

THE
SHAPE OF
LIVES THAT
NEVER
CAME



A speculative approach to
the future of live musical
performance

THE
SHAPE OF
LIVE THAT
NEVER
CAME

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I, **Pedro José Silva Vieira de Oliveira**, author of this MA Thesis titled **“The Shape of Live that Never Came: A speculative approach to the future of live musical performance”**, confirm that this work submitted for assessment is my own and is expressed in my own words.

Any uses made within it of the works of any other author, in any form, are properly acknowledged at their point of use and correctly referenced.

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KEYWORDS

interaction design; speculative design;
design research; performance; music; listening.

FOREWORD

Music and live performances are tough subjects to deal. While it seems unavoidable for the academia to try to rationalize and digress on the philosophy behind human engagement with music, it still remains a largely untamed territory. Is it really possible to understand and grasp why people feel compelled to, for instance, travel thousands of kilometers, sleep and dwell in almost subhuman conditions, just to listen to a few people playing at a stage for a couple of hours?

Although a more “primitive” and “visceral” form of music, it would be too romantic to affirm that a live performance is not a consumer good as much as, say, a cellphone is. But it is possible – and fairly straightforward – to argue that the idea of buying an experience is far more explicit in the shape of a concert ticket than on a (usually) black box with a screen. Still, what are these experiences all about? Certainly they are way beyond the listening experience, or in a more dangerous assumption, beyond music altogether. These are experiences carefully crafted afterwards, within one’s memory, due to a plethora of subjective factors – making it an almost impossible task to design for.

In fact, how is it possible to come up with “solutions” or even “theories” about what drives human experiences, or to what they yield? This is a question that applies to both music as well as to electronic objects and products. Hence, it is one of the main reasons why the chosen topic

**THEORETICAL
RESEARCH**

ONE: INTRODUCTION

You fly, or rather float, drift through an enormous dark room

– a room of noises

Endless shimmering glissandi, crackling pizzicato

Coal black, turbulence holes of bass drones

But otherwise empty

No planets, no meteorites

If anything, perhaps fine dust clouds of exploded music.

- “Nowhere/Catastrophe”, from Ulver’s “Perdition City” (Ulver 2000, tr. 9)

*Because that limbo-land between bliss-scape and paranoia-scape, narcosis and
nightmare is where we who live under the sign of the post- find ourselves.*

(Reynolds 1995, p.361)

Long before sounds could be recorded and encapsulated into physical media, listening to music was accessible only through performance. A musical piece existed as sound – vibrations in the air – solely for the time being, to then vanish and become memory, a loose remembrance of how it once sounded like. As musicians took the stage, a sacred silence and an extremely focused attention towards the performers would take over the audience, thus designing a space of relationships that would last as long as those people handling those musical instruments would keep weaving sounds out of them. Time and space were cardinal to the act of listening to music, and so far the latter could seldom exist without the former.

However, as technological developments allowed musical performances to be registered, recorded, restored, and remembered – all words which share the same etymology – for further appraisal, they have thoroughly redefined how society listens, consumes and relates to music. Through the mediation of artifacts which are able to bring back specific moments, and transduce music back from its data form to vibrations in the air, space then becomes *anywhere*, and time is transformed into *anytime*. Lately, as recorded music became digital data as binary code available anywhere through the Internet – thereby consuming practically no physical space – the objects through which music is actualized become of equal or more importance to the act of listening than the music itself. Gigabytes of music are condensed into coin-sized devices which assert the fetishism of possession as opposed to appreciation.

This has also been the concern of artists and musicians alike in the last few years, particularly from the moment when the consumer value of music – the record – is strongly put into question by the increasing free access to music through digital means – whether legal or illegal. Whereas recent corporate strategies that aim to channel the access to music are arguably bringing the “lost” social component of music back (Luta 2011), a significant amount of musicians and artists progressively turn their heads towards the “sacrificial” and “ritualistic” – to recall Attali’s (1977) terms – origins of the musical practice: the live act (cf. Dworsky and Köhler 2011; Page 2007). By doing so, they may contribute to a greater approximation between musician and audience, to become part of something bigger than the private, isolated “iPod experience” of listening: the creation of a one-of-a-kind, worthwhile moment. Hence, one question is likely to be raised: if music can be recalled *anywhere* at *anytime*, what happens to the music when it is performed live? Furthermore, in a society in which relationships – with music as well among people – are increasingly becoming mediated through electronic objects, where and how does the experience of “a” moment fit?

The practice of “bootlegging” – non-official and usually unauthorized¹ recordings of concerts – has been around long before broadband internet times, as an attempt to materialize such unique moments of a performance. These “bootlegs” were the only “tangible” pieces of memory from a live situation one could possess, the only possibility to have a glimpse of a memorable and historic performance one has not been able to attend – “[l]ost moments, captured forever” (Reynolds 2011, p.99). Nowadays, with the popularization of high-quality cameras embedded in rather small and affordable cellphones, such “lost moments” become tangible mostly in the form of pictures and videos, uploaded on social file-sharing networks. Such a move turns any concert that may have happened anywhere available to the world, rather instantly. However, how far can those registered moments recall and retell the complete social and physical experiences live performances yield? Will technology evolve to a point where these experiences can be completely restored? If so, where and how are the boundaries between the *authentic* and the *simulated* defined?

Departing from the questions above, this study aspires to delve into them in order to challenge and explore the possible futures of live music, from the perspective of the listener. By understanding a live musical performance first and foremost as a social, time-based encounter, this approach focuses on the private and personal experiences that are particular to the space of the live, and how Interaction Design might contribute to a different perspective on the affordances of such space. Drawing from Design research methods, as well as Performance and Sound Studies, it intends to position Interaction Design as a discipline concerned with how *experiences* throughout a live performance are created. Moreover, it aims to investigate what it means to *listen* within a specific *time-and-place* configuration, particularly when this configuration is thoroughly affected by technology, as well as with how these concerns are likely to unfold in the near future.

By acknowledging the ubiquitous omnipresence of electronic artifacts in live performances – the aforementioned sensor-laden *smartphones*, handheld recorders and digital cameras, to name a few –, this research presents a speculative scenario where the mediation of the live experience, through interactions with digital media, is exacerbated and brought into attention. Such an approach intends to provoke a reflection on the imminent future of live performances, which are, allegedly, one of the last standing pillars for the survival of the music industry. While standing on the intersection of Design and Sound Studies, it also encourages a closer dialogue between these two disciplines as one strategy to investigate

¹ groups like *The Grateful Dead* strongly encouraged fans to record their concerts. More recently, US band *The Pixies* decided to record and release every single concert they play as “official bootlegs”, right after the gig (Johnsen et al. 2007).

the role of Interaction Design in the future of music and listening, as well as the importance of looking at sound as a strong subject for speculative research.

1.1 THESIS STRUCTURE

In order to accomplish such proposal, this research is divided in six chapters, including this introduction. These are described as follows: the second chapter presents a summarized historical background for this study, focusing on the changes the last thirty years brought to media, as well as to the music industry. These changes are divided in three main ideas – *fragmentation*, *displacement* and *simulation* – which are central to this research. The third chapter focuses on the subject of this investigation: live performances of popular music. It first aims to define terminologies for the scope of this study, as well as discuss how the live performance has also gone through massive changes, in the context of the issues presented on the second chapter.

Departing from the research questions presented in the third chapter, the fourth part argues on how to approach live performances of popular music through Interaction Design. To do so, it presents novel methods and approaches that look at Design as a discipline preoccupied with the subjectivity of everyday experiences with media and objects. Furthermore, it gives two strategies which this research employs: experiential assessments and speculation through alternative scenarios with fictional prototypes.

The fifth chapter describes a series of designed objects and scenarios which illustrate the ideas discussed along the previous chapters. These objects are further depicted and documented, emphasizing both creative and methodological processes which this investigation has undertaken until its last actualization; such processes are as important as the final result, thereby reinforcing their dialogue with the theoretical review and research. Finally, the last chapter discusses the main accomplishments of this study, reflecting on the extent of their contributions to the ongoing debates about the future of music, as well as the role of Interaction Design for this future.

1.2 MOTIVATION

Several factors have contributed to this research: an interest on how sound and music occupy a rather ubiquitous place in everyday life – albeit being a notable component of social interaction. Furthermore, how recent developments and facts concerning the near future of music production clearly show that these debates are about to reach their turning point: for instance, significant changes on how society acknowledges and deals with cultural production in times of widespread file sharing². Lastly, how live performances might be a key component to the concerns above described.

Indeed, the great majority of projects in Design preoccupied with the future of music and live performances tend to focus on the figure of the **musician** alone – particularly within the *New Interfaces for Musical Expression*³ community –, rather than provide insights on the side of the **listener**. This observation has helped this research to turn itself towards the different contexts of a live experience of music, that might be part of an Interaction Designer’s field of investigation.

1.2.1 A nod to New Interfaces for Musical Expression

The rapid developments of technology since the early twentieth century brought not only significant paradigm changes concerning the act of listening to music, but also to its production, creation and performance. These technological advances are also constantly redefining the notion of what a “musical instrument” might be, and how this is acknowledged and commonly agreed between performer and their audience. *New Interfaces for Musical Expression*, a rather new and ever-growing field of Interaction Design has been concerned with how technology changes and helps shape the relationship amidst musician, instrument and listener. Through addressing, mostly, issues of human-computer interaction, e.g. sensory feedback (*haptic⁴ feedback*), gestural embodiment, motion control, and other types of embodied interaction, it provides original, distinct ways to approach creation, appropriation and modulation of sounds.

² these issues will be discussed in further detail in Chapter 2

³ The term *New Interfaces for Musical Expression*, commonly abbreviated as *NIME*, was first introduced as a workshop held at the *Conference on Human Factors in Computing Systems* in 2001 in Seattle, Washington, USA (Poupyrev et al. 2001), and since then has become a Conference on its own – <http://www.nime.org> (accessed December 19th, 2011).

⁴ “In experimental psychology and physiology, the word *haptic* refers to the ability to experience the environment through active exploration, typically with our hands, as when palpating an object to gauge its shape and material properties.” (Robles-De-La-Torre 2006, original emphasis)

A significant number of the recent projects in this area, nevertheless, points towards increasing the expressiveness of these digital interfaces, in order to become as *natural* as that of the traditional acoustic instruments. Attempting to meet such challenge designers, inventors and musicians often apply complex algorithms and sensing devices, in order to map and translate the minutiae of human movement and expression into musical data or control signals – often both. Even though a great number of them are quite successful in doing so, it seems that it is still impossible to achieve the same level of expression a guitar or a saxophone, to name a few examples, are capable of. Yet, one simple question may arise from there: why should they?

This question helped direct the focus of this research not towards creating yet *another* controller or instrument, but rather to provoke and call for a different look inside a live performance situation, in order to raise new questions by looking somewhere else. *Where* does this situation happen? *How* does it happen? *Who* are the people involved in it? And what do they might want to leave this event with? Doubtlessly, there are designers, artists and authors that have already commented on these questions above, and their contributions will be explored in further detail throughout this document.

It is important to emphasize that the aforementioned inquietude with the *NIME* field does not imply by any means a rejection of its accomplishments. Its entire research scope, through annual conference and beyond, has been extremely relevant for the constant questioning and development of the musical instruments area. What this research proposes, on the contrary, is to part terms with the idea of looking solely at the musical instrument as means of speculating on near future possibilities for live musical performances. Instead, it suggests a perhaps not so focused take, towards an acknowledgement of the entire situation which helps build and define a live act, as well as the meaning of these experiences for the listener.

1.3 SPECULATIVE RESEARCH METHODS: AN OVERVIEW⁵

While investigating the affects of technology in several aspects of everyday life – in this particular case, live musical performances – with a human-centered perspective, the research area of this study may naturally fall into the academic discipline known as HCI, i.e. *Human-Computer Interaction*. This term encompasses several disciplines ranging from computer science and software engineering to psychology and architecture, only to name a few. Hence, each different subject may have a different concept to the idea of what an “HCI project” ultimately means, which makes it a rather broad term to comprise different perspectives on similar issues.

Within the field of HCI, the discipline concerned with the design of experiences with digital technologies, which “go right to the heart of what a digital product *is* and what it *does*” (Cooper et al. 2007, xxx, original emphasis) is commonly known as *Interaction Design*⁶. As a discipline applying practice-based research as its method, it aims to put these digital products into their cultural and economical contexts and to observe how people relate to them under these circumstances (Fallman, 2008, p.4). Thus Interaction Design is one branch of HCI concerned with the social, phenomenological and anthropological aspects of technology. Malcom McCollough (2005, p.147) complements this idea by stating that:

As a practice, design means more than making things look pretty, although good form is usually welcome. It also means more than making things usable, since something quite usable might nevertheless be useless. It does not flood the world with all technically possible gadgets and distractions. What we choose to build matters just as much as how it looks, or well we can make it operate. This choice is largely a social process; proposing what to do involves negotiation. Part advocacy, part virtuoso authorship, part ethnography, part engineering science, and part architecture to live by, interaction design needs conscientious multidisciplinary discourses.

Interaction Design, as a discipline stemming from both industrial design and computer science fields, is primarily focused on the construction of “behavioral opportunities” (Dunne 2005, p.70). Hence, it is commonly assumed that interface design for software and optimizing “user experience” are its main subjects of study. Such assumption, although not wrong, does not describe the discipline in its entirety; as Jonas Löwgren (2008) remarks:

⁵ a more detailed account on the methodology is found in Chapter 4.

⁶ the name “Interaction Design” was first coined in the mid-1980s, although it was only “proclaimed” as a discipline with the release of the book “About Face 2” in 2003 (cf. Cooper et al. 2007, xxviii-xxix)

This is not to say that interaction design concerns itself only with purely digital products and services. For instance, it is rapidly becoming impossible to separate interaction design from industrial design in digital consumer products (even though some developers of consumer products still try). Moreover, several emerging fields in interaction design research, including tangible interaction, mixed-reality interfaces and pervasive computing, address physical form and materials as inevitably integrated with virtual form and digital materials.

Anthony Dunne (2005, p.83) adds:

[Interaction Design might employ] speculation on how to best provide the conditions for inhabitation [, focusing] on the interaction between the portrayed reality of alternative scenarios, which so often appear didactic or utopian, and the everyday reality in which they are encountered.

This particular statement might help situate the approach taken by this research: a theoretical review contextualizes the necessary background from where the research questions develop. Furthermore, through taking advantage of the strong practical orientation of design disciplines, three fictional objects are presented as illustrations of the possibilities discussed by this text. These objects are further explored and contextualized in form of alternative and speculative scenarios, which aim to broaden the understanding of the role of technology and its relation to the future of live musical performance.

Additionally, neither the objects themselves nor this very document are meant to be understood separately, but rather to be acknowledged as complementary illustrations of the same questions and scenarios. In doing so, they may open room for original speculations and findings that put into question or point directions to novel futures – or perhaps even deny completely the point of view presented in this study. Granted, this investigation does not postulate any claims for ultimate truths, nor intends to provide “solutions” for the so-called “future of live music”: interpretations are completely – and strongly encouraged to be – open.

TWO: BACKGROUND



*With my feet upon the ground,
I lose myself between the sounds and open wide to suck it in.
I feel it move across my skin.
I'm reaching up and reaching out.
I'm reaching for the random,
or whatever will bewilder me.
- "Lateralus", from Tool's "Lateralus" (Tool 2001, tr. 9)*

*In 1960s Paris, the Situationists initiated concepts like the *dérive* or psychogeography, but these days that sense of wandering through an indeterminate maze of intentionality can become the totality of the creative act. Selection, detection, defining morphologies, and building structures, that's what make the new art go round. The challenge is to keep striving to create new worlds, new scenarios at almost every moment of thought, to float in an ocean of possibility.
(Miller 2004, p.17)*

2.1 TO NAVIGATE THROUGH POSTMODERN MEDIA

Despite the often-repeated cliché, it is almost impossible not to mention that most technologies that surround everyday life nowadays are indeed ubiquitous. This cyclical, feedback-like relationship that configures itself within the urban scenario – a demand for more accessibility to information, which leads to more data being spread more widely, thus consequently requiring more accessibility – contributes to a sensory overload that floods not only the cityscape, but also its dwellers and the relationships among them. Psychologist Kenneth J. Gergen (1991, p.200) claims that technology is a key component for what he calls “social saturation” and “bending of life forms”. In other words, it means that the relationships mediated by technology, in postmodern society, are not constrained by location nor geography; rather, they may happen anywhere for they have become effectively “unglued” (1991, p.64). Man and machine ought to become intertwined – metaphorically and who knows if in a few years time physically indeed –, coupled in order to “survive this technological framework” imposed by the velocity of contemporary society (Bain 2003, p.163).

It is interesting to emphasize the use of the word “survive” by Bain, particularly because one may argue that such a techno-centric framework is not, as of yet, understood in its entirety by society. For instance, the number of fatal accidents indirectly caused by the use of mobile devices and mp3 players is rather alarming. As a consequence, such electronic artifacts have become subject to prohibitions and special attention by safety-regulation associations (Halsey III 2010, Myers 2010, Osborne 2007). It implies that not only these changes may have made everyday life *faster*, but also that they may as well have happened *too fast* for a complete acknowledgment of the very consequences they yield.

On the other hand, into which extent this idea may apply to those born within such technological scenario? Media theorist Douglas Rushkoff (1999, pp.50-51), in his work *Playing the Future*, suggests that the children of the 1980s onwards are born “with the ability to surf the modern mediaspace”. For him, these *screenagers* indeed present symptoms of a *shorter attention span* – if analyzed under the “prechaotic culture’s” behavioral psychology; instead, he argues that they develop a *broader attention range*, the ability of keeping track of several events at once, even if for a shorter period of time. According to Rushkoff, *multitasking* is the most valued ability of the twentieth-first century; information flows *fast*, and there is always *more* to catch up with.

Indeed, the idea of *multitasking* may be incomprehensible for the older generations. However, this may be regarded as both cause and consequence of a new language of media developed in the last thirty

years. For this study, three main concepts that are part of this new language will be presented: *fragmentation*, *displacement* and *simulation*. Further on, their influence and affect within the discourse of contemporary music and live performance will be discussed in detail.

2.1.1 Fragmentation: MTV and the “logic of selection”

The idea of *fragmentation* in media automatically implies the denial of linearity in its narrative. Continuity is left aside in favor of sequences that must be read in their *macro* view – in what they *compose* together – rather than at their individual segments. These components are chaotic and non-hierarchical, they are not “organized” sequentially in any traditional sense, and none is more important than the other (Manovich 2002, p. 218). They yield multiple significations, and none at the same time. Stories are not given *a priori*; instead, the viewer constructs a non-linear narrative by navigating through these fragments. As Rushkoff (1999, p. 44) remarks, in television, these narratives are strongly constructed by the remote control:

As the media became increasingly chaotic, the remote emerged as the surfboard on which the armchair media analyst could come to reckon with any future attempts to program him back into linearity. The minute he felt the hypnotic pull of story or propaganda, he could impose discontinuity onto the flow by changing the channel.

Threatened by this “negation of broadcast reality” (*ibid.* p. 44), broadcast companies had to review and rethink their former media plans towards non-linear approaches, more appealing to the “armchair surfer”. But how does one manage to navigate through a deeply fragmented language? Whereas Rushkoff (1999, p.96) brings out the figure of the *fragmentophobe*, who is extremely afraid “that with hundreds of cable channels and thousands of computer conferences, people will be able to isolate themselves within their own extremely opinionated factions, never being exposed to new or opposing viewpoints”, on the other hand it is exactly this fragmentation of culture which allows creativity in the postmodern to happen.

As a possible answer to the previous question, Lev Manovich (2002, pp.123-129), presents a strategy which he calls “the logic of selection”; in short, he argues that the ability to develop *critical sense* towards this ocean of fragments is exactly what inventiveness in new media is all about. Sorting out from a plethora of choices to assemble new and private non-linear narratives in media is the main strategy in this new media, and what constitutes this logic.

Likewise, media theorist Luli Radfahrer (2008), departing mostly from Manovich, claims that “the conscious, consistent and constant” use of new media (in his case, the internet) is central to the

construction of this sense of criteria, which “helps one manage, rule and rank a symphony of elements” from the chaos, in order to be able to make distinctions amidst them.¹ Furthermore, technological objects such as the TV or the mobile phone become mediators of these rather compressed social, political and economic experiences, thereby creating a “system of technological temporality, in which duration and material support have been supplanted as criteria by individual retinal and auditory instants” (Virilio 1991, p.84).

Rushkoff (1999, p.51) similarly refers to those “retinal and auditory instants” when describing the aesthetics of MTV, whose employed language consists of rapid image juxtapositions, chaotic text and picture combination, excessive use of image artifacts and so on, which, according to the idea of a *broader attention range* he defends, is largely assimilated by the same young generations whom the channel was created for. MTV itself, he claims, is “a celebration of the gaps” whose rise consequently demanded the development of a new and rather chaotic language (*ibid.*, pp.45-46).

The Music Television Channel was launched officially in August 1981 in the USA, through an association between Warner Communications and American Express (Marks and Tannenbaum 2011, “Introduction”), and it is often regarded as “the third major breakthrough in music broadcasting, the first being [...] “Top Forty” radio in 1955 and the second being the advent of “free form” and “progressive” rock at KMPX [...] in 1967” (Denisoff 1988, “Foreword”). According to Marks and Tannenbaum (2011, “Introduction”), “it signified a transition from an era when the biggest rock stars were bands that transformed public consciousness, to one where technology filled that role.” For them, the impact of MTV indeed was that of “an early social network”, dictating new fashion and cultural styles to be meticulously followed by the teenagers, who were watching music videos broadcast non-stop, twenty-four hours a day, naturally scaring parents and older generations alike.

The music video in itself existed long before the MTV, being The Beatles one of its early inventors. In mid to late 1966, the band shot rather comical, lip-synched “promotional videos” for the songs “Rain” and “Paperback Writer”, which were then sent to TV stations around the world in order to replace the need for their live performances. According to Beatles’ biographer Bob Spitz (2007, p.159), these videos were completely *avant-garde*, being eighteen years ahead their “explosion into the forefront of pop culture”. The purpose of promotional videos like those was originally to advertise for the record companies; yet

1 Translated by the author: “o uso consciente, o uso consistente, o uso constante da internet me ajudou a criar um critério de seleção fenomenal.[...] E]stabelecer critério, é permitir ao indivíduo que dentro dessa enorme sinfonia de elementos que ele encontra na frente dele ele saiba geri-los, ele saiba rege-los, ele saiba elencá-los, ele saiba qual é mais importante do que o outro.”

two decades later, with the creation of a television channel exclusively dedicated to broadcast music videos, they became less promotional and more “musical texts in their own right” (Knopper 2005 cited in Auslander 2008, p.106). This very fact unveiled an entire new field of creation for musicians, bands and directors, thus opening a new commercial and aesthetic niche. A good example is offered by E. Ann Kaplan (1987, p.13), who claims that Michael Jackson’s *Thriller*, an iconic thirteen-minute piece in-between music video and short film, was paramount to the consolidation of the video as a business strategy for the record companies.

What the language of MTV brought to the perception of a hitherto established media was exactly this idea of *chaos* through *speed* – as cause or consequence of such –, and this sense of wandering through micro-snippets of an eerie consciousness, bearing no linearity nor defined structures. As Kaplan (1987, p. 144) states:

In a postmodernist fashion, MTV blurs previous distinctions between past, present and future, along with its blurring of separations such as those between popular and avant-garde art, between different aesthetic genres and artistic modes. MTV, as a text, arguably makes a postmodernist use of historical discourses about rock and roll as constructed by rock critics.

Indeed, when writing on the dislocation brought about by digital media, author Steven Johnson (2002, pp.175-177) claims that in order to understand this very sense, it is necessary to recognize that *bewilderment in itself* is a crucial part of the experience:

We find ourselves reaching around the noise – the lack of structure – for some sort of clarity, only to realize that it’s the reaching that makes the noise redemptive. [...] For a generation raised on MTV’s degraded images, that recognition comes easily. [...] They have developed another skill, that almost looks like patience: they are more tolerant of being out of control, more tolerant of that explanatory phase where the rules don’t all make sense, and where few goals have been clearly defined.

The Music Television helped reshape the musical language from the nineteen-eighties onwards, through the rise of the music video. On the other hand, the *videoclip* has become of lesser importance in the mid-nineties as MTV and other cable networks started expanding their programming towards other areas (Auslander 2008, p.105). Furthermore, music videos have nowadays become ubiquitous and widely available through popular video-sharing websites, e.g. YouTube. Whereas MTV – as a television channel created and starred (although not ultimately run) by a younger generation – significantly changed music and the music video as a cultural product, broadband internet and video-sharing networks completely defied and subverted the market value of music and live performance.

2.1.2 Displacement: YouTube, media archiving and curation

In the book *Lost Dimension*, urbanist Paul Virilio (1991) calls for a rupture with the idea of a dimensional field, and the expansion (or complete erasure) of the urban boundaries as one of the consequences of technological developments, information networks and the rise of interactive media, thereby re-contextualizing and redefining notions of *time*, *space* and *place*. To understand postmodern society through *dromology* – which Virilio defines as the science of *speed* and *acceleration* – is, according to him, the key element to comprehend how these ideas are thoroughly shifted.

In his accounts, *technological speed* dictates the measurement of time, and the “question becomes less one of relations to *history* than one of relations to *time* [...] it has always already happened.” (1991, p. 84, original emphasis) Such speed distorts the “astronomical day” and significantly affects the notion of urban spaces (*ibid.*, p. 83). One example of this affect is the demand for the distribution of time over space, i.e. creation and standardization of the world’s territory into “time zones”, as a consequence of the allowance given by technology for one to move faster (and cheaper) between two distinct points (McCollough 2005, p.62).

Furthermore, for Virilio (1991, pp.12-13, original emphasis), the *acceleration* of society ultimately leads to *displacement*, where the perception of the world is constantly mediated by interfaces that supplant the encounter with reality, the ability to grasp the present moment:

[W]ith the screen interface of computers, television and teleconferences, the surface of inscription, hitherto devoid of depth, becomes a kind of “distance”, a depth of field of a new kind of representation, a visibility without any face-to-face encounter in which the vis-à-vis of the ancient streets disappears and is erased. In this situation, a difference of position blurs into fusion and confusion. Deprived of objective boundaries, the architectonic elements begins to drift and float in an electronic ether, devoid of spatial dimensions, but inscribed in the singular temporality of an instantaneous diffusion. From here on, people can’t be separated by physical obstacles or by temporal distances. With the interfacing of computer terminals and video monitors, distinctions of here and there no longer mean anything,

The omnipresence of mobile communications, and most certainly the Internet seem to actualize Virilio’s accounts. With the Internet, *time* and *space* are flattened into a maze of links that may span an entire history of culture at the reach of a mouse click, and one of the most important content aggregators of this new paradigm may be found in online video platform YouTube.

YouTube represents another shift, in media as well as in the musical experience as a whole. The website has become a practically infinite resource for music videos, songs, live performances and any possible material related to artists, bands and music. Acknowledged as “the very epitome of digital culture”, the website “holds the broadest repository of moving-image culture to date” (Vonderau 2009, p. 11). It is not so difficult, then, to understand how this technological platform has contributed to modify the relationship between listeners and musicians in the last decade. As reported in an article from May 2010 on VentureBeat website, mainstream pop artists such as Lady Gaga develop their music videos for YouTube, whereas formerly the music industry targeted mostly MTV and their foreign associates (Hardawar, 2010).

Launched in 2005, YouTube has risen to become one of the most visited websites on the planet after being bought by Google in 2006. As of the end of 2011, it is uploaded on the website, in one month, more video material than the three major USA networks were able to create and archive in sixty years (YouTube Press Statistics 2011c). Whereas music critic Simon Reynolds (2011, p.60), when talking about media archiving, argues that YouTube “has become the repository of ultra-rare TV appearances or bootleg live footage that once upon a time were treasured and traded by hardcore fans”, it is in fact the amount of *new* content uploaded every minute what makes the network so important to comprehend the role of these technologies for the future of music and live performance. Differently to what was stated previously about MTV, YouTube *is in fact* a social network, and this very fact is what awards it with the paramount relevance it has for the musical culture of the twentieth-first century.

The idea of unfiltered – and in many cases, *amateur* – video content popping up at an amazing velocity is naturally worth preoccupation. One of the most prominent examples of such concern is author Andrew Keen, who has dedicated an entire book to discuss the humongous volume of data being uploaded to the internet every minute and the trustfulness of such, through what he calls “the cult of the amateur” – also the name of the aforementioned book. In a rather conservative discourse, Keen (2007, p. 204) claims that “if the democratized chaos of user-generated Web 2.0 content ends up replacing mainstream media, then there may not be a way for the Mozarts, Van Goghs, and Hitchcocks of the future to effectively distribute or sell their creative work”. Once again, it is necessary not only to mention the fact that in the way information is spread nowadays – thus granting more or less the same content for everyone – the idea of “geniality” has become blurry (cf. Radfahrer 2008), but also to recall the aforementioned “logic of selection” and the development of “criteria” for filtering content to creative uses. In music, this idea largely echoes with sampling, DJ Culture and mash-ups – postmodern practices

of musical creation –, albeit, with the advent of YouTube, it becomes more the case of turning artists into curators².

An interesting case is found in “Thru You”³, a musical project by Israeli musician Kutiman, who carefully selected interesting snippets among hundreds of videos of amateur musicians playing at home, to create an entire “video-album” (another interesting term made possible mostly as a consequence of YouTube) of original songs. As Scott Thill (2009) writes, in an essay about the project for Wired Magazine’s Underwire blog, “[s]earching is the key word. For Kutiman, time blurred as he crafted the project, punching musical search terms into YouTube to find and download what he was looking for. Once he did, ThruYou took on a life of its own”.

The website provides, hence, a comprehensive library of content into which the artist may dive in order to filter and curate content for creative purposes. However, what is the effect of the music video and YouTube for live musical performances? One first assumption is that music videos and live performances become somewhat intertwined: the former serves as a validation source of the latter, as if a performance could only exist if documented through video and posted online. Another assumption is that YouTube helps situate the live performance virtually *anywhere*, from the moment it allows for anyone to record and upload any video from any concert one has been to, for the entire world to see, at anytime – even in realtime.

Moreover, whereas broadcast of live performances is not a privilege of the YouTube era, a few characteristics which are intrinsic of the aforementioned culture of *speed* and *acceleration* of new media may contribute to the understanding of YouTube as a medium for both tele- and omnipresence. With it, YouTube then becomes an endless library of both amateur and professional recordings of practically every moment in a performance that may happen, wherever there is a fan carrying a camera or a cellphone along. Through sharing a special musical moment with the world, it also allows for a certain degree of co-presence: the ones who weren’t able to be physically present to be transported into that very instant and to experience it in first person perspective, from the middle of the crowd, as if bodily there. Lastly, it also allows one to select her favorite moments and skip those that are less interesting, which may ultimately mean that the experience of the live has indeed become displaced.

² Reynolds (2011) discusses extensively the “curator” issue on the fourth chapter of *Retromania*.

³ <http://thru-you.com/> (accessed January 6th, 2012)

YouTube also takes the control over the recorded performance out of the hands of the musician. It allows the embrace of the *natural flow* of a live concert, with its eventual mistakes, contingencies and other technical or performative faults that would be otherwise cut out, edited or overdubbed by the artist before being publicly released – as it is the case with commercially released live recordings. Some artists tried experimenting with audience-generated content, namely hip-hop group Beastie Boys, who edited and released the DVD "Awesome; I Fuckin' Shot That!" (Yauch 2007), in which fans recorded concerts using cameras provided by the band. But nevertheless, these recordings still had to pass through the curation of the artists themselves.

A better illustration of the idea of audience-based digital curation, displacement and fragmentation of a live performance may be found in the brazilian fan-sourced DVD "Rain Down"⁴. The "Rain Down Project" ("*Projeto Rain Down*", in Portuguese) is an internet-only video release of rock group Radiohead's concert in São Paulo, Brazil, in March 2009. Conceived and curated by a fan, who himself is an amateur in video editing (Araújo and Duarte 2011), the DVD depicts the entire concert from several different perspectives amidst the audience, which were spontaneously recorded in non-professional equipment such as digital cameras and cellphones, and later uploaded on YouTube. None of the contributors of the DVD recorded the performance knowing beforehand that they would be part of a collaborative project: they uploaded their recordings to YouTube only as single, fractioned memories of Radiohead's first ever gig in the country. As Araújo and Duarte (2011, p.10) state:

*In Rain Down [...] nothing was previously organized nor agreed, nor passed through the "quality filter" of the artist. There was no intention, among those who filmed, to make their videos part of a DVD. All images were recorded spontaneously, capturing different points of view of those who attended the concert. [...] The live register of Radiohead's performances in Brazil was devised to allow a personalized consumption, as well as an easy access to the content according to each viewer's own interest [...] The content, which until recently followed a strict direction from sender to receiver in a massive logic, now becomes individualized, accessed by this very same audience.*⁵

4 <http://raindown.com.br/> (accessed January 7th, 2012)

5 Translated by the author: "Em Rain Down [...] nada foi combinado ou organizado anteriormente, nem passou pelo filtro "de qualidade" do artista. Não havia nenhum acordo das pessoas filmarem o show para um DVD. As imagens foram feitas de forma espontânea, capturando as diferentes percepções de quem estava na apresentação. [...] O registro das apresentações do Radiohead no Brasil foi confeccionado de modo que permitisse um consumo personalizado, o acesso facilitado ao conteúdo de acordo com o interesse de cada usuário [...] O conteúdo, que até recentemente era enviado de um centro emissor para a audiência em uma lógica massiva, passa a ser acessado por essa mesma audiência, agora de forma individualizada."

With projects such as “Thru You” and “Rain Down”, amidst others, it becomes clear that the work of an artist no longer ends in itself. It does not only enable the artist to use *anything* from *anywhere* – allowing musical ideas borrowed from different decades to be condensed in an album, for instance –, but also transcends its own domain through the imminent displacement of broadcast media. Through re-enactment, through a culture of borrowing, endless quoting, re-quoting and sharing, it has redefined boundaries – physical, cultural, financial – and thereby demands novel methods and means in order to be navigated through.

2.1.3 Simulation: “Guitar Hero”, hyperreality and “Auto-tune”

In his famous essay *Simulacra and Simulations*, philosopher Jean Baudrillard (1981, p. 166) argues on Jorge Luis Borges’ allegory of the map that is drawn to be so precise in its details, that it becomes the very territory it intends to illustrate. In a more recent essay for the book and website *Next Nature*, designer and artist Koert von Mensvoort (2012, p. 129) tells the story of a girl who, while taking a walk in the forest for the first time in her life, tells her parents that “the woods smell like shampoo”. Both narratives discuss a concept that seem to have become a standard model for postmodern society: the *simulation* of experiences taking over *genuine* encounters with the same object.

Simulation and representation are terms that dwell in philosophy since the *Allegory of the Cave* (cf. Plato 380AD). It departs from the assumption that society’s perspective of the world may never be entirely truthful, and that reality is something that cannot ever be grasped. However, Baudrillard (1981, p. 169) argues that the idea of simulation in postmodern society is to be understood beyond the realms of representation, for the *simulated* is to be regarded as something *different* than the object it simulates:

Representation starts from the principle that the sign and the real are equivalent (even if this equivalence is Utopian, it is a fundamental axiom). Conversely, simulation starts from the Utopia of this principle of equivalence, from the radical negation of the sign as value, from the sign as reversion and death sentence of every reference. Whereas representation tries to absorb simulation by interpreting it as false representation, simulation envelops the whole edifice of representation as itself a simulacrum.

Take, for instance, the humongous success of music games like *Guitar Hero*⁶ and *Rock Band*⁷, who aim to put the player in the place of rock music idols. Using plastic controllers that mimic real guitars, basses and drums, the purpose of the game is to press the correct buttons at the right time, following an

6 <http://hub.guitarhero.com/> (accessed April 22nd, 2012)

7 <http://www.rockband.com/> (accessed April 22nd, 2012)

on-screen flowing mixture of traditional score and guitar tablature (Miller 2010). Through playing, one can grasp the sensation of playing among rock legends, either alive or dead, surpassing the need of mastering the technique of a real instrument or joining a real band. This puts the idea of these games in a rather “uncomfortable blurry zone” (*ibid.*, p. 113)⁸, between what is *simulated* and what is *genuine*; when playing the game, is one also playing the instrument? For Miller (*ibid.*, p. 116), such games bond “the virtual and the visceral”⁹ to a point where the player feels truly proud of assuming those roles, as being utterly responsible for the success or failure of a performance – even though they are completely aware that these performances only exist inside the zeros and ones of the console.

In fact, according to Baudrillard – and later Mensvoort –, society has become so accustomed to experiences that aim to emulate a “long lost”, utopian view of the world, that these notions of reality themselves had to change in order to cope with simulations as being part of them (Mensvoort 2012, p. 129). In other words, for them, reality is something carefully constructed by simulations, who present a world that is not the *real* world – but something else. Baudrillard (1981, p. 166, my emphasis), recalling the allegory of the map, calls this constructed world a “hyperreal” one:

Simulation is no longer that of a territory, a referential being or a substance. It is the generation by models of a real without origin or reality: a hyperreal. The territory no longer precedes the map, nor survives it. Henceforth, it is the map that precedes the territory – precession of simulacra – it is the map that engenders the territory and if we were to revive the fable today, it would be the territory whose shreds are slowly rotting across the map. It is the real, and not the map, whose vestiges subsist here and there, in the deserts which are no longer those of the Empire, but our own. The desert of the real itself.

Hence, the “woods smell like shampoo”, and not the opposite. Tourists fill up artificial beaches on the winter and ski stations on the summer; video-game avatars receive funerals and engage in romantic relationships; food and beverages are flavored with surreal combinations of so-called “natural” ingredients and so forth (Mensvoort 2012, p. 129). *Simulation* then engenders a strange sense of “nostalgia for the future” (Reynolds 2011, p. 368)¹⁰, an eerie feeling where one longs for something that has never been, that is but an idealization of an experience. An experience with a meticulously designed world, a world populated by *simulacra*.

8 Translated by the author: “desconfortável zona nebulosa”.

9 Translated by the author: “o virtual e o visceral”.

10 Reynolds attributes the term to both Isaac Asimov and Jean Baudrillard.

Another interesting example of these idealized experiences may be found in the distinction between recorded music and live performance. Philip Auslander (2008) discusses a paradigm shift in the history of performance, where recorded music has set the audio standards which most live performances would seek to accurately reproduce. Such shift aided the creation of carefully constructed aural experiences, which aim to design unreal spatial configurations, as well as the listeners' experiences of such spaces. These aural experiences, according to Blesser and Salter (2007, p.130), are known as "Cultural Acoustics":

When music is reproduced electronically, a listener actually experiences a hybrid comprising at least three sets of spatial attributes: the acoustics of the performance space where the music was recorded (recording studio or concert hall), the acoustics added during the mixing process when the music was prepared (spatial synthesizer), and the acoustics of the listening space where music actually heard (living room). Each of these spaces, unrelated and unique, influences the final experience.

These multiple artificial spaces clearly intend to construct simulated, outstanding listening experiences. The listener is taken into utopian scenarios that expand the already significant gap between recorded and performed music; and from the moment the music studio became an active component to the creative processes of music, technology has thoroughly contributed to the crafting of these idealized experiences. From Pierre Schaffer's *Musique Concrète*¹¹ to Phil Spector's (in)famous "wall of sound" (Reynolds 2011, p. 295), studio techniques have often overcome the roles of the biggest stars in music production. A good illustration of such is described by Cox and Warner (2004c, p.113) : "[Miles] Davis began to create music by recording extended improvisations and then handing them over to his producer, Teo Macero, to edit and reassemble as he wished." Once at the studio, the musician could design the *impression* of a longer improvised session, which has never existed, for real, in its entirety¹².

Another relevant case is found in the technique called "pitch correction". This simple adjustment provided by modern software, which already helped craft an overly perfect voice or guitar sound, is taken to surreal levels with the introduction of the "Auto-tune" in Cher's late nineties hit "Believe" (Reynolds 2011, p. 406). Such technique, which overtly exaggerates pitch shifting, creates a "glossy" artificial layer over one's voice, and has become the standard "reality" for a great part of contemporary mainstream music. The technique has been so exploited and omnipresent that it has in fact become a viral joke. Groups like "The Gregory Brothers" have become instant Internet sensations by

11 more on Pierre Schaffer at sections 2.2.1 and 3.1.1

12 These techniques are mostly evident in his albums *In a Silent Way* (Davis 1969) and *Bitches Brew* (Davis 1970).

applying Auto-tune to almost anything, turning political speeches, TV Ads and News reports into *R'n'B* songs (Suddath 2009), which raises the question to whether anything can be “tuned” to transform itself instantly into a radio hit. Indeed, nowadays the “Mili Vanilli incident”¹³, which has put into question the authenticity of performance in popular music of the late ninety-eighties, might give way to questions of whether computerized Auto-tune is supplanting real, genuine human talent in music.

¹³ French-German pop duo Mili Vanilli have created huge controversy by lip-synching their performance at the Grammy Awards 1990, where they were acclaimed “Best New Artist of 1989”. Later that year, Mili Vanilli’s producer not only confirmed the dubbing at their concerts, but also admitted that the duo did not sing on the original recordings as well. (Auslander 2008, p. 73)

2.2 THE DECLINE OF THE MUSIC INDUSTRY

As discussed previously, the popularization of broadband Internet access and the rise of bottom-up curation possibilities for media have had a thorough affect on how culture is created, distributed and shared in the last few decades. Perhaps the part of the business that suffered the strongest impact was the so-called “record industry”. When music started to be shared online and offline as digital files – being the MP3¹⁴ the most popular format –, record labels and distribution corporations lost track of how, when and where music was going to. The shift from a tangible, physical consumer good associated with a specific selection of music – a Vinyl record – to another consumer good whose content could be endlessly replaced – an MP3 player – turned music into an evanescent, abstract commodity whose location and identity could no longer be traced.

Indeed, massive copying, “mixtapes” and other forms of free distribution of music existed long before the MP3, but as noted by Mark Katz (2004, p.161), it was the popularization of peer-to-peer (P2P) networks – being Napster¹⁵ the central piece – that “endowed MP3 with its global influence.” Nowadays, a simple well-formulated search on the internet might retrieve a plethora of sources from where one can listen and copy any music – be it in the form of isolated tracks on YouTube, recently released albums or even complete discographies of any given artist. Hence, the omnipresence of the digital file through file-sharing social networks is what made music disconnect completely from an industry-established format to become an intangible good. Online music services attempted to accommodate their business by promoting the sell of single tracks for relatively low prices¹⁶, a practice which reinforces the increasing obsolescence of the record format – with record collectors being a minor exception.

On the other hand, it is often argued that music has always been, in its essence, “intangible”. In his seminal work *Noise: The Political Economy of Music* Jacques Attali (1977) argues that, throughout its history in society, music has gone through three distinct phases: *sacrificing*, *representing* and *repeating*. He also hints to a fourth stage which was yet to happen – *composing*. For him, in primitive societies music was a form of social and political organization, that is, essentially *sacrificial*. Music was communal,

14 “Motion Picture Experts Group I, Layer 3”, a digital file format standard developed by Fraunhofer Institute for Integrated Circuits in 1992, originally for the film industry to “compress the huge amount of data constituting video and audio files into sizes manageable for sending and storing on computers.” (Katz 2004, p.160)

15 <http://www.napster.com> (accessed April 22nd, 2012)

16 As of February 2012, any track from the “Top-artists” at the German iTunes Store costs 1.29€

ritualistic and strongly utilitarian; he argues that in those social contexts, its “primary function [did] not depend on the quantity of labor expended on it, but on its mysterious appositeness to a code of power, the way in which it participates in the crystallization of social organization in an order.” (1977, p.25)

Further on, Attali argues that it was the rise of printed media and publishing in the fifteenth century that was responsible for annulling the ritualistic and sacrificial character of music (1977, p.51). These media have attached an exchange value for both the work itself and its *representation*, i.e. the **score**:

“The publisher created a commercial object, the score, to be sold by the lord, not the musician. Then in 1527, music publishing received the same rights accorded literary publishing; that is, the publisher of the work was given exclusive rights over its reproduction and sale.” (ibid., p.52)

Indeed, for him reproduction and *repetition* play a seminal role on the political economy of music, particularly due to the creation of a “music industry”, which was only possible through recordings and their wide propagation – or as he claims, “stockpiled repetitions” (1977) – as a consumer good. The value, hence, no longer relies solely on the performance of the work itself nor the score, but also on the very object that encapsulates them both: the record¹⁷. For Attali, the record privatizes the experience of music:

Music became an industry, and its consumption ceased to be collective. The hit parade, show business, the star system invade our daily lives and completely transform the status of musicians. Music announces the entry of the sign into the general economy and the conditions for the shattering of representation. [...] It becomes a material object of exchange and profit, without having to go through the long and complex detour of the score and performance anymore. (ibid., p.87)

Complementarily, Brian Eno (1983, p.127) remarks that it was until the late-nineteenth century that music “was something that only existed in time”, and that the “effect of recording is that it takes music out of the time dimension and puts it in the space dimension”. Therefore, one can argue that an “industry of music” might deal mostly with music put in the “space dimension”, and this has been only made possible through the technological developments that allowed music to be recorded, mass (re) produced and distributed. This turns the record, as authors such as Eno, Attali and Katz defend, something completely distinct from the live performance.

¹⁷ It is worth noting the distinction between “recording” and “record”: while the former states for the act of capturing and storing any information in a tangible media, the latter stands for the tangible medium themselves, and hence the consumer good created, distributed and sold by the industry.

Yet, this distinction is likely to change within contemporary musical practices which are aided by technology. Whereas John Pfeiffer (cited in Katz 2004, p.189) argues that “a recording is one thing, a concert is another, and never the twain shall meet”, american-japanese *post-turntablist* Takuro Mizuta Lippit (a.k.a. “DJ Sniff”) may refute such a statement when arguing that “[e]very playback of a record is a performance of a performance”. He claims that the DJ, as the post-modern musician, shatters the listening consciousness of time and space altogether (2011, p.3), because “[w]ith every scratch, our memory of a past is suspended and we hear and here the now” (2011, p.4). Hence, the distinction between the recording and performance, between auditory time and space is always blurred, for every sound may be both a representation and a raw material for the musician to create with.

2.2.1 Intellectual property and copyright at the edge of the Internet

In fact, since technology permitted sounds to be recorded and played back, these very sounds also became prime matter for musical creation and performance (Cutler 1987, p.140). Although John Cage was already experimenting with turntables in the 1930s (Cox and Warner 2004a, p.329), Pierre Schaeffer pioneered the technique of *sampling* in his *musique concrète* studios in 1940s, as a “desire for new instruments and means to play them” (Emmerson 2007, p.25). In pre-tape times, Schaeffer would manipulate up to four gramophones in real time exploring the physical quality of the records (Emmerson 2007, p.26; Cutler 1987, p.143). Later on, with *tape music*, composers like Karlheinz Stockhausen and John Cage – as well as writer William Burroughs – painstakingly sliced and pasted tiny pieces of electromagnetic tape together to create entire new compositions with “found sounds”.

Almost half a century later, *turntablism* and digital collage have become so commonplace in contemporary music that their primary effect of sonic uncanny-ness in listening is practically taken for granted. As musician Vijay Iyer (2008, pp.287-288) writes:

More than a century after the invention of recording technology, we have become accustomed to recorded, disembodied, and electronically generated music. But still, music tends to bear these same traces of embodiment. [...] The idea of a drum loop encapsulates this possibility; one can loop a danceable drum pattern indefinitely through digital means, thereby creating a whole new notion of temporality in music that lies outside of human action, but still elicits it. [...] These manipulations are typically carried out “out of time” in the studio, in a fashion similar to composition, but object of these manipulations is a human performance that took place “in time”.

Cox and Warner (2004a, p.330, original emphasis) complement:

From Schaeffer onwards, DJ Culture has worked with two essential concepts: the cut and the mix. To record is to cut, to separate the sonic signifier (the “sample”) from any original context or meaning so that it might be free to function otherwise. To mix is to reinscribe, to place the floating sample into a new chain of signification. The mix is the postmodern moment, in which the most disparate of sounds can be spliced together and made to flow.

“Splicing together disparate sounds” is the core component of sample-based composition. Paul Miller’s (2004, p.71) statement that “today, the voice you speak with may not be your own” and Chris Cutler’s manifesto for a more egalitarian music through sampling (Cox and Warner 2004a, p.330) most certainly mirror the current panorama of digital culture. However, from the moment a “record industry” was constituted issues of ownership, referencing, quoting and authorship in music have been constantly debated over questions of intellectual and creative property, as well as commercial copyright holdings. On the subject, Cutler (1987, pp.142-143) argues:

The fact is that, considered as raw material, a recorded sound is technically indiscriminate of source. All recorded sound, as recorded sound, is information of the same quality. A recording of a recording is just a recording. No more, no less. [...] When “the same thing” is so different that it constitutes a new thing, it isn’t “the same thing” anymore – even if [...] it manifestly is the “same thing” and no other. The key to this apparent paradox lies in the protean self-reflexivity of recording technology, allied with its elision of the acts of production and reproduction – both of which characteristics are incompatible with the old models, centred on notation, from which our current thinking derives, and which commercial copyright laws continue to reflect.

Yet, it seems that those in charge for legal procedures have not quite understood this idea, as Daphne Keller (2008, p.136) illustrates:

The first U.S. sampling case held rapper Biz Markie liable for infringing Gilbert O’Sullivan’s copyright in the song ‘Alone Again (Naturally).’ Judge Kevin Duffy began his opinion with scripture – ‘thou shalt not steal’ – and ended it with a referral for criminal prosecution.

Judge Kevin Duffy decided that the employment of any given sample of recorded music, without the consent of those who own the song *and* the recording of it was “simply theft” (Auslander 2008, p.119). Although the law has changed slightly since Biz Markie’s incident, it seems that the move towards acknowledging contemporary practices of creative production and serving cultural progress is not likely to happen forthwith. Keller (2008, p.145) writes:

Major copyright holders have successfully argued to Congress that digital technology and the Internet vastly increase the threat of piracy, making greater production necessary [...] Moreover, individual's noncommercial copying and sharing of copyrighted music – which is now labeled piracy by the record industry, particularly if carried out online – has traditionally been far outside the province of copyright law and enforcement.

Another evidence of the above assumption has hit the news as of the beginning of 2012, with the voting of three major legal acts allegedly against “piracy” and “cultural theft”. These bills – ACTA (2011a), SOPA (2011e) and PIPA (2011d) – would most certainly affect the rhythm and means of current cultural production rather significantly. Whereas the latter initially concerned mostly online content located in the U.S. – which would as well affect several international online services and websites hosted in U.S.-located servers –, ACTA was developed as an international agreement that “aims to create international standards on intellectual property rights enforcement” (Solon 2012). Still, these legal acts were highly ambiguous in their definitions of “counterfeit goods”, merging the idea of counterfeiting with copyright infringement, thus extending its criminalization in controversial terms. Furthermore, it raised several discussions about online privacy, surveillance and fair use of copyrighted material, culminating in a substantial amount of protests around the world.

Since the word “copyright” in itself assumes the pre-existence of a “copy” – the registry of a creative act in a physical medium –, the only branch of the music industry that keeps virtually disconnected from all the aforementioned discussions is the live performance. As Philip Auslander (2008, p.147) denotes, “[i]n order to be protected under Title 17 of the United States Code, otherwise known as the 1976 Copyright Act, a work must be ‘fixed in a tangible medium of expression’ that renders it replicable [...]” Live performance is, then, excluded from the definition of intellectual property for it only exists in a brief period of time, in the “transitory present moment” (Auslander 2008, p.148) of the here and the now, because in its core it is, as claimed before, intangible. It is not surprising, then, that live performances are rising to become one of the most guaranteed ways for artists to secure a minimum degree of awareness and control of the extent of their creative endeavors (Dworsky and Köhler 2011).

Naturally shaken by this novel reality, such copyright acts are clearly the record industry’s backlash against these new business models in an attempt to restore its former commercial influence. Yet, there have been clear signs that this is not likely to happen. As self-proclaimed “music futurologist” Gerd Leonhard (2008, p.39) writes, “the industry will now have no choice but to accept the fact that this ecosystem has morphed into a customer-driven, bottom-up world that renders many widely accepted ‘analog’ paradigms and traditions instantly useless.” Moreover, these bills seem to be their ultimate weapon against the movement – created and facilitated by the Internet – of free online sharing of culture

and knowledge. It is debated that these acts protect solely the interests of distribution and record companies, rather than those of the artists and creators themselves (Solon 2012).

The majority of these artists, on the other hand, – and particularly those who built their fan-base thanks to the Internet –, stood up *against* these very bills and advised the authorities “to exercise extreme caution and ensure that the free and open Internet, upon which so many artists rely to promote and distribute their work, does not become collateral damage in the process” (Ansari et al. 2012). Such an attitude is but a natural consequence to the fact that the Internet grants rather successful means for artists to communicate and distribute their works *directly* to their fans, thus leaving the choice of cutting out the former intermediaries in the process – major record labels and distribution companies – fairly open.

2.2.2 “Crowdsourcing” and the decline of the “middle men”

The last couple of years witnessed the rise of a new term: *crowdsourcing*. This term has been largely employed to identify initiatives that seek to accomplish a goal without having to cope with the industry’s terms. They borrow their power from the *crowd*, i.e. the global online community, towards the solution of problems for the benefit of a greater purpose, be they curation of online content or funding independent research. A broader definition of the term might be given by Estellés-Arolas and González-Ladrón-De-Guevara (2012, p. 9):

Crowdsourcing is a type of participative online activity in which an individual, an institution, a non-profit organization, or company proposes to a group of individuals of varying knowledge, heterogeneity, and number, via a flexible open call, the voluntary undertaking of a task. The undertaking of the task, of variable complexity and modularity, and in which the crowd should participate bringing their work, money, knowledge and/or experience, always entails mutual benefit. The user will receive the satisfaction of a given type of need, be it economic, social recognition, self-esteem, or the development of individual skills, while the crowdsourcer will obtain and utilize to their advantage what the user has brought to the venture, whose form will depend on the type of activity undertaken.

The rise of online platforms for *crowdsourcing* such as Kickstarter¹⁸, which is a hub for independent creative projects, has been drawing attention for the immense potential for innovative ideas to come into being without having to go through slow, top-bottom processes. More recently, the US

¹⁸ <http://www.kickstarter.com> (accessed March 15th, 2012)

Government have introduced draft bills that aim to regulate this process, which ultimately aim to give the investors returns in stock equity rather than in material goods and special gifts¹⁹ (Darrow 2012).

Indeed, “skipping” the former industry intermediates seems to be one direction the future of music is heading to. Social networks such as Twitter²⁰ and Facebook²¹ already connect artists and listeners more intimately, whereas music platforms such as Bandcamp²² allow the fans to buy music online, directly from their creators. Moreover, as a *Wired Magazine* article from January 2012 accounts, *crowdsourcing* startup companies are helping take the “artist-fan symbiosis to the next level” (Dix 2012), through opening room for music lovers to lend their skills to musicians and bands by creating websites, graphic material or promoting concerts, or even allowing the artist to share his own revenue with the fans.

In a similar fashion, Brazilian independent initiative “*Queremos!*”²³ (“We want it!”) was born out of a frustration with the lack of international concerts happening in the city of Rio de Janeiro. The fans, tired of having to travel to other cities just to attend performances that were happening in the country, but not in Rio, decided to check for themselves how much a concert would cost, and to skip the need of a producer to raise funds for it. The creation of an online platform then allowed other fans to pledge for one or more tickets *before* the concert is confirmed, also giving the possibility for a full refund in case the “regular” tickets, sold after the performance gets booked, raise enough money. As of March 2012, such system has made possible twenty one concerts that otherwise would not have happened, for there were no producers interested. According to their own *FAQ* section, so far one hundred percent of the funding initiatives raised by the website were accomplished.

Attali (1977, p. 135) reminds that in the next stage of the political economy of music – *composition* – “[t]he listener is the operator”. This can be clearly seen as of today, where these ideas above presented

19 At Kickstarter, each prospective project has a “funding goal” which has to be met by a specific date. Each investor may pledge the amount described in one of the many shares available, with each one of them offering different gifts and material products from the project in return – spanning from “thank you’s” to personalized gifts, private lessons and so forth. In case the amount is not met in time, these investors do not pay anything.

20 <http://www.twitter.com> (accessed March 16th, 2012)

21 <http://www.facebook.com> (accessed March 16th, 2012)

22 <http://www.bandcamp.com> (accessed March 16th, 2012)

23 <http://www.queremos.com.br> (accessed March 16th, 2012)

demonstrate that the listener's engagement with the artist, particularly through the *face-to-face* encounter provided by the live performance, is likely to grow in relevance in the next few years. It is indeed a negation of the old formats, a moment where the roles have become blurred and more difficult to distinct from each other (*ibid.*). Both for the satisfaction of the fans themselves, which seem no longer to suffice from the traditional methods of distribution and contact with their favorite artists, as well as to the musicians' own strategies for survival in the digital age. Artists and musicians clearly must disconnect themselves from former paradigms and direct their efforts towards strategies to survive the "digital Darwinism" (Leonhard 2008, p.43) imposed by society's current listening habits²⁴. Or, as Attali (*ibid.*) remarks:

Composition, then, beyond the realm of music, calls into question the distinction between worker and consumer, between doing and destroying, a fundamental division of roles in all societies in which usage is defined by a code; to compose is to take pleasure in the instruments, the tools of communication, in use-time and exchange-time as lived and no longer as stockpiled.

²⁴ According to Reynolds (2011, p. 118), one of the strongest contemporary listening habits is the "skip-ahead impulse". According to him, it is the "insidious tendency [of the listener] to skip to the next track rather than wait for the song to unfold in its own due time."

THREE: OBJECT OF STUDY



With a buzz in our ears, we play endlessly
- Sigur Rós (2008)

We're entering into a period where time, place and occasion will be far more important elements of music. How music is made, and how we join/enjoy the experience.
(Drummond in Dworsky and Köhler 2011)

3.1 VALIDATION OF A LIVE PERFORMANCE

By analyzing its origins, one can conceive music as being essentially a performing art. However, as discussed earlier, the advent of recording has detached music from its performative roots in order to become a consumer good with a tangible value associated to it, from the moment it can be captured in a physical medium and reproduced *ad infinitum*. The role of performance throughout these changes has shifted significantly: whereas formerly the record captured the performance for further reproduction, after its standardization as the most important source of music, performances have sought to reproduce the records as accurately as possible (Auslander 2008). Still, there are essential aspects to live performance, in its core, that might be able to maintain its relevance as an aesthetic experience. In order to explore these aspects, it is necessary to deconstruct the terminology to clarify what it means to listen to music in a “live” context, and to differentiate it from the broad definition of performance as opposed to recording – as discussed in section 2.2.

3.1.1 Performance and listening

A first and simple definition of live musical performance is given by Theodore Gracyk (1997, p. 139):

[Musical performance is] a public situation in which an audience attends to the actions of one or more performers, during which specific sounds are intentionally generated for the express purpose of being attended to as music by the audience.

According to him, for a musical act to be recognized as a *live performance* it must, at first, have an *audience* which is there, *willing to listen* to sounds being purposefully created by one or more performers, and to *validate* what they are listening to as *music*. From this assumption it is safe to conclude that the validation of a live performance is a task that relies more on the audience, rather than on the performers, as Emerson (2007, p.2) argues:

[... We] might describe a sound as 'threatening', 'reassuring', 'aggressive' or even 'beautiful' but what we are doing is not so much to describe the sound as to describe our response to it. This response will be based on a complex negotiation of evolution and personal circumstance. It may be that we cannot completely suspend the 'search engine' that is our perception system (even when we sleep). This engine seeks to construct and interpret the environment (perhaps the two cannot be separated). Furthermore the perceiving body – the listener – is part of that environment and not a detached observer.

But what this “will to listen” which helps “construct and interpret the environment” ultimately mean? *Listening* might be roughly defined as the assignment of significations to the act of hearing. In other words, *hearing* is the sense in and by itself, which detects and discriminates sound events, whereas *listening* implies cultural, social and symbolical interpretations of these sound events (Blessner and Salter 2007). As argued above, the collective act of interpreting sound events and acknowledging them as *music* is one of the core aspects that must be taken into account when approaching live musical performance. It is important to emphasize that the extent of this mutual agreement has changed throughout history, determined by its current social, economic and technological demands. With the introduction of recording technologies, not only recorded sounds themselves became prime matter for composition, but the disconnection of sounds from their “natural” – as opposed to instrumental – sources required a new philosophy of listening to be proposed.

Technological means not only contribute to an expansion of musical discourses, but also inform the interpretative process of listening. In the 1940s, french musician Pierre Schaeffer coined the term “reduced listening” (*écoute réduite*), a practice which would make possible an “acousmatic condition”¹ in sound. In short, Schaeffer was proposing that the act of listening should release itself from *cause-effect* relationships and pre-established significations. Instead, he proposed that through reduced listening, a sound should not be regarded as in relation to its source but rather “for its own sake” – for its own capabilities and properties. Even when in the process of musical composition, such sounds could also be acknowledged according to their relation to other sounds (Chion 1983, p.18 cited in Emmerson 2005, p.5). Even though Schaeffer’s intentions might be put into doubt or claimed as purely ideological – particularly if tested against current technology, more than half a century later² –, the main idea of disconnecting sound and source was determinant for an entire range of composers who sought to understand and achieve the premises of the acousmatic condition. This contributed to a significant

1 “Acousmatic: [...] indicating a noise which is heard without seeing the causes from which it originates.” (Chion 1983, p.18 cited in Emmerson 2005, p.5)

2 in a comprehensive critique of Schaeffer’s premises Kane (2007, pp.22-23) states: “If new music demands new forms of listening, and demands a critical discourse capable of defending its merits in the face of overwhelming misunderstanding, stupefaction or, even worse, utter indifference, this critical discourse must resist the reliance upon ahistorical ontologies as a form of reassurance. When the distance between our technological apparatus and the veil of Pythagoras becomes negligible, sadly, we are in the presence of ideology.”

expansion of the entire musical discourse of western society in the twentieth century (Emmerson 2005, p. 6)³.

On the other hand, popular music performances have always been connected to the idea of a spectacle that transcends sound. Artists and bands have been, throughout history, attempting to create remarkable live experiences, from improvisational jazz and prog-rock acts which focus on delivering unique pieces of music in each performance to artists who apply elements of theatricality to their acts such as light shows, complex stage designs, figurine and storytelling⁴. All of these are but strategies taken in order to engage audiences into the performance, and even though these concerts can be easily and accurately recorded and reproduced, the “being there factor” of a live performance may still hold an intangible “aura” to it (cf. Benjamin 1936). As Auslander (2008, p.95) puts it, in such situations the “concert answers the question [of authenticity] raised implicitly by the recording.”

It is interesting, then, to observe a paradigm shift on the original definition of live performance in a society where access to culture is strongly technology-mediated. The live act, which originally intended to bond performer and audience directly through the “here” and the “now” components of musical playing, starts to employ resources derived from recorded media, in order to become more appealing to audiences. In other words, the strategy taken so far to “augment the live” is exactly to provide a situation that may get as close as possible to the experience of watching a recording of a performance, comfortably at home. On this matter, Philip Auslander (2008, p.26) presents two interesting examples from classical music, a genre which has been as distant as possible from the spectacle of popular music:

[...] in 2004, the New York Philharmonic, in a bid to attract a younger audience, began to experiment using live-feed video in its concerts so that audiences could experience close-up views of the musicians and conductor, a practice that met with resistance from some of the musicians [...].

The experience of the live concert thus becomes somewhat like that of watching a DVD in which one can access extra features as well as the concert itself. This idea has taken on an even more remarkable form in an experiment

3 Not only in terms of “academic” electroacoustic music, but also significantly in the “popular” electronica scene of the 1990s. As Cox and Warner (2004b, p.366) write, this “technologically adept generation [...] has come to hear the whole history of electronic experimentation [...]: from Stockhausen [...] [to] Afrika Bambaataa, [...] to make experimental music that lands squarely between the concert hall and commercial pop radio.”

4 This can be seen particularly in rock music, in acts from Genesis to the “Shock Rock” movement in the 1980s, to name a few examples. For a more detailed account on the theatricality of performance within the rock and “shock rock” genres, see Auslander (2006) and Dunn (2012).

by the Nashville Opera in which recorded commentary by the director and cast was made available via iPod during performances of Gounod's Roméo et Juliette, in the manner of commentary tracks on DVDs [...] .

Further on, he discusses the role of technology on the implications of the word “live”: whereas in its traditional sense it meant mostly “physical co-presence of performers and audience”, developments in technology have also aided the term to expand its meaning and accede any “sense of always being connected to other people, of continuous, technologically mediated co-presence with others known and unknown.” (Auslander 2008, pp.60-61) Moreover, with the popularization of the music video and more recently with YouTube, amateur recordings of live performances seem to have become a “center of connection” of the musical act – as discussed earlier in this study.

3.1.2 Performance and postmodern musical practices

Within the spectrum of contemporary electronic music, the focus has been somewhat different from the popular spectacle, particularly by employing means that are strongly dependent of technology, more directed to strategies which concentrate on the listening experience and its immediate relation with the performance space. A technique largely employed by composers of electroacoustic music consists in designing complex sound diffusion systems which are particular to each piece, positioning and distributing sound over time and over the performance space ⁵; in this case, the loudspeaker becomes a musical instrument on its own, with specific capabilities depending on the composition.

Another approach implies applying large use of digital musical instruments, e.g. the laptop, and playing techniques which reject a hitherto strong component of performance, which Emmerson (2007, p. 91) calls “mechanical causality”. In other words, it means to dismiss gestural “cause-effect relationships” on the production of sounds, and thereby induce the audience to a sense of confusion and bewilderment, for them to focus less on the figure of the performer and more on the experience of sound in and by itself. So far this has been the dominant and controversial paradigm of the so-called “laptop music”, as Kim Cascone (2002a, pp.55-56) argues:

Usually, music performed on laptop is presented in a traditional proscenium setting, framed in the traditional performer-audience polarity. This context frustrates the audience because they are unable to resolve the setting with a lack of spectacularized gestures (i.e. the lack of theatrical codes) which signify ‘performance.’ [...] Thus,

⁵ although some rock bands have also made use of this technique, namely Pink Floyd during their 1975 tour. As Emmerson (2005, p. 161n49) describes, “the five separated surround sound stacks were intended for delay and echo effects around the audience [...]” More recently, “post hip-hop” artist Amon Tobin developed a 7.1 surround sound setup for his DJ performances (Leijon 2005).

the cultural artifact produced by the laptop musician is deemed a counterfeit, leaving the audience unable to determine a use-value.

In situations like these, how does the “validation” of a live act by an audience happen? Emmerson (2007, p.103) argues that for this to occur, the space for these acts must cope with their performative methods. For him, the “club space”, characteristic from late twentieth-century electronic music, might provide an immersive “sense of place [which] is generated within the real space of the performance and thus the ‘space of the work’ is only truly created in the act of performance and is not encoded in its recorded form”, thereby proposing one possible answer to Cascone’s inquiries above. A different perspective on performance spaces walks along with a change on the discourse of the music itself, as Simon Reynolds (1998, xix, my emphasis), writing on the British rave scene that emerged in the 1980s, remarks: “[w]here rock *relates* an experience (autobiographical or imaginary), rave *constructs* an experience. Bypassing interpretation, the listener is hurled into a vortex of heightened sensations, abstract emotions and artificial energies.”

Therefore, one might affirm that in these scenarios, a live experience is **constructed** – rather than repeated – by the performer and the audience concomitantly. Yet this “construction of experiences” through live music is not only an exclusivity of the electronic scene, but rather comprehends practically the entire spectrum of contemporary musical practice. Earlier on, Reynolds (1995, p.358) wrote on the construction of these experiences, which may echo the ideas of fragmentation and displacement discussed in the second chapter of this study, within the “post-rock” movement – a term coined by him which became a genre of its own. This new rock genre is, along with electronic music, essentially post-modern and strongly connected to live performance:

[Post-rock] also parts with such notions as the singer as storyteller and the song as narrative, source of life-wisdom, or site of social resonance. This shift parallels tendencies in the culture (e.g., computer games, virtual reality, designer drugs) that indicate the emergence of a new model of posthuman subjectivity organized around fascination rather than meaning, sensation rather than sensibility [... T]here’s a dismantling of trad rock’s dramatic mechanisms such as ‘identification’ and ‘catharsis.’ Instead the listener is plunged into plateau-states of bliss, awe, uncanny-ness, or prolonged sensations of propulsion, ascension, free fall, immersion.

Later on, Cascone (2002b, p.398, my emphasis) also offered a similar view on the aesthetics of what he calls “post-digital”, claiming that this music practice “has become fragmented, it is composed of stratified layers that intermingle and defer meaning until the *listener takes an active role in the production of meaning.*” Validation of a live performance, hence, expands the meaning presented right in the beginning of this section to embody other significations, mostly based on this kind of “posthuman subjectivity”

proposed by Reynolds, which is not preoccupied with gender nor genre definitions, which is “androgynous and racially indeterminate: half ghost, half machine”, and where “skin instead of soul” prevails (1995, p. 359). In other words, for one to validate a musical act as a *live performance*, being physically present is no longer the *only* requirement. Instead, it means to engage on the construction of an immersive, collective situation which transcends the experience of listening, to blend it with collective experiences of space and time altogether.

3.1.3 Performance and social experience

According to Simon Emmerson’s study in *Living Electronic Music* (2007, pp.2-3), the listening experience in the context of live contemporary music is constituted by three types of “presence”⁶: “*Physical presence*”, which is the listener’s immediate perception, where one can acquire awareness of “sources and causes of the sounding flow”. “*Psychological presence*”, which deals with anticipation and construction of narratives out from this flow: how a composer may predict, follow or decide to break with the listener’s expectations and to which extent these expectations might influence performative decisions. Lastly, the “*Personal and social space*”, which contains the former two and where issues of social milieu, discussion with peers and the performance venue itself is what sets the conditions for the other “presences” to happen, and to which extent they might have influence on the flow of the performance (Fig. 1).

For Emmerson (2005, p. 30), the presence of the listeners and their social contexts are strongly determinant for their assessment of a performance. Moreover, their presence also influence the performer’s own pace and decisions through a system of mutual feedback (*ibid.*, p. 32), thereby bonding performer and audience to a specific time and place situation. For Emmerson, this particular combination is what constitutes a performance, and not the sounds in and by themselves (*ibid.*). A performance is, then, a strongly social event; each personal space – one’s own body – and its inherent interpersonal distance collectively help build these shared and social places that the live act embraces. McCollough (2005, p.39) may complement this notion:

Social distance thus establishes categories of experience, from the intimate to the collegial to the public. Framing the interplay of embodied behaviors remains the most important function of environment. [...] Architecture consists of built social relations. [...] In a favorite example among environmental psychologists, a sense of

⁶ Although Emmerson discusses mostly electronic music – from the more academic to the IDM scene of the 1990s – most contemporary musical practices make use of the same performative ideas, as seen before with “post-rock”, for example.



Fig. 1
Simon Emmerson's
Living Presence diagram

crowdedness depends on what people are doing. Concertgoers have a different notion of personal space than ballroom dancers.

The boundaries between personal and social space in live performance are completely different from that of the private listening experience. As Michael Bull (2007, p.5) argues, the personal listening device contributes to expand a “privatized sonic bubble” which yields a sense of “mediated solitude”, thereby staying on the opposite end to the shared live performance space – wherein rules of “social etiquette” and interpersonal distance acquire different meanings. Furthermore, in an event like a live performance such temporary spaces of relationships among performer, listener and their peers are strongly tied to an assignment of roles that is strictly cultural.

On the other hand, Theodore Gracyk (1999, p. 148) claims that these moments of social bonding and “fandom”⁷ are what live performances are all about. He argues that the intangible “aura” performance holds might be more appealing to the listener than to the performer, to the point that this “social presence” does not contribute with anything significant for the musical encounter. He suggests that “pubs and pool halls with jukeboxes” may already suffice for the “communal feeling” of an audience (*ibid.*, p. 147). Even though at times Gracyk seem to corroborate that the social component of performance is indeed relevant, he blatantly refuses its quality as an aesthetic experience⁸. Furthermore, Gracyk argues that all of these interactions can be easily substituted or replicated by technology:

The talk is now in virtual space, where hundreds of Internet sites are devoted to the discussion of music [...] Interaction between audience members is no longer concentrated around the time and place of performances [...] The social formation typical of live performance gives way to a different social formation where audiences favor recorded music over live performance. (ibid.)

Yet, even though recording technologies have blurred the distinctive line between “live performance” and “comfort zone” quite successfully, the number of weekend festivals and tours in the last few years – particularly if the decrease of the record industry income is taken into account – seem to point out quite the opposite of what Gracyk argues about performance not being about a “social experience” after all (Page 2007). The main issue with his argument seem to be that such “sense of belonging” should not be regarded as an isolated component of live performance attendance, but rather as an umbrella term into which experiences of time, space and listening are constituted.

⁷ “the state or attitude of being a fan” (Merriam-Webster Dictionary)

⁸ in Gracyk’s own words, “By ‘aesthetic experience’ I mean something quite traditional: the rewards of grasping a musical work under a particular interpretation as it unfolds in a series of sounds to which one listens attentively” (1999, p. 150n54)

Moreover, Gracyk could not foresee the demise of the record format over the Internet, which inflated significantly the appeal of the live performance for both audience and musicians. Recorded music feels less valuable as of now (Anne Hilde Neset in Dworsky and Köhler 2011), for it is widely available and *always there*, whereas a live performance still is a one-off occasion, full of unpredictable moments just waiting to happen. And the audience *must* be there to witness them, as they happen.

3.2 THE LIVE PERFORMANCE AT THE DIGITAL AGE

3.2.1 The fragmentation and displacement of live performances

As the record sales decrease, and the live act starts to consolidate itself as one reliable source of revenue in music for the near future, it is natural that immediate innovative attempts should emerge. These solutions may roughly seek to dialogue with the current technological paradigms, and moreover to try to cope with successful mental models of the musical experience. At the beginning of this chapter, two situations posed by Philip Auslander (2008, p. 26) were presented as examples of the live act as trying to imitate the multimedia possibilities that a DVD of a performance would offer. In this section, a few ideas that have been speculated among a few performers and record companies will be discussed. These initiatives seek to integrate the interactive character of contemporary media into live performances, as means to reinforce the relevance of the live act for the future of music.

In late 2009, an article called “4 Ways Live and Digital Music Are Teaming Up to Rock Your World” (Van Buskirk 2009), posted at the “Epicenter” blog from Wired Magazine, discussed an apparent “middle ground” between music listening in the digital age and live concert attendance. The essay presented possible solutions sought by record companies to generate revenue from live performances that would extend beyond ticket sales. The ideas introduced in this article span from the already discussed “Live broadcasting” of concerts to “Just-in-Time Live Recordings Sold at Shows and Online [, where s]howgoers can buy professionally recorded concerts as they exit a venue on USB stick, CD, DVD or as a digital delivery.” (Van Buskirk 2009) Whereas these ideas seem, three years later, by no means revolutionary on their own (as seen earlier on this study, bands have been releasing “official bootlegs” of their concerts long before Internet times), two of them are particularly worth highlighting in this research.

The first idea which aims to integrate the inclusive character of participatory media into live performances is, according to the article, “Live Concert Interaction”. According to Van Buskirk (2009), “[t]he next step is for fans viewing a concert remotely to interact with a show within the venue, putting messages on the stage or even sounds in the speakers.” Testimonials by fans and the possibility to vote and define the setlist in realtime are, according to the author, the first steps for this type of interaction. The most radical ones, according to Billboard live music broadcasting director Marc Scarpa (cited in Van Buskirk 2009), is to allow the fans to collaboratively influence and control the venue’s sound system by sending riffs, mixes and sounds to be played. Billboard’s Josh Engroff (cited in Van Buskirk 2009) complements that it is also of interest for the artists themselves, for it expand their presence in order to reach a broader audience than the one at the venue.

Indeed, in June 2010, four of the most influential bands of the 1980s heavy metal scene played together at the *Sonisphere Festival* in Sofia, Bulgaria. The event, named “The Big Four”, was seen not only by the fans present at the festival location, but also by thousands of other fans spread all around the world. More than eight hundred movie theaters in Europe, Asia and the Americas have broadcasted the gig, live and in high definition, for which fans paid a bit less than the price of a regular concert ticket (McCormick 2010). Later on, before the release of an official DVD of the concert, some of these theaters replayed the concert, charging the price of a regular movie ticket for it. Allegedly, this idea would allow for a wider scope of concert attendance, yet without losing the social encounter which is so particular to the live experience. According to Van Buskirk (2009):

[These events are a] happy medium between the solitary experience of watching a show on your computer screen and the experience of attending it in person [...] Fans watch them together in a surround-sound environment that does the music a lot more justice than your desktop computer speakers do, and at a much higher bandwidth.

As the author comments, the idea of broadcasting both live and taped concerts in movie theaters has been one of the prospective strategies for major companies like Sony, whose main focus is to target younger audiences. According to its senior vice-president Mike Fidler (cited in Van Buskirk 2009) “[m]ost of the theaters’ demographics are really aligned with music demographics — close to 70 percent of the people attending theaters are under 30 — and so what we thought we’d try to do is bring these events during the week [...] and do it with emerging or emerged bands.”

What is interesting to observe in the ideas discussed by this particular essay, is that they present strategies strongly biased towards media habits of younger generations. Behaviors such as realtime tweeting, frantic texting and the rising market for broadcasted live experiences clearly illustrate the character of *displacement* and the *shorter attention span* versus *broader attention range* dichotomy discussed previously on this study. Whereas this may seem highly controversial and often regarded as “absurd” (as seen in the comments section of the online article, for instance), it perhaps denotes another upcoming trend for the future of music – one where the live must struggle to cope with the velocity imposed by the affordances of an ever-growing technology-mediated society.

Yet, these two particular strategies still seem quite naive, for they imply a highly objective relationship between the so-called “digital” and the live experience. In other words, what they do is merely to add a “digital layer” to what has been already taken for granted. Perhaps the music industry still needs to understand the poetic and aesthetic subtleties of these relationships, in order to provide

ideas that would successfully couple the live and the digital experiences together in more subjective manners.

3.2.2 Simulation and Hyperreality in live performances

Examples of simulation in music can be acknowledged as going as far as resurrecting dead idols. In 1991, a duet between Natalie Cole and her father Nat King Cole, deceased in 1965, won seven Grammy awards in the following year (Stanyek and Piekut 2010, p. 15). This novel rendition was made possible by carefully isolating Nat King Cole's voice from the original recording and meticulously synchronizing it with a "click track" – a technology which by 1961 was not common in music production –, in order for Natalie to sing upon (*ibid.*, p. 30). With this new version, not only the producers have created an impossible duet between the living and the dead, but they have also *perfected* the "mistakes" found in an already established, timeless classic, in order to fit the modern standards of music production.

More recently, the idea of *postmortem duets* was taken a step further, when Snoop Dogg performed with a holographic version of the famous rapper Tupac, deceased in 1996, at the Coachella 2012 Festival. A combination of earlier live footage, motion capture and computer graphics helped project a "zombie" version of Tupac on stage to both accompany Snoop Dogg in one song, as well as for a "solo performance" (Collins and Tucker 2012). The appearance of this *holo-Tupac* on stage obviously generated a great commotion not only in the fans present at the venue, but also in social networks and media. Whereas the addition of holographic elements in live performance is not something new – "virtual" band Gorillaz have "performed" with a hologram version of Madonna in 2006 (*ibid.*) – it was the fact that technology have brought the deceased rapper "back to life" what made the greatest impact. While this can be considered as part of popular music's spectacle, it also denotes a tendency to take simulation as *replacing* reality, rather than creating a surreal experience for the listeners. By the time it hit the news, the question being asked everywhere did not concern the performance *per se*, but rather if this would become a trend for the next years, with other deceased musicians being also "resurrected" *ad nauseam* until it eventually becomes a common thing to watch ectoplasmic dead idols sing and play imaginary instruments live on stage.

On the other hand, a few artists have directed their efforts towards crafting "hyperreal" live environments for their listeners. They aim to reinforce the "here and now" qualities which are intrinsic of live performances, engaging listeners into blatantly surreal, exacerbated experiences. U.S. "drone metal" outfit Sunn O)))'s performances, for instance, are designed around considerable degrees of theatricality and a certain "glorious absurdity" (Stannard 2009, p. 43). A dense curtain of dry ice fog, huge and

numerous amplifier cabinets, as well as having the band members dressed in black monk robes and masks helps “channel the tones” and increase the psychological distance between performers and audience, thereby yielding a “different mindset” which augments the physical presence of sound (O’Malley 2009 cited in Stannard 2009, p. 44).

Consisting mostly of heavy, low-tuned and overly distorted guitar chords, played in drone-like slow motion and at incredibly loud volumes, the band’s intent is to provide a rather extreme physical experience of sound *through* space, which reinforces its “live” component, a paramount necessity for a complete acknowledgement of their artistic and aesthetic statements. As Sunn O)))’s guitarist Stephen O’Malley (cited in Wallace 2012) explains:

With Sunn O))), it’s about creating physical sound mass rather than creating bridges. The physical aspect of the structure is really much more physical and present. It’s not about loud and loudest. It’s about scale and size. It demands something of the audience that involves a mental physical stamina – not in a macho way, or a sport thing – because this requires you to slow yourself down and listen [...]

When the space *by itself* produces and resonates the sounds through its own structures, architecture becomes performance, interweaving the idea of the event and the very location where it happens. Boundaries between the “space as instrument” and the “space as inhabitable place” become entangled and intertwined. With Sunn O))), the sounds by themselves may not matter; instead, the unique experience of bodily and temporal presence, of immersing oneself into an extremely physical encounter with vibrations that engage not only the ears but the entirety of the senses, is what the band seeks to deliver. As Mark Bain (2003, p.166) remarks, “[w]hen boundaries are pushed, new awakenings in the self can be located. Through this, social interactions can expand and a new type of referential identity might develop.” Complementarily, Paul Hegarty (2011, p. 90), while giving an account of his experiences at My Bloody Valentine concerts (which are remarkably known for being extremely loud and noisy performances) argues on this “loss of self” aided by extreme physical experiences with music:

Only a live or transient encounter brought the promise of [loss of self, an ecstasy that would be retained as a trace to inform all other musical encounters [... T]here was still a suspension of the possible in the shape of an unbending yet tender assault [, ...] an overpowering chemical physicality [that] transported the sound straight in [...] As My Bloody Valentine reached in with a clammy hand to massage my kidneys, the whole world of music reconfigured itself.

Furthermore, Sunn O)))’s performative aspects, combined with the slowly but intense, evolving sonic curtain the band weaves, purposefully reinforce the sense of time suspension and temporal

estrangement, hence designing a rather surreal experience of (hyper)reality. As O'Malley (cited in Wallace 2012) comments, “[with] the live experience, [...] there’s a real different sense of time [...] The sensory overload can create a different space, and a different perception.” By creating a sort of “stationary soundscape”, with sound waves so dense one could practically grab them in the air, it is of no surprise that the consequences of such sonic intensity at Sunn O))) concerts span from reports of “hearing loss, tinnitus and nausea [to] vibrational disintegration of photographic equipment” (Stannard 2009, p. 43). Bain (2003, p.167) also argues on the potential power of sound intensity:

Both bodies and most building structures are excited efficiently in the same relative frequency spectrum of between one and twenty cycles per second. [...] This parallel relation also helps to reinforce the concept of bridging through sympathetic resonance, of defining a trace between the body and architecture and using vibration as a vehicle to connect the two.

Particularly among the rock and pop music scenes, it is indeed common to recall a live concert experience as something extremely and intensely physical. Issues of heat, standing up for too long, screaming, dancing, not to mention the infamous practices of “stage-diving”⁹ and “moshing”¹⁰ may dwell among the most remarkable memories of concertgoers. Yet, with the examples of Sunn O))) and My Bloody Valentine performances this physicality is taken to another level, where it may stand on the verge of adrenaline rush and inflicted pain. Similarly to radical sports and other high risk activities, the thrill of taking the body – and space, for that matter – into its extreme limits may seem the most attractive feature, rather than the sound by itself, for engaging into these live encounters.

9 “the practice (typically among audience members) of jumping from the stage at a rock concert or other event to be caught and carried aloft by the crowd below.” (Oxford Dictionary)

10 “dance to rock music in a violent manner involving jumping up and down and deliberately colliding with other dancers” (Oxford Dictionary)

3.3 RESEARCH QUESTIONS

Stemming from all the points discussed throughout this chapter, it is safe to assume that the boundaries between live and digital experiences in music are progressively losing their strength. Key components for this paradigm change are the *fragmentation* and *displacement* of media language, and the *simulation* of experiences as one of its main consequences. As stated previously, this research starts out from two distinct points: one departs from the fact that the Interaction Design usually approaches the future of live musical performance through the development and assessment of novel instruments and interfaces for artistic and musical expression. However nowadays, with means to create and act within the digital world becoming more accessible, individual, customized experiences tend to supersede mass production and standardization, not only for artists and creators but also for listeners alike. Broader access to novel technologies for designing artifacts may empower individuals to extend their experiences beyond pre-given, ordinary agendas.

The other point investigates how technology has not only changed society's understanding of music, but also its engagement and acknowledgement of a live performance in general. This study argues that so far strategies that aim to bond the "digital" and the "live" are contributing to equate the two experiences to the same aesthetic level. Therefore, a preliminary question would be how these new interactions between people, electronic artifacts and live music can be designed, in order to achieve results beyond this equalization.

However, this question may seem too broad for the scope of this study. Yet, it is able to provide a consistent framework for other specific inquiries to be developed:

How can Interaction Design speculate on the future of live performance, from the point of view of the listener rather than of the performer?

Furthermore, as society becomes increasingly accustomed to relationships mediated by digital artifacts, what if the bliss and catharsis typically provided by the experience of live performances become "insufficient" for the listeners? What types of "solutions", "workarounds" and "rituals" would emerge from there?

FOUR: METHODOLOGY



*And how can we expect anyone to listen if we are using the same old voice?
- "New Noise", from Refused's "The shape of punk to come" (Refused 1998, tr. 6)*

*[... T]here are lots of ways of designing that allow for interpretation and
creative misuse: abuser-friendliness rather than user-friendliness.
(Dunne and Raby 2008, p.265)*

The scenarios above presented, as well as the questions and discussions that emerge from there, open up an interesting field for a design-oriented research. As briefly discussed previously, the main motivation for this study was the fact that the great majority of research efforts that propose designs for the future of music have their focus solely on the figure of the musician. In other words, it usually means that most state-of-the-art investigations that situate themselves in between design and music disciplines are conducted alongside specific musical practices, genres or performers, rather than under a listeners' perspective¹. Therefore this research, while understanding that the resulting experience of any musical performance may rely as heavily on the listener as on the musician, has directed its concerns towards how technological developments in society, and consequently in music, have affected these encounters. Concomitantly, the method taken by this research intends to put into question Interaction Design's common assumption of the *user* as a standardized experiential entity for setting design constraints. In order to do so, it must first and foremost extend the acknowledgement of Interaction Design beyond the terms of "usability" and "optimization of the user experience", towards more poetic and aesthetic perspectives.

¹ Fyans et al. (2010) and Reeves et al. (2005) discuss "spectator experiences" in their researches, albeit with methodologies towards designing gestural interfaces for new instruments and the level of their understanding by an audience. Also, both of the studies presuppose a "user model", which is exactly the method put into question by this research (see section 4.1.3).

4.1 INTERACTION DESIGN WITH AN AESTHETIC APPROACH

As discussed in the second chapter of this study, society's experience with electronic objects have evolved and changed significantly in the past twenty to thirty years. Moreover, these shifts have happened at such a rapid rate that the paradigms associated with how these experiences are constructed may have not followed along, particularly in the way electronic objects and conceptual models of interaction are designed. As Anthony Dunne (2005, p.9) remarks, "[... g]enerally, designers have not exploited the aesthetic dimensions of new materials with the same energy that engineers have exploited their functional possibilities [...]" This means that there might be a general lack of studies questioning the role of these experiences in everyday life, and how society constructs behavior and organizes itself, in order to comply to these experiences mediated by technology. The *modus operandi* so far has most certainly been highly unilateral – from what the industry *thinks* people need according to their own expectations –, starkly towards *objective* rather than *subjective* goals. Hence, some authors call out for designers to take an active role on the challenge of such assumptions, directing their research efforts towards aesthetic, poetic and more experiential design processes. On these processes, Dunne and Raby (2008, p.265) write:

They offer up richer experiences and embody values far broader than those available in existing mass-market products. [...] They provide a space where new ideas about how we interact with each other, technology and culture can be tested, presented and communicated – a parallel design channel or genre dedicated to ideas. In them, we catch glimpses of how things could be if industry was a bit more imaginative and in tune with how people actually are.

Furthermore, Daniel Fallman (2008, p.5) writes about "interaction design research as having a voice in societal discussions, and in exploring and shaping possible futures". His statement reinforces the necessity for designers to rely on critical explorations of digital products and interfaces, rather than being solely committed to the industry needs. This resonates with the fact that the field of Human-Computer Interaction has been constantly criticized for taking functionality and usability as its main research areas, while leaving behind social and cultural aspects which are as relevant to a global understanding of the field as to the objects of study themselves. As Udsen and Jørgensen (2005, p.205) argue:

Based on an antiquated instrumental understanding of the computer, HCI-standards address classic usability issues such as effectiveness, efficiency and satisfaction (the ISO standards). These standards do not correspond to the diverse cultural uses and rich application areas of modern digital technologies.

Granted, a necessity to understand and explore human-computer interaction in “creative and innovative forms”(Udsen and Jørgensen 2005, p.206) is paramount to the development of interfaces and products in the digital age, which may help differentiate “interaction design research from other disciplines with related interests” (Fallman 2008, p.5). For that, Udsen and Jørgensen propose four approaches with different takes on aesthetics (Fig. 2), whereas Fallman proposes a model with three main methods, which are visualized as a triangle (Fig. 3).

These two propositions are somehow similar, for they clearly differentiate approaches biased to the product industry (“functionalist” and “design practice”) from more cultural and philosophical (“cultural”, “techno-futurist” and “design studies”) or social and experimental methods (“experience-based” and “design exploration”)². Fallman (2007, p.194) suggests that in research, “design appears to be a quite special kind of activity difficult to compare to other available methods and techniques”, and also points out the difference between *design-oriented research* and *research-oriented design*. For him, whereas the former “seeks to produce new knowledge by involving design activities in the research process”, in the latter “the creation of products, and in that process answering to the problems and real-world obstacles that are faced in that process, is the primary objective”. Each take may provide a plethora of theories and questionings of their own, and all of them contribute equally to the discipline of Interaction Design, for it is, as mentioned above, an incredibly broad and rather new field of study. As the authors recall, these methods are not separate from each other nor exclusive; rather, they often blend depending on the nature of the project being developed.

4.1.1 “What if?”

The research questions posed by this study have two different purposes: the first one is to challenge the ordinary through their very ambiguity, in order to provoke a reflection on possible futures that may lie ahead. As Fallman (2008, p.7) writes, “[i]f successful, such reflection becomes an existential act that will help the field develop a kind of engaged knowledge that may be inaccessible from an outside perspective”. The other goal is to suggest and validate the methodology presented in this chapter as one possible strategy for speculation on the future of music, through its employment at the in-between of two rather distinct disciplines – Interaction Design and Sound Studies. Based on the two diagrams above, the methodology followed by this research may be biased towards the approaches the authors name as “experience-based design” or “exploratory design”.

² Although Fallman constrains “aesthetics” to the field of “Design Exploration”, it is clear that it is just an issue concerning different understandings of the terminology by the authors. As Udsen and Jørgensen (2005, p.206) argue, “the task of self-definition is one of the most stable features of the discourse in aesthetics”.

	1) Cultural	2) Functionalist	3) Experience-based	4) Techno-futurist
Academic traditions	Humanities New Media	Traditional HCI Usability	Interaction Design	Philosophy
Interfaces	Non- informational spaces	Informational interfaces	Post-optimal objects	Ubiquitous computing environments
Theorists	Laurel Johnson Manovich Bolter & Gromala Walther Pold	Tractinsky Jordan Norman Karvonen Desmet	Blythe et al. Dunne Gaver et al. Löwgren McCarthy & Wright	Dourish Halläs & Redström Ishü & Ullmer

Fig. 2
 Udsen and Jørgensen's four
 aesthetic approaches to HCI

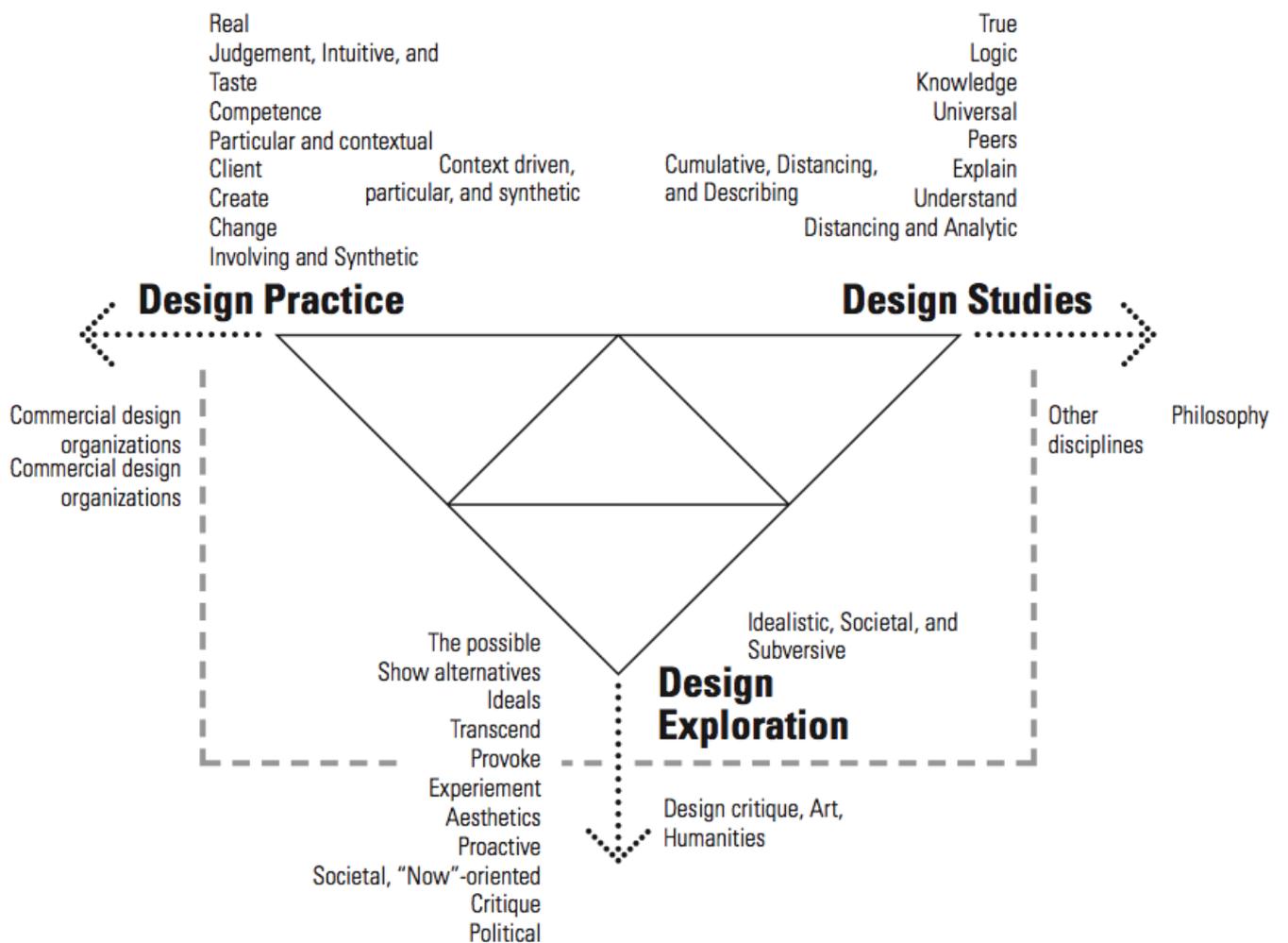


Fig. 3
Fallman's Interaction Design
research model

accepted paradigms, to bring matters to a head, and to be proactive and societal in its expression.” (Fallman 2008, p.8) Moreover, these designed “post-optimal” objects present what Dunne (2005, p.43) calls “para-functionality”. According to him, it means “a form of design where function is used to encourage reflection on how electronic products condition our behavior. [... S]uch design is within the realms of utility but attempts to go beyond conventional definitions to include the poetic.”

4.1.3 Questioning the “user” model

By exploring the poetic dimensions of artifacts, Interaction Design establishes itself as a vehicle not only for questioning on the role played by technology in everyday life, but also to encourage criticism on interactions that are designed assuming that people behave equally in given situations – under the umbrella term of *users*. But on the contrary, people do behave in different ways according to a multitude of factors: cultural and social background, memory, learned behavior from previous experiences or even a certain degree of estrangement, that may emerge from a confrontation with the new.

However, most designed interfaces tend to level down their “users” to the bare minimum, thereby offering no challenges to their relationship with these electronic objects, often narrowing them down “to the prosaic” (Dunne 2005, xvii). These approaches ultimately aim to devoid the relationship between “user” and “object” from serendipity and misuse, thereby excluding any aesthetic and poetic possibilities that these encounters with the random could and would yield. Indeed, such strategy – taken mostly by the industry – is strongly put into question by a few authors, who claim that an approach like this is rather naive, for “users” themselves, encouraged by online communities and knowledge sharing, are increasingly subverting how these objects are employed in everyday life. A reflection on this idea is framed by Katie Minardo Scott (2009, pp.6-9), who writes:

[Usability] can no longer keep up with computing: The products are too complex, too pervasive, and too easy to build. And in our absence, users and engineers are beginning to take over the design process [, and that an] ever-expanding base of users are repurposing or reimagining how their products are used by modifying, tweaking, adding, building, etc. This work was once limited to a small population of hackers, but is expanding to a larger segment of the user base.

Ron Wakkary (2009, p.14) may complement this notion by stating that the “creativity of the user establishes the foundation (not the challenge) for interaction design; unpredictability is reframed as a positive attribute of the user rather than an obstacle to ‘proper use’”.

But what exactly do “experience-based” or “exploratory design” approaches convey? As Donald Schön (1992, in Fallman 2008, p.7) puts it, the most important question for design exploration is “*what if?*”. This means that investigating possibilities rather than ultimate solutions is the main intent of a designer who chooses to go in such direction. Fallman (2008, pp.7- 8) adds that through applying such a questioning, “design becomes a statement of what is possible, what would be desirable or ideal, or just to show alternatives and examples [, thus creating] the necessary space for the interaction design researcher to acknowledge [...] the issues of aesthetics.”

Indeed, by asking “*what if?*”, the Interaction Designer seeks ultimately to develop scenarios and products that employ what Dunne (2005, p. 91) calls an “aesthetics of use”, as opposed to an “aesthetics of construction”. In other words, it means to design these intangible experiences that happen *before* the shaping of a material product itself (Hassenzahl, 2011), to give objects and artifacts “a distinctive identity from the linguistics of construction and manufacture” (Dunne 2005, p. 48), which aim to promote “new ways of communicating immaterial messages through emotional friction, engaging interaction and seductive means” (Löwgren 2002; Löwgren and Stoltermann 2004, cited in Udsen and Jørgensen 2005, p. 209).

4.1.2 The post-optimal object

Designed objects, material products and scenarios, when developed through employing these methods presented above, may assume the role of what Anthony Dunne (2005) calls “post-optimal objects”. The first inception of this term arose in 1996, after an observation that “products have reached an optimal level [and that] a post-optimal object could rescue design objects concerned with ideas from the [...] art world, while maintaining a relationship to design” (Dunne 2005, pp. 149-150n1). For him, the real task for designers nowadays is to explore “the realms of metaphysics, poetry and aesthetics, where little research has been carried out [instead of] technical and semiotic functionality, where optimal levels of performance are already attainable.” (2005, p. 20)

Hence, “post-optimal objects” aim to challenge the border between product and user – a term whose meaning loosens the more interface technology advances – to become aesthetic and synthetic statements of an experience, explorations of possible – and near – futures. Dunne argues that “behavior is a narrative experience arising from the interaction between our desire to act through products and the social and behavioral limitations imposed on us through the conceptual models they impose” (2005, p. 68). These objects may drift between the art and design universes in the form of installations, prototypes, models or props (Dunne 2005) to “reveal alternatives to the expected and traditional, to transcend

The above statements clearly demonstrate that Interaction Designers must debate their own methods beyond utilitarian means in order to invoke political, social and economic awareness on the extent of technology's action in everyday life, as well as the role that the actors within these environments shaped by technology may have in these discussions. Such debate often takes form in projects that propose rather "questionable" products (or "post-optimal objects") and scenarios that aggressively challenge ideas of standardized models of "user-friendliness". Dunne (2005, xviii) calls for "object misuse and abuse", and argues that "[i]f user-friendliness characterizes the relationship between the user and the optimal object, user-unfriendliness then, a form of gentle provocation, could characterize the post-optimal object.[...] ." (2005, p.35)

Lastly, as the era of mass customization consolidates itself through initiatives such as the "maker movement" (The Economist 2011b, Carmody 2011), the role model of the *user* loses its former strength. Instead, as *actors* and active components of a process that comes *after* design – defined by *use*, *misuse* and *abuse* – these "makers" and "everyday designers" (Wakkary 2009) of the digital age are definitely not satisfied with the trivial: they may often disregard completely pre-tailored solutions in favor of their own interpretations of products and interactions.

4.2 INTERACTION DESIGN WITH A SPECULATIVE APPROACH

4.2.1 Cultural Probes and subjective inquiries

In order to understand what the future might yield, Interaction Design must assume speculation as one of its strategies. Speculative research in Design, however, might be a delicate matter to touch in scientific terms, for it privileges a certain degree of uncertainty and explorative interpretations as its methods (Gaver et al. 2004, p. 53). Instead of carefully formulating questionnaires and assessments that hint to specific results intended by the designer, an approach like this encourages a firm *engagement* of the subjects with the object of study, and retrieves more *poetic* and strongly *subjective* outcomes:

Unlike much research, we don't emphasize precise analyses or carefully controlled methodologies; instead, we concentrate on aesthetic control, the cultural implications of our designs, and ways to open new spaces for design. Scientific theories may be one source of inspiration for us, but so are more informal analyses, chance observations, the popular press, and other such "unscientific" sources. (Gaver et al. 1999, p. 24)

One powerful tool for this kind of research is the Cultural Probe. The term was probably coined by Bill Gaver, Anthony Dunne and Elena Pacenti in 1999, and it presents a form of understanding personal experiences by inspiring and exploring individual responses to a given input – in their case, a package of materials specific to their object of study. While it bears strong resemblance to traditional methods for qualitative research, it is what the Designers *extract* from these Probes what makes them a novel and valuable approach for Interaction Design. They are in and by themselves a process of design that precedes the object.

However, the relationship between Probes and Designed objects in a project is not by any means direct and objective. The idea of the Cultural Probe is to *inform* the Design process, rather than provide precise data or generalized assumptions about a certain inquiry. In other words, Probes are not meant to be analyzed or quantified in any case; rather, they work as a source of *inspiration*, gathering responses from *outside* of the Design process, that help extend it far beyond the personal assessment of the Designer, connecting it with more realistic and personal experiences.

Interestingly enough, the term “Cultural Probes” has, since its first inception, become a “trend” in more utilitarian Design processes. Five years after the first paper, Gaver et al. (2004) discussed the employment of the Probes in the industry as suffering of the same “problem” of more traditional qualitative and/or ethnographic assessments. According to them, they have often been biased towards

provoking specific responses, being *too* tendencious to return realistic, personal and individual experiences:

Asking unambiguous questions tends to give you what you already know, at least to the extent of reifying the ontology behind the questions. Posing open or absurd tasks, in contrast, ensures that the results will be surprising [...] Seeking for justifiable accounts of Probe returns constrains the imaginative engagement and story-telling which can be most useful for design. (Gaver et al. 2004, p. 56)

4.2.2 “Functional fictions”³ and experiential scenarios

In 2002, TIME Magazine featured, among others, Auger & Loizeau’s “Audio Tooth Implant”⁴ (Fig. 4) project as one of the best inventions of that year (2002). The device – as the name suggests – is a microchip that gets implanted into one’s tooth and becomes a tool for communication – i.e. an embedded cellphone. By the time the project became public, a poll on CNN.com asked whether or not people would want a telephone implanted in their teeth (Auger 2010). Plus, a rather alarmed article on Wired Magazine (Sandhana 2002) asked “[w]hy would anyone want voices in their head?”. Lastly, and interestingly enough, the designers received a message from a physician, who was eager to advise them about the “immense social harm” such implants would compel (Fig. 5).

Notwithstanding, one aspect worth emphasizing is that such tooth implant was but a prototype, a fictional object whose intention was exactly to raise this very type of questions. All of its technical descriptions and functional agendas were supported by scientists and engineers, in order to provide a solid background and credibility for the project (Auger 2010). The “Audio Tooth Implant” was a good example of *design fiction*, as the authors themselves remark:

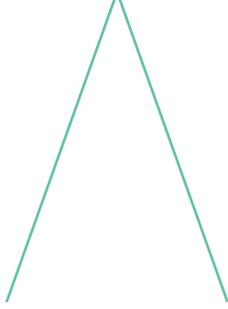
Initially proposed as a real product, the Audio Tooth Implant in reality is a conceptual proposition intended to encourage discourse and comment on the possibilities of in-body technology and their potential impact on society and culture. (Auger and Loizeau in Freyer et al. 2008, p.217)

3 “We’re very interested in the difference between fictional functions and functional fictions. The former is what we get everyday – functional products that meet fictional needs. The mobile phone is a perfect example: we don’t need half the functions it offers us. They are pure fictions created to sell more bandwidth. On the other hand, [... functional fictions] do not exist as ‘real’ products, but as prototypes, semi-real, fictional, but these fictions are highly functional and the needs they meet, although often intellectual, are real and genuine.” (Dunne & Raby 2008, p.264)

4 <http://www.auger-loizeau.com/index.php?id=7> (accessed February 23rd 2012)



Fig. 4
Auger and Loizeau's
"Audio Tooth Implant" model



Re: Press Release of June 14: Tooth Implant to Pick Up Secret Sounds

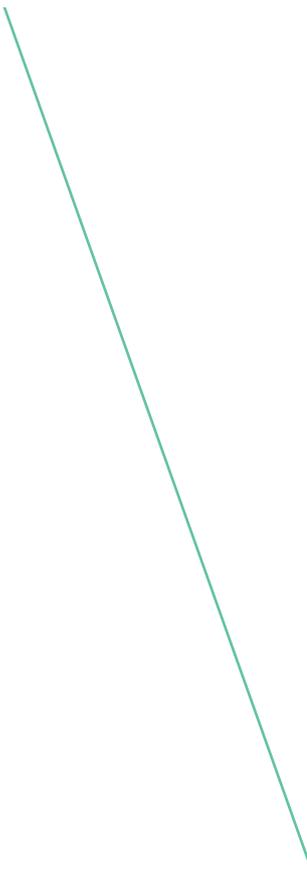
Dear Mr. Meaney:

As a physician I believe the technology you describe in your press release, has the potential for producing immense social harm. This social harm would include psychological trauma, and angry behavior in both the workplace and the home.

.....
.....

[Blurred text]

Fig. 5
Message about the potential social danger of an audio tooth implant.



“Design Fiction” is a term which was probably mentioned for the first time in 2009 by science fiction author and “design guru” Bruce Sterling (Zeller 2011, p.333). Sterling (2009, p.24) wrote on the differences and similarities between product designs present in science fiction literature and industrial design, stressing out that technological developments have led society onto a point where the two might become intertwined:

We have entered an unimagined culture. In this world of search engines and cross-links, of keywords and networks, the solid smokestacks of yesterday's disciplines have blown out. Instead of being armored in technique, or sheltered within subculture, design and science fiction have become like two silk balloons, two frail, polymorphic pockets of hot air, floating in a generally tainted cultural atmosphere.

What Sterling argued was the very necessity of design to position itself as a critical tool for society, to explore the “impossibility of the possible” (Dunne and Raby 2008, p. 265), as means of creating room for asking questions on whether or not certain future scenarios are better or worse than others. Whilst employing such a strategy, the designer then emerges as *author*, as a supporter of a certain ideology or acknowledgement of a reality (Dunne and Raby 2001, Dunne 2005). Julian Bleecker (2009, p.7) complements by stating that:

Design fiction is a way of exploring different approaches to making things, probing the material conclusions of your imagination, removing the usual constraints when designing for massive market commercialization — the ones that people in blue shirts and yellow ties call “realistic.” This is a different genre of design. Not realism, but a genre that is forward looking, beyond incremental and makes an effort to explore new kinds of social interaction rituals. As much as science fact tells you what is and is not possible, design fiction understands constraints differently. Design fiction is about creative provocation, raising questions, innovation, and exploration.

Zeller (2011, p.334) defends that through "giving theoretical ideas and speculations a tangible form, they create a direct awareness and empathy for otherwise incomprehensible needs and situations." Hence, the outcome of a Design Fiction project is likely to be closely tied to storytelling, as Bleecker (2009, pp.7-8) illustrates:

Design fiction is a mix of science fact, design and science fiction. It is a kind of authoring practice that recombines the traditions of writing and story telling with the material crafting of objects. Through this combination, design fiction creates socialized objects that tell stories — things that participate in the creative process by encouraging the human imagination.

And Dunne and Raby (2008, p.267) complement:

If you are designing for now, for today, then it is essential you build your idea and test it. If you are designing for the future, prototyping the future, if you like, then probably not, at least not in the way we think of usually: we can simulate and fake experiences instead. [...] Scenarios are prototypes too, for testing a vision.

The belief that technical prototyping is the only way of developing an idea quickly becomes a problem when it prevents designers from engaging with technologies beyond their level of ability, budget or means.

But what are the possible strategies for projects in this direction? Zeller (2011, pp.334-335) writes on the “Trojan Horse” strategy – largely employed by the Design Interactions program at the Royal College of Art in London⁵ –, where the fictional proposal is situated in between the “traditional” and the “unconventional”. This perspective presented by Zeller is expanded by Dunne and Raby (2001, p.63) into what they call “value fictions”:

In these scenarios, the technologies are realistic but the social and cultural values are often fictional, or at least highly ambiguous. The aim is to encourage the viewers to ask themselves why the values embodied in the proposal seem ‘fictional’ or ‘unreal’, and to question the social and cultural mechanisms that define what is real or fictional.

Hence, as Sterling (cited in Bosch 2012) and Bleecker (2009) remark, the core point of Design Fiction is the use of “diegetic prototypes”, meaning that through the use of *diegesis*, i.e. narratives that describe a fictional world from within, the designer is “telling worlds rather than stories” (Sterling cited in Bosch, 2012). By staying on the boundaries of the real and the utopian, designers should be aware of the thin line that separates what is immediately believable and what is dismissed as strongly disconnected from the mundane. James Auger (2010) calls it “*faction*”, a blend of fact and fiction. Projects like these rely heavily on the idea of “suspension of disbelief” (Dunne and Raby 2001, p.63, Zeller 2011, p. 335), where a sense of strangeness intends to put the designed artifact under a constant questioning – but never providing a definitive answer – of its own validity by its viewers.

⁵ <http://www.design-interactions.rca.ac.uk> (accessed February 23rd 2012)

FIVE: THE PROJECT



Bang your head against the stage

Like you never did before

Make it ring

Make it bleed

Make it really sore

- "Whiplash", from Metallica's "Kill 'em all" (Metallica 1983, tr. 6)

Instead of higher understanding, music's most creative moments would be a place of loss; rules gone, not changed; an all-encompassing world; a breaking-free that would disappear if you started listening too closely, and above all, you were now hearing, not listening. This can happen in many settings, maybe you can even programme it to happen, but it has yet to happen to me again.

(Hegarty 2011, p. 90)

The third chapter of this text presented a few strategies for the future of live music that make use of behaviors inherited from digital culture. Albeit different from each other, one aspect was particular to all of them: those strategies attempt to couple the live act and the digital world in rather literal, superficial ways. On the one hand, some of them may seem rather successful, even though while doing so, they tend to approximate more the live to the digital than to find a common midpoint. Indeed, the questions raised by this research inquire on whether this progressive “digitalization” of live performances may end up flattening the listener’s experiences with live and recorded music to the same aesthetic level.

This study sees the future of live performance as a great stage for experimentation. As argued throughout the text, music is an artistic language whose affect cannot be fully predicted nor designed. Rather, from the moment sounds are intentionally played by a composer, they cease to be her own. The listeners embody the composer’s initial messages to then tweak, distort and adapt them to fit their own emotional needs. Neither musicians nor listeners may fully possess the emotional charge of music; it floats through space and dwells in there permanently.

A scenario where these particular, poetic experiences become tangible and customizable through design is likely to provide novel insights to understand and acknowledge interactions among musicians, listeners, time and space. In a world where digital languages are increasingly appropriated by the physical, the role of the listener in live performance might shift from the previously discussed online curation to a certain degree of “performance hacking”¹. This speculative hypothesis is exactly what this research stands for.

In fact, such scenario may be not so distant from now. At the beginning of the second decade of the twentieth-first century, one sees the return of “Do-it-Yourself” – and particularly within the Internet, “Do-it-with-Others”² – cultures which tend to refuse mass-produced and user-leveled products. More than that, these cultures made of *everyday designers*, *hackers* and *makers* ultimately deny the ordinary, flattened experiences commonly offered by industry products; rather, they depart from those in order to

1 the term was suggested informally by Prof. Dennis Paul.

2 The term, widespread among online communities, is attributed to Catlow and Garrett (2007). According to them, “peers connect and collaborate, creating their own structures, using either digital networks or shared physical environments, making an art that is both made and distributed across a network. They engage with social issues whilst reshaping art and wider culture through shared critical approaches and shared perspectives.”

craft experiences of their own, to fit their own will and to attend very specific, individual and personal needs.

This study, while attempting to perform research having design as its main driving force, comprises the creation of a series of objects that illustrate and comment on this hypothesis. These three designed artifacts depict a fictional, near-future scenario where the boundaries between the private and social experiences of the live act have already been blurred by the affordances of a strong technology-based society. Granted, it is important to emphasize that the objects cannot be understood outside of the very context they are put into; their development is strongly tied to the stories they both depart from and tell.

5.1 THE METHOD

For designing these “diegetic prototypes” that illustrate a utopian scenario, several points from the methods discussed in chapter four were applied. The most important of them is, perhaps, the idea of the “Cultural Probe”. These objects, however, have not undertaken the exact same process described by Gaver et al. (1999), but rather a similar one which was strongly based on theirs. The main difference here is the lack of a “kit” of objects to be used by the potential interviewees. Instead, a simple questionnaire was sent to a small group of volunteers who consider themselves to be avid music lovers and to attend concerts rather frequently³. The questions were highly subjective, with themes departing from their description of a memorable concert, to rough definitions of “space”, “personal space” and so forth. The purpose was to gather interesting and remarkable stories that denote certain social behaviors which could possibly (and loosely) match the ones described by the theoretical research. Specific stories were then selected, mostly based on facts that were considered to be unique, funny or even bizarre, and hence worth becoming a designed object.

The main idea behind the objects was to focus on certain characteristics or behaviors, exaggerating them to the point of the quasi-absurd. They would then dwell in an experiential scenario where these products, although seemingly rather weird, would become “normal” in social situations such as a live concert or a private listening experience. Another relevant characteristic sought in their design was to try to build the objects devoid of any “digital” component. When doing so, the viewer could focus more on the *interactions* and *behaviors* they intend to illustrate, rather on their technological aspects.

The stories selected from the questionnaire are real and they have happened within the last fifteen years. Even though based on the current status of live performances in the digital world, they clearly denote that concertgoers and music fans are at the verge of questioning the validity of these encounters. The objects, then, explore possible extreme consequences where these questionings become “workarounds” or rough “solutions” for something that is missing – something intangible. Could those missing components be understood as an aftermath of the standards set out by technological developments in music? Or are they an attempt to escape the ordinary, flattened experience of live performances coupled with the “digital”?

³ See Appendix I.

5.2 THE OBJECTS⁴

5.2.1 Alboto : A personal object for concert memories

The idea for this object departed from the following story:

Around 1997, I went to see “The Smashing Pumpkins”, by then my favorite band, perform live in São Paulo. I bought the ticket very early (and it was incredibly expensive!) and arrived at the venue – a stadium – ten hours before the gig. With such effort, I could manage to watch the entire gig at the front row. To be honest, by then I didn’t think it was the smartest of the decisions; I was being constantly beaten by the crowd, pressured against the pit and in an extremely uncomfortable situation, plus it was Summer and I was almost melting, dehydrated and amazingly tired. Still, maybe because I felt that all of this suffering was worth it, it was one of the best days of my life. The problem is that since then, no other gig was able to give me the same state of bliss I had at this particular concert. Sadly, slowly I started to lose interest in the live experience altogether. Nowadays I always think thrice before buying a ticket (even for the same band!), and usually end up not going.

The interesting thing to observe in this narration is how the interviewee did not talk about the music *at all*. Rather, she focused on the emotional intensity a live performance is capable of conveying. Perhaps a mixture of fandom, her personal connection with the band and/or specific songs, plus this rather stressful physical and social experience at this concert may have carved deep emotional memories in her, that might never be overcome by any other.

The questions asked through the development of this object were: could this frustration with the live experience – more to one’s own expectations rather than any other – be affected by a designed object? Moreover, is an experience with an artifact capable of successfully triggering feelings that dwell only in memories?

Alboto is a wearable sculpture built to give the wearer the same state of physical exhaustion a remarkable concert once did. Its shape is designed to put more pressure in areas of the body that would suffer higher levels of stress when standing in the first row of a gig. In its experiential scenario, a person uses the sculpture while listening to music, trying to retrieve her memories as accurately as possible. This object may work as a “placebo” or as a therapeutic tool, when trying to help its wearer to overcome the frustration and feeling of incompleteness, so she can perhaps one day enjoy a live concert again, devoid of any comparisons and/or higher expectations.

⁴ A more detailed diary of the process can be found at <http://theshapeofprocess.tumblr.com> (accessed April 30th 2012)



5.2.2 Zandok : A device for reclaiming personal listening space

I consider myself to be rather picky about sound. One thing that really annoys me in concerts is when the sound is not clear enough for me [...] My ideal personal space would be the one where I could listen very accurately, without anybody pissing me off, no tuneless lyrics being shouted right into my ears whatsoever. But I know that this is rather impossible to happen, so I tend to position myself where it just sounds as good as possible and avoid “drunktards” and crying fans.

With technology, the experience of a band playing in a record is taken to a new level of sonic detailing. Even when live performances are recorded and sold as DVDs and Blu-Rays, these are minutely mixed in surround-sound environments, carefully positioning frequencies in order to provide an often surreal listening experience. However, when a band plays live, very often this experience is confined to a stereo system right in front of the stage, whose sound usually is not very well adjusted and cannot provide the listener the same accuracy as with the home listening.

This interviewee claimed that she would willingly sacrifice her social space in favor of finding the best sounding spot at the venue and *just listen*. It is rather interesting to observe how the presence of other people – who may enjoy a concert in very different ways than hers – becomes something *extremely* irritating. It seemed that the ideal gig would be the one where she could feel as comfortable as at home, with the same well-polished sound quality, but at the same time attesting her fandom by *being there*. This apparent contradiction was proved to be really inspiring for the design of a fictional object. Will listeners in the future be more than willing to trade *real* live experiences for *idealized* ones?

Zandok is a device that applies very simple concepts of sound amplification in order to isolate the wearer as much as possible from the noise of the environment. A wooden dome pointed at the right direction is able to concentrate the sound and deliver it through a rubber tube connected right to the ears; by holding the dome close to the stage, most of the “irritating” sounds can be canceled out. A curious detail in the design of this object is the way it has to be used; the wearer, extremely egoistic, seems not to bother whether the others behind her have their visions blocked by the object. However, this device may raise an interesting question: even when canceling out the *people*, do the *musicians* play as “good” as a studio-treated live recording? Could this object frustrate its wearer, rather than giving her relief?



5.2.3 Denori : A gadget for a personal “live broadcast”

This object is born out of two different stories by two different interviewees. The first one is a personal experience, while the second is an observation given by an interviewee as an “extra note” on the questionnaire:

*The biggest problem for me is that I am not very tall. Ok, let us be honest: I am a **really** small person. Because of that, it is very difficult for me to go to a gig and to be able to actually **see** the stage or the musicians. Sometimes what happens is that I try to focus only on the sound, or to find a screen or any other place where I can increase my height by a few centimeters. But unfortunately, what really happens is that I end up seeing a bunch of heads and getting hit by people’s elbows.*

I was at a metal gig once and while there I noticed this kid, he shouldn’t be more than fifteen or sixteen. He spent the entire concert watching the band through his smartphone camera. When he would not do it, he would take it down and glance at its screen, probably for texting his friends about “how awesome” the concert was. I think he was more interested in showing off than on the concert itself. Kind of a “teenage statement”, I guess.

Video-sharing websites have set the standards for live performance videos in the last few years. One is likely to find a good number of amateur and semi-pro videos, from several spots of the venue, of any given concert of any relatively known band. It is interesting to empirically observe at a venue the amount of bright screens among the public; registering a memory in digital files lately seems to overcome the actual experience of the situation through the senses.

Connecting and crossing these two stories, the first ideas for this object were developed. Assuming that the paradigm set by this new technology makes the distinction between the screen and the stage less important, *Denori* is a gadget that makes use of this condition to solve the problem of this person, who has always felt frustrated that she is too short to see the stage rather comfortably. A *smartphone* with a camera is attached to an object that is connected to a set of balloons, which fly above the crowd. By setting up a video call between two *smartphones*, it allows her to see the musicians from the screen. The main difference between this object and the common big screens usually seen at stadiums and festivals is that the former shows a view from her own position, but way taller. This object denotes a clear behavior inherited from interactions with digital media: in fact, she does not mind the small screen nor the “non-human” view the camera engenders. Are the digital perspectives, with their pixelated versions of reality and image artifacts replacing society’s standard views of the world?



SIX: DISCUSSION



*Through fiction we saw the birth
Of futures yet to come
Yet in fiction lay the bones
Ugly in their nakedness
- "In Fiction", from Isis' "Panopticon" (Isis 2004, tr. 3)*

*So, what? Why does all of this matter? It all matters because we care about imagining and materializing future habitable worlds. We care so much that finding effective mechanisms for creating these more habitable worlds really is our concern. Smart, creative, imaginative ways of linking ideas to their materialization really do matter, because the future matters, and we will use whatever means possible to do create these better worlds [...]
(Bleecker 2009, p. 86)*

Behaviors inherited from digital culture are increasingly leaking to the physical world. In terms of live musical performances, digital technologies have been a strong part of them for a long time, although considerably more often on the hands of the performers. However nowadays, from digital cameras and broadband Internet to digital fabrication and customization, it is of paramount importance to observe how the idea of a live event might change from bottom up, that is, from listeners to performers. Interaction Designers should look carefully and closely at these bottom-up solutions, for they are indeed a strategy to understand the future of music. Crafting, “hacking” and customizing experiences are already a strong part of society’s current relationship with designed objects, yet this study also sees them as relevant and feasible opportunities for the future of live performances.

Therefore, designers must be aware of these implications as a future of individual relationships with consumer goods, particularly as a so-called “Third Industrial Revolution” (The Economist 2012a) of access to digital and personalized manufacturing draws near. More importantly, the role of the Interaction Designer is to constantly assess and study how these relationships may develop in the near future, particularly given the massive paradigm changes the music and culture industries are going through as of now. The idea is not to seek to standardize these experiences, but rather to acknowledge, investigate and provide means for people to take control and become active components of them.

While the main task of Interaction Design is to craft these very *experiences* with objects and products, the approach towards novel interfaces and instruments is still too compartmentalized into a narrow and specific need. These designs are strongly focused on certain degrees of hierarchical communication, whereas this study argues that this dialogue is in fact constructed by a multitude of unquantifiable agents that are beyond the reach of the performer (or the instrument) alone. Still, a live musical performance is perhaps the best example of an *experiential consumer good*, and the fact that *these* experiences have not been addressed by Interaction Design is worth a concern.

Departing from the stories that inspired these objects, some characteristics of the live experience become evident. The first one is that the live, even though deeply rooted in the *here* and the *now*, only becomes memorable *afterwards*. In other words, an unforgettable live concert is made not only by the moment at the venue with the musicians playing, but also by the anxiety that precedes it, as well as the memories that last – often forever – after the show is over. Hence, the experience is only “complete” when a significant amount of factors, e.g. one’s background, listening habits, fandom, random events during the day, among others are perfectly aligned – even though the idea of what this exactly means remains very personal and subjective.

On the other hand, the purpose of this study never was to *solve* or to give a definitive answer to the research questions, but rather to problematize and create illustrations of the possible. A speculative approach using diegetic prototypes proved itself to be a good strategy for the scope of this study, for it provided a fair amount of detachment with the actual, “real” scenario, while at the same time attempting to keep the objects highly feasible. This is one of the main reasons these artifacts, although strongly based on digital behaviors, were designed to be as “non-digital” as possible. They are indeed built through means made possible by digital technologies, such as laser cutting and 3d-modeling, but at the same time they fetch a certain degree of “nostalgia”.

Looking back at history, it becomes difficult to separate fact and fiction. Take, for instance, the *2001/iPad* (Sterling cited in Bosch 2012) or the *Star Trek/Mobile Phone* (Laytner 2011) cases, where it is almost impossible to tell whether these science fiction authors were predicting technologies of the future, or if these very technologies were inspired by those fictional gadgets from long ago. Which process does come first: fiction or design? Surely, all of these ideas dwell in the collective imaginary, but at the same time society moves towards an era where it becomes easier and faster to make them happen, and to deal with the consequences they yield. These are issues that, if not impossible, are at least very difficult to approach without a research oriented towards *building* these things that talk about possible futures.

Yet, at the very end, could another question be answered – one that lies outside this study but at the same time deeply concerns it –, that is, how to better perform a Master Thesis in Design? In fact, perhaps this research is still only scratching the surface, or attempting to take some first steps at it. It is indeed a tough task to articulate the academic discourse when talking about a starkly non-objective process of investigation, i.e. designing fictional objects to tell stories within a fictional scenario. What is perhaps the strongest quality of these objects is also their very flaw when it comes to more scientific concerns; they are incredibly ambiguous for they do not answer anything, or at least do not give clear answers. Still, it is important to clarify that, similarly to what is strongly defended and encouraged by Anthony Dunne (2005), they do not end where the text finishes off; instead, they point to issues that come into existence from the moment a viewer/reader asks “would someone have them?” or “would I use them?” or even looks in complete disagreement and asserts “I don’t think so”. When performing research through design, where speculation is the goal, these types of interrogations are more than welcome; the designer does not build things in order to confirm what she already knows, but to search for new questions that were not there in the first place.

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Figure 5 : Auger and Loizeau 2001b. Used with permission from the author. Available at <http://www.auger-loizeau.com//images/33.jpg> (accessed February 26th, 2012)

APPENDIX: QUESTIONNAIRE

NOTE: These questions are all somehow subjective. I am interested in the experiences and decisions that go beyond the purely musical. I am interested in social decisions, physical experiences and etc. Of course music plays an important role, but the live experience is something that naturally encompasses other kinds of experiences that are worthy. Hence, we do attend. So I'd like you to focus on these non-musical experiences while answering.

I. For listeners only

1. What makes you attend a live performance, regardless of how well-known the artist is?
2. Do you prefer when an artist plays perfect renditions of his recorded music, or do you enjoy more the unpredictability? Why?
3. In general, what is your listening and social behavior while at a concert? E.g. do you concentrate on listening, on the physical experience, do you go nuts... ?
4. And in what does this behavior differ from your "everyday listening" experience of music?
5. Describe the characteristics of a memorable live experience for you. Not necessarily a specific gig, but what makes a concert "*the*" gig for you.
6. For you, what is the role the *Space* plays in a concert? Please understand "space" according to your own interpretation.
7. And how do you define your "personal space" while at a gig?
8. Regardless of physical implications, for you, where is the boundary between performer and audience in a performance?

II. Complementary questions for those who are also musicians

1. How do you define your "personal space" while playing?
2. How, if any, are your strategies while playing to "enhance" the experience for you and your listeners? E.g. what do you do to make each performance unique for musicians and listeners?

**THE
SHAPE OF
LIVE THAT
NEVER
CAME**

“A SPECULATIVE APPROACH TO THE FUTURE OF LIVE MUSICAL PERFORMANCE”

Technological developments have thoroughly affected the way we listen to music. Particularly with the imminent demise of the so-called “music industry”, the live performance has proven itself a good strategy for musicians to connect with their audience. However, recent strategies that attempt to couple the live act and the digital world are doing so in rather literal, superficial ways, which in turn contributes to a progressive equalization of these two experiences to the same aesthetic level.

With means to create and act within the digital world becoming more accessible, individual, customized experiences tend to supersede mass production and standardization, empowering individuals to extend their experiences in more poetic ways, beyond pre-given and ordinary agendas.

How these new interactions between listeners and live music are likely to develop in the near future? Furthermore, as society becomes increasingly accustomed to relationships mediated by digital artifacts, what if the bliss and catharsis typically provided by the experience of live performances become “insufficient” for the listeners? What types of rituals and “hacks” would emerge from there?

CREDITS

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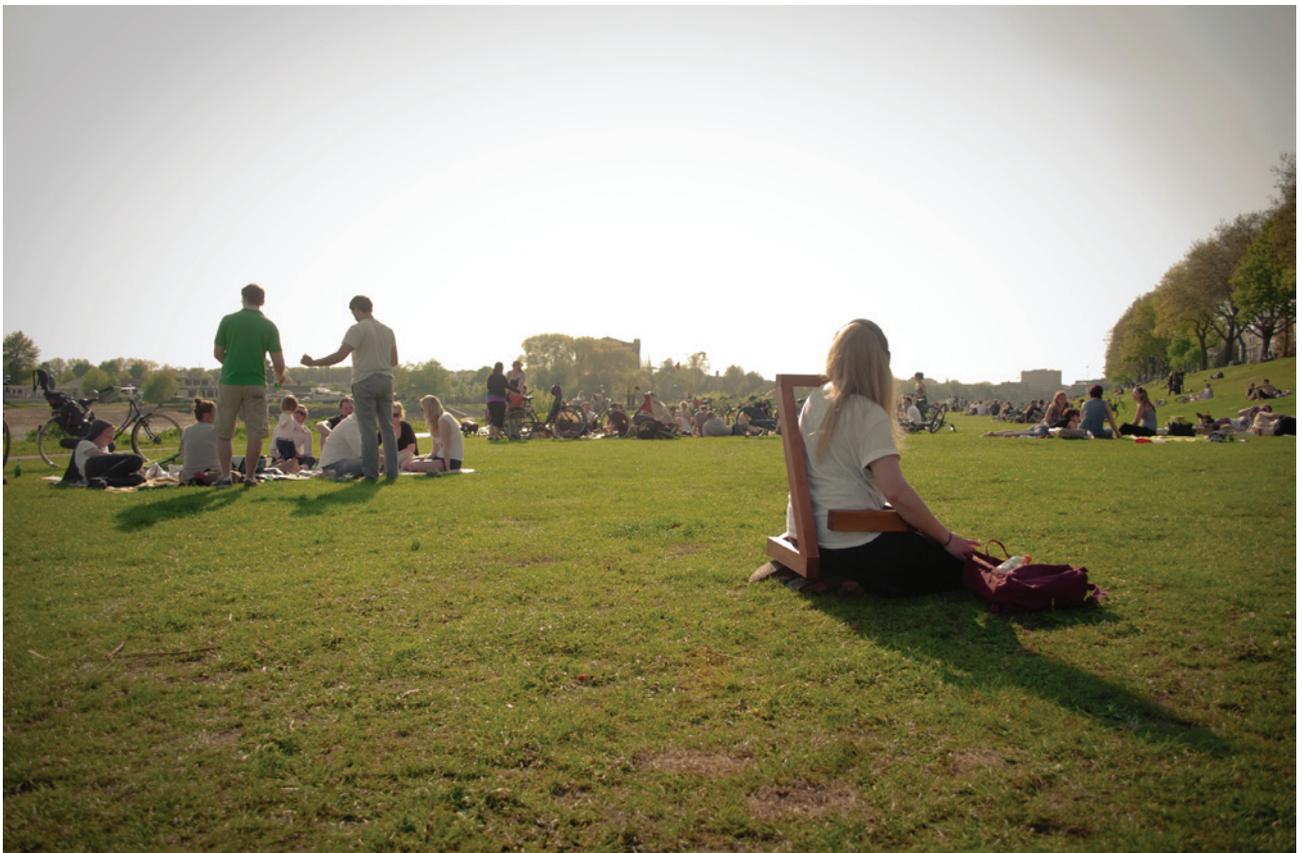
Youyou Yang

ALBOTO

A PERSONAL OBJECT
FOR CONCERT MEMORIES

Through extensive use of technology and the online omnipresence demanded by contemporary habits, experiences with live and recorded music are progressively equalized to the same aesthetic level. As a consequence, listeners and music fans start to demand more and more from the live experience, and very often ended up frustrated, with an eerie feeling of longing for something that is always intangible. Could this frustration with the live – more to these personal higher expectations rather than anything else – be affected by a designed object? Moreover, is an experience with an artifact capable of successfully triggering feelings that dwell only in memories?

Alboto is a wearable sculpture built to give its wearer the same state of physical exhaustion a remarkable concert once did. Its shape is designed to put more pressure in areas of the body that would suffer higher levels of stress when standing in the first row of a gig. The wearer, a woman who long ago was able to watch from the first row her favorite band play live, uses the sculpture while listening to music, trying to retrieve those strong memories of her teenage years as accurately as possible. This object works as a “placebo” or as a therapeutic tool, when trying to help its wearer to overcome the frustration and feeling of incompleteness, so she can perhaps one day enjoy a live concert again, devoid of any comparisons and/or higher expectations.







ZANDOK

A DEVICE FOR RECLAIMING
PERSONAL LISTENING SPACE

With technology, the experience of a band playing in a record is taken to a new level of sonic detailing. Even when live performances are recorded and sold as DVDs and Blu-Rays, these are minutely mixed in surround-sound environments, carefully positioning frequencies in order to provide an often surreal listening experience. However, when a band plays live, very often this experience is confined to a stereo system right in front of the stage, whose sound usually is not very well adjusted and cannot provide the listener the same accuracy as with the home listening.

Zandok is a device that applies very simple concepts of sound amplification in order to isolate the wearer as much as possible from the noise of the environment. A dome pointed at the right direction is able to concentrate the sound and deliver it through a sound tube connected right to the ears; by holding the dome close to the stage, most of the “irritating” sounds can be canceled out. A curious detail in the design of this object is the way it has to be used; the wearer, extremely egoistic, seems not to bother whether the others behind her have their visions blocked by the object. However, this device may raise an interesting question: even when “canceling out” the people, do the musicians play as “good” as a studio-treated live recording? Could this object frustrate its wearer, rather than giving her relief?







DENORI

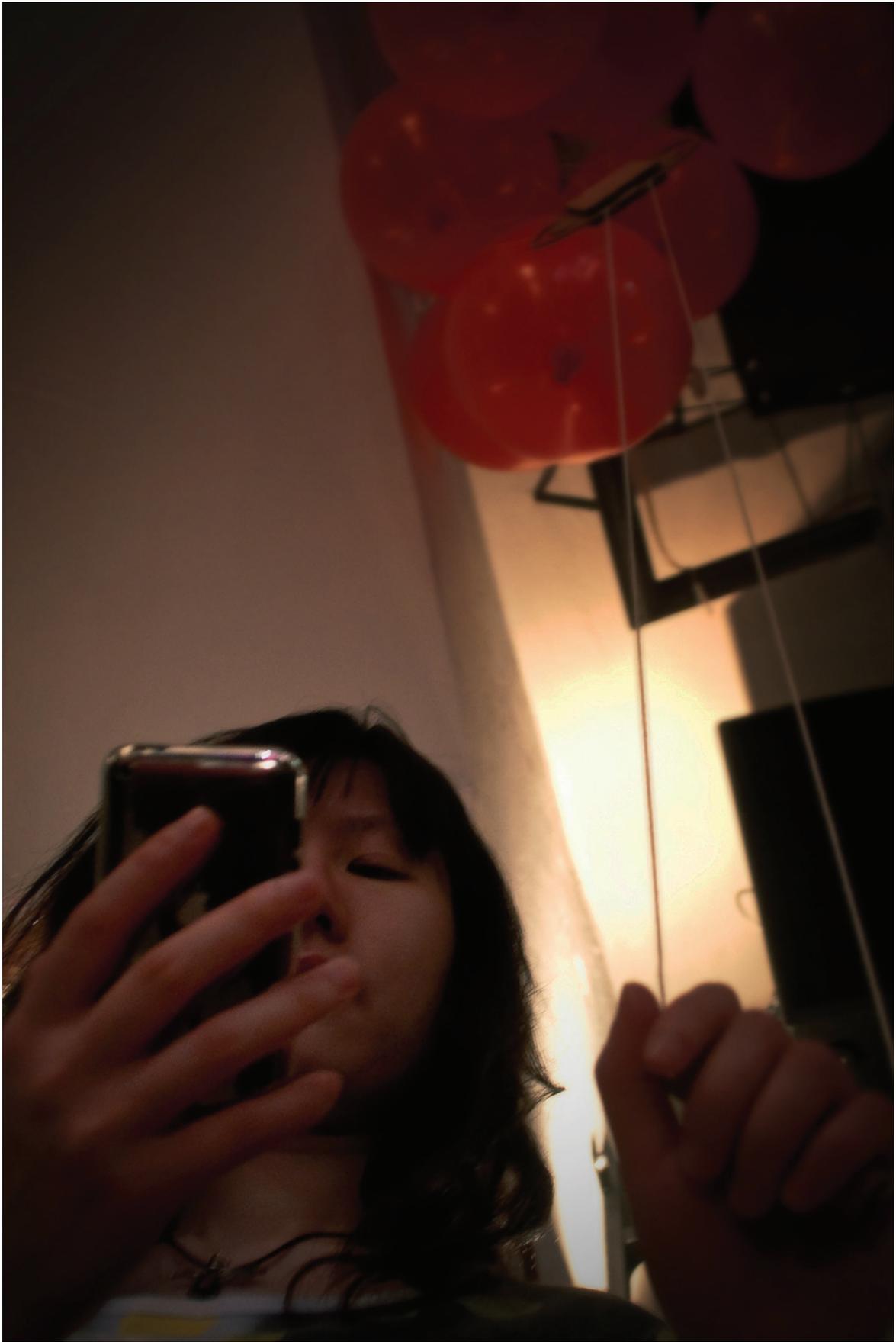
A GADGET FOR
A PERSONAL “LIVE BROADCAST”

Video-sharing websites have set the standards for live performance videos in the last few years. One is likely to find a good number of amateur and semi-pro videos, from several spots of the venue, of any given concert of any relatively known band. It is interesting to empirically observe at a venue the amount of bright screens among the public; registering a memory in digital files lately seems to overcome the actual experience of the situation through the senses.

Denori is a gadget that makes use of this condition to help the situation of a person who has always felt frustrated that she is too short to see the stage rather comfortably. A smartphone with a camera is attached to an object that is connected to a set of balloons, which fly above the crowd. By setting up a video call between two smartphones, it allows her to see the musicians from the screen. The main difference between this object and the common big screens usually seen at stadiums and festivals is that the former shows a view from her own position, but way taller. This object denotes a clear behavior inherited from interactions with digital media: in fact, she does not mind the small screen nor the “non-human” view the camera engenders. Are the digital perspectives, with their pixelated versions of reality and image artifacts replacing society’s standard views of the world?

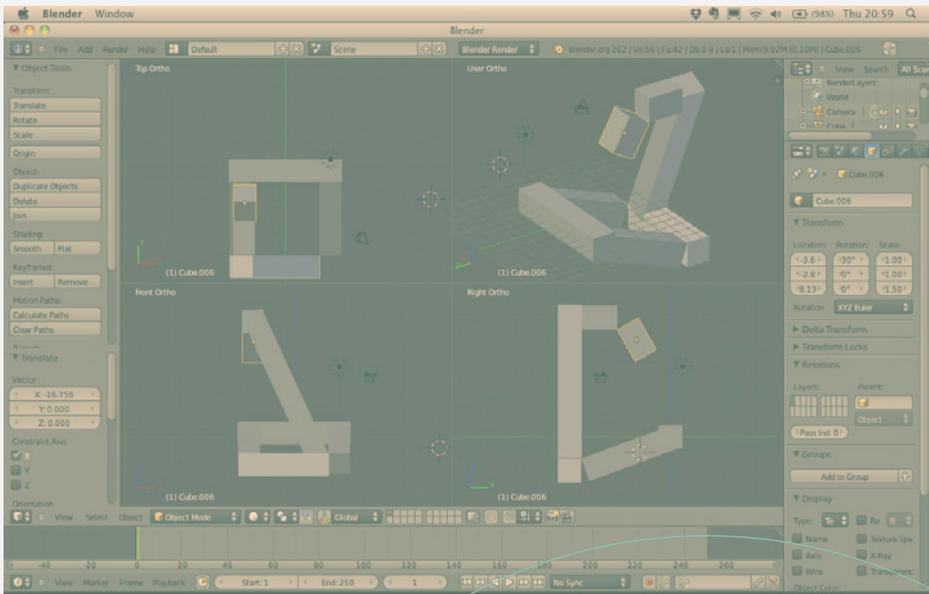


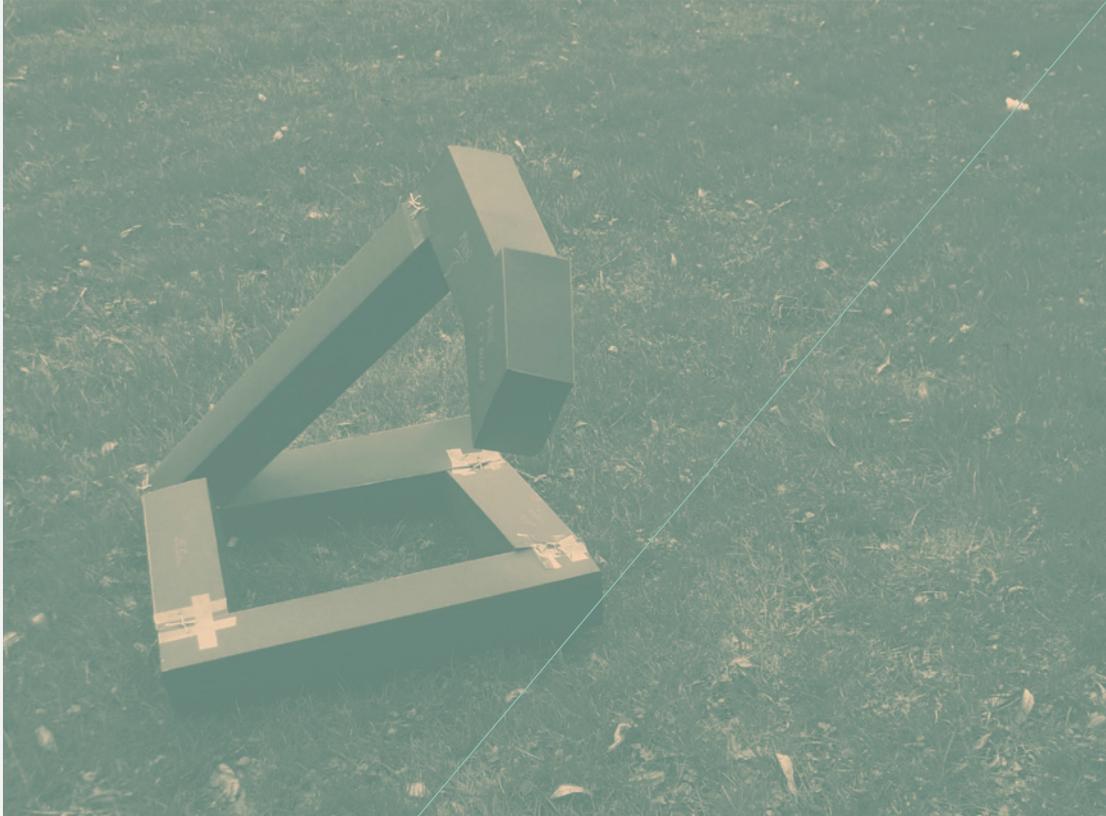






THE PROCESS



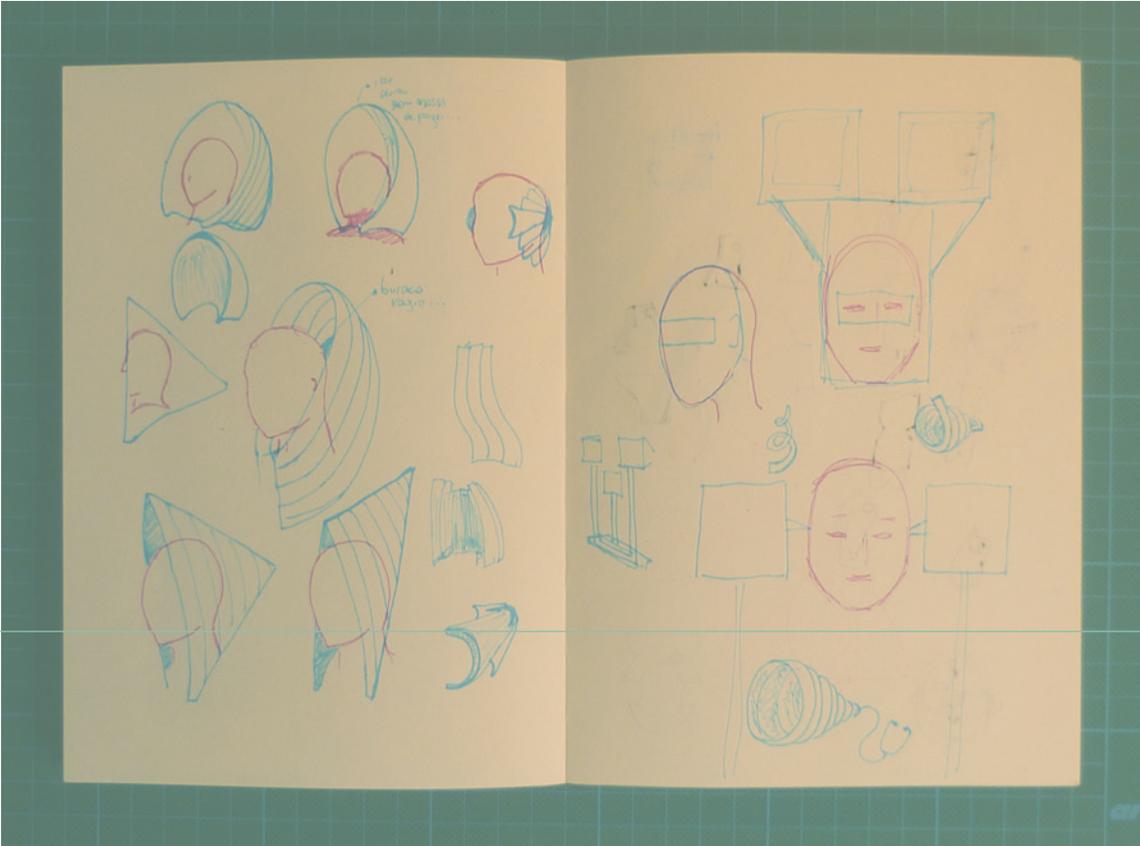
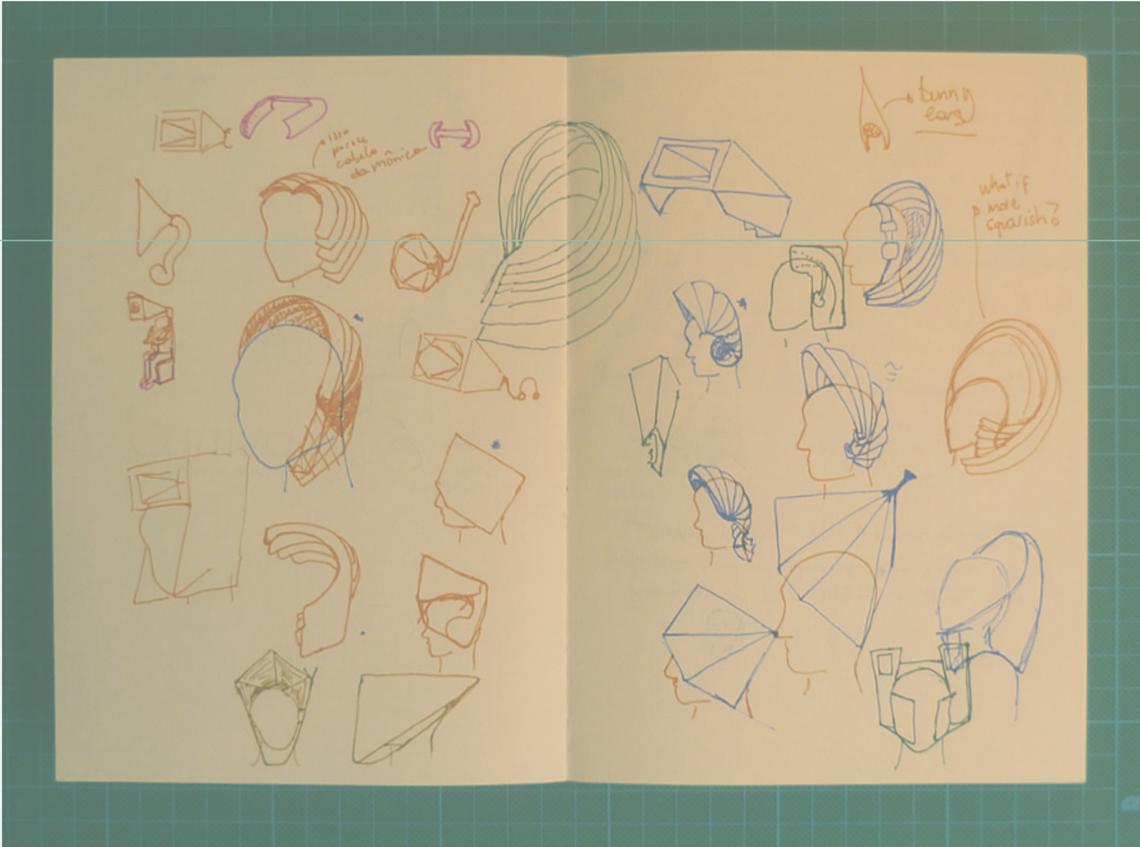






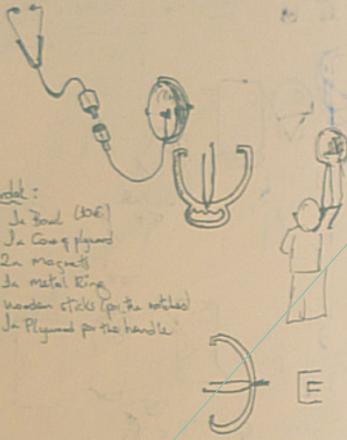


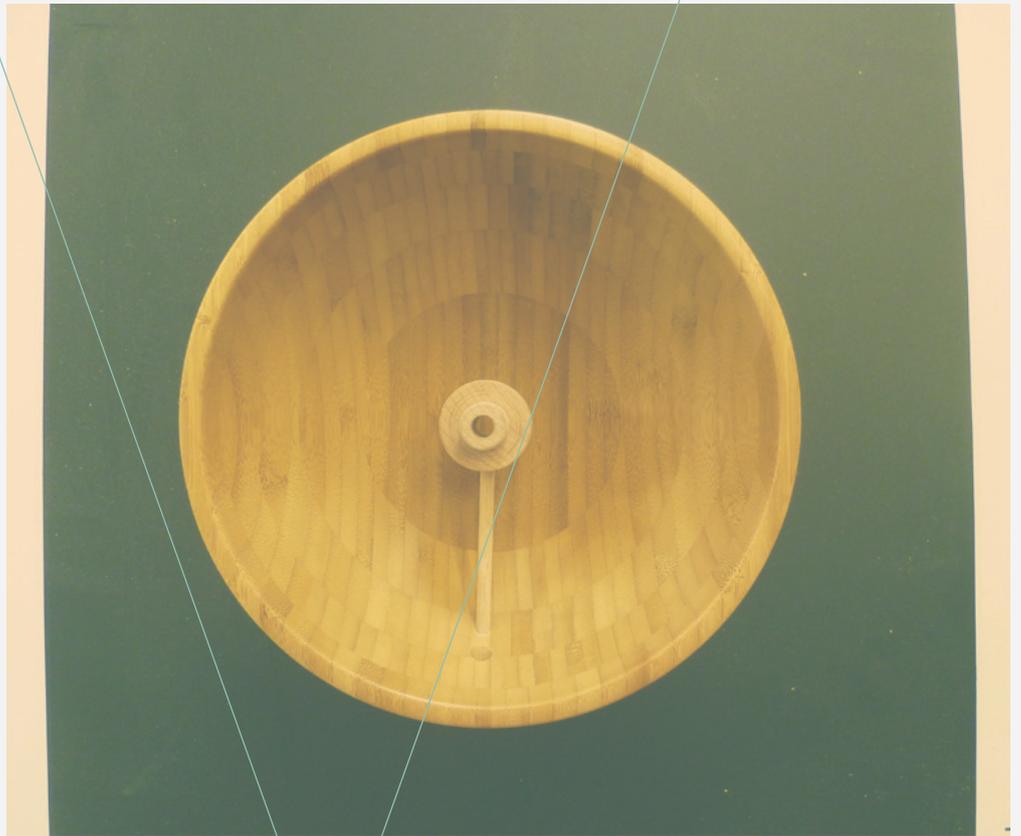




Zardak:

- 1x Bowl (306)
- 1x Gong played
- 2x Magnet
- 1x Metal Ring
- Woodsen sticks (for the notched)
- 1x Plywood for the handle

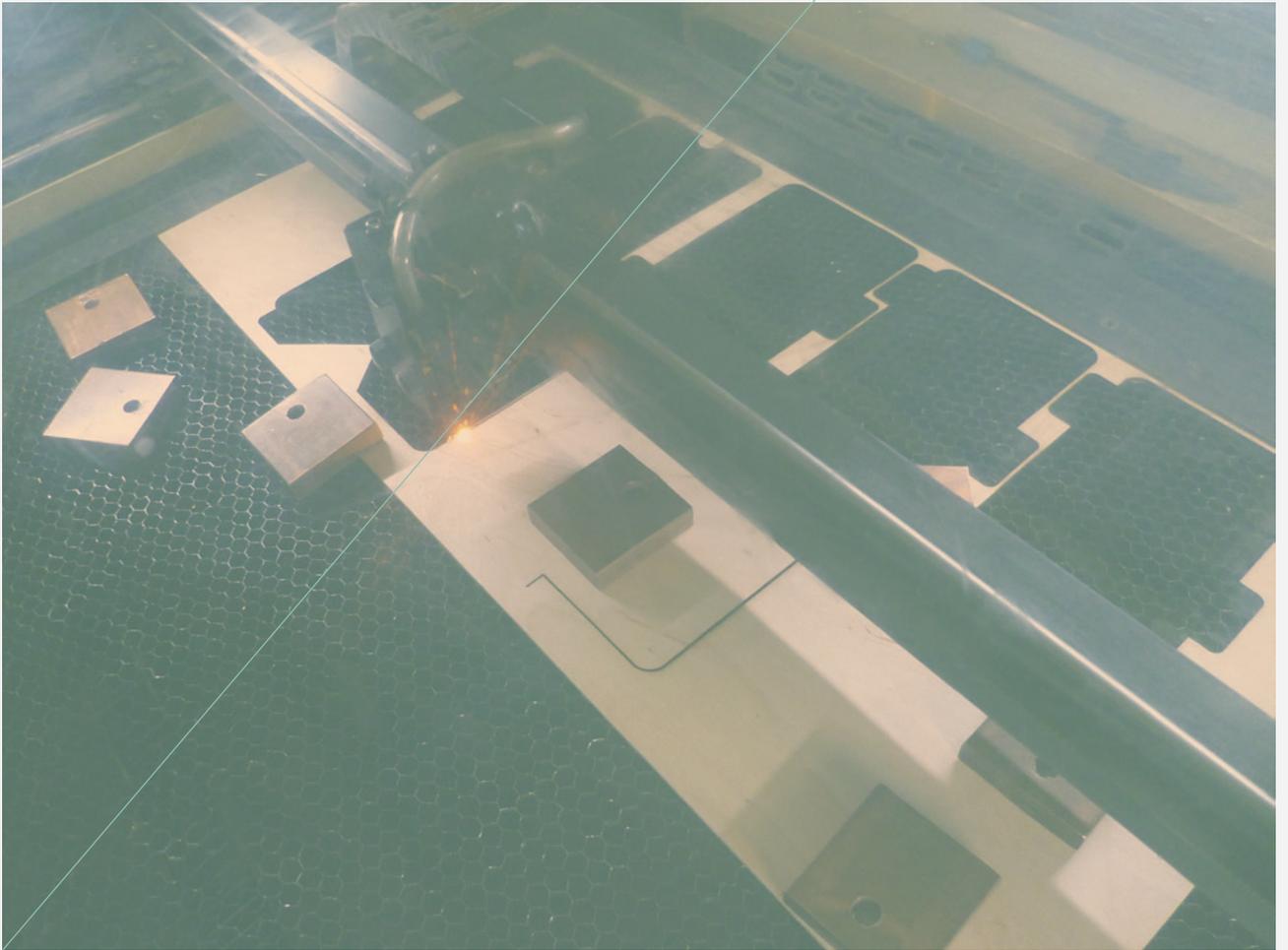














"A speculative approach to the future of live musical performance"

Master Thesis by
Pedro Oliveira

www.partidoalto.net/thesis/
theshapeofprocess.tumblr.com

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