

Thor Magnusson

FROM A MUSIC INDUSTRY TO SOUND INDUSTRIES

Introduction

Commodification has been an inherent aspect of music for many centuries. The aggregation of the diverse commodification practices could be described as an “industry,” but this is an industry that has always been in a state of transition. New technologies, media formats, and practices appear regularly, requiring swift responses by the incumbent music industry. Although periods of relative stability have existed, where economic structures become established, the field has always been characterised by intense innovation following changes in music technology. Currently, specific features of digital technologies are overturning musical practices that have proven extremely successful, both culturally and economically. As a response, people tend to divide into groups: those who fear the hyper-technologised future and those who embrace the changes it brings. Typically, the loudest opponents of the new system are the people who *think* they have monetary gain of the current situation. We now need to investigate what the current “transitional period” introduces, and acknowledge the nature of music as a polymorphic transitional field where new instruments, performative contexts, encoding technologies, and commercial models have always been in a process of reorganisation from one structure to another. This essay will explore aspects of the technological context in which contemporary musicians have been thrown, describe practices that are already happening on the ground, and perhaps anticipate a little what may come our way in terms of near-future practices of musicians, distributors, and listeners.

The musician

It has been widely observed that music in a digital format is independent of its physical storage medium. Unlike music encoded onto paper, disks, vinyl, or tape,

digital music is pure data that can be copied and distributed without any loss of sound quality. The music and the software in which it was made can be shared without anyone having less of what they had before. We talk about the economy of abundance as opposed to scarcity. This is obvious and natural for a generation of musicians and listeners who have grown up with digital media, and for whom the idea to legislate and ban the sharing of music seems absurd. The result is an Internet swarming with micro-packages of music that nobody owns, but are patched together in people's torrent clients as complete music or movie files.

This does not mean that people don't value music anymore. Quite the contrary: what is not valued is the current format music is written on. An mp3 file is of a poor quality compared to vinyl or CD and many feel therefore ill at ease paying the same amount of money for it. Additionally, the awareness that only a limited fraction of the sales go to the musicians themselves makes purchasing music in this immaterial format even less appealing. For many, it is questionable whether sharing an mp3 file can be considered a "property theft," as nobody has less of what they had before and it is hard to prove that the receiver of the copy would ever buy the music anyway. However, the argument goes, being in the possession of the music, it is now more likely that the listener will buy a concert ticket, merchandise, and generally spread the word about the artist.

The burning question for musicians at current time is not how to force people to pay for their music, but rather how to *enable* them to do so in the plethora of available systems for musical creation and dissemination. Here, the diverse social media become essential communication channels between artists and people interested in their work. Various legal online systems have appeared for sharing musical material (Soundcloud, Freesound, mySpace, Google Play, or iTunes), initiating collaboration (Talenthouse, HitRecord), setting up crowdfunding for projects (Pledgemusic, Kickstarter, Indiegogo), dissemination (Spotify, Rdio, Pandora, Grooveshark, Last.fm, Twitter #music) or marketing/sales (Bandcamp, CDBaby, Vibedek). Many of these services are in tune with new practices where musicians put their tracks online, share samples, remix each other's work and re-upload new versions. Special licenses make sure that artists can share their work with others, yet maintaining copyright and keeping some general control over the work's destiny (Creative Commons, Free Arts License, GPL, etc.). New business models for music is but one aspect of what is being experimented with here; sharing, discussing, linking, remixing and playlisting are also important

elements in the new online world of musical media. And perhaps the problem of the music industry is not that people don't want to pay, but rather the lack of a well functioning micropayment system.

In terms of technology, with the advent of processor-based media, old boundaries of musical practice begin to blur. The distinction between software and musical composition might become unclear, where the musical patterns embedded in the software are recognisable in the musical output. Some music might even be notated and stored only in the form of code, as its function is to utilise different parameters each time it is played, and there are musical systems that require listener input for the development and execution of the piece. New mobile media devices such as phones or tablets are particularly well suited for this type of musical presentation. The role generativity and interactivity play in these systems imply that the musical playback system can additionally become a compositional system for the listener, who in turn becomes a (participatory) musician. The boundary between listening and performance thus fades out.

Indeed, when our musical playback systems change from being simple readers of linear sequential data to processors that can deal with algorithmic instructions, the music does not have to be deterministic and final, but can instead allow for openness and multimedia interactivity as compositional elements. These compositional/artistic ideas are not new: they have been explored since the 1950s in the work of people such as Pousseur, Stockhausen, and Wolff; and written about by Umberto Eco in his book *The Open Work*. The novelty is that the media that store and execute our artistic works have become the ideal machines for such generative and interactive compositional approach. A technological transition point could be identified when the iPod morphed into the iPod Touch, i.e., instead of a device aimed primarily at playback of sound files, we get a programmable device, rich with sensors and a touchscreen, running a general purpose operating system.

Following this new technological structure, we witness how the activities of composers and musicians widen and move into the domains of system design (interactive installations, games, apps, generative music) and technology (using musical controllers, adopting non-musical technology, and creating their unique style through DIY "maker" creativity). Indeed, the distinction between a composer, musician, and an instrument maker becomes less relevant, perhaps continuing a process initiated by the minimalists in the 1960s.

The distributor

The music industry can be divided into a succession of periods from antiquity to current time. Jacques Attali's analysis in his book *Noise: The Political Economy of Music* provides a strong economical perspective on this history. Pertaining to this article is the paradigm shift we might attribute to the advent of the Internet. This shift is not about music gaining a digital format, it was already commercially sold in a digital format with the CD's market entry in the early 1980s. What is of interest is the peer-to-peer trajectory starting with Napster, that operated around the millennium shift, to current practices represented by torrents, Soundcloud, and YouTube; along with streaming music services such as Grooveshark, Spotify, Google Play, and recent iTunes implementations.

In short: music has lost its physical format and people share, copy, remix, upload, make playlists, etc., to the degree that the pillars of the old industry: the record labels, the music press, and the broadcasting media have lost their old stronghold. These organisations maintained a control of what people listened to, as the relationship between labels, press, and broadcast media was so strong that they hardly represented three distinct systems, but rather one powerful capitalistic machine. We could map the old label, press, and broadcasting media to the following contemporary successors: music sharing social media websites (Soundcloud, Myspace, Bandcamp), blogs and online communities (Wordpress, Tumblr, Facebook groups, etc.), and narrowcasts media sites (YouTube, Google Play, Vimeo, Last.fm). Characterising the current system is the lack of established hierarchies and the advent of user-generated content. What used to be a top-down decision making where certain music would be promoted, now becomes a bottom-up and non-centralised emergence. Or in another terminology: the pre-filtering of music by the industry has been replaced by the post-filtering of music by the people. The music with potential for popularity (not necessarily the "good music" – that's another discussion) will emerge on the top of the new media providers, through the power of hyperlinks, user suggestions, subscriber numbers, likes/hearts/favourites, search engine analysis, and so on.

Most people agree that the good old record shop, selling vinyl or CDs with a small pool of staff members is greatly missed. Thirtysomethings and older will remember the teenager experience of going there, listen to several albums, talk to the specialist behind the counter, perhaps discuss with other customers, and then finally decide to buy an album that is taken home for scrupulous study

(both the music and its physical packaging). This might induce nostalgia in some, as today's music media reality is much more complicated and layered. With the recent bankruptcy of HMV, we witness the fall of a major distributor of music, but one that was as impersonal as any multinational fast food or coffee chain. These shops have turned into warehouses storing large quantities of the most popular music, and often poor in content for more specialist areas of music. Furthermore, in an age of environmentalism, one could question the rationality of pressing all these plastic CDs and their covers, the heating and maintenance of large storehouses, and the transportation of products by trucks, ships, and planes into their high-street outlets (with property rentals that push up the product's price).

What the web-based media provide instead of the logistics of storage, transportation, and customer services are virtual spaces for musical exploration, consumption, and purchase. These spaces are currently in early stages, but the picture is becoming clearer that this involves listener communication and dialogue, together with AI recommendation systems that do complex data mining on listener habits, thus able to suggest new and exciting music to the listener. The environments for listening, such as Spotify, allow for the creation of apps that do various things, such as presenting artist profiles, lyrics of songs, or other online audiovisual material related to the music, but also connect listeners, both friends and "likeminded" people, in multiple different ways. And I might provoke the reader in stating that these systems are indeed better than the behind-the-counter record store employee, who was always an idealised figure anyway (ok, with a few exceptions).

A key benefit of virtual spaces are their very virtuality, that is, the dispensing with having to deal with physical formats. This enables the music provider to stock virtually infinite amount of music of all ages, genres, and fame/obscurity. A dream come true for the very same above-mentioned thirtysomehings-and-older who often had to be content with what music they could get, as the music they wanted was not in stock or available. The web 2.0 discourse calls this the *Long Tail*, as retailers can now sell large amount of unique items in very small quantity, but resulting in the same outcome as few popular items that sell well. For the music enthusiast, this must be a welcome development, as suddenly 1950s jazz from Ethiopia becomes available in Alaska, as is Korean temple music in Morocco.

Yes, we might lament the death of music's physical format and packaging, but let's look at this in perspective: it was only a temporary form of commodification

of music that lasted for a very short period of human history. This should not cause any real concerns as musicians have diverse opportunities to make a living in different ways. Ticket prices for concerts have rocketed up in the last decade, but people seem happy to pay for the “real” experience of being there (although, ironically, people often experience the concert mediated by the screen of the mobile phone they use to record the concert). But there are other physical commodities to make and why should a T-shirt representing/promoting a new musical work not be an ideal format for the fan-focussed music industry? Vinyl is another good format for such memorabilia and it has the attribute of being playable, but so is a blueberry muffin with a USB stick inside (although the muffin might last longer than a CD’s plastic case). The sound quality of vinyl compared to digital formats is another discussion, but observing how people currently consume music indicates that sound quality is of a minor importance to majority of music lovers.

The listener

The developments we see in the areas of music technologies influence the status and role of the listener, from being a passive consumer to a more engaged “prosumer.” The closed system controlled by labels, press, and broadcasting media has now been opened up by the invasion of bloggers, user groups, mailing lists, online fan zines, etc. What was described above as post-filtering of music, where people vote with their mouse clicks (or finger prints on glass screens), has become an established practice for musician-audience collaboration and engagement.

The online media enable and encourage collaboration and sharing. Through social media artists can be in direct contact with each other and their listeners. There are diverse styles in this communication and artists are experimenting with how they communicate with their fans; Amanda Palmer and Imogen Heap being good examples of such efforts. Furthermore, the boundary between an artist and a listener can easily become unclear, where listeners might suggest new ideas or even contribute material to the work. Musicians have made use of webcams in studios (Einstürzende Neubauten, Travis), set up systems for remixing (Eno and Byrne), writers have written books on Wikis (Stephen King) or used Twitter (Jeff Noon), and film producers have used social media as the source of their production (Ridley Scott). Through the use of mobile apps, composers allow listeners to explore their music (where countless experiments have paved the way, but with Eno and Björk as perfect popular examples, with Lady Gaga

now joining the fun) or create systems for audience co-composition of the music (exemplified in the work of the sonic app developer Smule). Again, new type of copyright licenses aim to make sure that people's contributions are attributed correctly in such collaborations.

In the bygone age of physical musical media, people could browse each other's music collections and gain much information about the collection's owner. This changed with the "ten-thousand-song" mp3 players and peer-to-peer online sharing. Certain techniques of self-identification disappeared for a while, but they have now been revived with the advent of shareable and publishable playlists. Services like Spotify and Soundcloud allow users to generate playlists or sets that can be shared on other social media such as Facebook, Twitter, or Messenger. This practice continues older patterns of activities such as the creation of mixtapes, where people would design musical experiences for each other. It also remediates the podcast, or indeed the radio broadcast, since the playlist can be made public. The new music services allow people to follow each other, create groups, and communicate about the music or playlist, thus effortlessly creating communities of like-minded people that exists across national borders and timezones.

Interesting developments are also taking place in the areas of musical retrieval and data mining. Artificial Intelligence systems are categorising music, generating user-specified listening experiences that have no comparison in older media. With data mining, systems can analyse the listening habits of people from several databases, connecting those together with data from other users and then suggest new music to listen to. This virtual personal DJ could be of many types and programmability, so there is no need to worry about musical dictatorship by an omnipotent AI DJ; it would rather be a question of how users program their DJ-servant for patterns, randomness, mutation, and sociability (would you like the servant to focus more on you and your patterns, people like you, or perhaps a selection of friends).

It is predictable that with advancing technological skills in addition to the increasingly open protocols and APIs (Application Programming Interface), people will program their own Internet music clients and services that can be shared and customised as browser software, apps or plugins to commercial services. The media are increasingly in the hands of users, who have turned from being consumers to active producers of musical experiences. The recent DIY explosion is a good example of this development (an example is how the Rough Trade record

shop in Shoreditch, London, has set up a dedicated area for DIY equipment, including synths, hardware, soldering irons, and Arduino DSP boards – a clear and (conscious?) commercial movement from consumption to production).

Conclusion

What we once knew as the music industry is now becoming a cluster of interconnected sound industries. The activities of musicians diversify; in addition to composition and performance, musicians become sound designers, installation artists, app designers, instrument makers, game producers, and more. The future activities of a young person operating in the field of sound are more diverse, creative, and explorative than a few decades ago, not only because the functionality of music has expanded (sound design, film scoring, architecture, advertisements, installations, new media, games, etc.), but also because when programming becomes a natural scoring language of musical work, the musician not only creates content, but media types as well: instead of (or additionally to) writing a track, the work might include designing a system where one can collaborate in mixing it (or any infinite variations in this direction). The new media types for future sound and music will include user interaction, playfulness, instrument design, game elements, and more. A major point of interest is that the industry will most likely never be able to decide upon one concrete format that will become a standard, as vinyl or CD are examples of, as the new processor-based media are programmable and continually in the state of innovation.

This survey of the current and near-future context of musical production, distribution, and consumption might read like an idealist or anti-capitalist rant, predicting the victory of the people against the multinationals. But let us not be fooled: the commercial forces operating in the field of music will find ways to maintain their power, by adopting the experimental work of the smaller actors currently doing most of the research and development work. Furthermore, the big players will acquire the small ones with attractive cash rewards, push them away when needed, and, with the power of their capital, lobby for legislations that make novel grass root practices harder to operate. But there is no need to despair: as Attali pointed out, music is always at the forefront of economic and cultural practices, leaving the commercial field lagging behind the green sprouts of experimentation and innovation in new technologies of musical production, dissemination, and consumption.

Mono #2

COCHLEAR POETICS

Writings on Music and Sound Arts

Alessandro Ludovico, Enrico Coniglio,
Ephraim Wegner, Francisco López,
Frank Ekeberg, Heitor Alvelos,
Julio d'Escriván, Leandro Pisano,
Luísa Ribas, Maile Colbert,
Marc Behrens, María Andueza,
Miguel Cardoso, Miguel Carvalhais,
Monty Adkins, Pedro Tudela,
Samon Takahashi, Thor Magnusson

Edited by

Miguel Carvalhais & Pedro Tudela

Published by

Research Group in Art and
Intermedia (NAi)
Research Institute in Art,
Design and Society (i2ADS)
Faculty of Fine Arts,
University of Porto,
Portugal

i2ADS.

U. PORTO

 FACULDADE DE BELAS ARTES
UNIVERSIDADE DO PORTO

<http://mono.i2ads.org>