composer takes some final decisions regarding the artistic outcome in a process of constant negotiation and exchange of ideas with the performer. Both composer and performer improvise by reacting to outside impulses.
- Composers become performers. Especially in electronic or electro-acoustic music, the composer often operates the computer, thereby opening the possibility for certain choices to be made during the performance. The concepts “composing”, “performing”, and “improvising” seem to take on new meanings, deviating from and referring to the others and “themselves”.

(These ideas are further developed in Stefan Östersjö’s work *Shut Up ‘n’ Play!*, especially in chapter 7)

Reconsidering the relation between performing and improvising once more, Benson concludes that the two permeate one another. A performance is always more than a mere representation and an improvisation is always less than pure creation. Every performance (of a precomposed piece) always already asks for certain decisions to be taken on the spot; every improvisation is always also a repetition of patterns, ideas, and performances that preceded it. In other words, the difference between improvisation and performance is more quantitative than qualitative. (Benson, 2003, 143–7)

The FMI territorializes, reterritorializes, and deterritorializes the composer, the performer, and the improviser. Both one and the other, and, simultaneously, neither one nor the other, the improvising musician acts in the middle.

[4] ‘Improvising music involves a constant balancing act between complexity and comprehensibility, control and non-control, constancy and unpredictability.’ (Borgo, 2005, 33)

Improvisation takes place in the space between the free and the settled, between the absolutely new (which brings Derrida to the conclusion that improvisation is absolutely desirable, even necessary, but impossible) and the repetition of certain musical conventions, worn corporeal movements, and more or less predictable reactions of fellow musicians. (With regard to the latter, improvisation occurs between the individual and the collective, an individual or singular choice always already influenced by environmental forces.) Between ... that is “both–and” and “neither–nor”. Improvisation guarantees a certain freedom, not absolute freedom. It moves between the free and the settled. It is a clear manifestation of the tension between spontaneous musical events borne of a particular context predicated on multiple factors and clearly demarcated organizational patterns that produce the structures in which it is enabled. (Fischlin and Hebble, 2004, 32)

[5] According to Eleanor Stubley, a distinction can be made between a musical work as object and a musical work as an idea, as a space within which musicians work. (Stubley, 1998, 100) With regard to improvised music, Bruce Ellis Benson would probably disagree with Stubley. According to him, improvised music endures and is yet transitory. It exists between *ergon* (product) and *energeia* (activity) and stresses the interconnectedness of work and performance, the dependence of the *ergon* on socio-musical *energeia*. (Benson, 2003, 125) Through improvisation, an activity that permeates all music making, the *ergon* becomes *energeia*: every performance of a work transforms the very identity of that work as every performance necessarily contains moments that cannot be completely decided in advance. 'What we call a "work" might better be thought of as a developing structure that arises from the activity of music making.' (Benson, 2003, 147) (This domain of music making should not strictly be reserved for performers alone. Especially in live improvised music, the audience plays a crucial role in the realization and development of the musical work.) A piece of music is always in the process of being defined. Between identity and difference – improvisation deconstructs many oppositions.

Actors, factors, vectors

[1] It is tempting to think in circles. Inner and outer circles, centers and peripheries, middles and margins. The artist is the person who performs the core activity; s/he works in the center of a network, a network which further consists of support personnel, writes Howard Becker in *Art Worlds*. (Becker, 1982, 24–5) If the inner circle contains the composer, the surrounding circles hold (more or less successively) the performers, the manufacturers and distributors of the materials needed to produce a musical work, other support personnel like technicians, audience, people providing an aesthetic rationale, teachers and trainers, and others taking care of civic order such that people engaged in making music can count on a certain stability. (Becker, 1982, 2–5)

Now Becker does recognize the fundamental openness of an art world: ‘Art worlds do not have boundaries around them, so that we can say that these people belong to a particular art world while those people do not.’ (Becker, 1982, 35) And he also acknowledges that the status of any particular activity as a core activity might change. (Becker, 1982, 17) Think of DJs, MCs, and producers like Teo Macero and Quincy Jones, the first responsible for the innovative mixing and editing techniques on Miles Davis’s *In a Silent Way* and *Bitches Brew*, the second the driving force behind Michael Jackson’s *Thriller*.

Despite these important and relativizing comments, the hierarchical ordering of an art world differs from the notion of “the field” we are proposing here. Of course, the FMI also consists of agents, some of them playing the leading part, others a more modest and marginal one. However, this is far more variable than Becker seems to suggest. With almost every improvisation the composition and configuration of the FMI changes. And this is not only thanks to changing human relations but also thanks to the input and importance of agents like instruments, technology, space, acoustics, history, corporeality, memory, creativity, and the like. The FMI is a multiplicity made up of many heterogeneous terms, of many different natures. Instead of Becker’s two-dimensional, more or less stable image of an art world, we propose a multi-dimensional dynamic FMI (including the important dimension of time), singular, porous, and variable.

There is more than a physical difference between a live version of James Brown’s ‘Sex Machine’

<http://nl.youtube.com/watch?v=Fav0cE3JnDQ>

and Ikue Mori’s collaboration with Zeena Parkins at the Los Angeles *sound. at REDCAT* concert.

<http://nl.youtube.com/watch?v=MnsKQCtqj9o>

It is not the degree of intensity that makes the difference here, but the agents and the mediation; not the components, but the relations between the agents. The agents are not defined by their genus or functions, but by what they can *do*, by the affects of which they are capable. Technology irrefutably dictates and regulates the interaction between Mori and Parkins, whereas its presence and necessity are almost concealed in Brown’s

improvisations. The unpredictability of the computer output contrasts sharply with the free though controlled solos inserted in the harmonic frame of ‘Sex Machine’.

[2] Instead of circles, think nodes and vectors. Beside actors, add factors. Rethink the network as a set of interconnected nodes, an architecture that cannot be controlled from any center. (Castells, 1996, 1–28) Nodality rather than centrality. Multiple feedback loops to monitor and modulate its own performance and to induce effects of interference, amplifications, and resonance, permitting the system to grow in complexity. (Shaviro, n.d., 5) The FMI is a multi-dimensional space where the intra-musical meets the extra-musical, or, better, where the extra-musical merges into the intra-musical and vice versa, thereby deconstructing this “strategy of exclusion” (Derrida). The FMI (re)territorializes and contains or installs hierarchical relations, temporary nodes. But, simultaneously, it deterritorializes, opening a space in the grid of categories delineating identity, creating new trajectories, and changing the architecture of relationships between networks.

The FMI is a highly interconnected, complex system in which minds and bodies of the musicians engage with local situations (including historical, cultural, and societal (in)formation); the nature of improvised music is inextricably bound up with personal, social, and cultural particulars. And as a result of the musicians’ actions these local situations change constantly. The FMI thus occupies the critical region between order and disorder, between stability and turbulence.

[3] This e-essay is a network instead of a building: no foundations but an interconnected network of concepts, theories, and music.

Biography and Bibliography

This e-essay came into being thanks to a close collaboration of three people living in three different countries, each with a very different role and background: a music philosopher, a musician, and a web designer. In many e-mail exchanges the three of us discussed and negotiated the separate parts of the essay, which led to several re-adjustments of the textual, audible, and design parts. Is this comparable to some of the ways in which musical trios sometimes work? Of course, there was no joint action in one location in the form of a live performance. But then, much studio work nowadays is done with musicians who never physically meet. Interaction, exchange of ideas (some picked up, others disregarded), division of labor, communication, openness towards the others' input – the character sketch of our collaboration shows at least certain similarities with the culture of a musical network.

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Henrik Frisk is the Sweden-based deviser and constructor of the sounds that accompany this essay; he is the 'worker in intensities, frequencies, and rhythms.' Frisk is an active performer (on saxophones and laptop) of improvised and contemporary music and a composer of acoustic and computer music in Sweden and abroad. With a special interest in interactivity, most of the projects he engages in explore interactivity in one way or another. Although his education from the Rhythmic Conservatory in Copenhagen (Denmark) is in music, he also works on software development within the framework of his artistic practice. His artistic Ph.D. dissertation *Improvisation, Computers, and Interaction* was presented at Lund University/Malmö Academy of Music in October 2008.

Bart Weijland is responsible for the design part. He has a passion for real-time and one-place information; that is why the Internet is his favorite playground. All information is its own center-point, but also a minor satellite of everything that is linked to it. Weijland studied journalism and social geography at Utrecht University (the Netherlands). He is currently based in Marseille (France) and works as a web-developer with a commercial organization in the same city specializing in creating and maintaining websites.

The following books, articles, and essays served as important sources of inspiration for the realization of this essay.

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