

The Networked Music Subject

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In recent years, music technologies in the spheres of creation, dissemination and audition have converged significantly. Numerous examples of this convergence are observable: software tools designed to sample and extract audio from existing music, online collaborative recording software, the viral audio sharing habits that inhere in social networking sites, the increasingly lower technical barriers to entry (or increased user-friendliness) in music production tools. All of this takes place within the confines of a very amorphous technology: the networked microcomputer.

The crumbling artifact envisioned here - an unrepaired "on air" sign at a campus radio station - is in some ways a metaphor for the way that spaces of performance and listening have cracked open in the wake of technical and social transformations in the sphere of music production and distribution. The old codes about hermetic environments for production (which require warnings such as this) have broken down and are in the process of recrystallizing - but around what?

Transformative change in musical network design

- **Orchestral** networks: well-defined roles, hierarchy (composer-performer-audience), instrumental palette, idiomatic restrictions.
- **Popular acoustic** networks (jazz, rock): flexibilized roles, reinterpretation of roles of instruments and participants (composer/performer-audience), idiomatic experimentation in smaller acoustic spaces, hybrid acoustic/electric spaces.
- **Electronic** networks (techno, hip hop): the rise of the amateur, repurposing of turntables, collapsing distinction between creation and reception.
- **Digital** networks (computerized music): all spaces conceived as virtualized and interpenetrative, data sharing, redistributive.

Instrument Design

Designing artifacts for subjects, and vice versa



Atau Tanaka (2006) writes that musical instruments have *idiomatic* predispositions - that is, they tend to prescribe the way musicians use them due to formal and technical features in their design. While there is of course room for variation in style and experimentation with, for example, a saxophone (which can and has been used/implicated in myriad stylistic experiments), there are forms that delimit its use as a musical instrument, which are of course born of the musician/composer's enculturation. I read *idiomatic* as a musicological conception of the underdetermination of the musical subject.

Computer interfaces are similarly biased and influence users to adopt them in particular ways simply because of these technical constraints. But they are, in various circumstances of user interaction, variably more or less underdetermined than their acoustic instrument counterparts.

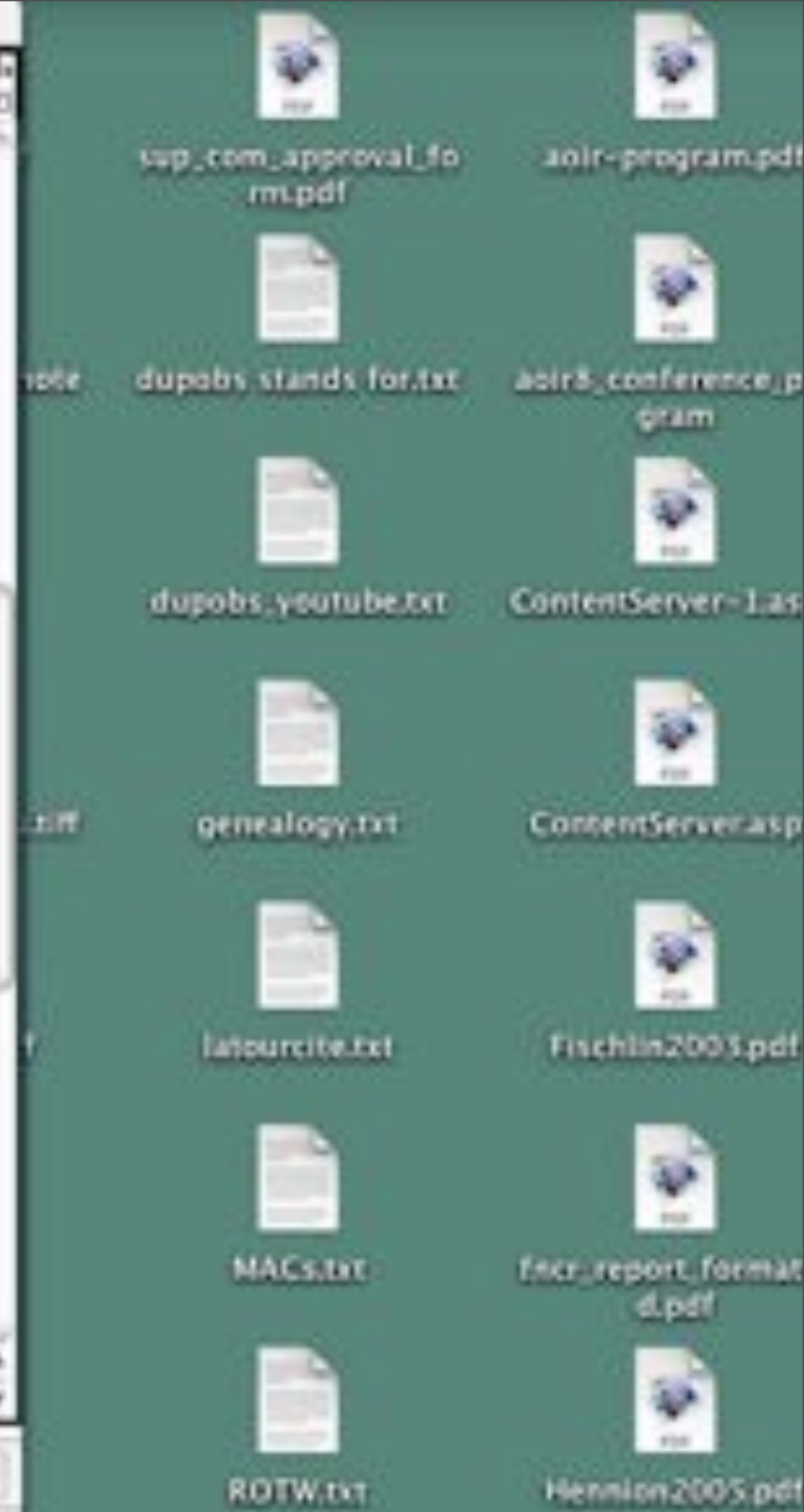


“Logic Audio”

console/tape metaphor

A quick glance at screenshots from major music creation software attests to this (show Logic, Reason, and Ableton) - examples of strict control and path building for artists.

Logic audio is exemplary of the “recording studio” paradigm in music production software. Locked and loaded, this black box of a product scripts users in very particular ways, enabling a whole ecosystem of training programs, beta tester groups, and desperate user forums.



“Reason”

“rack” metaphor

Reason - note the telling names “Logic” and “Reason”, and what these imply for the idea of the “rationalization” of musical practice. This program uses the “rack” metaphor, borrowed from the techno genre. It is so rigid that it cannot be resized horizontally (as this image indicates, with the computer’s desktop figured prominently on the right).



“Live”

“Modular” metaphor

Ableton “Live”, on the other hand, presents a more dynamic, fluid, and “modular” approach, with many drag and drop customization options. This is more of a “Music 2.0” environment - along with the complete problematic that that phrase implies.

Summary of Trends - Digitally Networked music

- increased virtualization of space (vs. acoustic space)
- collapsing distinction between production and consumption
- amateurs: a reconfiguration of skills and aptitudes needed to participate
- integration with technical (software) design processes (beta groups, user fora, open source alternatives)
- changing notion of authorship and remunerative practices (copyright/royalties)

These phenomena pose the question – what happens to the musical subject? When listeners and music creators become increasingly indistinguishable, and when their tools for listening and creating become more closely identical, our vocabulary for describing “musicians” and “audiences” (as well as terms such as “creation” and “consumption”) starts to fail.

We need a new vocabulary to describe music altogether, as not only the actors and technologies within networks of musical creation and exchange are losing distinctiveness, but so are their technologies, their processes, their identities, and so on.

The social constructivism of Bruno Latour (1992; 1993), and its application by Antoine Hennion to musical networks (1989; 2001) is a compelling set of sources to use to develop such a vocabulary.

Latourian Concepts

- **translation:** enrollment of human (musician) and nonhuman (instrument) elements into nature-cultures or networks
- **hybridization:** the conception of persons and things which are simultaneously social and natural, subject and object, or cyborg
- **mediation:** the work of bringing persons and things together into
- **underdetermination:** seeing person and network (or user and instrument) as mutually constitutive - as door grooms
- **critical question:** can we escape the unintended negative consequences of the new sociotechnics by changing our thinking (acknowledging hybrids)?

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Latour's concepts of translation, mediation, hybrids, and delegation are the building blocks of a framework that can improve our understanding of, and prepare us for the wider implications of the notion of a networked musical subject – the distribution of authorship, the shift to online collaborations, the admission of ever more amateurs into the collaborative sphere, and the subsequent re-casting of the role of music in its users' lives.

Studio-as-Laboratory, performativity of audiences

- **Hennion (1989)**: creates an analogue in the sphere of music production to Latour's narrative about Pasteur's laboratory, using a constellation of:
 - statistical approximations of the public
 - the **music producer-as-intermediary** (mediator)
 - hybrids created during the process of mediation (the music, the musician, the studio)
- Elsewhere (2001) Hennion argues for the ***performativity of listening*** among audiences - wherein the work of listening co-constructs spaces of audition (which are also spaces of production)

In at least two instances in English (1989, 2001) Antoine Hennion has addressed the social construction of music, and has consistently appealed to Latourian categories to do so. Hennion's analyses are comprehensive and challenging to critique because of his totalizing manner (in this way he resembles Latour, as well). But valuable insights lurk in Hennion's work – and in these I discern the beginnings of a useful theoretical strategy for understanding the networked musical subject.

In the first instance (1989) Hennion addresses the topic of the music-studio-as-laboratory, and the intermediaries that sustain this hybrid. Hennion's intentions (like Latour's study of Pasteur) are to begin at the microlevel, move to the macrolevel, and in the process of the description, destroy the distinction between the two.

Hennion highlights the role of the "artistic director of popular music" as the intermediary of note, suggesting the metaphor of the studio as a "double laboratory" [one in which both producers conduct experiments and in which sociologists observe process] (pp.406-7). Producers construct the studio as a model, sometimes in miniature (I would add, sometimes with electronic assistance in that miniaturization) to conduct experiments in isolation from the world (p.407).

Performativity and the Amateur

Hennion (2001) views music listening as a form of amateur music practice, theoretically indistinguishable from the act of making music. He writes that the emergence of the contemporary amateur is a recent phenomenon, coincident with "the exponential development of the record market and use of the media in the 1960s, 1970s and 1980s" (p.1).

Hennion's ethnography of music lovers indicates that "music itself is not the end result of a passion for music, but a means, like the orchestra, voice, instrumental technique and the stage, of reaching certain states" [e.g., carving out spaces for listening, the co-construction of a physical and social space for listening is of central importance in the life of the listener] (p.9).

What are the strengths of this view?

- Ability to describe musical networks as constitutive spaces
- Avoids technological determinism
- Can focus our attention on the variable power of users and technology designers in determining the conditions of musical work
- offers insight into contemporary problems of production: remuneration for productive work in music, a reorganization of what it means “to produce” in music

also consider DiScipio (1998), who applies Feenberg's subversive rationalization to the technologies of music composition, he argues that "artists, musicians among them, can be interpreters of technology, provided that they actively participate in the knowledge domain and the hermeneutic dimensions of the technê of music" (p.13).

What are the limitations of this view?

- Listening practices are too easily universalized (as against the contrast btw different cultural and subcultural practices of listening)
- Hennion also **universalizes the experience** of music - as “practices for attaining a state of emotional intensity” (2001, p.19) - may have jumped too quickly from the micro- to the macro- level of examination.
- the centralized role of “producer” has been disintegrated into various human (remixers, samplers) and technical (plugins, presets) corners of the network
- bracketing off “music” as a practice is itself problematic (its meaning and value in our experience of it are socially and technically co-constructed). Is the laboratory already out in the world?

Hennion is universalizing the practice of listening, which is not relevant for many social and subcultural contexts: work songs, techno and rave, or hip hop, to mention a few examples. He's interpolating from a classical music listening paradigm to all forms of reception, which are co-constructed in sharply distinctive ways. Where in the practice of listening to classical music will we find the same forms as are found in after hours trance clubs? Or even in the solitary iPod experience during an urban commute (see(Bull, 2004)).

music as a network is problematic, too - it either effectively outlines the precise borders of a practice isolated from others, or, on the contrary, has to be 'reconfigured' within a larger set, from outings with friends, parties and shared listening to the same music, to a set of strongly integrated cultural elements (p.18)

As well, Hennion envisions this framework for viewing music as a "heterogenous body of practices for attaining a state of emotional intensity" (p.19), which further universalizes notions derived from studies of classical, jazz and rock music that appeal to ecstasy or catharsis as the objective of listening. Hence, not only the structure of practice has been universalized, but the very supposed objectives of music are presumed universal. Again, it appears Hennion may have jumped too quickly from the micro- to the macro- level of examination here.

One of the main problems with Hennion's analysis of the music studio is that while it purports to transgress and answer questions raised or alluded to by studies of microaudiences (e.g. subcultures or niche genres), it uses a model of professional relations from a particular commercial popular music regime, one in which the decisions and actions of an artistic director are configured in a specific, localized way. In independent music circles, the discriminatory functions of producers-artistic directors are typically distributed among different actors (indie labels, critics, musicians, technology) and the task of laboratising music is radically different. Hennion's model is thus an inadequate explanation for a wide range of musicmaking practices. His mistake is in too quickly moving from the micro- to the macro-level of analysis. While his example of the director/music producer as an intermediary is consistent with Latour's translator of hybrids his music producer is so culturally specified as to have no close analog in other musical cultures. In independent spheres this intermediary is dispersed and severally delegated to other actors and technologies. In recommendation engines the producer's intermediary functions are delegated to a computer program. In social bookmarking platforms, this intermediation is delegated to a cyborg - a hybrid of machine and collective. Hennion's analysis is sound, but needs to be adapted and tested in musical contexts that are structured quite differently.

A similar issue attaches to his polarity between Public and Artist. When technological circumstances collude with social urges to move these entities closer together, when the studio-laboratory is no longer isolated but distributed, and when the work of art is no longer the province of a sole author, intermediation is progressively absorbed into various actors, and distributed haphazardly. Tastemaking shuffles, and subcultural authority, aesthetic boundaries, and statistics on musical preferences all evaporate so as to condense in new locations.

What I'm saying is that Hennion's analyses are unfinished, and until these projects are completed – perhaps supplemented by the work of other ethnographers – the interpretation has only limited applicability. Hennion imposes the Artist-Public duality on music networks generally, but this duality is not applicable to contemporary studio-laboratory-worlds, in which all actors and artifacts are being dissolved and reconstituted in new positions in reconfigured networks.

Hennion's translation of Latour's ANT actually weakens the analysis because of its emphasis on the peculiarities of popular music production and classical music listening practices which each have their particular technical historicities (which Hennion ignores). I think that Hennion's application of Latour's laboratory would be strengthened by similar ethnographic research in other musical fields, where the technical nonhuman actors (instruments, computers, and so on) play a role in determining the roles of the human actors. I put forward the current technological environment for making music with networked computers as an example that contradicts some of Hennion's conclusions about the polarities of Artist/Public, and questions the strength of his arguments about the performativity of taste (seeing that there are now so many more permutations of amateur performance in digital music networks that the notions of “amateur” and “performance” seem like less relevant categories).

Tentative Conclusions

- arguable that the amateur is *more* underdetermined than the instruments they utilize
- the proliferation of hybrids is assured in amateur digital music networks of exchange
- changing nature of a networked music subject - simultaneously a hacker, engineer, podcaster, promoter, and musician (perhaps as an afterthought?)
- creation and recreation in music have blurred, and Latourian concepts (despite problems with their specific application by Hennion) are appropriate in helping us understand this shift

On one level, Latour's translations and hybrids account for transformations in the relations of human and nonhuman actors in music production. Whereas previously, human actors were separable from their instrumentation, musicians who now make use of programs such as Ableton Live or Reason as performance instruments are enmeshed within the prescriptions of those instruments. It is arguable that the amateur digital musician, often possessing no musical skills, is now more underdetermined than the technological artifacts they utilize, which possess increasingly restrictive interfaces for their operation.

On another level, the deployment of amateur musicians in networks of exchange – where remixes are traded, and where audio files are swiped, sampled and sequenced into new works at a breathtaking pace – the multiplication of computer-human delegations/prescriptions in musical creation is resulting in an unprecedented number of human-technology hybrids which are not officially recognized (as by a “constitution”, in Latour's framework). Without slowing down to acknowledge and conceive what these new monsters are (in other words, adopting a nonmodern perspective), their continued proliferation is assured.

On yet another level, the multiplication of delegations to the networked computer have transformed that piece of hardware, along with its Internet, into a site for every conceivable activity to do with many genres of music (mainly electronic, but the ambit of this is widening). At this point, the musical subject (or actor) ceases to be what it once was. The musician is now a hacker, a sound engineer, a promoter, a podcaster, a retail sales agent, and a shipping clerk, as well as Hennion's “director/producer”.

final word

Finally, the distinctiveness of musicmaking and “listening as performance” has broken down in the process of this hyper-delegation of musical activities to the computer and its Internet – to a far greater extent than foreshadowed in Hennion's analyses. No longer is the similarity of production and consumption metaphorical or theoretical, as Hennion (2001) argued. With the blurring of this distinction, as the result of a multiplication of delegations and prescriptions, and translations and hybrids, music's creation and recreation seem bound to merge.

Is music like science?

- are the processes/networks of production and consumption of music and science comparable?
- do they make equivalent accounts of ethics, values, and affect (as they do instrumental concerns) in their productive scripts?
- do sociologists account for music in the same ways as they do science (here we've seen one - Hennion - do it, but how is it usually done)?

suggested questions for discussion that have occurred to me in the past day or so of watching other presentations and hybridizing your ideas with mine...

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