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DIGITIZATION OF 'MUSICKING': HOW DIGITAL MEDIA INTERCEPT THE MODES OF MUSICAL ACTIVITY?

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'MÜZİKLEMENİN' DİJİTALLEŞMESİ: DİJİTAL MEDYA, MÜZİKAL AKTİVİTE BİÇİMLERİNE NASIL MÜDAHİL OLMAKTADIR?

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ABSTRACT

Recent changes in communication technologies have brought a lot. With the introduction of digital technologies, the processing of various forms of information have changed. This change enabled newer forms of social presence and contribution thus newer forms of social interaction. Forged by such technologies, the way individuals and societies communicate with one another eventually faced a dramatic shift. Moreover, it has changed the way societies live as they have been subjected to transformation in almost every dimension. Music and musical activity, or in Christopher Small's word; 'Musicking', has also been facing new and varied forms with various realities and capacities emerged by digital media. This thesis aims to grasp musical activity in digital media that enables new digital settings, temporalities and participation for such musical encounters.

ÖZET

İletişim teknolojilerindeki güncel değişimler büyük etkiler yaratmıştır. Dijital teknolojilerle birlikte çeşitli bilgilerin işlenme metodu dönüşüme uğramaktadır. Bu değişim, beraberinde yeni toplumsal varoluş ve katılım pratiklerini; böylelikle yeni toplumsal etkileşim süreçlerini de beraberinde getirmektedir. Böylesi bir teknolojiyle şekillendirildikten sonra, bireylerin ve toplumların iletişimi de uzun vadede değişime uğramakta ve her türlü alanda dönüşmektedir. Müzik ve müzikal aktivite, ya da Christopher Small'un terminolojisiyle *Musicking* (müzikleme) de dijital medyayla çeşitlenen gerçeklikler ve potansiyellerle birlikte yeni formlar kazanmaktadır. Bu metin, yeni dijital alanlar, zamansallıklar ve katılım süreçleri yaratan dijital medya ile müzikal eylemliliğin kesişimini yakalamaya çalışmaktadır.

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1. INTRODUCTION:

The human activity is not in a vacuum. The modes and patterns of activity is being shaped by the interrelation between the actors/societies and the context where the action is embedded. Micro and macro scaled transformations in the overall context eventually prompts a relative differentiation of the human activity.

Technological accumulation enables new tools, infrastructures, cognitive processes and inevitably interacts with the modes of human activity. In these terms, information and communication technologies have been instrumental, not only in terms of generating mere enhancements in various communication practices but also in terms of enabling new sets of realities, cognitive patterns and layers for various encounters. In this paradigm, accumulated technological knowledge eventually enables production of various tools, instruments, means and vehicles for various ends and, when utilized, we grasp differentiated forms of activities, encounters and cognitive processes revolve around the interaction between humans and technology.

Musical activity is also subjected to change or gain new attributions in relation with the differentiation of context. It can be argued that musical activity - it's means, ends, construction and embodiment to the social spaces - have been vulnerable to the change in context. This thesis aims to trace the change where digital technologies take place and begin to dominate various domains of human activity. I would argue that digitization/the digitization of various communicative tools - media - have been ultimately changing the musical activity and it has been penetrating every scene of

contemporary music making - or in Christopher Small's terms, *musicking.* This thesis will break down the musical activity in four hypothetical paradigms - production, dissemination, consumption and contribution - and try to grasp the enabling of new cognitive patterns and musicking paradigms.

1.1. TECHNOLOGY:

1.1.1. TECHNOLOGY AND HISTORY IN A SHELL:

Technology is entrenched in our history (Kittler, 200). This abstract, all-around and taken for granted notion is believed to be one of the driving forces behind humankind's progress. On both micro and macro scales, the works we broadly define as technological advancements are understood as being able to generate great changes and flows; intended or unintended. Almost every kind of humane faculty have been transforming with technological changes (not necessarily linear or progressive) in various societies and numerous studies have been aimed at generating knowledge and information on these phenomena. It is argued that technological advancements intercept the way human species' ability to make use of the world around them. The technological advancements, then, can be understood as the registration of main logic behind fire as the interrelation between friction and heat; or between gravity and flow of water; or multi-directional balance of forces for the arch-stone, the force and friction mechanics for wheel, etc. Such 'inventions' does not *create* various phenomena out of nowhere. Technological advancements built on themselves; and the reasoning behind them is cumulative: one brick at a time. Nevertheless, the common historical narrative we get used to tends to portray the history of technology and human history in jumps and skips.

1.1.2. TECHNOLOGY AS A HAZARDOUS TERM:

This perspective leads us to the understanding that the common emphasis put on the technology as a driving force is not solid. It does not drive societies from A to A' - instead, it *is* driven by societies, by *need*. An understanding towards technology as if it was a sort of magic is fallacious in many ways. "The fact is that during all but the very last few seconds, as it were, of the ten millennia of recorded human history encapsulated in this account, the concept of technology—as we know it today—did not exist" (Marx, 562).

Then, what should we understand by the term, *technology*? The word is derived from Greek; *techne,* implies the art, skill, techniques or methodologies while *-logos* implies the knowledge. Technology, then, does not imply an object just by itself, but it might represent the logic behind objects. Smartphone is not a technology, or it's not an object of technology. It is a device for mobile communication. Technology, in this sense, only implies the accumulation, methodization and utilization of various forms of skill, craftsmanship and knowledge which in turn enables the production of such device. Then history of human species is not a product of technological advancements; but a parallel continuum where it circularly interacts with technology.

Then it must be noted that the emphasis (will be) put on change is not based on a cause and effect terminology. Leo Marx urges scholars to be cautious when using the concept that the generality of the word and the lack of specificity makes it susceptible to reification. It is a *hazardous* term. "We were led to assume that innovation in the

mechanic arts is a—perhaps *the*— driving force of human history" (561). Instead of having a structuralist point and emphasizing technology's *impact* on the way we live as if individuals and societies are inevitably influenced and dominated by it; I would like to emphasize the possibilities, the settings for encounter or cognitive processes that technology - or specifically, digital media - enables. Many times, we face some *unintended consequences* of a new phenomenon, where the intention does not presuppose the outcome. Then the *change* spontaneously emanates from the interaction between technology, the infrastructure, the context, the culture and societies - how they utilize and make use with it.

1.2. INFORMATION AND COMMUNICATION TECHNOLOGIES:

It can be easily understood that what we understand from technology reaches far and wide. For further utilization and organization, we consider various 'logical' forms of technologies. This technological specialities help us to make use of the related knowledge more efficiently, and organize the information in more expressive and meaningful way. Nevertheless, these technologies and their accumulated techniques and knowledge might overlap somehow and, sometimes this situation might generate conceptual perplexity. Sometimes, we imply a broader term to define or illuminate a narrow historical or periodic context. Given such insight, the terminology and it's scope must be clear.

Information technologies implies the creation, dissemination, storage methodologies. Writing can be understood as an outcome of information technology as it

can be utilized for storing or distributing the information. The pen and paper on the other hand, can be understood as the tools; or the *media* for the embodiment of such technology. These examples can be expanded and, while the reason behind encoding a message to the continuities and discontinuities of flows of smoke might be understood as an 'information and communication technology' (ICT), the recent use of ICT's tend to emphasize a more contemporary, digital and unified forms of communications and distinguishes itself from previous forms of communications. Since I have discussed the logic behind technology, such division does not provide a meaningful organization of concepts and I would like to use the domain in its broader sense.

Such broader and comprehensive definition eventually enables us to understand that information and communication technologies (ICT's), have been constituting a vital importance in the social, political and cultural courses of societies. As this branch of technology concerns a very fundamental humane faculty - communication -, the accumulation and the advancements in terms of ICT's, echoes and penetrates deep into various phrases of life. "In the same way as other transportation and communication technologies, such as the car, the fixed line telephone, television and the internet, it has the potential to transform people's patterns of mobility, activities, and contacts in time and space" (Young, 238). Yet this potential for transformation is dependent to various logical and physical factors and is bound to be diminished or enhanced with the media that is utilized.

1.3. DIGITAL TECHNOLOGIES:

1.3.1. ANALOG AND DIGITAL:

We can argue that the information and communication technologies gained another layer of functionality and potential with the introduction of digital technologies in the 20th Century. Digital technologies' development were based on 17th century as the mathematician Gottfried Wilhelm Leibniz proposed a binary computing system (Schafer). This binary computing system consists codification of various forms of information into combination of two digits - 0's and 1's which eventually needs to be decoded by necessary reproductive machines to represent the given information. It's mechanism differs from the analog signals and circuitry and it started to be used widely in telecommunications in early 1980's (Schafer).

On the other hand, the term "analog" is described as "Relating to or using signals or information represented by a continuously variable physical quantity such as spatial position, voltage, etc" in Oxford Dictionary[1]. For instance, human speech can be understood as an analog signal and the organs we use to produce the signal - the mouth, tongue, vocal cords, lungs etc.- are the instruments. The sound produced by humans can be mathematically and physically understandable and computable, just like other analog equipments: "The sounds we produce can be described in terms of how fast the variations of the air pressure occur, which determines the fundamental frequency of the

[1] http://www.oxforddictionaries.com/definition/english/analogue?q=analog

sounds and is perceived by the hearer as pitch. We can also describe the magnitude or intensity of the variations, which determines the loudness of the sounds." (Fromkin 364).

Analog signals have the potency of infinite resolution in theory; such theoretical capacity does not become reality. Analog signals depend on the laws of physics. For instance, an analog device might use electricity to operate and its operation is based on electric currents in volts which is subjected to the the resistance as the signal transmits. The resistance results in some current loss while storing, transmitting or decoding the information, generating small alterations -*distortion*- from the source, especially when long distances are at stake. The sound which is a physical phenomenon is based on the physics of air; and air serves both as a transmitter and as a resistance that slowly dampens the sonic waves. Human voice utilizes the pressure - the change in air pressure results in sound waves which in turn decoded by ear. In this case, air can be understood both as a transmitting agent and as a resistance. A sign creates different reflections of light and eyes emit the light, transcoding the signals as an object; yet, this time, the line of sight can be understood as a form of resistance or a distorting agent. On the other hand, understanding and utilization of various analog signals have been of a vital importance as it enabled to record a signal to a differentiated form from the source: writing can be understood as the recording the *thoughts* to a paper, or *sound* is stored into vinyls, *image* into photographic film. These various means of storage are expected to reproduce the same physical current in a specific period of time as it would have been from the source itself. But it does not operate without some limits.

1.3.2. DIGITIZATION:

This is where *digitization* becomes meaningful and useful as it can denounce some disabilities generated by analog formats and generates new possibilities. In a sense, digitization is a basic process of codification of analog signals into a new, another layer, with a twist: This time the layer is rather more logical than physical despite the fact that the message still operates in an analog environment; i.e. digital computers are operated with analog circuitries. The digitization can be understood as another form of encoding the message, in another setting and layer of operation. Digitization thus enables a major freedom from analog formats' dependencies and drawbacks as its operation differentiates itself with logical codifications instead of physical interactions.

Yet the digitization of information and communication technologies did not wipe out analog communication media at all; on the contrary, it enabled another media; digital media. To some, digitization meant that the role of analog circuits would fade, yet such predictions never materialized (Tsividis, 1). Just as every new mean and it's interaction with the user; the digital media eventually generate various ways and forms of expression, audiences to reach and it expanded, amplified or enhanced multiplicity of modes of communication in a very short period of time. The implications of digitization can be understood as the transference of information to computer environment. The raw data is sampled or digitized with *digit-al* codifications and available for various forms of manipulation.

Therefore, the emphasis put on the digital technologies while discussing late 20th century and afterwards is not incidental. As I have argued, ICT's enabled various forms of change: The printing technology eventually led to the weakening of Church hegemony; newspapers helped masses to intercept politics and to keep track of the World, radio was utilized for military needs in World War II by Third Reich; and so on. On the other hand, digitization, with its immense capabilities of rapid data processing, lead to a parabolic acceleration in terms of diversification of communication methods. The introduction of various digital media and methodologies rapidly penetrated through different social domains. Thus, various social, cultural and scientific domains are digitized; education, medicine, science, communication etc. just to name few.

1.4. MEDIA AND THE MEDIA:

Before going to the argumentation on digital media, we have to grasp a fundamental understanding of what *media* are and how does it vary. There's no consensus on the definition of media. What is *new* media also questionable as all media were once new media (Gitelman and Pingree, xii). A typical argument would be based on the ways of transformation of a signal into a message, or making sense of raw data (Hart, 3). Andrew Hart's differentiation between various media proves useful to remove the confusion of the term. He criticizes McLuhan's hot and cool media and argues that they are fallacious and overlapping. He distinguishes between three types of media, (1) Presentational media, (2) Representational media, (3) Mechanical/electronic media. Clearly, *presentational media* indicates the face-to-face communicator, like speech; and

representational media stands for the storing and reproducing the message which in turn removes the necessity of real-time encounters. Lastly, *mechanical/electronic media* defines the technical tools for encoding and decoding the message such as telephones, televisions or radios (Hart, 4). These media are dependent on such tools both in encoding and decoding processes and this attribution differs them from the representational media. Yet these media can overlap, making the distinction hypothetical.

One can make sense of raw data by various media, but such variation encompasses broad definitions. For instance, one can argue that eyes decode the messages transmitted by light and ears decode the sound waves to meaningful sentences or melodies. The lungs and mouth become a medium where we encode our messages into the form of speech. If media are gestures, tools, symbols or any other substance that is able to transmit or receive messages; then we must notice that there are many forms of media. We can easily argue from a symbolic interactionist view that the clothing, the color of our skin, the place we live etc. are media as they transmit various messages to the audience: If I were to be a black person, who wears black leather clothes and matching ray-ban sunglasses, have a long beard and live in a mansion that is located in Oslo; most likely I would transmit the message that I probably enjoy Rock music, like to ride a motorbike, most probably an immigrant and a rich one. To avoid the confusion, Hart argues that some media are more adaptable and more efficient than the other in terms of transmitting messages. Then it is clear that we have to make a distinction between *media* and *the media*. We can understand that the former can be understood as its name implies - tools, means, instruments. The latter is more likely to emphasize the

mass media (Hart, 4) - a suitable, dedicated environments, infrastructures or networks for mass communication where it's operation is made possible by various media (as in the former).

1.5. DIGITAL MEDIA:

Eventually, when we consider digital media, we understand both the digitized means and the environment. Digital media becomes easier to comprehend when it is portrayed as the digitization of the media that we have discussed, to be operated in computer environment. It consists readable, audible, visual or interactive media. It encompasses digital environments such as internet, softwares and digital formats. Thinking in musical terms, we have to include various music media, too. While tapes, vinyls, cassettes can be understood as analog media; digital media encompasses CD's, DVD's, and digital audio formats such as MP3, FLAC, WAV [2]etc., too. Along with such obvious media, I must include the digital tools that help producing, encoding and decoding the message. Then we can argue that various musical hardware and software can be understood as media - analog or digital. In this terminology, the adjective - digital, refers to the tool's setting of operation and organization mechanics.

Once analog, mass media has gained various new attributions and enhanced it's accessibility and penetration as it is subjected to digitization. Thus, in time, its potential to disseminate various information widely, spontaneously and continuously enhances.

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[2] These are digital audio file formats. Various formats provide various sonic qualities. Mp3's are regarded to be one of the lesser formats while WAV and FLAC are regarded as transparent and truthful to the analog source.

From this perspective, the digitization of mass media can be understood as the enhancement of media's fundamental qualification as enabler of mass communication (Nalçaoğlu, 53). To put it less theoretically, we can argue that analog mass media such as newspapers, books, vinyls or radio have the necessity of physical proximity to the subjects themselves to be able to fulfill the dissemination of the information. Information is encoded into physical objects and their dissemination and consumption depends on the physical facilitations. On the other hand, the information encoded on digital media can easily be disseminated worldwide, instantly; and can be copied infinitely. Digital media enables the transformation and the enhancement of the possibilities, scope and the context of communication. Then we see that digital media helps to liquidize flows of information into a logical *stream,* eviscerating the necessity of physical proximity thus enabling information for all, fulfilling the nuance of *mass* to its maximum extend.

Digital media is not just transition of the medium and the message from analog to digital. It also encompasses new fundamental attributions to the media capacity. New media as a sub branch of digital media seems to be the manifestation of the fundamental nature of the settings generated by digital media. Various analog tools displaced by their digital counterparts, and their fundamental function and usage subjected to change and once mainly one directional forms of communication - such as newspapers, articles, music - differentiated through a multi dimensional form as new media enabled multi-dimensional communication and mass participation with various tools it utilizes. This new media kindle on internet, with various hardwares - computers, cell-phones, televisions; even refrigerators etc. - and the softwares based on such tools.

This availability and spontaneity eventually ponders the meaning formation processes. For instance, one can argue that the digitization of famous art works generates differentiated audiences, settings, relations, interpretations or reproductions of such *analog* works. Leonardo da Vinci's Mona Lisa and the forms of relations and encounters generated around it is not similar as it was in 18th century. Mona Lisa is a unique work of art. One had to *see* (the original) it. Photography seems to denounce the first-hand physical necessities to experience or to relate with the piece; yet, digitization of the Mona Lisa to digital media shifted how individuals relate themselves to the piece dramatically. As a unique work of art, Mona Lisa can be seen only in France, but the image itself is widely accessible via internet; and one can say that the perception towards the image shifted from a unique experience of gaze to a everyday possibility. *Netizens* manipulated the image or its implications to express various new forms of thoughts and feelings, thus dislocate the piece fundamentally.

1.6. HOW DOES MUSIC COPE WITH THESE?:

Nevertheless, this thesis concentrates on a specific form of communication; music. Almost entirely correlative with the technology in terms of tools and production techniques; musical encounters have been essentially subjected to changes as technological shifts occur. A retrospective look on musical activity for a few centuries would portray that musical encounter unbinds itself from the spatiality and profanity it has before; as the physical necessities of creation of the sound were not spatially mobile, and the music was not storable and reproducible without certain spatial and acoustical

conditions. Given the advancements in various forms of storage and reproduction technologies, musical performance has shifted its nature from a bodily representation of real time physical interactions between the performer, the instrument, the audience and the setting that is located into a culture; to a more timeless and spaceless manner. The change in media in its broad sense translates into a new or enhanced total set of cognitive patterns of human interaction and culture as well as the possibility of new social constructions and musical encounters in everyday life.

The transition from the analog to the digital media enabled new or enhanced ways of musical activity. From a technological deterministic point of view, the advancements on the digital technologies led to the digitization of the music as well, that locates musical activity into the computerized space; eventually enables digitized musical activity. This binarization of music and sound into bytes, bits and samples can be understood as the shrinkage of analog hardware into digitized software (or physical to logical) appliances; enabling the ultimate deterritorialization of musical activity at all levels - production, dissemination and consumption. Just as digital media enabled the possibility and generation of various forms of communication, it enables various settings and cognitive processes for musical activity too.

This thesis, then, will concentrate on such musical activities in digitized settings. It will be argued that digital media have been instrumental in the way we do music and it made enable various new patterns, encounters, possibilities and dynamics for musical activity that weren't present before. I will try to underline the media itself and the

various possibilities or cognitive patterns emerged by their existence; and the logical or software based digital spheres generated by digital media such as internet that is embedded into meta-devices -such as smartphones- and their positioning on the whole scene of musical activity. But before going further, we must understand about music and musical activity.

2. MUSIC:

2.1. WHAT DO WE MEAN BY MUSIC?

Music is understood as one of the primary humane faculties like language (Fitch, 113). Issues of what music is set the boundaries of the field by clarifying what is and is not being studied (Roy and Dowd) and there are various definitions of music and many perspectives on the discussion over the origins of human musicality (Schyff). *Encyclopedia Britannica* defines "Music, art concerned with combining vocal or instrumental sounds for beauty of form or emotional expression, usually according to cultural standards of rhythm, melody, and, in most Western music, harmony" (Epperson). Nevertheless, this explanation fails to grasp different forms of music and musicality. There are various notions that are emphasized in different perspectives and definitions on music. Such positions might conflict in terms of their emphasis on human intentionality, the problematic on the differentiation between sound and noise, and necessity of the organization of such sonic elements as well as the problem of the silence as a musical notion etc… A fair look at such arguments makes it

clear that there is no such total agreement on a single definition of music to comprehend the phenomenon on every (possible) angle and each definition has their own weights.

Nevertheless, there seems to be some commonalities on music, too. It is clear that humans communicate all kinds of meanings through music and engage in music making for more than purely hedonistic reasons (Schyff). It clears that musical activity is meaningful, communicative and ritualistic. Also, its adequacy to transmit various messages makes it one of the primary communicative medium between mother and infant. W. Tecumseh Fitch concludes;

> . . . abundant evidence that music-like communication systems can evolve relatively easily (at least three times among birds and three times in mammals), while a complex communication system with the ability to communicate arbitrary meanings has evolved only once, in humans. This makes a hypothesis in which complex signals ('song') evolved first, and that meanings were added to these signals later quite parsimonious from a comparative viewpoint. (198)

The array of various arguments on musical activity also indicates the social construction of these notions. The forms of musical activity in the globalized and deterritorialized world we live in is varied, and one can easily capture diverse snapshots of musical activity around the world where music is produced, communicated and understood with different means and ends. Similarly, a retrospective look on music throughout history in various societies demonstrates that the perception towards music is communicated through social and cultural interactions and "Music's object-ness, its

embeddedness in institutions, its pervasiveness in everyday life, its popularity as an avocation, and its affirmation in a discourse of transcendent sanctification make it an accessible exemplar of the process of social construction" (Roy and Dowd).

2.2. MUSIC AS A FALLACIOUS DOMAIN:

Under this light, it seems odd that one of the oldest and fundamental forms of communication of the history of mankind fails to possess a concrete, stable, comprehendible definition. It seems, Music as a domain is fallacious. Music is fallacious as I) It lacks to enable a fixed definition as it is socially constructed and its properties vary on different social settings; II) it's objectification generates the impression of it as it exists outside human faculties, diversifying those who are sufficient and active musicians and insufficient, inactive consumers; and III) the solely artistic definitions it partly embraces leaves no space for multi-dimensional communication as a function but hardly a single dimensional form of expression and lacks other forms of music we encounter in different everyday settings. Unfortunately given this scheme we might fail to grasp the relation between digital media and musical activity. As it will be discussed, digital media has much to do with the interaction between cultures, ideas, societies and it encourages massive contribution and communication. On the other hand, this domain somehow shades the communicative and interactive nature of the activity, separating it from everyday encounters and rendering it in lower resolution where details are absent. This resolution lacks the functionality to capture the musical encounters where *music* is

not a one directional expression but a total social encounter, a *social action*. Then the implication of the domain must shift from *noun* to *verb.*

I must note that, different angled gazes upon such notions might be fruitful for some disciplines, scholarly means or conceptualizations. A scholarly expectation towards a definition to have such broad and accurate domain would be unhandy and flawed. Yet it is vital in terms of a thesis' sufficiency to have an integrated and effective terminology. Just so, I do not intend to put aside the conceptualization of Music at all. Instead I just find such a domain *alone* to be restrictive and parochial for this work; and seek to introduce another fitting term, that is Christopher Small's *Musicking*.

2.3. 'MUSICKING':

Christopher Small's arguments on the lack in domain of music comes really handy. For Small, music is not a thing but activity, it's something people do, and the music as a domain is a reification of an action. "The fundamental nature and meaning of music not lie in objects, not in musical works at all, but in action, in what people do". (Small, 8) He transforms the noun, music into a verb, *to music* or *musicking:*

> And if musicking is action and not thing, verb and not noun, then we should look for its meaning not in those musical objects, those symphonies and concertos and operas, or even in those melodies and songs, that we have been taught to regard as the repositories of musical meaning. You will understand that I am not trying to deny the existence of those music objects, which would be silly, or to deny that they have meanings in themselves. But those meanings exist only in performance and are part, but only part, of the meaning of the performance as a whole. (Small)

It is clear, Small's domain does not include the sonic properties of what we hear and listen - the musical objects. Instead, he rejects the idea that there needs to be a

musical work at all, pointing at such cultures that does not have such fixed notions of *musical piece*. The domain he uses does not refer musical pieces as they were in a vacuum; immune to any other spatial, cultural or temporal influence. Thus he does not attribute meanings to a musical piece all alone. Musical work that we read on scores as purely musical structures - the way in which for Adorno, is the appropriate way to appreciate music (Théberge, 190) - does not imply the overall meaning. Instead, Small argues that it is the encounter that must be concentrated on, the way in which humans encounter, communicate, give meaning to the total setting they *experience*. The useful question towards a musical encounter must consist of such variables: "What does it mean when this performance takes place at *this time*, in *this place*, with *these people* taking part?" (Small, 10) It is clear that Small's terminology consists three main elements; time, place and people, where all of them are questionable and susceptible to change with the digital media.

This domain also useful as it correlates the active participants of the generation of what we might call musical sound, with the so-called passive listeners. Instead of dividing them as active and passive members of an event, musicking incorporates everyone *present*. So as well as the instrumentalists on a stage, or the composer; the disseminating actors (the carriers of the instruments, designers of the space or the sound engineer in a live setting), the listeners and even the ticket guy is active in the overall process of musicking, which makes musical action even broader, admissible, and sociologically meaningful. Thinking in these terms, it is concluded ". . . that everyone, every normally endowed human being, is born with the gift of music no less than with

the gift of speech" (Small, 8). We understand that Small's domain includes a total set, or in Goffmanian terms: the whole front and back stages along with the performers and the audiences and everything in between. The whole setting generates the performance and all of the elements and the relation between them in the existence of the performance renders the meaning; then the *musical piece* is not the main object of study but a part of the bigger picture. Small concludes:

> It is quite simple. *To music is to take part, in any capacity, in a musical performance, whether by performing, by listening, by rehearsing, or practicing, by providing material for performance (what is called composing), or by dancing*. We might at times even extend its meaning to what the person is doing who takes the tickets at the door or the hefty men who shift the piano and the drums or the roadies who set up the instruments and carry out the sound checks or the cleaners who clean up after everyone else has gone. They, too, are all contributing to the nature of the event that is a musical performance. (Small, 9)

The attribution put into the domain as an investigative tool for such encounter is the main end in this thesis. I would not quote Small further as I would use his term in order to enable this thesis to locate musical action and its actors in a broader sense and understand the musical relationships and the encounters; on the digitized settings they exist. When we talk in terms of musicking; it suddenly becomes thinking on communication - be it intentional or unintentional. It enables us to think of the encounters, the meaning processes, the coexistence, the setting; to be short, the overall context. On the other hand, *being present* as an active, musicking individual has much in common with the nuance put on the presence when we talk about new media. At first sight, the utensils, the digital space and the new media becomes relevant with the very *presence* and *contribution* of those actors. New media is generated, produced and

reproduced by them; they acquire their meaning by them and users interrelations, and it eventually leads to a culture of its own.

As digital media concerned; I would argue that, it enables many dimensions and layers to musical activity than ever before, without a rigid bond with time and space. The dichotomies of tools and media that are leaning towards online instead of offline, digital instead of analog, logical instead of physical reflects on musicking too. Musical activity becomes a continuous *process* where people all around the world might be present, spontaneously and instantly; thus generating much varied, continuous, overlapping and complex relations, encounters and meanings. Then, what we do in musical terms in digitized settings almost constantly; production, dissemination, discussion, consumption, adding songs, commenting, sharing, listening, discussing, giving meaning, exposing; with new tools at hand; *in any capacity,* we *take part in that can affect the nature of that style of human encounter, effect the nature of the event*. They are all actions that add the total meaning of the given musical performance.

2.4. DIGITIZATION AND MUSICKING:

Then, we can understand the relation between musicking and digitization under several headings: 1) The transition from analog media to the digital; and the capacity to imitate, or even enhance the capabilities of hardware media by their competent software counterparts; 2) the resulting possibility to produce, reproduce, disseminate, consume the music - musicking in total - in the digital space and along with that; 3) increasing accessibility of this technology by masses even with the lack of various social, cultural

economic capitals; 4) the generation of digital networks of musicians (in Small's terms, everyone that is present in the total performance; performers, composers, audience, producers as well as companies etc.) that further enhance the accessibility and interactivity; and 5) the detachment from the obligation/obedience to the production and distribution monopolies as a result of digitization of means of production that encourages the production, dissemination and consumption by self-possessed means, and; 6) as a result, transformation of musical contribution on every dimension and the generation of new musical concepts like fidelity, authenticity, credibility, *the* sound and tradition in terms of explanatory standpoints of musical quality, further introduces new meaningful encounters that change the nature of the event.

A brief analysis of this work can be maintained in several objects: (1) We have argued that Music is not an object by itself but an action. (2) The meaning related with that action is not generated only through musical piece - what we hear in total: the sound, the composition, the notation, the record etc. - itself but with the total encounter it exists in. (3) Since we have marked music as an encounter, we have to grasp the context - the spatial setting, the actors, time *and* the piece that ties all of these notions together. (4) Digitization and digital media enables various enhancements on these dimensions and, (5) eventually this change results in a change in terms of the way we do music and the overall sociological meaning derived from the encounter.

The argumentation will be maintained in three parts in order to analyze all musical processes; beginning with the production, then distribution and lastly, the consumption. Also I will try to add another argumentation in terms of mass musical participation which I believe manifested by digital information and communication technologies. Yet it must be noted that this forthcoming partitions are hypothetical. I've argued that musicking is not fragmented but is a total process. On the other hand, in order to analyze the parts we take that changed the nature of that total event, I found such partitioning could serve better. These parts are smaller pictures in the big pictures: They do not represent the sum by themselves and the sum, musicking, is greater than their mere aggregation. I would try to merge the parts in conclusion to portray the bigger picture.

3. PRODUCTION:

3.1. THE TRANSITION TO DIGITAL META-INSTRUMENTS:

The change in means and modes of production eventually result in dramatic shifts in the way we relate with the musicking as it can be understood as the most basic and fundamental perquisite of musical activity - and the change it embodies eventually penetrates to the other musical and social processes.

> Recorded music has become so much a part of our daily lives that it is now difficult to imagine the impact gramophone records first had on the lives of musicians over a century ago. For the first time in history, this technology made it possible for music to be heard outside of the physical presence of musicians. The act of disembodying

> music from its physical source was to carry with it a whole new range of cultural, social and economic implications for the practice and patronage of music. (McNeil, 315)

Than, I would like to start with production. What I mean by production constitutes all the necessary interactions for generation of the musical piece: Composition, rehearsal, performing, recording, reproducing. All these actions eventually alter the nature of the musical performance. Of course, this partition can not be thought apart from other partitions. The second partition, dissemination has much to do the way these interactions are done but this would lead us to a more political economic reading which I do not intend to. Again, I would like to underline little of the musical pieces themselves but more of the way in which they are influenced or changed by Digital Media.

3.2. ANALOG AND DIGITAL INSTRUMENTS:

A main scope would deal with the physical changes in terms of musical instrumentations. The traditional, conventional analog/acoustic instruments have been the dominant tools for musical production. Their ability to produce sounds are limited as their physical characteristics enabled them to be. A grand piano's timbre is dependent on the material used to build the instrument, it's pitch extension is limited with the number of octaves it has. Nevertheless, be it dark or wide sounding, eight or six octaves; it is a piano and one could only expect it to sound as a piano, just to his/her own taste. Pianos are of an importance as their name suggests (pianoforte) has the widest playing range

and their physical attributions are utilized in the forthcoming digital pianos - or synthesizers.

Synthesizers[3] on the other hand, are capable of synthesizing various sounds thus generating new, unique sounds. There's no synthesizer sound per se. They can be understood as the early instrumentation suites or hosts. This electronic instrument can manipulate a sound signal in various ways and generating various timbered and pitched sounds with an enormous range of sonic extension. Also, the sound it produces can be manipulated realtime. This capacity is not unique to the synthesizers; as analog devices are prone to such physical alterations that can be effective in real time sound shaping but the change in terms of sound is limited drastically. On the other hand, synthesizers can fluently and continuously manipulate the sound, even totally change it in a moment with a pre-programmed sound presets and the new sound might not resemble anything of the older one. They were able to poorly imitate various analog instruments too. This imitation became much more complex and truthful eventually with the rise of digital instrumentation technologies. Nevertheless, the implications are that they enabled a singular suite of musical production or a *meta-instrument* where various instruments could be replaced and they generated a whole new layer of sonic possibilities. It is a multi-functional instrument and it could perform various musical tasks all by itself.

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[3] Synthesizers are electronic musical instruments. Their operation is based on manipulating electric currents and sonic signals. They may utilize various hardware forms and operate with various knobs and buttons, often controlled with a keyboard.

The transition of single-purpose complimentary instruments to the multi-purposed meta-instruments can be grasped in other areas too. The dissolution of various hardware into software counterparts by the computing marvels of digitization leads a whole total way of production. This time, we face the transition from various hardware musical equipment to be dissolved into digital software formats where they can be utilized on various digital formats. “Software is no longer the domain of the sonic experimentalist but has become the staple of the industry” (Prior, 922). This digitization has two implications: On the one hand, digital tools are merely susceptible to physical qualifications as the hardware tools do. They are based on logical algorithms, functions and codes, and their capacity to do their task is maximized to logical limits instead of physical, thus far more greater than hardwares. Along with that, they are programmable, duplicable, and convergent. On the other hand, as they are embedded in computerized spaces along with many other digital instruments, effects, softwares etc.; they manifest computers, smartphones, tablets as the *meta-instrument* all by themselves.

3.3. MIDI AS A META-INSTRUMENT:

The sonic qualities of such meta-instruments bring forth another layer of authenticity in musical composition and production. Instead of Adorno’s view on musical structure having the fundamental importance of the musical work and the “coloristic and expressive tendencies (must) be sublimated to the force of compositional

logic" (Théberge, 190), MIDI[4] technologies evolve as a absolute nemesis of such interpretation. The MIDI codes can be understood as logical extensions of musical notes or their digital counterparts where musicians are able to utilize them with such software meta-instruments as they will. While MIDI represents the musical notations in digital settings, the Virtual Studio Technology[5] (VST) stands for the musician/instrument that plays the musical composition. Digital instruments' capacity to create, automate and manipulate various forms of digital or analog sounds become the ultimate form of controllable coloration to the musical piece while *the sound* become an important authenticator for the piece:

> Although there are certainly valid distinctions to be made between "songs" and their realization in sound, for much popular music such distinctions have become increasingly difficult to make. . . . The term "sound" has taken on a peculiar material character that cannot be separated either from the "music" or, more importantly, from the sound recording as the dominant medium of reproduction. (Théberge, 190-191)

Such interpretation would result in the authenticity and reliability of musical performance to be determined by not only the composition but also by the sonic attribution it has. Production practices rely mainly on having *the sound,* that implies a certain sense of musical meaning and authenticity in a given context. While digital media changes or enhances various forms of analog production means and techniques, it also encapsulates/imitates them or their sonic signatures. In this way, digital media do

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[4] Musical Instrument Digital Interface. They operate within the digital format: 1 (on) and 0 (off). It is a communicative standard to enable communication between digital instruments, computers and softwares.

[5] VSTs are a plug-in format for various DAWs. Yet they are widely used as a synonym for Plug-in.

not only enable new sonic attributions to the musical piece itself, but also enable the sonic continuity of the older forms in a way. This approach echoes in analog-digital debate in terms of sonic qualities and authenticity where analog media is believed to be somehow real and superior to the digital media. Then digital media is used to manipulate the sound into the desired context to enhance the sense of belonging to a certain era. Many records utilize the signature *hiss* sound to imitate the distortion emanates from friction between the vinyl and phono cartridge, thus implying a nostalgic or vintage sonic print. Such attribution smears the temporal signature of the musical piece, thus enhancing the detachment from time in another form.

3.4. CONVERGENT SOFTWARE AND HARDWARE:

Of course, the main expression of this transposition would be the Digital Audio Workstations - DAW[6]. DAW's are software successors of the analog mixing desks yet they are utilized in almost every aspect of production instead of their analog ancestors. There are various forms of DAW's, such as Pro Tools as one of the most advanced software to handle vastly differentiated tasks or such as GarageBand which is a very lightweight software that can be utilized even in relatively weaker equipments such as smartphones. DAW's are complex softwares. They are both enhancing the various capacities that an analog mixing desk has and also, they are creating newer possibilities.

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[6] Digital Audio Workstation. These are host software programs that enables computer based audio recording, editing and producing. They also operate as a main deck where other software and hardware utilities can be embedded and become available for synchronized operation.

They host software synthesizers, further enhancing the capabilities of synthesizers and the all-in-one aspect of digitization. Also they host various digital instruments that are capable of real-like sonic signatures of hundreds of analog instruments; strings, percussions, wind instruments; even vocals. DAW's are the fundamental manifestation of the distillation of hardware to software, where musicians are able to create, record and manipulate many musical events at once, at will.

These workstations can be understood as the deck where digitization seems to be the main driving force. The early forms and tools of production suites, full of expensive hardware components for each different task for creation, manipulation and recording of sound are distilled and compressed into their software counterparts that are embedded in DAW's. With such digitization, DAW's need no more than themselves and an operator to compose, operate, orchestrate, record and even distribute; making them a convergent digital medium.

> Outside of live environments, musicians are now composing straight onto their laptops, moving beyond its utilization as a quick sketchpad for ideas. At once a means for recording audio, generating drum patterns, hosting software synthesizers and mixing down to a single file, the laptop encapsulates technological convergence. Indeed, with the right software it replaces the function of a host of hardware devices, including multi-track portastudios, hardware synthesizers, mixing desks, samplers, channel strips, compressors, guitar amplifiers, effects units and sound modules. Added to this the in-built digital connectivity of the laptop and the possibility of uploading songs to the Internet after production, as well as promoting, circulating and listening to them, and one has an all-in-one production unit that meshes composition with dissemination and consumption. (Prior, 914)

Of course, DAW's are embedded in various hardware. The obvious hardware would be computers. Nevertheless, the technology behind such software enables it to be operated in many forms of hardware; eventually re-model its functions. Instead of laptop as a mobile counterpart of desktop PC, many smartphones and tablets with touchscreen capacities come bundled with various forms of DAW's and digital instruments where users can work with their fingers. This capacitive screens enable users to interact with the software differently from desktop computers or laptops.

3.5. DETERRITORIALIZED MUSIC PRODUCTION:

This convergent software goes hand in hand with the technological advancements and resulting shrinkage of hardware devices to host such digital instrumentations and tools. DAW's necessity of physical space is only as limited as a mobile communication device - such as a smart phone needs. The first outcome of such physical qualification is the mobility. This mobilization of musical production generates a whole new set of spatiality and temporality to music. The deterritorialization also depends on the digital media as well as mobile hardware tools.

The evaporation of musical production builds up new settings, new possibilities, new sounds, new performances and new conceptualizations. Such mobile devices enable musicians to work or perform anywhere, anytime and deterritorialize musical encounters from the old forms of musical spatiality; be it stages, concert halls, studios etc. Digital media enables the musical performance to be done in differentiating settings via mobile

devices or specifically designed softwares such as Ableton, but on the other hand, in some certain settings, the automation and digitization of music "feeds the suspicion that, at best, the black or titanium box is doing most of the work, with the musician-technician having minimal input; at worst that they really are just pressing play and surfing the Internet" (Prior, 925).

On the other hand, the advancements on internet and networking options bring forth another layer of spatiality. Various software tools are emerged to work with other musicians simultaneously, enabling a worldwide or deterritorialized production instead of the famous spaces like Abbey Road, or Trident Studios. Via Cloud Computing, a recording engineer located in Istanbul can be able to record a bass player from Hong Kong, and add up latin percussions from Argentina. This is also the case that one can easily contribute a performance from distance, can manage to play live or pre-recorded. Or they can simultaneously do music from distance with Internet and MIDI, utilizing digital instruments; that can be heard or watched from live footage web sites such as Twitch.tv; and even the audience can contribute to the session by live comments. The synergy between New Media, the hardware and the embedded software enables various possibilities to do music without any spatial and temporal boundaries.

3.6. DETACHMENT FROM INSTITUTIONS:

Another implication of this cycle is the release from institutional confinements, along with the mass contribution to the musical production. We can see the distraction

between Small's musicians and the institutionalized music here as musical production were arguably monopolized in terms of education, composition, recording and performance. This monopolization might be caused by lack of economic, educational and cultural capitals by masses to own necessary means of production. The digitization of flows of information, on the other hand, disposes the necessity to have such capitals and enabled a massive penetration of musicking - generating *musicians* from all of us.

3.6.1. EDUCATION:

Musical education in terms of Music Theory, Music History, Instrument Skills and Musicianship has shifted from institutionalized sectors to a common contribution project. New media and various software tools designed for multiple media such as computers, smartphones, tablets, etc. proves useful to generate new streams of knowledge and information networks.

Such global networks enables new non-institutional musical education centers and make global exchange of knowledge and information possible. These potentiality lead meta-cultural musical education where the musicians can track and learn various musical genres, techniques, instrumentations and musical insight. Another implication of such accessibility to the flows of musical information is the spontaneous and instant access to the information on demand. Then on the one hand, musicians are able to join and contribute some classical forms of education as well as newly established paid or unpaid digital musical institutions where the musical education is supported by pre-

recorded sounds, video clips, animations, texts and/or live tutoring possibilities via online communication tools such as Skype; moreover, such musicians are able to self-tutor themselves as they need, simultaneously reaching the selected necessary information as they desire via search tools and various knowledge portals such as Wikipedia or Youtube.

Digital Media enables newer spaces of encounter where musical knowledge might be amplified by communication networks such as discussion forums such as Reddit, TalkBass, Guitar Center, utilized by musicians. Lastly, the generation of various software innovations for musical education where musicians can learn to play the songs from their favorite artists enables to keep track of specific genres, techniques and heritages by studying the musical pieces interactively. Guitar Pro, as one of the leading software solutions with massive skills of digitization and manipulation of MIDI codes enables musicians to study various songs with the instrument of their choice. As MIDI instruments are interchangeable, a stunning lead guitar solo by David Gilmour can be analyzed and modeled to the piano roll and enables pianists to self-tutor the musical part for their own instruments.

3.6.2. COMPOSITION:

This vitality in the musical education and formation reflects to the composition process. At first, the meta-cultural flows of education, and the loosening of institutionalization - which can be alternatively read as a restricting agent of musical

insight and creativity - enables formations of new musical encounters and creative processes. The musical penetration throughout distant and varied cultures and societies echoes in the composition process thus enabling this creative disengagement to potentially result in newer philosophical and compositional criticisms of various musical camps. On the other hand, one can argue that the composition by classical means is dramatically changed by the introduction of software tools for utilization of orchestration and notation. Hardcopy/analog sheet music where musicians could write and read as a text is distilled into soft copy, MIDI powered interactive, instrumented and actually audible music via various notation and composition softwares such as Guitar Pro or add-ons built-in DAW's. The immense capacity to orchestrate hundreds of instruments simultaneously by DAW's, such as Logic Pro X enables a much more controllable, imaginable and interactive composition process. The Graphic User Interface (GUI) utilized in such softwares are easy to use and unintentionally didactic. With graphically easy to use MIDI if not with actual notes, one can easily compose various musical passages, melodies and songs all by ear and personal taste without any musical knowledge. This implies the penetration of creative process to every musician, underlining the unitary reference that Small gives. The enhancements in terms of mechanics of composition also works with the digital instrumentations that enables an unique sound manipulation skills. MIDI technology adds up to the sonic representative capacities of sheet music with various unique sonic events. One other implication is the composition networks where musicians can share, modify, comment or re-utilize

composition data - such as MIDI files or Guitar Pro files - as they will. Internet and Cloud Computing technologies enable a much more collaborative and multi-dimensional creative formations.

3.6.3. RECORDING:

The enhancements in terms of composition process is amplified and manifested by advancing recording technologies by the digitization of means of production. The digitization enhances the accessibility to such means by masses. This evaluation comes in handy when concerning home studios - the dislocated settings for music recording and production that are getting more and more widespread throughout the world as digital media technologies advance and eventually make recording and production of music possible in such varied budgeted settings that are operated by both professional and amateur musicians/producers/music enthusiasts/hobbyists etc. and established a solid ground in the music scene today. They can be understood as the manifestation of disintegration of well-established professional studios and the reinvention of musical production by unprofessional others. On the other hand the conflicting perceptions of pre-digital and digital music technologies put home-studios that utilizes freeware/ shareware software tools as they generally tend to lack hardware tools, under suspicion in terms of their necessity, authenticity or capabilities.

Not only home studios, but with everyday devices that individuals use such as smartphones, the recording, arranging, even mixing is possible in various degrees. Such

unconventional recording tools became major suits for production and various forms of hardware and software add-ons are introduced, further amplifying the spatial and material (in terms of recording equipments) freedom to those who wish to capture musical event - be it a live show or one instrument per time. This way, a musician is able to be heard with his/her own records without any potential unnecessary intervention by corporate anticipations.

3.6.4. PERFORMANCE:

As well as recording, the musical performance became more available for various musicians by digital media. While digital technology provides new and accessible means of musical performance and exposure, Digital media hosts various professional and amateur musicians to perform both live or pre-recorded on various digital settings. The musical performance shifted from a live/physical necessity where audience and musicians come together in analog settings such as concert halls or stages. Web sites for live stream such as Twitch.tv and pre-recorded videos such as Youtube and Vimeo became dominant in terms of musical performance.

This implies a deterritorialization of musical performance from spatial confinements. This deterritorialization can be read as musicking without borders where the *musicians* are formed by online netizens instead of offline citizens. Digital media also introduces various radio and podcast tools for those who wish to organize and share music or contribute in a musical performance. In this case, such radios, playlists became

a two dimensional musicking medium where netizens are the major contributors of such musical encounters.

As it can be seen, one might easily argue that musical production in all dimensions became Globalized and available for mass access. The interwoven hardware and software tools results in various intended and unintended consequences where musicking individuals meet, contribute, create, share, expose and learn. As hardware dissolves into software, various digital instruments of enhanced sonic capacities are introduced and physical/material equipment necessities sublimes to air; musical production capacity diffuses/penetrates to the online spatiality. With digital media, such convergent meta-devices seem to dominate various domains of life as they also dominate the musicking, resulting in spontaneous, instantaneous, easy-to-operate software and hardware tools that is not confined for manipulation by only professional musicians. That implies a more participatory musical encounters by masses, be it professional or amateur, commercial or non-commercial.

4. DISSEMINATION:

> The increasing creation, support, use, and consumption of digital representation of information has touched a wide breadth of economic activities. In less than a generation the costs of storage, computation, and transmission declined by several orders of magnitude, enabling a lowering of cost in a range of activities by a similar order of magnitude, and enabling the creation of an enormous range of new applications. This digitization has transformed social interactions, facilitated entirely new industries and undermined others, and reshaped the ability of people – consumers, job seekers, managers, government officials, and citizens – to access and leverage information." (Greenstein, Lerner and Stern, 110)

The second logical process is the dissemination. Dissemination can be understood as the utilization of various means, tools and spaces to enable a musical encounter where production/product meets with the consumption/consumer. This process encapsulates the communication between musicking individuals as they contribute to the event. The change in terms of dissemination results in a various new organized dissemination models, opportunities and possibilities, which in turn directly contributes to the generating newly established relations and encounters, thus altering the nature of the musical performance. I should note that Performance can be a form of dissemination, but in this regard I had used it in terms of production and would not go into it again.

We should look at few major events that resolve into new forms of dissemination: (1) The introduction of compressed audio formats such as mp3, resulting in the lesser need of storage space; (2) new easy-to-use hardware and software media to utilize such new formats; (3) new media and the resulting legal or illegal online spaces for streaming/downloading while contributing the whole dissemination process; (4) the increasing broadband options and internet accessibility that further enhances the online transition of audio files and lastly; (5) convergent meta-devices that has necessary software and hardware capacity to encapsulate the whole dissemination process into one single device, leading to the dissolution of hardware media and generation for various settings for encounter into the computerized space.

4.1. DIGITIZATION OF HARDCOPY FORMATS:

4.1.1. THE DIGITAL AUDIO FILES:

The digitization in terms of format manifests itself best in terms of mp3's. It is the compressed version of default music CDs sold on the market that is transferred to a computer environment. "The actual name of the format that allows listening to compressed cd quality sound in a computer environment, or mp3, is MPEG Layer" (Gündüz, 203). Such compression is utilized in terms of storage spaces where raw audio files such as WAV or WAVE are relatively large. Compressing these files into small mp3 files leads to the shrinkage of storage needs. "By running uncompressed audio files through an mp3 encoder, files can shrink to around one-tenth of their original size, while still retaining most of their quality" (Gündüz, 204). CD quality songs take a large storage space while transferring music pieces to a computer environment is a much easier and productive method when converted to a mp3 format. This shrinkage also enabled the online distribution of music, digitizing the stores and exchange mechanics for good.

On the other hand, mp3 fails to reproduce necessary sonic qualities that its hardware counterparts do. That is why, mp3 is considered as a *lossy* format. The compression rationale behind Mp3's operate in terms of cropping the *unnecessary information* sampled from the raw source. The necessity of the information is crudely determined by the human hearing threshold and the sonic data above the threshold is

trimmed. Yet this fails to prove a truthful representation of the raw data, as the cropped data would interact with both the reproducing media and the environment and generate actually audible sonic prosperity and sense of quality. Nevertheless, mp3 is not only a digital format to use for audio data. Various *lossless* audio formats are in an online circulation. The variation of digital audio formats would enable the possibility of dissemination audio for various needs; where lossless formats would deplete broadband quota.

4.1.2. FROM SHELVES TO THE INTERNET:

Digital media provides new forms of distribution of various information. The transition from hardware to software has its implications in this process too. The digitized, software based means of production also manifests itself as a digitized product that can be stored and distributed in a digital setting without a necessity to further convert the product from digital to analog to store it in hardware media. As it has been described above, this had profound effects in terms of physical necessities. At first sight, we can easily grasp the lack of dominance of the analog media; that is to say, vinyls, tapes etc. While digital formats have been stored in new digital hardware media such as Compact Discs and Digital Versatile Discs, they still operate in a similar way to be distributed, making them mere enhancements of their analog counterparts. As they are physical objects, they still need to be displayed in stores to reach the audience, limiting the spatial extension. On the other hand, digitization enables the transmission of

recorded music to digital settings where it can be easily disseminated. Kembrew McLeod points out the irony of the music companies' deliberate attempt to make CD's the new dominant form of distribution as they are much more efficient than the analog media, but inevitably this action enabled users to simply copy the contents of the CD to their computers (526). Once the content is copied, than the main source is useless. Yet music companies also adapt to the digital media and digital culture and diversify their methods of dissemination:

> Whereas recorded music has historically been sold in the form of albums, the lion's share of music in today's marketplace can be purchased both as an album or as an individual track. Since the early 2000s, driven by the rise of digital channels, record labels have moved from what can be called a pure-bundling strategy, in which a firm a firm sells both the bundle and (all) the products separately (Elberse, 108).

Internet technologies and broadband availability as well as new media can be understood as the another fundamental and complimentary progress further enhancing the digital audio formats' lightweight, easy-to-use/store/manipulate/distribute characteristics. While accessibility to Internet increases along with the data transfer speeds, the necessity to possess ample storage options resolved. Internet turns out to be a common storage and a distribution center where music is stored for global access. As in the production process, internet became a new setting for musical encounters where major distribution networks are established on various online web portals or computer softwares.

4.2. PEER-TO-PEER NETWORKS AND ONLINE MUSIC STREAMING:

Peer-to-peer (p2p) portals date as early as 1999 with Napster. Such portals create new settings for social encounters where individuals can swap songs. Napster could not live more than three years, as Copyright Laws prohibited its use in 2001, but newer software and web sites emerged such as Kazaa or Limewire where users could swap all kinds of files and information, for free. The decline in hardcopy sells, industry turned towards new, legal distribution methods to keep their profits on the one hand, and to undermine such 'illegal' sharing networks. Various online music stores emerged both globally and locally, harmonize and 'legitimize' relatively chaotic online music distribution.

> Together with the proliferation of computers and internet use, albums have begun to be distributed over the net illegally due to copyrights that provide important source of revenue to the music industry. With this widespread freeware distribution, situations where one day all music products are sold on the internet thus eliminating music markets as an intermediary and the possibility of independent artists marketing their own products in this medium without the need for large record companies can be considered as negative developments for the music industry. (Gündüz, 206)

These online settings enable various unique forms of dissemination settings and paradigms. The terms of 'possession' of music shifts from archiving hardcopy albums in rusty cellars or shelves to digital archives. The number of shelves as an indicator of a good archive dissolves into the gigabytes of data. Yet the archiving music become unnecessary as users can reach their desired tracks easily online via online distribution settings like Tidal or Spotify where subscribers can listen a huge archive from their

computers, portable music players or smartphones. The mortal, (as CDs, tapes or vinyls are susceptible to physical damage and their life span is limited to the usage ratio) spatial and therefore valuable archives are superseded by online, almost immortal and handy databases that are open for mobile, instant and spontaneous access at all times. This implies that a monthly subscription to such services enables user to theoretically *own* the whole accessible database that software offers for a month and is able to consume the database legally at will, without any other licensing or ownership procedures. Mobile devices like smartphones with an internet connection enable users to carry a whole archive with users without even exploiting the internal storage. Either case, netizens around the world are able to listen music, without any copyright or stock issues, whenever and however they wish. These online settings enable users to *save* their desired playlists or albums to their desired devices for listening without internet connection. The audio quality can be changed from high to low in order to cope with various worldwide broadband availabilities, providing an effective music store for masses.

4.3. DISSEMINATION BY CONSUMPTION:

On the other hand, Social media enabled other areas for users to contribute the dissemination process. The immense interaction capacity between various social media sites such as Facebook, Twitter, Youtube, MySpace, Google Plus, SoundCloud, Blogger etc., users are now able to share music videos, audio clips, blog posts, commentaries and

many more between these sites, contributing the dissemination process by ‘spreading the word’ with their personal networks. This basically implies that the online trails of consumption might provide another form of dissemination via live feeds or intentional contributions. This has been of uttermost importance especially for amateur musicians and music enthusiasts to promote their own works without the mediation of established music industry. Digitization utilizes everyday units such as PC’s to be both production and distribution agents while underlining the detachment from music industry and monopolization, enabling much more participatory musical scene as there are new forms and means of distribution. There are various web sites for such *amateur* works for a small fee, where musicians can advertise and sell their own works without any obligation to the unsatisfactory deals with music industrialists. We can understand that in terms of distribution mechanics, music industrialists’ monopolized networks and markets are challenged with new media.

5. CONSUMPTION:

The third process in the line is consumption. The consumption can be understood broadly, and it encapsulates various consumption related actions. Listening can be regarded as the ultimate act of musical consumption, but on the other hand, there are other consumerist actions such as downloading, streaming, buying, pirating the works of music which might or might not lead to ‘listening’. In this regard we will both concentrate on the ways in which the listening patterns and cultures are changed along

with the new musical meanings and encounters generated by such modes of consumption.

5.1. I EXPOSE THEREFORE I AM:

Musical consumption became more of a common contribution with the new media as it intentionally or unintentionally contribute to new forms, encounters and meanings. At first, Digital settings where online or offline modes of consumption occurs, enables suitable settings for self-presentation and exposure based on listening counts -or hits-, automated real-time social media exposure mechanics, and storing statistical consumption data per user. New media provides the necessary potential for users to utilize it as a backstage where they can organize the ways to expose themselves. Softwares, add-ons and intercommunicated web sites designed for networking based on musical taste - which are based on monitoring the music consumption preferences - where users can create fan groups, learn tour dates, have information about various artists, create custom radio channels generated automatically by their own taste, chat, negotiate and socialize with other users that have a similar taste. Social Media sites like Last FM can be embedded in and operate in conjunction with various software listening tools built in computers, smartphones, tablets or portable music players, to be able to monitor all listening experience.

Such monitoring of consumption patterns also make individual consumptions get together and utilized as promotions, advertisements or statistical data. Online softwares

such as Spotify might promote some artists/songs given their consumption rate or it can suggest songs/artists given the major increase in their consumption rates. The consumption became an action that have an instant, global area of effect where not only producers and artists are to be influenced. Such global echo located in interwoven networks of online networking sites and music softwares influences audiences much more effective than before. On the other hand, various software tools are introduced that can be utilized in various mobile or desktop hardware that has the ability to create and share/add custom playlists and arrangements, further enhancing the customization and participation practices embedded in consumption needs and ends. This implies a digital setting where individuals not only consume individually but create, track and keep up with the trends that is derived from the worldwide consumption patterns.

5.2. NEW TOOLS AND ATTRIBUTIONS FOR NEW CONSUMPTION:

Related with the introduction of digital audio formats and analog media's retreat; new hardware and software tools emerged for further utilization and manipulation of digitization of music. In terms of hardware, dedicated mp3 players emerged that can be understood as the more versatile counterparts of before-dominant CD-Players and Walkmans. Such portable players utilized internal storage capacities to house many audio files instead of the limited capacity of tapes or CD-Players. Portable music players also become convergent meta-devices or 'portable media players' (PMP) that can connect to internet, play music, host games, watch videos etc. Actually, their capacity to handle multiple tasks depend on the software they share with smartphones, like open-

source Android; and some high-end devices only lacks in terms of GSM capacities in contrast with smartphones. This similarity between portable media devices and smartphones results in smartphones triumph over PMP's.

On the other hand, the analog-digital conversion lead to another layer of fidelity and sound quality debates. These debates revolve around the compression formats and conversion bit and sample rates. Since analog equipment does not need to have a sampling process to reproduce sound, such fidelity debates were unnecessary. But digital audio needs to be sampled from analog audio, where loss of information occurs. In this case, smartphones all-in-one attitude results in supporting lesser formats of digital audio in terms of it's software capacities. And the hardware used in such devices lacks necessary power, conversion or amplification mechanics to fulfill necessary sound fidelity where PMP's are envisioned to be better. The implication is on the one hand, new meanings and forms of notions like authenticity and fidelity appeared; and on the other, new hardware and software utensils are emerged to fulfill various needs in terms of consumption practices. Listening gained new attributions in terms of fidelity, resolution and sound stage. Various digital audio formats like MP3, AAC, FLAC, WAV etc. became symbols of sonic quality and generating various listening experiences based on sonic qualifications. Then the meaning created by listening the same piece with 48khz/16bit MP3 format or 96khz/24bit lossless FLAC format results in different cognitive processes and attributions put on the consumption.

5.3. BACH ON MOUNT EVEREST:

With such capable portable media devices with enhanced digital capacities in terms of sound quality and sound modification with in-house sonic sound enhancement capacities like equalizer, reverb and propriety sound management plug-ins as well as various hardware options to choose and compliment such devices; mobile consumption gained another layer of setting and meaning. The advancements in terms of mobile sound reproduction technologies result in mobile and realistic listening environments where consumers might choose their desired settings to experience and enjoy various forms of music, without sacrificing sonic characteristics or expectations from the musical work.

All these can be understood as the ultimate deterritorialization of musical works from their time and space bonds. This way, mobile devices not only reproduce various musicking settings - Listening Air on G String on Mount Everest or Sahara Desert or a Subway station-, such physical settings can be enhanced, changed or amplified by various digital sound reproduction effects at will, transforming the meaningful contribution to the total event of musicking to another level. This way, enjoying Bach on Mount Everest while chilly wind flowing and releasing from one's lungs, without any presence of anybody else, and the sound is manipulated with equalization and reverb settings as it was played in a Cathedral could result in a much more different formation of meaning than it would have been listened in a live setting where people come together and try to enjoy the musical piece altogether with the existence of *others*. For me, the

same piece would create much more religious meaning while listening it on Mount Everest but I would feel that I was attending a High Cultural activity if I was listening the piece in a concert hall and for that Air on the G String could be a glue that brings me and *others like me* together.

5.4. ATTENDING THE PERFORMANCE:

Then, another implication would be the change in terms of sense of attending as a consumption practice. New Media generates new social structures to expose or to experience the sense of attending. But on the other hand, resulting shrinkage or lack of necessity of hardware medium with the digitization of information results in spontaneous attending. Even in 90's, and early 2000's, mobile consumers would have to carry their desired albums or playlists with them in the format of cassettes, CD's or limited memory cards; eventually their accessibility to the music was limited when they are far from their archive; for example when in a vacation. The implication is the beforehand preparation for and restriction of contribution to the musical activity. Internet access with mobile meta-devices became the fundamental or ultimate preparation as users can attend and contribute to a musical event, at will and spontaneously.

We can see that both new media and technological advancements bring forth new forms of attributions, meanings and settings in terms of consumption practices. While the context in terms of space and time is up to the subjects choice and eventually consumers are able to construct their own sonic and physical contexts for their desired musical piece at will, we can basically argue that musicking is dislocated.

6. PRESENCE AND CONTRIBUTION:

6.1. SMALL'S PRESENCE VS NEW MEDIA CONTRIBUTION:

The last addition to the hypothetical partitioning of musicking would be the difference between presence and contribution. Small argues that to understand and derive a meaningful explanation to a social musical encounter; we have to ask about the time, the setting and the presence of people. He implies that the our presence in a Concert Hall could lead to a different understanding than the presence in a shopping mall and this is quite understandable. On the one hand, in the concert hall; people come together to experience the music altogether, the setting is built and adopted to enable mass presence of audience and the context is dependent to many social, political and cultural factors. On the other hand, in a shopping mall, musicking is much less intentional but optional: The musical performance is happening with or without the presence of an audience, and it is happening for other reasons. Also, Small argues that the construction of such settings are determinant factors to the total experience. The design of the stage and the order of the seats in a Concert Hall, the lightning and the acoustical architecture of the place; shape the event and its musicking actors in a pre-determined format. The setting implies its rules to the *musicians*. Then we can argue that the rules of presence is also determined: The audience, the disseminating actors such as the ticket guy or the live sound engineer, and the performers are spread out physically and their roles are pre-built. Despite the fact that they are all contributing to the musical performance in Small's terms, the expectations put to the individuals are not flexible and

subjected to the inconvenient gaze from others when surpassed. I would argue that the *presence* is not flexible and not quite active. *Being present* is expected and sufficient for such musicking settings and its the arguably the only active essence when we think of audience. Then the *contribution* put by the audience to the total encounter is not active, not flexible and not spontaneous - *relatively.*

On the other hand, we can argue that new media generates a constant presence beyond time and space. Our online presence becomes constant - actively or passively and in such digital settings, it can be immortal: When an individual watches a million hit video on Youtube, s/he is able to have the sense of sharing the experience with other million watchers, knowing that they are not simultaneously watching. The numbers generated by consumption trails become a symbol or manifestation of quality, amusement or trend. The act of contribution by clicking to the video link or by watching it leaves a constant trace in this terms, making our presence in such settings ambiguous in terms of time and space on the one hand, yet consistent on the other. Along with that, a strong anxiety is reflected upon social networking sites where deceased users can maintain their online existence; rendering users immortal in such digital settings. This implacable presence can be confusing but important in terms of musicking. Netizens are always present in many occasions: They are present and contributing while they comment on a Youtube video or share a SoundCloud clip on their Facebook account or when they communicate with their favorite artist on Twitter. They are all partaking in that social encounter and this presence merges in the creation of meaning on the encounter. A simple example would be the presence of two billion and three hundred

millions of people, who watched South Korean singer PSY's Gangnam Style, a relatively basic but catchy popular song. Gangam Style quickly became a hit song not just only because of the content (audio and video) but *also* about the presence generated of massive number of others.

I would argue that *being present* on the one hand and *contributing* on the other are different concepts. The mass contribution is fundamental in terms of New Media and it is the major force behind the progression of Social Media. What we call as User Generated Content can be understood as the manifestation of such contribution. The cooperation between Digital Technologies and New Media enabled vast array of digital information and communication networks that is fueled by user generated content. Social networking services, Blogs, video-sharing networks, news portals, online forums and message boards etc., all depend on mass contribution along with mere *presence* of users. Then, the mass contribution can be understood as production, distribution and consumption of the content by users and these processes are not cognitively and spatially divided as rigid as it would be in newspapers or broadcasts etc.

6.2. DIGITAL MEDIA AND MUSICAL CONTRIBUTION:

The digital technologies, new media and eventually digitized musicking scene provide and enhance vast grounds of existence in terms of presence and contribution. I have argued that it enhances our ability to be present at various settings, simultaneously and constantly. I also argue that it enables users to contribute to musical performance in many ways and this contribution is celebrated quite often. While new media underlines

and enhances the communication and interaction practices, interactivity between musicking actors were lacking in a concert hall back in say, 1980's. First implication would be the argument based on our constant online presence and availability to communication in various settings by various everyday communication tools. This means that our means of communication are not simply structured by physical settings as it was before. This concludes that even though the concert hall design forces audience to act in some manner; the interaction capacity is upgraded from mere basic presence in front of others to the availability to communicate with others present *there* (with local search applications like Foursquare or Swarm) and present *online* - bringing the online others to the performance by audio/video clips, live streaming etc.

This would be understood as a form of contribution would be the distribution of the musical performance. Photographs, audio clips, live streams and live reports can result in detachment of the musical performance from it's real-time physical basis and to be spread out. The real-time distribution would generate multiplicity of settings and audiences for the specific act and while rendering it immortal, it extends the performance and the encounter settings as long as it exists online. The audience eventually acts also as disseminating actors and such contribution enables newer audiences and potentially distributers of the event itself, generating an avalanche motion of distribution. In this case, *digital fleneurs* actions result in a parallel way that the insects or the wind, which are fundamental in plant reproduction; as their presence eventually renders to a form of contribution for spreading the digital information.

6.3. NARROWING THE GAP OF FAME:

Another implication of the contribution is manifested through the availability of interaction between *musicians*. Famous American heavy metal band Metallica wanted their audience to vote for their desired tracks to be played in their latest tour - Metallica by Request and they've played the playlist from the voting results - enabling their audience to actively partake the creation of live playlist. Along with that, new media often used as a trial setting where producers share clips, trailers or demo tracks from the piece they are working on and collect feedback from fans or critiques. Eventually, such an online contribution intervenes the production and arrangement process. On the other hand, specifically designed message boards on various scopes enable global/intercultural settings for musicians to generate, share and discuss various information. This way, audience is able to distinguish and classify various musical objects - every kind of tool and technique used in the performance - and be able to grasp the musical encounter in its totality.

The massive contribution, the interactivity and the generation of various settings for spontaneous encounters results in a much dynamic and multi-dimensional musical performance where the different musicking actors - performers, distributers, consumers, etc. - melt into *musicians* in Small's terms as they are able to actively contribute to the *nature of event*. *New* Musicians do music and contribute by generating information about musical pieces, performances, performers, producers, backgrounds and contexts. Their contribution are enabled by digital networks and such digital networks are much more

unrestricted than the older musicking settings and networks. Such interactive settings enable musicking actors to actually act, in a much broader environment thus enhancing the total experience they derive from the musical encounters they feature.

7. THE DARK SIDE OF THE MOON:

The normativity on the perception of technology is a recurring theme. Such qualitative works are mainly based on the opinions of various musicians, engineers, producers, enthusiasts etc. that is collected mainly from online discussion boards that echoes two conflicting bands of opinions on technology that either portray an acceptance/approval or a refusal/negation about it. This is mostly visible when the analog and digital media is at the stake. In this terms, there is this ". . . belief that predigital sound technologies can add value to the recordings they generate"; thus "Digital sound technologies, while acknowledged as a threat to the aesthetic qualities that have come to distinguish certain cultural values, maintain and in many cases bolster the performative status of recording" (Stuhl, 43) and seem to lack authenticity and tradition. Such views are challenged by the arguments on fidelity, that "is maximized by lack of interference with the captured sound" (Stuhl, 45), that puts an emphasis on the faithful and undistorted storage and reproduction of the sound which is not easily accomplished with the pre-digital technologies. From these perspectives; the digital music technologies are; on the one hand, applauded as they provide "an adaptable mechanism and medium of craft, as well as an influence on perspective and artistic

perception" (Wilson and Brown, 89); and on the other hand feeds the perception of detachment of music from its spatiality, tradition and heritage, thus creating an ambivalence and anxiety towards it.

Either way, we have to argue about the ambivalent gaze towards digital media and digital technologies. The discussion I tried to held is based on the *enhancements* of various possibilities as digitization enables communication practices - all sorts of communication: information, data, sound etc.- became much more instant, spontaneous and deterritorialized. I've argued that the change in medium, its infrastructure, its penetration to social life and its usage result in generation of new, unique attributions of musical activity and such change enhanced our musical practices in one way or another. On the other hand, instead of such positive attribution I've put on digital technologies, ICT's and digital media; there's a strong flow of discourse of anxiety and uncertainty and *the dark side of the moon* must be noted, too. Sociologically speaking, defining such anxious discourse as conservative would be shallow and scientifically useless. While reluctance to accept change is perhaps a natural human reaction (Warner, 41); information technologies, such as the world-wide web and other communication technologies, have transformed economic and social relations to such an extent that cultural and economic barriers are minimized and they would provoke radical cultural and social changes that will be fundamentally different from the status quo (Kluver) But I would like to argue the anxious gaze in terms of sense of *disenchantment.*

What I mean by disenchantment can be understood as desacralization of social encounters, the distortion of the macro and micro rituals revolve around such encounters, the dissolution of the authenticity and originality of the social, cultural and material phenomena. Digital technologies and digital media made possible some dramatic changes in the way individuals live. In Goffmanian terms, the social *performance* become much more controllable, systematic and eventually fallacious process for the *audience*. While digitization of human encounters into binary codes, bits, megabytes enables us to be present in digital environments; digital media enables users to rationally model, construct, and manipulate by the individuals. Such rationality manifests itself in the independence from time and space, offers much more control mechanisms in *back stage*. On the other hand, the dichotomy between *the* real life and digital life emphasizes the anxiety towards the dominance of digital realm against real world as individuals spend more and more time online, leaving *the real* behind and instead, enjoy the digital. Many campaigns, ads and public services are concentrated on the digital addiction. Such addiction seems to be able to dissolve and penetrate into almost every form of humane interaction, leaving only the biological needs. Even though, one of Durex's latest ads strictly targets such addiction and implies that the off button on the smartphones result in an amazing sex life.

In the end, the anxiety toward digital media is not completely unjustified. Such disenchantment is arguably echoing in various musical activities, too. The immense manipulation capacities of digital media leads to a distrust towards musical authenticity

and reality while it might distort the intended effect or image by the performers. The dissemination of performance into various formats with digital media would create such unintended disparities. As a demonstration, we can imagine an instance that Le Nozze di Figaro (The Marriage of Figaro) is being performed in Royal Opera House in England, where the setting, the actors/musicians, the orchestration are the same as it has been before; but the performance is being recorded and broadcasted live on YouTube. The audience in the opera house experiences the event in an acoustically adapted setting and they are able to grasp the whole play with its intentional setting, soundscape and all performers. On the other hand, the online audience is merely penetrating the intended effect as they might also contribute and share the experience by their 4 inch smartphone screen that is dependent to the frame captured by various cameras and a set of headphones that lacks the potential to reproduce the acoustic environment, the dynamics of instrumentations and the necessary frequency response. This relates to the multiplicity of musical encounters at a time where the question towards the meaning of the performance might drastically vary between these these audiences. While the play constitutes a total social and cultural encounter, a special occasion or a ritual for those who is present in the opera house; a netizen might basically just stumble upon the performance. The enchantment is encoded within the total structure of the musical performance and while digital media might enable others to join the experience from distance, it *might* as well fail to sample, digitize and transmit the enchant to long

distances. In other words, the very idea of 'live' music somehow implies that other forms of performances are not live but 'dead' (Warner, 42).

We can understand the anxiety in terms of "production and consumption quite different from traditional attitudes toward skill and the inherent sound capabilities of musical instruments" (Théberge, 186), too. The dislocation of musical performance with enhanced capacities of record, play and automate musical works by digital media such as DAW's, loop machines or convergent hardware equipment, the uncertainty towards human talent and achievement fades into mist while the visual appearance of such digital performance becomes more or less a person who is using a computer. The bodily representation of musical activity becomes mere appearances of rhythmic gestures and playing with some buttons:

"Typically, the laptopist will stand, sit or crouch behind the open lid of the laptop, scarcely displaying any overt connection between the production of sound and the movements of the body. This feeds the suspicion that, at best, the black or titanium box is doing most of the work, with the musician-technician having minimal input; at worst that they really are just pressing play and surfing the Internet. The ambivalence is evident in audience reactions to laptop sets, where there is often radical uncertainty about dancing or clapping" (Prior, 925)

Such *dehumanization* of music also emanates from the MIDI usage where inevitable humane interference while *performing* is lacking. While digital instruments

operate and in a way that can imitate and encode humane disabilities or drawbacks onto MIDI signals, such mediations generally lack to reproduce such "subtle performance elements (essentially deviations in pitch, rhythm, timbre, loudness, tempo and any combination of these) that 'give life' to a piece" (Warner, 26). Such machine-like sonic signature eventually lead to the sense of an amateurish performance, generating a distrust. On the other hand, while digital instruments can be utilized to create new, unique sounds; when they are utilized in terms of imitation of analog instruments, they might fail dramatically. For instance a digital orchestration might excel very well in strings section but is inevitably doomed to fail in brass section as brass instruments are much harder to sample and digitize as the human contribution to the sound of instrument is fundamental.

8. CONCLUSION:

I have argued that digital media changed the way we do music in terms of production, dissemination and consumption. I argue that these three hypothetic partitions and the activities related to them eventually come together and make the total musical encounter possible. Every process has different interactions with digital media and each of them add various attributions to the total encounter. On the other hand, the change in the total nature of the event does not necessarily rely on the interception of digital media to each and every process. We must not comprehend such dynamics and changes in a vacuum or in a cause and effect relationship. Instead, all processes, practices and the media used to partake in the musical encounter are continuous and interwoven; as in a

circular motion. Then, we must note that as every mode of human encounter and practice; musical activity is not independent from the context it belongs. It's sufficient to change the context, and the context is sufficient to change the form of activity.

I have tried to discuss the new possibilities, cognitive patterns and interactive dynamics enabled by digital media in terms of musicking. I have tried to outline three main dimensions of musicking; the setting that it exists, the people that are present and the time it is held, all of which constitutes a meaningful question towards a musical activity, instead of simply concentrating on the musical piece itself. Yet the musical piece must not be neglected as the musical activity and encounter revolves around its existence, be it a definite form of organized sound or spontaneous, indefinite musical expression.

It is difficult to overstate the influence of the advent of the Internet and digitalization on the functioning of cultural industries (Galuszka, 254). "Viewing films and listening to records are clearly fundamentally different from those of their more traditional counterparts" (Warner, 42) and as other domains of life, musical activity has also susceptible to change by the digitization and digital media. Every new medium brings new potentials, patterns and eventually new layers of musical activity. New settings are developed - such as home as a suitable place for an enjoyment of Mozart's 40th Symphony; new genres and cultures developed - such as electronic music and remix culture; new musical functions arose - such as the teenager who tries to cut his ties

with the rest of the subway passengers with his headphones; and many more. Yet, some advancements bring much, and some other bring less. In case of digitization; the change is dramatic in most cases. Some of the change is merely enhancements of the older ones: Musicians were able to make records for few centuries with the 'Self-Playing Piano' in a limited fashion. Digital technologies of sound capturing and recording is much more complex and facilitator but somehow still serves the same mean: To capture the sound to be reproduced in some other time. Some other change that is generated by Digital Technologies might be completely new and drastic. The immense digital communication technologies generated whole new set of musicking in many ways from composition to consumption.

It is clear that technology, in general and digital media in particular echoes differently in different cultures on various layers. Nevertheless, instead of various positive or negative perceptions about the issue, I don't intend to necessarily put a normative attribution to the interaction between musicking and digital media. While my arguments are based on the enhancements of digital media, I would argue that it would not be meaningful to discuss with a normative terminology on musical activity as it would be on language. Small's domain of musicking is very meaningful in this terms as it excepts the possibility of normative argumentations towards musical activity and tries to *understand* the encounter with every variable it encapsulates.

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