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Music in the Moment of "Cyber Culture:" An Outward Spiral

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Abstract

The advent of the Internet, and file-sharing specifically, challenged the relationship between music and its monetary value. This thesis investigates what happened after music became "free." Richard Middleton's "moments of situational change" are used as a framework for discussion. Through a survey of recent history and twentieth-century technologies, it becomes clear that the amplification and acceleration of scale, pace and patterns of music consumption, production and distribution practices as incited by the Internet renegotiated music's monetary value, but did not introduce us to the way we value music aesthetically, as a pastime, and as a means for constructing community and a sense of self. Practices and phenomena associated with the digital age, such as streaming and "prosumption," as well as commodities such as the iPod illustrate not only the twisted beauty of the present, but also a continuum with the past and an optimism for the future.

Keywords: Middleton, Situational Change, Conjunctural Change, MP3, Music and the Internet, Music and Identity, Streaming, Prosumption, Materiality, File-Sharing.

Summary for Lay Audience

How disruptive exactly, was the advent of the Internet to the record industry? Listeners no longer felt the need to pay for music. Rather, listeners could download as much music they wanted for free, courtesy of file-sharing platforms such as Napster. As such, music's monetary value was put into a state of flux while the reasons we listen to music could shine brighter than ever before. This thesis investigates how music continued to be valued aesthetically, as a pastime, and as a means for constructing community and a sense of self while its monetary value was being renegotiated. Richard Middleton's "moments of situational change" are used as a framework for discussion and models involving feedback cycles and circuits are used to illustrate and facilitate analysis. This thesis takes a more synoptic approach in surveying recent history not only through a musicological lens, but also through consulting media studies, popular music studies, and cultural studies. Chapters focus on practices and phenomena associated with the digital age, such as file-sharing, shifts in materiality, music streaming and portability, and "prosumption" to demonstrate that the Internet has amplified and accelerated the scale, pace, and patterns of music consumption, production and distribution practices. Discussions also encompass the implications of music permeating our everyday lives via our smart devices such as the iPod and music streaming platforms such as Spotify. Since technology changes faster than we do, historicizing the present through connections and comparisons with older technologies and practices illustrates not only the twisted beauty of the present, but also a continuum with the past and optimism for the future.

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Prelude

Preface

In his book *A Million Years of Music: The Emergence of Human Modernity,* Tomlinson (2015) writes of how cultures (and specifically, musicking) came into being over the course of our history. Tomlinson builds from Neo-Darwinian theories of evolution, of which the feedback cycle is the primary circuit. As hominins (early humans) developed, they partook in *niche construction*[1]; they affected the environment in which they lived and likewise, the environment exerted selective pressures on the organisms. This cycle of shaping the environment (or what Tomlinson calls a "taskscape") and the environment continually presenting new pressures to shape the organism is the basis of the feedback cycle. Key to niche construction, however, is the interplay of technology and culture.

Before moving forward, it would help to have a working definition of culture. Following Tomlinson, who references Richardson and Boyd, for something to be considered cultural, it must meet three requirements: it must be information learned within a lifetime, that information is then transmitted intergenerationally, and there must be imitation that enables that transmission (2015, 29). In short, culture is akin to the passing of a torch, getting handed down to future generations.

However, as information and behaviours are passed down, they are not simply copied—they become a new foundation for the next generation to build upon. If we think broadly about human progress, human music-making even, it is not as though each generation is given a clean slate. Rather, there is history and past practices to draw from. We are not stuck

[1] For Tomlinson (2015), niche construction is a phrase used to describe how organisms shape a flexible environment, and thus the selective pressures, to better the chances of survival. An example of this is the making of stone tools which can be used in predator/prey scenarios (35-36).

with the Gregorian chants of the Middle Ages. Music-making has developed through the renaissance, the baroque, classical, romantic, and contemporary (it is also worth noting that we do not necessarily "forget" what came before; much of this music (as organized by time period), co-exists today). As such, this accumulation of cultural information leads to what Tomlinson (2015) calls cultural archives. For Tomlinson, these cultural archives are central to how musicking arose as they "qualitatively alter the feedback loops of coevolution, since under many circumstances they can insert into them not merely extragenetic information but *systems* of such information" (38). The significance of these cultural systems is that given time, they can give rise to their own internal development and gain some independence.

Cultural archives generate systems which operate outside and somewhat independently of the coevolutionary feedback cycles. Tomlinson (2015, 16; 2017) writes of a process wherein signs grouped into indexes become what he refers to as *epicycles*. In his example of bead-making, hominins "transmuted" the previously non-signifying bones and shells of creatures into signifying matter. The beads were made of bones and shells, materials prior to signification had no use and were thrown away. After applying already known crafting techniques, hominins then had wearable signs. These were not objects to help with hunting or skinning a carcass (2015, 240), but they showed social status and the potential to create social hierarchies (232-233). Arrays of signs then became indexes (2017), and like Pandora's box, what was done could not be undone.

What is significant about these cultural archives and the epicycles they spawned is that they then fed forward back into the main coevolutionary cycle which bore them. As Tomlinson (2015) writes, "We must think not only of avian biology shaping birdsong, but also of birdsong cultures shaping biology" (41). In short, our cultural practices help shape who we are and how we live. Since cultural epicycles have some independence from the main coevolutionary (niche constructive) feedback loop, that independence allows them to develop

at an accelerated rate and when they eventually feed forward back into that main loop, they do so with the ability to effectively redirect its course (226): "thresholds emerged and were crossed; and new search spaces widened the scope of humans' biocultural evolution" (Tomlinson, 2017) (see below).

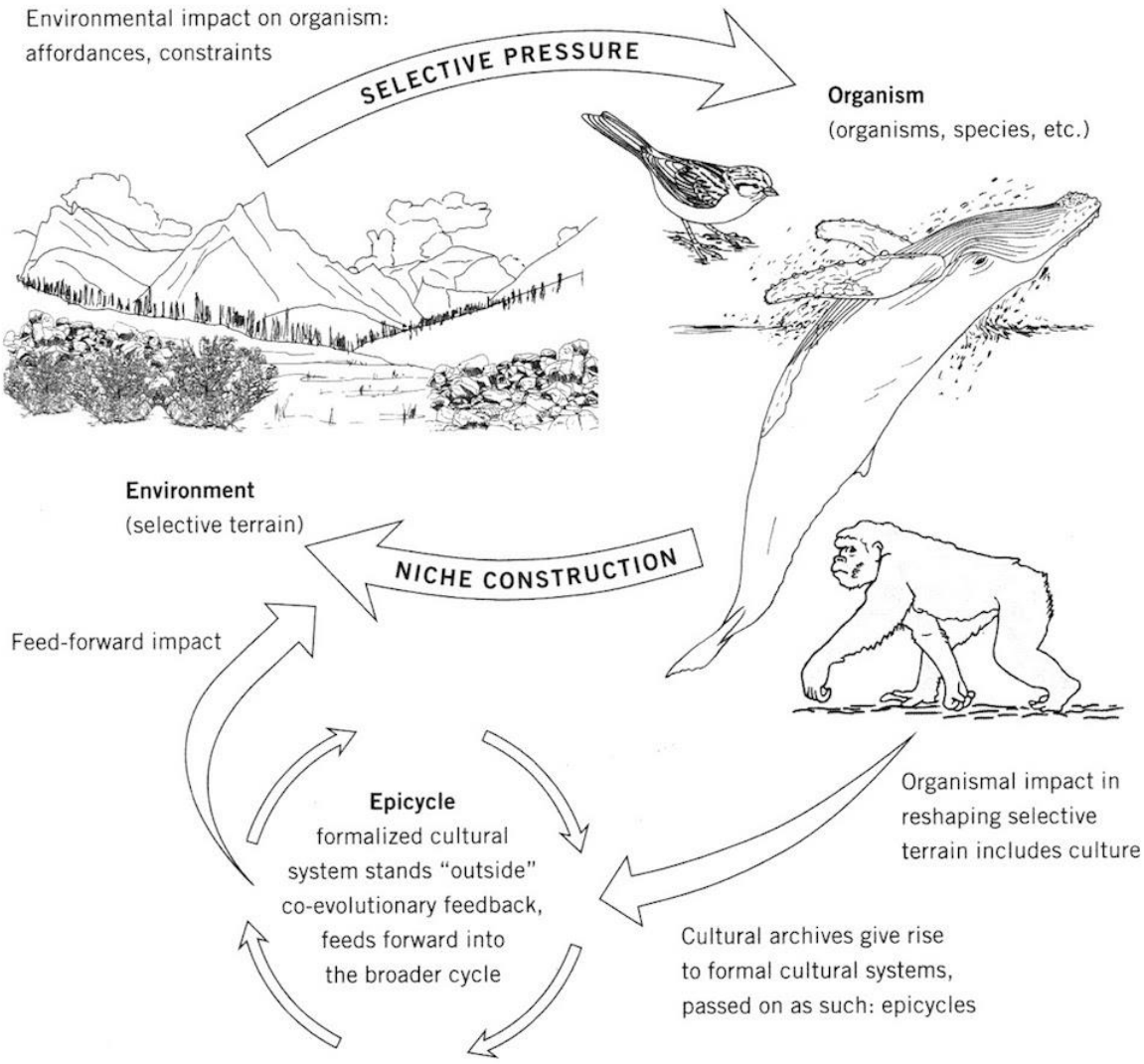

Figure 1 Virge Kask's chart of epicyclic biocultural evolution as used by Tomlinson (2015, 47; 2017)

This observation of two concurrent feedback cycles, operating somewhat independently of each other while also affecting each other forms one half of the framework for the rest of

this discussion. For the second half, we must now turn to situational change and conjunctural change.

Enter Middleton. Drawing from Gramsci, Middleton prefaces his book *Studying Popular Music*, with a discussion on a theoretical and historical framework, featuring Situational and Conjunctural change. While both are levels of structure, situational change "refers to the deepest, the organic structures of a social formation; movement there is fundamental and relatively permanent, the result of crisis" (1990, 12). Conjunctural change "refers to more immediate, ephemeral characteristics, linked to the organic structures, but changing at once more rapidly and less significantly" (12).

Already, we can see similarities between situational and conjunctural change and the coevolutionary cycle and the epicycles discussed above. Just as situation is akin to the deep, organic, and fundamental structures which change slowly as incited by some sort of crisis, the larger coevolutionary cycle involving niche construction and selective pressures is concerned with the bigger picture of survival. Conjuncture, on the other hand, is linked to the larger structure but changes more often with less initial impact, which sounds a lot like epicycles which operate outside the larger coevolutionary cycle at an accelerated rate.

If this was not enough, there are more striking similarities. For one, there is a noted correlation between situation and economic/social levels as well as conjuncture and cultural/ideological levels (8). What's more, Gramsci insists on a necessary reciprocity between situation and conjuncture, and the cultural level as having relative autonomy, much like how epicycles have some degree of independence from the larger coevolutionary cycle: "these have their own modes of existence, their own inertia, their own time-scales…Cultural relationships and cultural change are thus not predetermined; rather, they are the product of negotiation, imposition, resistance, transformation, and so on" (8).

These twin ideas, of larger forces and smaller ones, the latter accompanying the former yet with a degree of independence, will form the basis of a model on which the rest of this discussion will be based. As mentioned above, there is a reciprocity between the two cycles, but how exactly do the cultural cycles manage to feed-forward back into the larger socio-economic cycle?

One answer lies in the theory of articulation. For the sake of brevity, the theory of articulation rests on the principle of existing cultural elements either being combined into new patterns or having new connotations attached to them (8). Middleton elaborates in saying that "while elements of culture are not directly, eternally or exclusively tied to specific economically determined factors such as class position, they are determined in the final instances by such factors" (8). In chapter 5 of Stuart Hall's book, *Critical Dialogues in Cultural Studies*, Jennifer Daryl Slack offers a number of definitions for articulation, one of the more useful being from Hall himself:

> [Articulation is] the form of the connection that can make a unity of two different elements, under certain conditions. It is a linkage which is not necessary, determined, absolute and essential for all time. You have to ask, under what circumstances can a connection be forged or made? The so-called 'unity' of a discourse is really the articulation of different, distinct elements which can be rearticulated in different ways because they have no necessary 'belongingness'. The 'unity' which matters is a linkage between the articulated discourse and the social forces with which it can, under certain historical conditions, but need not necessarily, be connected (Slack, 1996, 116: quoting Hall, 1986, 53).

Middleton elaborates, writing that articulations, the bond between the two elements, varies in strength. Not all articulations are made equal. These bonds (generally) need not exist, and thus not all work well. Those that do, however, are described as being 'natural' and can easily spread throughout society (1990, 9). While Middleton notes some examples of this, such as Elvis Presley, who "managed to link together elements connoting youth rebellion, working-class 'earthiness' and ethnic 'roots', each of which can evoke the others, all of which were

articulated together, however briefly, by a moment of popular self-assertion" (9), we will see another clear example in turning back to Tomlinson.

Tomlinson (2017) describes the process of bead-making as taking an existing technological operation, that of making tools and weapons and combining it with semiotic innovation. In effect, hominins rearticulated a technological process with new materials (shells, teeth), giving them new purpose, new signification, new life. Likewise, later in our discussion, we will see a similar signification and articulation between present technology and music. The external hard drive (a device which allows for the storage of digital data of all kinds), for example, becomes associated, articulated with musical practices as a means of taking one's music library with them wherever they go (Magaudda, 2011, 26).

As an aside, my intention is not to say situational and/or conjunctural change is a victim of technological determinism (in that changes in technology directly cause changes in society). However, as Tomlinson (2015) writes, especially as it pertains to musicking, technology and sociality have always been bound together, forming what he refers to as "technosociality" (48-49). Technology helps drive cultural (conjunctural) change. As these changes take place, old practices combining with new technology, these articulations are what allow the epicycles to feed-forward back into the larger socio-economic cycles, bridged by common technology.

Therefore, in looking at these two halves, these two approaches, I have arrived at an articulation of my own: using the similarities between the two perspectives as tethering points. In doing so, I have rendered a model which will hopefully provide a strong foundation for what is to come (see below).

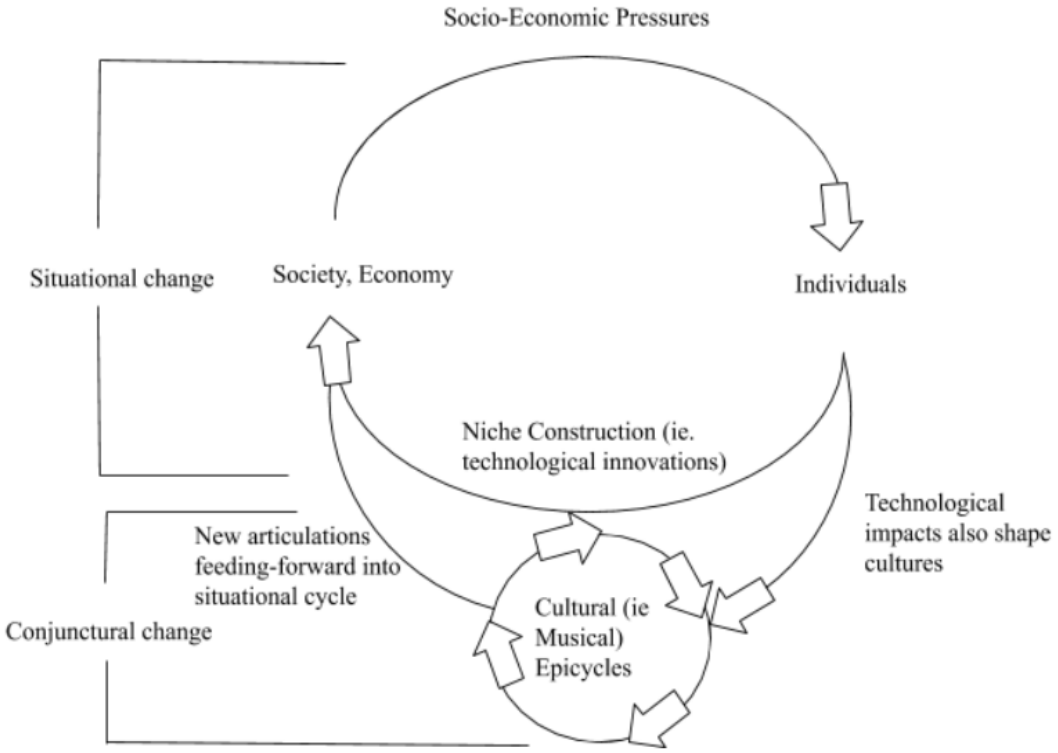

Figure 2 My own hypothetical model for situational and conjunctural change

Introduction

In his article "Articulating Musical Meaning/Re-Constructing Musical History/Locating the 'Popular'," Middleton (1985) describes three moments of radical situational change. He refers to the first moment as the "bourgeois revolution," which takes place during the late 18th century and lasts until approximately the 1848 revolutions. The moment is characterized by the market system pervading nearly all musical activities and the cultural struggles between the classes. The second moment begins sometime in the late 19th century, lasting until about 1930. This moment of "mass culture" is characterized by the development of monopoly-capitalist relations. While class struggle continues to exist, the internationalization of culture brings about new musical content. Ragtime, Jazz and Tin Pan Alley songs, for example, become mass produced and widely distributed. The third and last moment Middleton describes is that of "pop culture." It begins after the second world war, somewhat

synonymously with the advent of rock 'n' roll. This moment is characterized by several technological innovations, such as magnetic tape recording, and the ability for young amateurs to approach music production themselves (10-13).

Though Middleton does not necessarily offer an end date for "pop culture," stating at the time of writing that we were still living through the "post-punk struggle" (13), my research will support the idea that the advent of the Internet qualifies as another moment of situational change. In keeping with the names of the previous two, I will refer to this fourth moment as the moment of "cyber culture."[2]

The moment of cyber culture, like the moments that came before, is in part characterized by a shift in production. We have gone from mechanical (bourgeois revolution), to electro-mechanical (mass culture), to electronic (pop culture), and in entering this fourth moment there has been a shift towards digital production. Simon Frith (1987) writes that "[i]nnovation in such an oligopolistic industry, is only possible because technological changes open gaps in existing market control" (71). Mass file-sharing of MP3 content and pirate peer-to-peer networks (P2P) such as Napster ended the era of artificial scarcity as propagated by the record industry. Since then, new innovations have included in-laptop studios, allowing for "bedroom producers" and what Nick Prior (2015) calls the "new amateurs" (503), as well as the rise and domestication of new commodities such as the iPod.

While Sinnreich (2015) notes that "unlike traditional commodities, music *grows in social value* as it proliferates" (622), my research will also demonstrate that what we use music for has not changed. McLuhan (1965) echoes this in his analysis of railways:

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[2] I've chosen the distinction of "cyber" over "digital" largely because of their respective definitions. Oxford dictionary's definition of digital is as follows:
"1) (of signals or data) expressed as series of the digits 0 and 1, typically represented by values of a physical quantity such as voltage or magnetic polarization; 1.1) Relating to, using, or storing data or information in the form of digital signals; 1.2) Involving or relating to the use of computer technology."
Whereas the definition of cyber: "Relating to or characteristic of the culture of computers, information technology, and virtual reality;" and that of the compound form, cyberculture: "The social conditions brought about by the widespread use of computer networks for communication, entertainment, and business," are more relevant and have a more human and less numeric hue than that of "digital."

> [T]he 'message' of any medium or technology is the change of scale or pace or pattern that it introduces into human affairs. The railway did not introduce movement or transportation or wheel or road into human society, but it accelerated and enlarged the scale of previous human functions, creating totally new kinds of cities and new kinds of work and leisure (8).

Therefore, I will argue that during the moment of "cyber culture," the amplification and acceleration of scale, pace, and patterns of music consumption, production and distribution practices as incited by the Internet—and exemplified by the development of new technologies and commodities—renegotiated music's commercial value, but did not introduce us to music's social value.[3] The way we value music aesthetically, as a pastime, and as a means for constructing community and a sense of self has remained unchanged.

Methodology and Literature Review

By now it should be clear that Middleton's (1985, 1990) work was the spark of inspiration for this thesis. The moments of situational change serve as a framework, aiding in assembling research and ideas from seemingly disparate resources as discussed below. Tracing the innovations and technological advances made from one moment to the next prompted focus on topics such as the internationalization of and accessibility to music and how they have been affected by the Internet. Lastly, approaching my thesis with the clear intent to, as Taylor (2016) puts it, "historicize the present," hopefully gives my work a fighting chance at standing out among all the other work written about music and the Internet.

At the end of his book, Sterne (2012) notes that "from the perspective of sound history, divisions between analog and digital [technologies] were never that clear" (245). While we live in exciting times, watching music migrate to different platforms, being at our fingertips

[3] For the purposes of this discussion, I consider commercial value to be monetary worth and social value as that which contributes to personal identity and community construction.

via streaming, it is easy to get caught up in all that is new while forgetting how much has remained the same. That is why I plan to consult works on sound recording technologies from the 20th century as well as the digital age.

Looking beyond the digital age and drawing from enduring work of media studies and cultural studies theorists—such as Marshall McLuhan and Stuart Hall—will allow my research to encompass ideas that are still relevant to us today. I stress this more historical perspective (while still acknowledging the thrill that comes with looking forward) for one simple reason: technology changes faster than people. We are not as removed from the past as we think. Literature, for example has been concerned with the same things throughout human history. To this day authors write of love, violence, dreams; and we are still reading. Even though McLuhan (1965) discusses the phonograph, Horton and Wohl (1956) television and Benjamin (1935) film, their ideas still speak to us living in the 21st century.

Chapter one surveys the rise of the MP3 and file-sharing in the early days of the Internet. Illegal file-sharing proliferated, culminating as the P2P program Napster. The contributing authors to the *Sage Handbook of Popular Music*, Prior (2015), Sinnreich (2015), as well as Sterne's (2012) book *MP3: The Meaning of a Format* are invaluable in chronicling this journey. Witt's (2015) book *How Music Got Free* offers a more journalistic perspective that reveals small but significant details, contributing to explanations and insights. Terranova's (2000) influential article "Free Labor: Producing Culture for the Digital Economy," is key to understanding the issue of morality that surrounds illegally distributing music via the Internet. As we encounter the term "piracy," it is important to determine from whose perspective it's centered on, and how that constructs meaning. Lastly, we discuss music's social value. Passages from Frith's (1998) book *Performing Rites*, and Born's (2011) article "Music and the materialization of identities" outline what it is about music that makes it an important factor in identity and community construction.

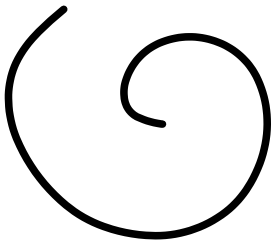
Chapter two primarily addresses music's materiality, suggesting that rather than having dematerialized into digital 1s and 0s, that music has undergone a shift in its materiality. It becomes more about the devices that hold music, such as our smartphones, rather than the music itself. As Sterne (2012) and Witt (2015) provide answers as to how the MP3 became standardized, we look to other authors to help explain how new devices and commodities also proliferated and became domesticated. McLuhan's (1965) book *Understanding Media: The Extensions of Man*, and his chapter on clothing specifically, as well as Hosokawa's (1984) article "The Walkman Effect" aid us in our discussion about how making our devices more personal only heightens their appeal, leading more people to buy them. Magaudda's (2011) article "When materiality 'bites back': Digital music consumption practices in the age of dematerialization" and Pantzar's (1997) article "Domestication of Everday Life Technology: Dynamic Views on the Social Histories of Artifacts" help us understand how this shift in materiality snowballs to the point where devices such as the iPod overtake older music reproduction technology such as the Walkman and establish a new normal.

Chapter three discusses the implications of music's further enhanced portability during the digital age. With music able to be in more places, listening to something while we are engaged with another task has become a new default. "Ubiquitous Listening," as Kassabian (2015) calls it in her chapter of the Sage Handbook, is a useful term that deftly describes how music is further woven into the fabric of our everyday lives. It has become rarer that we go somewhere or do anything without music playing – be it through our personal listening device or muzak sailing down the aisles of the grocery store. As we explore portable music further, Hosokawa's (1984) article "The Walkman Effect" and Bull's (2006) article "No Dead Air! The iPod and the Culture of Mobile Listening" shed light on how music is used to transform the world around us, personalizing it as we crawl through urban spaces. Lastly, Eriksson et al's (2019) book *Spotify Teardown* goes into great depth about the streaming

service we all know and love that is one of the main platforms from which we can get our music.

Chapter four is concerned with what it means to be a musician or content creator in the digital age. Prior's (2015) chapter returns, and we discuss the nature of prosumption. Through the Internet, it has become easier to blur the lines between just being a fan, a consumer, and being a creator and producer. Borschke (2017) writes of MP3 blogs in her book *This is Not a Remix: Piracy, Authenticity and Popular Music* which is an earlier example of how a fan could be also be a content creator and receive praise, attention, and even a following of their own. As technology became more affordable and accessible, so did trying one's hand at being a musician. Taylor (2016) describes Jungle music in his book *Music and Capitalism: A History of the Present*. Jungle music was a genre of electronic music which was predicated on being open to whoever wanted to try producing it. With more musicians around in the digital age, how has "making it" changed? What does an artist have to do to have a chance at achieving some degree of success? Baym's (2018) book *Playing to the Crowd: Musicians, Audiences and the Intimate Work of Connection* and Horton and Wohl's (1956) article "Mass Communication and Para-Social Interaction: Observations on Intimacy at a Distance" help answer this question. With more artists entering the arena, and the Internet becoming flooded with content, social media, for example, has become a more common tool to interact with one's fans and flex one's authentic personality.

Chapter 1 – Crisis to Incite Situational Change: File-Sharing and Napster



Introduction

> Passing a ground-floor window marked Art Gallery, he turned in, thinking to escape the moral claustrophobia of the streets and find the beauty of Urras again in a museum. But all the pictures in the museum had price tickets attached to their frames. He stared at a skillfully painted nude. Her ticket read 4,000 IMU. "That's a Fei Feite," said a dark man appearing noiselessly at his elbow. "We had five a week ago. Biggest thing on the art market before long. A Feite is a sure investment, sir."
> "Four thousand units is the money it costs to keep two families alive for a year in this city," Shevek said.
> The man inspected him and said drawling, "Yes, well, you see, sir, that happens to be a work of art."
> "Art? A man makes art because he has to…" (Le Guin, 2011, 209)

The above passage from Le Guin's science fiction novel *The Dispossessed* has been quoted at length because, though somewhat hyperbolic, it aptly describes the nature of this first chapter. Shevek, a foreigner to the capitalist society of Urras, is astonished to learn how even art is considered a commodity. That which is supposed to be appreciated for its beauty and valued for its potential for escapism, has a price tag attached. Its market value is all that is worth talking about.

Likewise, this chapter concerns the competing commercial and social values of music. The focus of this chapter will be to examine how the advent of the Internet temporarily peeled back music's commercial value, illuminating its ever-present social value. While music has been considered a commodity since the invention of the printing press—as with it came the ability to mass produce and sell sheet music (Baym, 2018, 57; Sinnreich, 2015, 615)—technological innovations have upset that designation. In this chapter I argue that music is inherent to our experience as human beings, its social value is embedded in its cultural practice, and its commercial value is an articulation of said practice and the open market—one which is easily shaken by technological interventions. In particular, we will discuss the role Napster and other peer-to-peer (P2P) networks had in illuminating music's social value in giving users access to more music imaginable at no cost. Piracy for its part, plays a role in the "crisis" that sets off our fourth moment of situational change. The repercussions of illegal, mass online file-sharing left the record industry reeling. However, as Prior (2015) notes, when faced with a crisis, "capitalism turns to its best trick: it adapts" (496). Traditional market practices grew obsolete, with new ones rising to take their place, as exemplified by the band Radiohead and their self-released, digital album *In Rainbows*. It is my hope that by the end of this discussion it will become clear that music's social value has been a throughline in past centuries while its commercial value has to be constantly rearticulated when technological advancements make it a subject of debate.

File-Sharing and Piracy

Mass peer-to-peer (P2P) file-sharing and subsequently, what came to be considered as piracy[4], ushered in an era of musical abundance, ending the era of artificial scarcity. The

[4] Sterne (2012) notes that file-sharing is often described in one of two ways: either in a "tragic" mode or a "heroic" mode. The tragic mode "highlights the damage [file-sharing] did to the most powerful players in the

young Internet of the 1990s featured the advent of listservs, chat rooms, bulletin boards, and usenets groups. Here, fans from around the globe could interact with each other through posting messages and sending emails (Prior, 2015, 494).

Also key to eventual success of file-sharing is the MP3 format. Fraunhofer, the developer of the MP3 format, was determined to have their format be the primary choice to use over its competitors (such as MUSICAM). As a result, in 1995, they decided to give away their Level 3 encoder (L3Enc) software for free. The software had the capability of allowing users to create and playback their own MP3 files on their home computers while shrinking the data from CDs to one-twelfth of their former size (Witt, 2015, 55). So begins a chain reaction, whereby innovations and improvements in the computer and consumer electronic industries become fertile ground for the MP3 to proliferate (Sterne, 2012, 198).

A few other key events and developments spurred the proliferation of the MP3. For one, not long after the L3Enc surfaced, the software was cracked by pirate "Warez" groups ("Warez" being a derivation of "software"). The Warez groups hacked into Fraunhofer's FTP servers and shared direct links to said server along with L3Enc serial numbers, and WinPlay3 (the first MP3 audio playing software) redistributing the files under the name "Thank you Fraunhofer" (Sterne, 2012, 186-7, 202; Witt, 2015, 71, 89). Unsurprisingly, the end of 1996 saw surges of downloads. Easily accessed and obtained, the ability to create and share MP3 files were in more hands than anyone could have anticipated. The distribution of music was accelerated by pre-existing spaces designed for sharing (such as the Internet Underground Music Archive and other similar chat-rooms and bulletin boards) and CD burners. By this time, CD burners had become surprisingly affordable. For a few hundred dollars, anyone

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recording industry," whereas the heroic mode "holds up file-sharing as part of a social movement which has fought the major-label monopoly over the distribution of music." Though it will be discussed later in this chapter, "piracy" can be considered a term used primarily by the recording industry, conflating practices of unauthorized duplication and distribution (such as file-sharing and CD burning) which disrupted the recording industry's revenue stream (27-28).

could convert their entire CD collection into MP3s (Sterne, 2012, 205; Witt, 2015, 67). Granted, in the 90s a 2 MB (megabyte) MP3 file required longer upload and download times, but even so, being able to burn approximately a hundred songs onto a single disc would be a worthy investment of time.

Why invest time and money into such an enterprise? If we consider music consumption and distribution prior to the Internet, it will become easier to understand. One would have to either listen to the radio, see a live show, or go out and buy a CD or vinyl record. One would be quite limited in the music they could consume through physical copies. There would be trips to the record stores, hoping they had what you were looking for in stock. Building a collection would take time and money. A process most are happy to endure because, as we will see later in the discussion, music acts a means of constructing identity and community. Especially for younger people, who often have less of an idea of who they are than someone with more life experience. So what would happen if such restrictions were lifted? Sterne notes, and Witt himself having witnessed it first-hand, that much of the file-sharing revolution was driven by young adults. Affluent college campuses began wiring their dormitories for high-speed Internet connections, allowing students to get online, improving their studies and their ability to consume music (Sterne, 2012, 205). Witt writes of how "That September, the incoming class of 1997 matriculated, and a generation of adult adolescents now had the limitless capacity to reproduce and share music files, and neither the income nor the inclination to pay" (2015, 95).

Before the file-sharing boom, in the summer of 1996, Brandenburg of Fraunhofer approached the RIAA (Recording Industry Association of America) with their latest development: the copy-protectable MP3. However, Brandenburg was turned down, informed that the music industry "did not believe in electronic music distribution" (Witt, 2015, 90). Who could blame them? With the 1990s came the CD boom, wherein the recording industry

was seeing high profits (79). This was, however, in part because the industry was riding on the back of the vinyl to CD replacement cycle. As consumers shifted to digital, they often bought music for a second time, having a copy on both vinyl and CD (Kusek and Leonhard, 2005, 81; Owsinski, 2011, 39; Sterne, 2012, 185). However, as Gendron (1986) notes, a record is an interesting commodity in that consumers often do not buy the same album multiple times (28). Aside from fairly specific circumstances, such as breaking or losing the disc, even if an album was someone's favourite, there is not the same inclination to go back to the record store every week to buy another copy as there is when going to one's favourite pizza place for a weekly lunch. The replacement cycle would only last so long before it fizzled out and sales would once again be on the decline.

However, as students made use of their high-speed Internet connections, with other communities increasingly doing the same (as cable and telephone companies began offering it to consumers), the record industry finally began to take a stand against the MP3. The RIAA filed a lawsuit against illegal FTP (file transfer protocol) websites in 1997 (which they won). For Sterne this signals two points: for one, the first formal interaction the RIAA had with the MP3 was trying to making it stop; and two, the RIAA's inaction up until this point was significant in that it allowed "other industries to develop and organize the online music environment according to their needs" (2012, 203).

That same year, the website *MP3.com* launched in October. By 1998, the MP3 had reached new heights, becoming the second most popular search term on the Internet. The first being, unsurprisingly, pornography—but even so, the MP3 outpaced porn in 1999, becoming the most searched term on the Internet (Sterne, 2012, 206). While it is tempting to argue that Internet users had begun to prefer to listen to music rather than moans, the advent of Napster that year probably has more to do with it.

Napster

Shawn Fanning, an 18-year-old Northeastern University dropout, released the infamous Napster in June of 1999 (Witt, 2015, 114). Napster would rocket to infamy through its association with piracy, but for us, it is a pivotal piece of software that served as the crisis, the tipping point, which sets off situational change: the moment of cyber culture. For Prior (2015), while digital distribution networks had already been established by the time Fanning's software had made its appearance, "it was the peer-to-peer (P2P) program Napster that spectacularly announced the era of online piracy" (495). Prior associates the program and its users (26.4 million users at its height) as being rooted in the spirit of "a liberal vision of fan and counter-culture" (495). From a technical design standpoint, Napster became so successful and so widely used for three main reasons: it had a search function for finding MP3 files, the P2P network facilitated file-sharing without needing a central server, and it featured an Inter-Relay Chat function so users could easily communicate with each other while online. With the corporate middlemen gone, consumers participated freely in discourse about their favourite artists or works (495). The freedom afforded by digital distribution not only gave users greater access to more music faster, but it also questioned how much control the record industry actually had over consumers.

First, there is the question of whether or not piracy had a negative or positive impact on the record industry. Several authors have addressed this debate (see Prior, 2015; Sinnreich, 2015; Sterne, 2012; Witt, 2015) with the overall opinion that Napster and online piracy actually had a positive impact on sales. Sinnreich even notes that "Napster users were 45 percent more likely to have increased their music purchasing habits than online music fans who [didn't] use the software" (2015, 614; quoting Sinnreich, 2000). However, as always, the answer is never that simple. Given the evidence, the boost coincides with a number of other

factors, some external to music consumption practices and having more to do with resources and technological limitations.

While the file-sharing boom (between 1998 and 2001) coincides with the boom in CD sales (peaking in 2000), it is not a simple correlation. For one, as Witt (2015) aptly notes, there had yet to be a critical mass of portable MP3 players, but there were plenty of CDs to buy (125). Interest and exposure to more music could lead to a desire to own said music, and in order to be able to take it out of the house, one would still have to buy a CD as it was the more portable medium; home computers were still rooted in the home. The aforementioned CD replacement cycle is another factor in explaining the rise in CD sales. One cannot rule out the possibility that as a consumer was enjoying their vinyl listening experience, they were also curious about MP3s. It seems unlikely that users would be exclusive to a single medium. Someone could simultaneously relish the ritual and demand for attention setting up a record requires: taking the vinyl out of the jacket, placing down the needle and so forth—while also enjoying acquiring the sheer mass of music available online via MP3s. Furthermore, they could pull from both practices, and centre them on CDs, re-buying old favourites and purchasing new ones.

On the other side, Sterne (2012) holds the opinion that the file-sharing boom and the dominance of the MP3 format was inevitable. The MP3 was "destined" to become the dominant sound format online and for pirated music as it was helped along, pushed even, by accompanying technologies. The access to broadband Internet, the affordability of CD burners, sound cards, and portable audio players (which will be discussed in the next chapter) (207) all nudged the MP3 forward, rendering the CD archaic. Both broadband Internet and consumer electronics industries benefited from file-sharing (Sterne, 2012, 188) and were quick to ride the wave of the boom while the record industry demonstrated complacency when facing a decline in sales.

After peaking in 2000, CD sales fell 30 percent (Witt, 2015, 154). Again, whether or not this was due to piracy is up for debate, but it seems unlikely that is was the sole reason. Witt writes that after the dot-com bubble and 9/11, every other business was hurt, the record industry was no different, nothing special (158). The end of the vinyl-CD replacement cycle would also, understandably help explain why CD sales began to slow to a crawl. Whether or not the image of an industry refusing to change in the wake of piracy and mass digital file-sharing is an accurate one, there is the possibility of sheer ignorance in confronting a new phenomenon. Doug Morris (head of UMG) said in a 2007 *Wired* interview "There's no one in the record company that's a technologist…That's a misconception writers make all the time, that the record industry missed this. They didn't. They just didn't know what to do" (quoted in Witt, 2015, 227).

In response to this perceived danger, the record industry chose its course of action. "For capitalism to work in the digital age, sharing had to be penalized," writes Witt (2015, 159). One example was Project Hubcap, the record industry's 2002 initiative to put a stop to illegal file-sharing. In filing lawsuits, two hundred sixty-one individuals were targeted and the RIAA requested damages of up to $150,000 a song (159). One can only imagine the desperation the RIAA was exhibiting if not actually experiencing in carrying out practices that "criminaliz[ed] [their] core demographic" (Prior, 2015, 496). Witt notes how many of those accused and sued were often just ordinary people, everyday citizens not openly malevolent or bent on piracy with an agenda for tearing down the corporate entity. The RIAA targeted "single mothers and families without computers…senior citizens and children…the unemployed and people who'd been dead for months" (160). One example of a "high-profile case" is of Brianna LaHara, a 12-year-old girl living in a New York City housing project; instead of dropping the lawsuit, the RIAA displayed their generosity and understanding by offering to forget the whole thing provided Brianna's parents paid them $2000 (160).

Furthermore, Witt writes of how the RIAA's own lawyers admitted that "the peer-to-peer file-sharers were not deliberate lawbreakers but just kids who wanted music" (161).

Other than lawsuits, many of the authors discussed so far this chapter also write of DRM, the RIAA's other main method to disrupt and stop piracy. Prior (2015) outlines this well, explaining that Digital Rights Management (DRM) was introduced as an anti-piracy measure. It was meant to protect and control intellectual property (such as music) and comprised of a piece of embedded software that prevented said property from being copied (496, referring to Kretschmer and Pratt, 2009). Sterne (2012) considers DRM to be a "scheme" which illustrates how "intellectual property" is more of an attempt to enforce a trade monopoly—trying to assert "control over an economy when law and custom are not enough" (192). Prior and Sterne both note the ineffectiveness of this tactic, Prior going as far to say it "backfired" (496) and Sterne that it "has been both a technological and a cultural failure" (198). Neither the lawsuits nor DRM were particularly effective in dealing with piracy; music was free and clearly people were enjoying it. The genie was out of its copyright lamp, free to work its magic with no intention of being squeezed back in.

The funny thing about all of this is that amongst all this talk of copyright law and profits and sales, Napster did not sell a thing (Sterne, 2012, 207). Rather, its value was generated by its user base. We can combine Sinnreich's observation that "unlike traditional commodities, music *grows in social value* as it proliferates" (2015, 622), with Metcalfe's law, which states that "the value of a network grows as the square of the number of users" (as represented by the equation $V \sim N^2$) (Metcalfe 2013, 26). If Napster did not directly sell anything, then with 26.4 million users it is safe to say that a lot of social value must have been generated. The question then becomes: what is it about music and its social value that makes it worth producing and disseminating, even illegally through piracy? To answer these questions, we will have to take a closer look at music's social value.

Music's Social Value

Several authors shed light on what exactly music's social value entails. Born (2011) refers to Hennion (2003) and DeNora (2000) in writing that music plays an active role in our social life. Musical taste is an accomplishment and in the process of developing it, finding what kind of music one is attracted to and repelled by, one is transformed. We can interpret a song and construct meanings specific to us and out individual lives, and that same song can help us construct our own identities. Music is a two-way street: just as we can attach meanings to the song, the song can attach meanings to us (378).

As Simon Frith (1998) writes at the end of his book, *Performing Rites* "music gives us a way of being in the world, a way of making sense of it" (272). When we respond to music, we are drawn into affective and emotional alliances. Music's unique emotional intensity demands no less; "we absorb songs into our own lives and rhythm into our own bodies" (273). When we listen to music, we wear our emotions. We wear our dreams and desires. Whether we are drawn into the sorrow conveyed in a lilting phrase, or our own sorrow is what brought us to the song in the first place, our whole being and the world around us is, in that brief moment, is defined by and filtered through that emotion.

These affective and emotional alliances, while bodily, are undoubtedly experienced in the mind. As such, imagination becomes a crucial part of the identification process. What we imagine is part of that ongoing negotiation we have with our identities. Identity of any sort is a practice of idealization: "what we would like to be, not what we are," Frith writes, "And what makes music special in the familiar cultural process is that musical identity is both fantastic—idealizing not just oneself but also the social world one inhabits—and real: it is enacted in activity" (274). Whether it is making music or listening, we are constantly constructing images of the ideal. We become the stars of our musical narratives. Frith stresses

that under the veil of music, these imaginings are no mere phantoms, but they are real experiences of what the ideal could be (274).

Though largely temporal, music can give us spatial impressions as well. In his memoir *Words Without Music,* Philip Glass explains his belief that music itself is a place. When we listen to music, we go to music, somewhere with "all the attributes of reality—depth, smell, memory" (Glass, 391). He continues, relating his belief to the city of Chicago:

> When I say music is a place as real as Chicago, what I mean to say is that in our minds it exists in very much the same way. I can take the plane to Chicago, and I can also imagine Chicago, but either way, I know Chicago is a place for me. In the same way, that same place can exist in a painting, in a dance, in a poem, or in a piece of music (391).

O'Brien shares a similar sentiment in his book *Sonata for Jukebox*. In the chapter "House Music," he writes "The songs take place in a world complete in itself yet with tantalizing connections to the world in which music pours out" (2004, 35). Frith (1998) goes as far to say that music is the best cultural form for crossing physical spaces, class and race, as well as being able to define spaces such as clubs or our own home; "we are only where the music takes us" (276).

Music can even take us back in time. In wading the waters of memory, we may associate an album with the age we were when we first dropped the needle. We recall a concert being one of the most significant memories of our adolescence. Music and memories create articulations with us at different points in our lives, where we were and who we were at the time. They have stories. A first kiss to a song on the PA system, buying a highly sought after album for a loved one, how a certain album got us through a hard break-up. Music forges these sorts of associations with our lives, and these are what we'd call *natural* articulations; built to last, hot steel on an anvil, struck by a hammer.

Born (2011) also emphasizes the intangible, the imagined. Music has the power to generate imagined or virtual communities. She notes that in going online "music has become

a medium both of identity formation and of social aggregation" (381). One can create an online identity via a username or avatar and be "pinkfloydfan123" on a message board, talking to other fans. Music is thought of as something shared, for the public, a way in which we can connect with others. Sinnreich (2015) echoes the sentiment, writing "In most societies, for most of the past five thousand years, music has served as a kind of 'public good' – a universally accessible, ubiquitous resource that all members of a society may draw upon to fulfill their individual and collective needs" (615). Riesman (2005) even notes how when we listen to music, we do so in the company of imaginary others, anticipating and contemplating their own opinions of the music and what they would think of our listening to it (8).

There is evidence of community and identity building present in piracy as well. Through the aether of the Internet and text on a computer screen, we invest time, energy and thoughts constructive for our identities. If a large part of ourselves is based on who we choose to spend time with and have a discourse with, then even virtual communities are as important to consider as ones we engage with in the real world. For example, membership of Oink's Pink Palace, another pirate music organization, meant being part of a community. While other platforms like iTunes and the Pirate Bay had become options, Oink's demographic user base was a community of "technically literate middle-class twentysomethings, mostly male, enrolled in university or employed in entry-level jobs" who gravitated to Oink because of the forums: "They were a place to learn about emerging technology, about new bands, about underground shows, and even about the way the music business really functioned" (Witt, 2015, 209-210). When RNS, a CD leaking organization, called it quits in 2007, we can see a similar sense of community. In paying their respects, past members flooded the chat channels, reminiscing

> about past friendships and old exploits. Although there remained a high degree of anonymity among the group's membership base, many friendships had

> formed. The participants had come of age in the Scene, and it was, for many members, a private world they carried inside themselves (219).

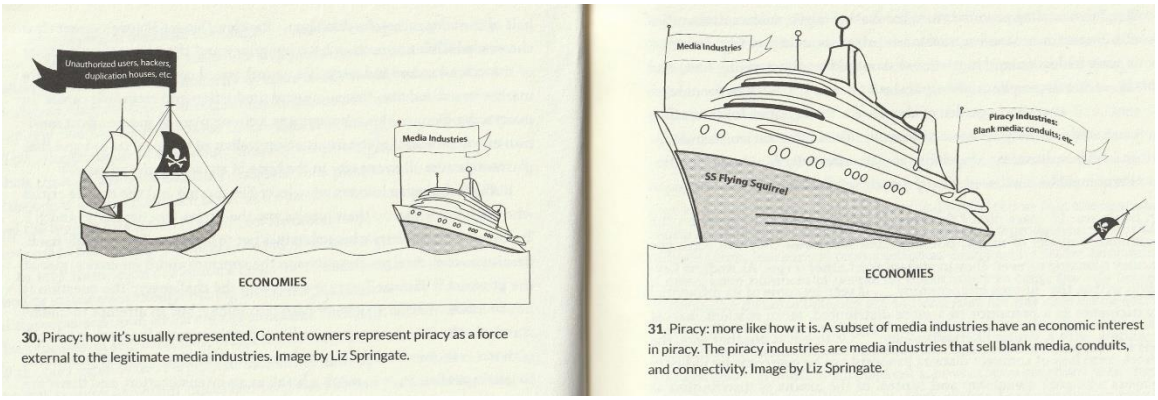
These P2P organizations were more than just networks for finding, sharing and downloading music, they were networks to find and engage with other people. Within these communities users shaped their own identities on and beyond the computer screen.

Piracy and Morality

Before continuing, it is pertinent to have a brief discussion concerning the morality surrounding piracy. Sterne (2012) notes that while piracy is often regarded as immoral by "the state and existing institutions", the Institute for Economic Affairs (IEA) argued that piracy was a "'business force' and that resistance to it was 'a reflex reaction by established interests to unwelcome and adventurous competition'" (209-210). Likewise, Sterne and Sinnreich, as previously mentioned, propose that piracy was a positive *economic* force (188; 2015, 614). The issue becomes whether or not morals are separate from economics, or rather—is morality decided for within an economic context? Is it the copyright holders who decide which practices are moral and immoral?

These questions are worth considering because given what has been said so far, piracy seems to be, at least from the record industry's perspective, wrong. Piracy is stealing. It's "killing" the music industry. Is it though? Terranova (2000) and Sterne (2012) both comment on morality as more or less an irrelevant aspect of discussing piracy and the digital economy in general. Terranova writes that "The digital economy cares only tangentially about morality. What it really cares about is an abundance of production, an immediate interface with cultural and technical labor whose result is a diffuse, nondialectical contradiction" (53). This further places the stance of "piracy is immoral" onto pre-digital, traditional industries as a way to deter consumers from jumping ship. Sterne even represents this aptly, citing a pair

of images. One represents what piracy is often described as—an opposing outside force, a menace to media industries. The second represents what it is actually like: a subset of media industries that have an economic interest in piracy (218-219).



30. Piracy: how it's usually represented. Content owners represent piracy as a force external to the legitimate media industries. Image by Liz Springate.

31. Piracy: more like how it is. A subset of media industries have an economic interest in piracy. The piracy industries are media industries that sell blank media, conduits, and connectivity. Image by Liz Springate.

Figure 3 Perception of piracy as cited by Sterne (2012).

Again, we have the focus on economics, commercial value. It is as though a threat to commercial value is construed as and accused of being immoral, an immature and childish way of saying "You can't do that, it's not fair!" This suggests it was never about morals in the first place. If traditional media industries are concerned with commercial value, as are the new media industries, and the digital economy is described as not being concerned with morality, then it would suggest the debate of whether or not piracy is immoral is irrelevant at best, a ruse at worst. It attempts to create an "other," an "us vs them" mentality. At a glance it is often understandable to sympathize with the industry, seeing as if they do not get paid (ie. if we do not buy their CDs) then our favourite artists will not get paid. However, as Baym (2018) writes, "Once commodified, music was marketed in part by strategically crafting and selling artists' images so that audiences might feel a sense of identification, admiration, or awe" (10). Thus, it is important to keep in mind that marketing and advertising are attempts at articulating music's social value with its commercial value. Which is to say music's social value is used as leverage, dangled it in front of our noses, the carrot in front of the horse, claiming that fulfilling its commercial value is the only way of accessing its social value.

On the other side of the debate is the idea that charging money for music is the real immoral practice. Baym (2018) notes that ethnomusicologist Charles Keil believes music should not be recorded nor monetized. She quotes him as saying that music is the "opposite of private property" and that "There shouldn't be a music industry" (60-61). Clearly then, though extreme, one who shares at least some of Keil's views would see Napster and file-sharing as a modern miracle. Baym also refers to Condry's article about Japanese hip-hop fans; "music fans feel a moral obligation to share music they love with one another. To sell would be to violate that basic value" (92).

As discussed above, this adherence to the ways things were, initially refusing to adapt to changing marketplace, led to the traditional record industry's downfall while the new industries could rise and take their place. As Sterne (2012) writes: "Pirate operations were not anticapitalist or anticommercial. They simply operated outside of the bounds of legitimacy as defined by the state and state-sanctioned industry. As the pirate industry gained influence and purchase, it facilitated the transformation of the state's policies and industries, breaking old oligopolies but leading to the establishment of new ones in the process" (210). To take a stance on whether piracy is moral or immoral through this paper is not my main intention. Fighting back against something like Napster and file-sharing trying to use morals as a justification is folly. As the times change, so must we. Sterne aptly says "There are many ways for supporting music-making and listening in societies, and there is no divine decree or moral precept that a hundred-year-old recording industry must be preserved in perpetuity" (217). Piracy was the training users needed to jump ship on the commodity model attached to music, but as we will see, it is far from the last time money and music mingle together (220).

As a last point on this issue, Borschke (2017) offers interesting insights to this discussion. She writes of how both sides—pro-piracy and anti-piracy—claimed the moral high ground

but both sides "appealed to same romantic ideals of creativity and self-expression[5] when demonizing or defending downloading and file-sharing practices" (4). Her book *This is Not a Remix* revolves around copies and in particular, how digital copies are material artifacts and how copying continues to be a social practice (4-5). The idea of "copy" within the context of file-sharing is an important consideration as it effectively redefines or at least distorts what "sharing" means.

File-"Sharing"

Sharing is usually defined in part by dividing that which is being shared[6], where each party is left with a *portion*. This is where the term "file-sharing" becomes problematic. In the digital age sharing has seemingly fused with copying. If I were to share a cookie with someone, for example, I would break the cookie into two pieces. We would then each have a half with neither of us having the whole cookie. Another example is telling a child to share their toy with their younger sibling. This would mean their sibling would be playing with the toy instead of them. If, by contrast I wanted to "share" a photo of a cookie or a toy with someone, I can send a copy of the image via Facebook or email. Digital sharing results in both of us having the whole. As long as I get to keep my "original" (which is most likely a copy in itself), why wouldn't one disseminate content and/or seek it out freely? It makes sharing incredibly easy. I share something so we both have it. While yes, it is still a nice gesture, how generous or altruistic can it be when—unless I have something personal against you—there is no reason for me not to share with you? Giving someone a copy does not leave

[5] Some of the Romantic ideals Borschke refers to concern originality, authenticity, being anti-commercial and authorship—loaded terms in their own right (2017, 138, 140-142).

[6] Lexico.com, a dictionary powered by Oxford, defines the noun "share" as: "A part or portion of a larger amount which is divided among a number of people, or to which a number of people contribute," and the verb as: "Have a portion of (something) with another or others." An interesting point of note, definition 1.6, the last on the list for the verb form reads: "Post or repost (something) on a social media website or application," demonstrating how the digital age has mutated and extended meanings of certain terms.

me with any less, unlike traditional notions of sharing. If anything, we both have more: an improved relationship, more information/content than before. For Borschke (2017), copies are that which exist as independent instances while sharing something in common with other things (such as functional equivalency. Borschke makes the example of regardless of where you downloaded the song "Let's Get Lost," such as iTunes or a blog, they are functionally equivalent as copies). This latest digital twist of sharing as copying resonates with our discussion given that music is considered to be a "shared" practice, and that aspect of it helps it be considered a human practice. For Prior (2015) for example, "Sharing is a long-established and inherently human practice…and music is one of a number of mediated currencies that helps to cement and amplify one's social circle" (500).

To be fair, sharing can also mean what a number of parties have in common with one another. If we both listen to music, then music becomes an interest we share. In this sense of the word, then the digital iteration of sharing runs parallel with the notion of sharing as both parties being in possession. If you introduce someone to the music of Pink Floyd and they respond positively, the band quickly becomes an interest the both of you share. That said, sharing in this sense lacks its meaning of equivalency or being identical, the way sharing in the digital sense means distributing a copy—identical content. Even if I share something intangible, something that does not require physical division, such as information, there are issues. Depending on the amount of information and its complexity, sharing can quickly devolve into a game of broken telephone, leaving the other party with degraded information. Furthermore, your sharing an interest may not be the same; it can be disproportional, with one of you more dedicated than another. Your friend may like to listen to Pink Floyd, but you have seen them in concert numerous times. All said, whether its sharing an interest or sharing actual songs, music is a means for people to grow closer to each other, creating communities and developing one's sense of self.

With this perspective on sharing, it is tempting to consider the digital economy a sort of gift economy. In reference to Hyde's work *The Gift*, Baym (2018) writes of how within the gift economy, "art circulates as a present, moving from artist to friend, friend to friend, or child to parent…The exchange creates a sense of connection and obligation" (52-53). A key element is that it matters who is giving you the gift. In a similar fashion as "it's the thought that counts," an object has different value to us depending on how we received it. If a random person gave you that cookie, you might consider it a welcome random act of kindness, but if a loved one gave you a cookie (knowing us well enough to know that it is our favourite treat), we would probably appreciate it more. This contrasts with economic exchange, which is based on legal principles. It is an impersonal transaction between producers and consumers, and it does not matter who the exchange is made with (53). With regards to music, Baym notes that "Once money became a way to mediate music, music's social value could no longer be understood apart from its economic value" and its social value can been seen as diminished within the market frame (53).

Thus, it would make sense to think of Napster as a facilitator of a gift economy. Sterne (2012) however, notes ways in which online file-sharing does not work as a gift economy. For one, as noted above, commodities are alienable; it does not matter who the other person was in the transaction. Likewise, Sterne argues that "In file-sharing networks, MP3s are alienable; it does not matter who made them or ripped them. They carry no mark of the individual who passed them on" (213). While we may equate MP3s with music, it is better to understand the relationship as container and content, respectively. The MP3 is a format, a container for compressed audio data—the content is the music, the reason for using the MP3 as a delivery method in the first place. Furthermore, citing open source software, Sterne goes on by saying there is no collective or cohesive public, no socially conscious goals on the web; users just want (and have) access to new opportunities and content (213-214). Returning to

Terranova's (2000) quote, the digital economy is not particularly concerned with morality. Cyberspace can mask good morals just as it does poor morals. Granted, good intentions may be in there somewhere, but there is a lot of noise and content in the way.

Past Piracy

It is tempting to get caught up in all that is new without realizing the record industry has been "threatened" before and survived. Prior (2015) notes that whenever a new media format is introduced, we catch a familiar glimmer of the tension between music's social value and its commercial value. This extends to pirate radio, home taping, bootlegging, and burning CDs. Thus, in referring to Dowd (2001), Prior (2015) argues for an understanding of Napster and file-sharing as just the latest chapter in a "long historical narrative in which the recording industry has had to concoct new business models and lobby for a change in copyright laws to deal with new media" (497). Sterne (2012) for example, writes of how crucial pirate radio was to British popular culture in the 1960s. The unlicensed dissemination allowed listeners to the latest pop hits (especially 60s rock for youth subcultures (Middleton, 1990, 86)) that would otherwise be unavailable. The BBC played mostly classical music in the time they had alloted for music. While their income was derived from license fees charged to listeners, pirate radio was supported by advertisements (209). This reflected the broadcasting practices of the United States but for us, it feels like an allusion, or at least foreshadowing commercial music practices today where you can listen to music on Spotify or YouTube for free if you are ok with watching an ad first.

For an example of unlicensed distribution, we can turn to Borschke (2017) and the 1970s. In order to string together danceable parts of a song such as drum breaks, DJs began to produce disco edits. It made life easier as a DJ, where once upon a time one would have had to mix two copies of the same record to extend a section. It was later tried to record a song

numerous times, splice the magnetic tape together, then press to an acetate record. As a material, acetate was less durable than vinyl but it could be made quickly and played on an ordinary turntable. As the practice of pressing to acetate took off, DJs began to make compilations of these disco edits, arranged for optimal danceability. Borschke notes for a version of a song to be good for the dance-floor, that the edit has to "serve a functional purpose in the practice of playing and mixing between recorded music." This can include extending an intro or outro so a song is easier to mix into other tracks or extending and repeating a danceable section. Borschke also notes how acetate was useful in that they were "an easy way to copy or 'bootleg' a record that was no longer available" or rare to find so they could be then played in DJs' sets (82-83). While this is an example of prosumption to a certain degree (which will be discussed in greater detail in chapter 4), this also shows how there was not necessarily an outward malevolence towards the record industry; DJs just needed tracks that did not exist and decided to innovate and make the tracks themselves to improve their performance which in turn would allow the dancers to have a better time and fully lose themselves in the music, forgetting their troubles for another night.

When home taped cassettes arrived on the scene in the 1980s, the unlicensed reproduction of music caused a familiar sense of panic. The British phonographic industry even had the PR campaign slogan "home taping is killing music" (210; Baym, 2018, 65; Borschke, 2017, 4). Users flocked to cassettes. They only cost a fraction of their legal counterparts and were not even considered illegal in some countries given that some copyright codes had not been updated since the early twentieth century. Some artists sought to even promote piracy. The Dead Kennedys for example, released a cassette in 1981 that had the EP "In God We Trust, Inc." on one side with the other reading "HOME TAPING IS KILLING RECORD INDUSTRY PROFITS! WE LEFT THIS SIDE BLANK SO YOU CAN HELP" (Baym, 2018, 65). With so many users grabbing at music, Sterne notes several cases where labels

"turned to pirate duplication houses to meet consumer demand for recordings (211). Middleton (1990) notes (at the time of writing) that in Third World countries specifically, cassettes had become the main medium for music distribution. There was speculation that piracy such as this may "even threaten to destroy the property-form of recorded music altogether, for 'bootlegging' and piracy are easy and unstoppable" (87). A bold claim to be sure, but a perhaps even bolder one comes shortly after, as Middleton writes that as technology continues to improve, innovations make music-making more informal. As access to music and music-making improves, "it can be argued that the extent to which the record institutions are *needed* has been, potentially, much reduced" (87-88).

As discussed earlier, commercial value is not what draws us to music. Baym (2018) refers to Christopher Small in reminding us that music is "a tool by means of which our real concepts of ideal relationships can be articulated, those contradictions can be reconciled, and the integrity of the person affirmed, explored and celebrated" (12). Furthermore, "Musicking, and all the social activity that happens around and through it, is a form of communication with ancient powers to build meaningful identities, help us find our place in the world and help us flourish" (25). The author also recounts her own experiences buying bootlegs in high school through graduate school, saying "bootlegs helped us in our quest to piece together more of an artist's career and showed ourselves and each other our commitment" and "My fellow fans, these musicians, people they worked with, and I traded resources in webs of gift exchange guided by friendship, obligation, and prestige alongside money, maintaining social ties, and building community as we did" (89, 92). She notes how her collection of difficult-to-acquire live recordings earned her a lot of "cool" within her music communities and eventually she was considered an "elite fan" within social hierarchies (92, 94).

Radiohead and the Economics of Free

Though Napster filed for bankruptcy and shut down in 2002[7] (Sterne, 2012, 207), the damage was done. File-sharing and piracy had done its part in shaping the music marketplace of the digital age. Embracing the digital economy meant adapting to said economy, devising new ways to survive altogether. New practices such as "360 deals," wherein a label's revenue streams include more than album sales (ie concerts, merchandise, publishing) become more common (Prior, 2015, 496; Sinnreich, 2015, 623; Witt, 2015, 234). It became paramount to look beyond traditional models of conducting business. One such model is the "Economics of Free."

In 2007, the RIAA won *The Consumerist's* reader poll for "Worst Company in America." Later that year, indie rock band Radiohead released their album *In Rainbows* online with a pay-what-you-want honesty box (Prior, 2015, 496; Sinnreich, 2015, 623). Approximately 1 million consumers downloaded the album in the first month. Though only about 40% paid for *In Rainbows* it was Radiohead's most successful album to date. The effort, however, was received with mixed reactions. Some saw it as the end of the music industry, while others saw it as a revolutionary business model.

In Rainbows is an example of marketing according to the "economics of free" model, wherein "infinite products" interact with "scarce products" to reach more consumers. As file-sharing ended the era of artificial scarcity, music is no longer a scarce product; it is now an infinite product. As an infinite product, it can be given away for free. There is no use in having a paywall to access the music at this point; illegal file-sharing and cracked copies of music will proliferate across the web anyway. So instead of antagonizing one's fans, just give the music away for free. What that does mean, however, is that what can considered scarce

[7] Currently, Napster operates as a legal streaming service as part of Rhapsody International Inc. https://us.napster.com/about

products, such as physical copies of the music, merchandise—such as t-shirts, and live performances become more valuable as they are limited in number (Owsinski, 2011,65).

While Radiohead had a pre-existing following and an established career to build from, *In Rainbows's* success demonstrated that alternatives to traditional market practices were not only possible, but also profitable. Furthermore, it highlighted the artist's ability to engage with fans directly, without having to go through a corporate middleman. As Owsinski (2011) writes, a characteristic of "music 3.0" is exactly that: the artist can sell directly to their fans without need of a label (19).

Giving the music away for free is also a nod to music's true value: its social value. In a *Wired* (2007) interview with David Byrne and Thom Yorke, Yorke mentioned how initially the band was reluctant to let fans choose their own price, but it ended up being liberating. Fans downloaded *In Rainbows* in droves, proving that the album had value despite not having a fixed price-tag attached. "And people took it as it was meant," Yorke said; getting the music into people's hands was the important thing, not the exchanging of it for money. That said, it is not as though music cannot still be monetized. In response, Byrne said, "But people will still pay to have that experience. You create a community with music, not just at concerts but by talking about it with your friends. By making a copy and handing it to your friends, you've established a relationship. The implication is that they're now obligated to give you something back." When Radiohead handed their fans *In Rainbows* they too, established a relationship with them, particularly if these consumers were new to Radiohead's music. The interview concluded with an agreement that the problem was that the delivery system (CDs, records, retail stores) was being valued over the "relationship and the emotional thing" that comes with music. Music continues to be a means by which one can be social and construct a personal identity.

Conclusion

P2P networks and file-sharing along other emerging technologies all contribute to a "fundamental shift in cultural power dynamics" and usurping of industrial hierarchies "that place corporations at the top of the pyramid while relegating 'consumers' to the bottom." Sinnreich (2015) (and scholars Burkart (2010) and Mann (2012)) also "place music at the center of these transformations, recognizing its role as a predictor and/or a mechanism of *radical social and economic change*" (614, italics mine). Funnily enough, that last statement not only aligns with our definition of situational change, but in noting the power of music and culture to impact and catalyze fundamental changes also aligns with the idea that the cultural/conjunctural level feeds-forward and interacts with the larger socio-economic cycle.

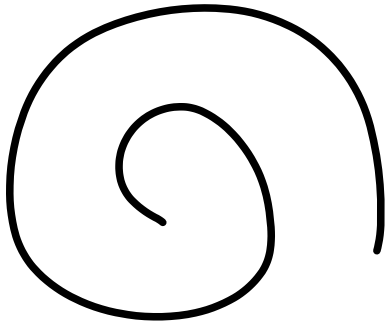
As copying leads to proliferation and abundance, with no loss or division of content, it is this new notion of sharing—giving copies, freely and endlessly—that lead to a necessary renegotiating of media industry practices. In short: a crisis to incite situational change. Sterne (2012) writes that we would call the "MP3 revolution" has brought music closer to us, more at-hand for more people than at any other point in history. Where copyright law had once created an economy based on artificial scarcity for recorded music, then the MP3 and file-sharing has created and ushered in an age of musical abundance (224). Though, as Sterne also said, users will not be leaving the money economy any time soon; Terranova writes:

> The question is not so much whether to love or hate technology, but an attempt to understand whether the Internet embodies a continuation of capital or a break with it. As I have argued in this essay, it does neither. It is rather a mutation that is totally immanent to late capitalism, not so much a break as an intensification, and therefore a mutation, of a widespread cultural and economic logic (54).

Paying as a practice is not going anywhere. Rather than ushering in a gift economy or maintaining the commodity model for music, the Internet and file-sharing MP3s has mutated and changed what we pay for. As we will see in the following chapters, we will pay for new

devices and new services with which we will have greater mobility and access to music than ever before. Benjamin (1935) notes in his influential essay "The Work of Art in the Age of Mechanical Reproduction," that reproduction of art specifically consists of a trade-off. While it removes the work's uniqueness, its "aura," and its unique presence in time and space, he ultimately does concede that at that cost it gains a "plurality of copies…And in permitting the reproduction to meet the beholder or listener in his own particular situations, it reactivates the object reproduced. These two processes lead to a tremendous shattering of tradition which is the obverse of the contemporary crisis and renewal of mankind" (221-223). Not only did this situational change evoke the emergence of new industries and practices, it also offers shifts in materiality—the topic of our next chapter.

Chapter 2 – The Spiral Widens: The Feedback Loop and the Rise of New Commodities



Introduction

> I don't see my own [record] collecting as "manic," but I'm fairly obsessive, so I do have a tendency to become more or less obsessed with certain *things*. For example, in my teens I fell in love with Mozart's String Quartet no. 15 in D Minor (K. 421), one of the six "Haydn" quartets, in a set recorded by the Juilliard String Quartet, and for a time I listened to it exclusively, again and again. So even now, if someone mentions K. 421, I automatically start hearing the Julliard's keen-edged performance in my head and picture the album cover. It's imprinted there, and it tends to be the internal standard by which I judge other performances. Records were expensive back then, and I would give my undivided attention to each precious disc, so in my mind (and with a degree of fetishism) a piece of music and the material *thing* on which it was recorded often comprised an indivisible unit. (Murakami, 2016, 69)

The quote above was taken from *Absolutely on Music*, a book of interviews between novelist Haruki Murakami and former conductor of the Boston Symphony Orchestra, Seiji Ozawa. The conversations were recorded over the course of just under a year, taking place between December 2010 and July 2011. The quote is Murakami's personal note, a reflection on their conversation on "manic" record collecting. In unpacking some of what Murakami

says, we can glean much about the value of music's materiality, which so happens to be the concern of this chapter.

For one there is the articulation of a recording with a visual signifier. Some albums have memorable art, and seeing a tangible, handleable album may do more to close in on the consumer; not only may it become more enticing to buy, but one may also appreciate it more aesthetically and sentimentally. A vinyl record, for example, encourages greater sensory involvement. A physical album brings the sense of touch (and even smell and taste if one is so inclined) rather than just sight when scrolling MP3 libraries. While using a mouse and typing on a keyboard is certainly a tactile experience, they are multi-use objects; their identity is split among disparate activities. A mouse and keyboard can be used to play games, compose a manuscript, coding software, but a vinyl record is made with music in mind. A mouse and keyboard do not have the band's name stamped on the front or the track list printed on the back. The tactile nature of a handling a record jacket or CD case can be a source of pleasure on its own.

Murakami's quote even puts a positive spin on scarcity. As we discussed in the first chapter, during the era of artificial scarcity, one's access to physical formats of music (such as CDs) was largely dictated by money. Keeping in line with one's budget, potentially limiting how much music one can own, suggests the necessity of forming stronger bonds with fewer albums. Murakami grew attached to the Juillard String Quartet's recording to the point that it was "imprinted" in his mind, associating the piece to that exact recording. Combined with the visual and tactile elements, it is hard to imagine such potential relationships to become non-existent just because we now live in the era of abundance and most music is accessed digitally for free.

Running parallel with that abundance is the notion that it fueled and was made possible by music's supposed *dematerialization*. I say "supposed" because although file-sharing and

the MP3 appear to mark music shrinking from the 12” vinyl record to the CD to the ethereal 1s and 0s of the Internet, has music really dematerialized? For Sterne, rather than having dematerialized, music has “micromaterialized.” The MP3 is a container technology and music is that which is carried in said container (194). While music has been reduced to small files, they still take up space. Though invisible, music still is weighed as data, and a computer or external hard drive can only hold so much before it is full (194). With this being the case, when you see that your 16GB USB stick is full of music, how do you not admit that music still makes its physical presence known, even if it is on a smaller scale (this is compounded when you consider that that first USB stick becomes one of many, or that you “upgrade,” scaling up to storing your music on a 1TB external hard drive)? Magaudda (2011) also takes a similar stance. Music’s digitalization and its assumed dematerialization does not end with less materiality or less of a social significance of material objects; rather, with digitalization comes more of a reconfiguration of the relationship between materiality and culture, resulting in what is ironically a renewal of materiality instead of its dissipation (16). I argue that music has not dematerialized, but rather we are witnessing more of a *shift* in materiality. Likewise, we see a shift in what we pay for: devices that hold music rather than the music itself. I will investigate the domestication of new commodities and technologies, and how they go through what Magaudda (2011) calls “circuits of practice” to go from being novelties and toys to integrated and routine parts of our lifestyles. We will discuss how emerging technologies such as the iPod came to be so commonplace and how new meanings, uses and articulations were attached to pre-existing technologies such as the external hard drive. My hope is for it to become clear that our relationship with music as *things* or music as object has not gone anywhere and has no plans on going anywhere.

The Collector

As Sterne (2012) writes, although MP3s are typically handled differently than their larger physical counterparts (records, CDs), users still talk about MP3s as things. They can be collected and owned, carrying with them all the bourgeois sense of ownership that comes with being a collector (214). Furthermore, he cites Benjamin (1968), saying that in being a collector, "ownership is the most intimate relationship that one can have to objects," adding that that appears to be the case whether or not the objects were paid for (214). Amassing, archiving, organizing a music library (digital or otherwise), is akin to building a collection unique to us.

Creating, revising, and maintaining and adding to a collection in such a way is differentiated from consuming music via streaming by a degree of removal. This distance is marked by a feeling of ownership versus a feeling of access. While downloading from Napster and streaming from Spotify are in a lot of the ways the same, with Napster, the music stays with you. When you see the files on your computer, you feel as though they are *yours*. Whereas when you stream from Spotify, that gap remains; you do not get as close to the music. Streamed music feels closer to being like a borrowed book from a library rather than a purchased book that you can keep and do with what you will. Owning appears more significant because it is seen as a deliberate choice to add something to our collection, to include something in our life. By contrast, access feels less serious, more like trying on jeans in a fitting room.

The Material's New Clothes

As mentioned in the previous chapter, when we listen to music, we *wear* our emotions and desires. What we choose to listen to expresses a part of who we are and how we are

feeling at a given moment. Frith (1998) echoes this idea. He writes of how we "express ourselves through our deployment of other people's music." Just as Born (2011) wrote of how musical taste is itself an accomplishment, Frith writes of how musical taste is "intimately tied into personal identity" (237). In this way, for Frith, this is what makes music more like clothing than any other art form (237).

If we follow this clothing metaphor further, we can also turn to McLuhan (1965) for more insight. He writes of clothing as an "extension of the skin" that not only serves as a heat-control mechanism but also, through its expression of the outer surface of the body, as a means of defining the self socially (119-120). Likewise, we express ourselves through the deployment of other people's clothes; different designers and brands and the types of clothing associated with them give different visual cues, impressions of the person wearing them. Seeing someone wearing a suit starts a different (internal) dialogue than a Ramones t-shirt; and within that, a Burberry suit says something different than one fresh off the rack from H&M. While the latter has to do with difference in price and one's financial status, the former can also speak to profession, subcultural involvement, social status amongst other facets of one's identity.

Music works similarly, though it is more closely connected to our emotions in that we can see a song as a mirror and/or an amplifier for how we are feeling. The question then, is why are we so comfortable to put our tastes in fashion on display so readily (everyday in fact), when paradoxically, having someone listen to a piece of music significant to us can be akin to undressing in front of them? Does it have to do with frequency and function? Have we worn clothing long enough (because we have to, for warmth as McLuhan (1965) mentioned but also because it is considered normal social behaviour here in the West) that it is no longer jarring? Or is it because it is silent? We can always choose to look elsewhere; our outfits compete for attention amongst the other commuters on the train. However, we cannot close

our ears. Sound grabs our attention; we find it disruptive and hard to ignore the person on the street singing out of tune, working for dimes and quarters as we pass by (when we do hear them, that is, as we are more likely now, for better or for worse, to be plugged into our own music). While wearing a suit in a room full of similarly dressed individuals may help you fit in and be invisible, avoiding sticking out like that person in the Ramones t-shirt, that same person at a Ramones concert would also fit in, but would also find a greater sense of belonging and community.

Music acts as an extension of our emotional skin. In the act of undressing, we are stepping towards vulnerability, demonstrating trust in the other person. With that vulnerability, however, there is always the risk of getting hurt. While music, like clothing, provides a means of defining the self socially, desiring individuality is met with the somewhat contrarian desire to be accepted. Emotions are candid; it is hard to deny our feelings when someone catches us crying. There will always be the fear that once we expose our naked selves, we will be rejected. In response, we wrap ourselves in cloaks we call music and shells we call materiality.

Music's *openness*, to use Middleton's term (1985, 40-41), allows for multiple articulations with different meanings. In other words, because music is highly subjective, there are always many possible reasons why we might like a certain song. The music may represent the emotion, but the music is not the emotion itself. A song may spark a memory, but the song is not verbatim for our experience. There remains the mystery of what the song really means if we choose to withhold that information. A break-up song may be obviously sad to the person we are sharing it with, but they still may be in the dark about the circumstances of our personal break-up. With the music's ambiguity we have already added one layer to our defences. Materiality brings another.

Having a buffer of infinite possibility is often not enough. Materiality places music in the palm of our hand so that we might exercise control over it. As such, being an extension of music, materiality acts as clothing for our music. This tangible way of objectifying sound also provides more opportunities for self-expression, much in the same way as clothing does. As we will see further in this chapter, music's materiality can tell others more about what kind of listeners (and fans) we are. Our choice of music player, headphones, and other accessories help build a portrait of ourselves that we are willing to show others as a clue to who we are.

In this way, as a constant companion and tool for self-expression and identity and community formation, music's materiality is not going anywhere. It may change, as fashion does, but even if nudity was normalized here in the west, I would wager that we would still opt for wearing clothes for all the reasons discussed above. Materiality shifts and adapts, accommodating new listeners of the digital age by finding hosts in new objects and commodities, and re-purposing old ones.

Standardizing the MP3

As noted in chapter one, file-sharing both benefited and was benefited by the broadband Internet industries and consumer electronics industries. Given that CDs were enjoying a bit of a boom from the vinyl-CD replacement cycle and a lack of a critical mass of portable MP3 players, it is unsurprising that the continued use of CDs spurred innovations to cash in on the file-sharing wave. Sterne (2012) notes how in 2001, Sony Electronics released a CD player that would play MP3s burned onto a disc. This was to the dismay of Sony Music, but "the electronics division felt it had no choice: it had an opportunity to cash in on the explosion of file-sharing" (208). Sterne uses the terms "path dependency" to describe the success and proliferation of the MP3 format. As "manufacturers and users adopt a system built around a certain standard, the standard becomes a self-reinforcing phenomenon" (199). In other words,

as more and more people flocked to the MP3 format, it fed into a spiraling feedback loop and not only did the MP3 become the dominant format for music, it became *the* format for listening to music in the digital age. This is easy to imagine when we recall how P2P networks such as Napster encouraged the circulation of the MP3. With the constant sharing of music, if you wanted to have the same music as your peer group, or at least wanted to be in the know about the latest music, then utilizing the accessibility and convenience of the MP3 would be a no-brainer. In essence, the MP3 was contagious; as more individuals within a group converted, the format spread until it became the new basis of communication and sharing within that group.

When a format becomes standardized, then anything that challenges that new dominant force atop the hierarchy has to justify the costs of switching standards. As one could imagine, on the end of manufacturer and user, adapting to a standard carries a financial requirement. As Sterne (2012) and Witt (2015) note, once the dust settled after the MP3 won its battles against the RIAA's attempts to squelch it, switching costs were too high. The technical side of things (ie sound quality and bitrates) became less relevant when compared to the potential cost and hassle that would come with "retooling entire technological systems" (199; 133). As other technologies and objects were built around the MP3, the format gained incredible staying power.

For Sterne (2012), the MP3 is a classic case of transectorial innovation. Not only did the format spur innovations within the music industry, but it also crossed borders and found a home in the consumer electronic industries. This sort of behaviour allows the technology to be disseminated through various applications and interpenetrate the whole economy (203). This cross-pollination leads to innovations and new instances of materiality—new objects to produce and consume. These new objects must then undergo a series of tests and practices

before they can be accepted by the consumer ecosystem, successfully becoming integrated and domesticated within everyday life.

The iPod

One such example is the iPod. Its release in 2001 was followed by what can be described as a surprising amount of success pushing it into ubiquity. As Witt (2015) notes, even Apple was surprised. They had presumably underestimated how many (pirated) MP3s were in users' collection and they undervalued portability (155). Though Sony had released their CD player that could play discs of burned MP3s that year as well, it comes at no surprise that a device that could carry around a whole collection of MP3s was more favourable. This in part also contributed to the fizzling out of the CD. Now a surge of accessible MP3 players were on the market. With that void filled, the MP3 would no longer be considered an inferior good (156).

Magaudda (2011) considers the iPod one of the most successful music devices ever. In comparison with the Sony Walkman (released in 1979), which sold 50 million units over 10 years, Apple sold that number of iPods in less than half the time (19). Kassabian (2015) too echoes this enthusiasm. While portable music players are not new in and of themselves (ie the transistor radio of 1954), the iPod was a "game changer." So much so that with its ability to carry a substantial portion, if not all of one's music, Kassabian poses the challenge of putting away any portable listening device for a day or two and see how you manage (552)—given that currently our smartphones are our music players, and they offer a wealth of other features and uses beyond music listening, Kassabian's challenge would be harrowing for a lot of us.

Mere functionality could not be the only reason for the iPod's success and domestication could it? Magaudda (2011) and Pantzar (1997) do not seem to think so; otherwise, we risk dipping a toe into technological determinism. In his article, "Domestication of Everyday Life Technology: Dynamic Views on the Social Histories of Artifacts," Pantzar, an economist,

writes of how new media technologies are like Trojan Horses. They are admitted into society with their obvious physical presence known but their potentialities poorly misunderstood. In this way, media technology begins as a toy, a novelty subject to people's fascination. However, this infatuation wanes as the media becomes more like a mirror, routine and more like background noise. In reflecting more of everyday life, it becomes more mundane and we are more prone to "listen with half an ear." In what Pantzar sees as the third phase of media technology's development, instead of "retelling reality" media technology "refashions reality" as art does. Now the medium "must have the capacity not only to replicate reality, but to rearrange and edit it in imaginative way[s]" (53). For example, in developing the Internet and the home computer, who would have expected that they would later serve as the perfect vehicles for music consumption and distribution? Even as music became digitized, leaving the vinyl record, the cassette tape, and the CD, it merely found a new (physical) home in computers and all that came after. Taylor (2016) sees this as a shift consumption. "In some ways," he writes, "conspicuous consumption is now more about displaying hardware than software, that is, devices that play music rather than the visible collection of music" (150). Though the computer, the iPod, and even our smartphones were once sensational marvels, they have all taken this journey from toy to art; where they are now everywhere, shaping and influencing how we live our lives.

Middleton (1990) echoes this sentiment in his chapter on Walter Benjamin. He writes that mechanical reproduction had affected the distribution, function and meaning of existing works while also bringing forth new artistic techniques, modes of production, and social relationships, resulting in the shift of art from the "sphere of ritual or disinterested contemplation to that of everyday life and political struggle" (65). This also speaks to how shifts in production often evoke similar reactions and trends, and that the shift we see in our own time (from electronic to digital) is not an especially new phenomenon. As we will see in

turning more towards Magaudda's (2011) work, as file-sharing as a practice became commonplace, as did computers and Internet connections, there came an opportunity for more material commodities, such as the iPods to emerge, which go through a similar journey of toy disseminating and becoming a routine instrument.

Magaudda's (2011) work with the theory of practice with regards to the social and cultural dimension to material objects will serve us well in explaining how the iPod became so popular. To start, when we discuss the theory of practice, we speak of consumption activities being "the result of individual performances imbricated and intertwined in a complex socio-material context where meanings, objects and embodied activities are arranged in specific configurations of 'practices'" (19). The sort of social practices Magaudda refers to can be further broken down into three main dimensions: "(1) that of meanings and representations; (2) that consisting of objects, technologies and material culture in general; and (3) that represented by embodied competences, activities and 'doing'" (20). In short, all three of the above dimensions have their part to play in the creation and deployment of social practices. For new technologies and material objects to find a place in these (pre-existing) social practices, they undergo an audition of sorts, a process Magaudda refers to as "performative integration" (20-21). Again, the new material object cannot just be strictly "better" than that which it is attempting to replace, it still must be *accepted* by its host society in order to fully integrate.

The "Circuit of Practice" and "Performative Integration"

Magaudda (2011) illustrates the performative integration of the iPod through what he offers as a "circuit of practice." This circuit can be interpreted as the process whereby an object goes from toy to instrument, fully integrating into one's lifestyle (54). This circuit runs its course over five steps. In the first, Magaudda gives the example of the iPod appearing in

the context of a classroom. Step two is where different values of the iPod are produced based around its novelty and usage. Moving to the third step, those new social values and meanings spread amongst the students, resulting in the development of new shared habits and practices within the group. An example would be seeing the iPod as a suitable gift for special occasions such as birthdays. The fourth step sees this gift-giving practice as facilitating the sense of belonging that comes with owning one; in other words, one is not "cool" if they do not have an iPod. In the last step, as the iPod passes its audition, its widespread presence becomes crystallized in the school setting, successfully becoming integrated into everyday life.

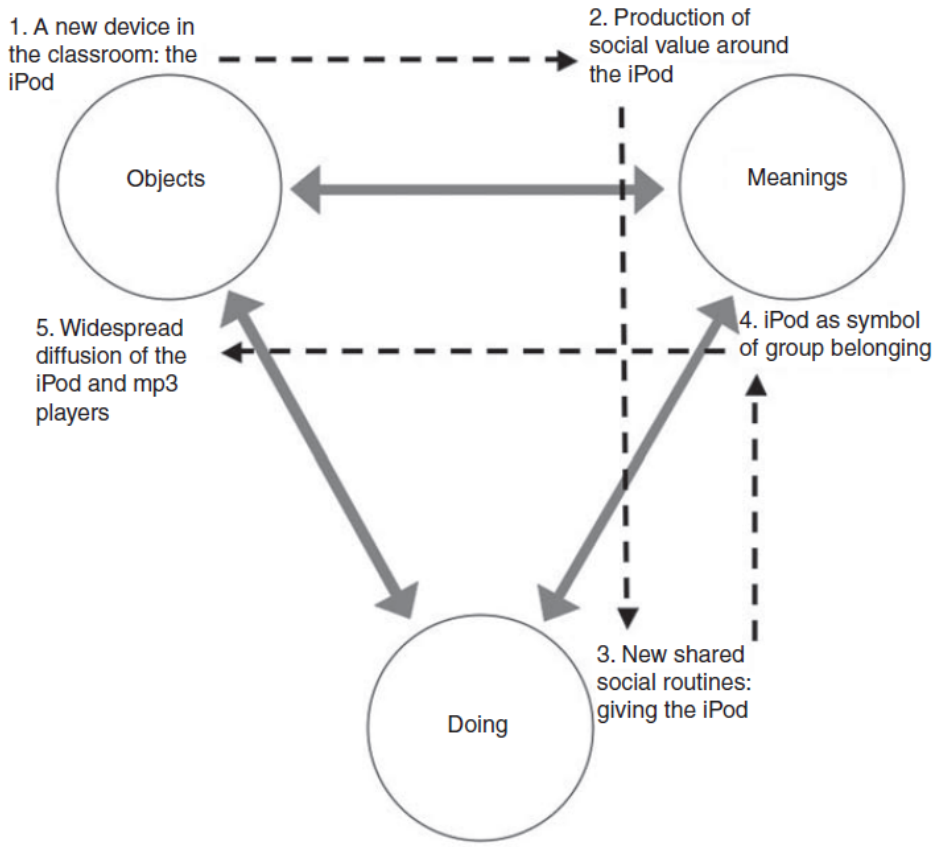


Figure 4 Magaudda's circuit of practice for the iPod (2011, 24).

Hall (1980) also writes of a similar circuit of meanings. In what he refers to as a "discursive form" (in which meanings and messages are organized within a syntagmatic chain of discourse), there is a circulation of a product. However, after the product is

circulated and distributed among audiences, “the discourse must then be translated – transformed, again – into social practices if the circuit is to be both completed and effective. If no ‘meaning’ is taken, there can be no ‘consumption’. If the meaning is not articulated in practice, it has no effect” (163-164). While the producers of the iPod had their idea of what the purpose of the device was, what it was for, the message is encoded then decoded, with the message not necessarily identical on either side. The audience is both the source and the receiver of the message. Consumers may or may not have realized the intended messages, while constructing articulations of their own based on what the iPod meant for them (164-166): such as inclusion in a peer group. The same could be said for iTunes, the digital marketplace intended to be used in tandem with the iPod. As Witt (2015) notes, the iTunes store was an immediate hit, selling over seventy million songs in its first year (157). One could then say, for example, that they supported artists; they were a “true fan” by paying for their music, and not downloading illegally. In short, the iPod’s practical qualities are but one factor of its success. Yes, it is a means of adding portability to one’s music collection, mobilizing the MP3, significant in and of itself, but like clothing, this new object presents another opportunity to define ourselves socially.

Hosokawa (1984) can also help explain the infectious spread of devices such as the iPod. The secret ingredient is secrets. In “The Walkman Effect,” Hosokawa writes of how listening to music in public is a confession. One communicates that they are listening to something but concealing the content. Headphones clapped onto ears and an iPod in the hand signals silently that one is “listening to a secret” (177). For Hosokawa, this sparks a curiosity in others that leads them to buy one of their own (177). This example of imitation also demonstrates why sharing our music with others renders us vulnerable; we are revealing the truth, confessing our secrets.

While the iPod displays one's belonging to a group, acting as a marker of community, being "in fashion" in order to "fit in," it also helps convey facets of one's identity. Buxton (1990) also comments on the consumption of commodities as an exercise of choice among a series of styles and failure to consume that which is "in style" can result in social rejection (371). Such a piece of media technology so closely tied to music gives off certain impressions. For one, to have one means valuing music and one's collection, so much so that one wants to take it everywhere, and potentially showing it off to the curious and the public at large. Magaudda (2011) also notes how people desire to protect their device and keep it in a case. The case too, becomes an opportunity to superimpose more of one's identity and emotional alliances onto the iPod in choosing the aesthetics of the case. In protecting your iPod with a *Harry Potter* themed case for example, one makes the musical object (that would otherwise look the same as everyone else's) more personal (22). Buxton also notes this as "enhanced use value," wherein a commodity becomes loaded with symbolic value (367-368). We effectively extend the chain of our attachments.

McLuhan (1965) also writes of how we modify our technology: "Man becomes, as it were, the sex organs of the machine world, as the bee of the plant world, enabling it to fecundate and to evolve ever new forms" (46). While I personally am not keen on the wording here, as it makes humans seem smaller, subordinate to machines, perhaps that it is the point. Perhaps McLuhan wants to draw our attention to the twisted strangeness of that idea. Though it seems as though we should be subservient to our machine overlords, we should remember that we are under no obligation to make them proliferate (yet). It is our choice. By our desire to make our lives more efficient, more leisurely for example, we work on improving the machine. Given that the premise of his book is that media is an extension of man, there does remain the idea that we modify and improve technology because we in part see it as a modification and improvement to our very selves. We bring new purpose and

opportunity to the machine so that it may better reflect its maker and owner. The previously anonymous technological object, which acts as a container for personal, expressive material, is now also cloaked in personal, expressive material. Hosokawa (1984) even notes that devices often progress to a point where they are fundamentally the same and only differ in "trifling ways" (168). How different is a Mac vs a PC really? Both are computers that allow use to browse the Internet and type our theses. The same goes for phones. Differences come down to more micro comparisons, such as which one has the better camera. In short, we *dress* our media devices, making them wear clothes to be more like ourselves.

The External Hard Drive

But it is not all about what is new. Magaudda (2011) also discusses pre-existing and (arguably) obsolete technology. In putting the external hard drive and the vinyl record through circuits of practice, it becomes clear that they have been reconfigured for life in the digital age. Like the journey of the iPod, the circuit for these technologies runs over the course of several steps. The first step for the hard drive is the switch from CD to MP3. As the data stored on the drive is synonymous with one's music collection, the second step involves the drive itself beginning to receive similar feelings of attachment and affection. In the third step there is the recognition that music is no longer just music, but it is digital data, and one gains more competence and knowledge about this new aspect of their music's being. This leads to step four. The realization of music as data encourages the protection and safe-keeping of the data through "backing-up" one's collection to an external hard drive should the worst happen. The last two steps see a reconfiguration of the meanings and affections articulated with the hard drive as well as one's behaviour with regards to how music is collected and stored (26-27). What previously lived in another context, associated with just computers and cold 1s and 0s has now been adapted to be also associated with music (28).

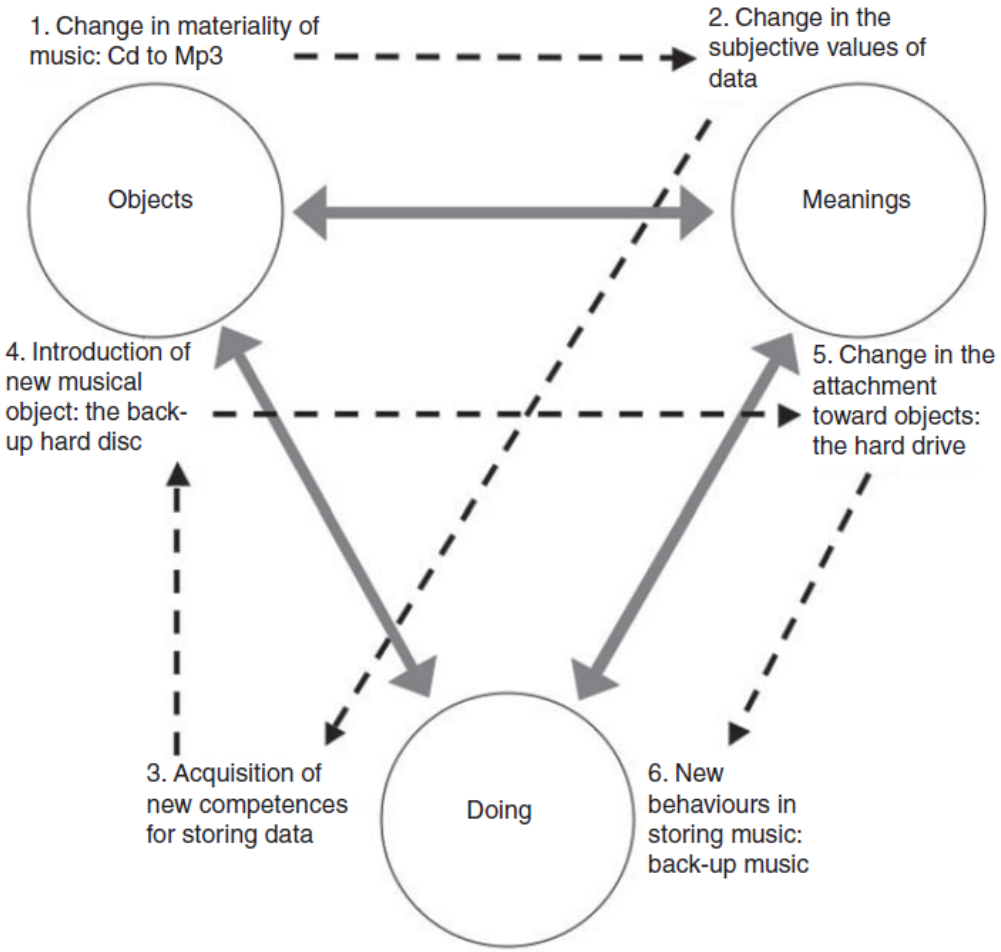


Figure 5 Magaudda's circuit of practice for the hard drive (2011, 27).

The Vinyl Record

The resurgence of vinyl is in part a reaction to digital formats such as the MP3 becoming the norm for listening to music. Magaudda (2011) writes of instances where listening to vinyl "expresses a different pragmatic relationship with music and with the act of listening itself" (29). It demands attention. As music consumption became increasingly active on computer screens, there was a felt "loss of meaning and cultural value around the musical experience" (29). For example, Taylor (2016) writes of the loss of ritual when it comes to listening to music. He writes of "removing the cellophane, lifting out of the sleeve, which might contain lyrics to songs that could become, or perhaps already were, favorites, carefully treating the

disc itself so as not to introduce a scratch, placing it on the turntable platter… Now one simply downloads" (146-147). However, perhaps this is more of an example of nostalgia for certain rituals, for certain forms of listening. As we will see in the next chapter, digital formats facilitate rituals with music just as well. Placing the record on the turntable has been replaced with slipping on headphones, compiling appropriate playlists, and pressing "play" on one's phone while commuting to work in the morning. Rituals have shifted around new devices, which inevitably incites some kickback from those who prefer prior forms of listening.

Magaudda (2011) refers to Frith (1986, 1996) in relating how this accused "dehumanization" of music was a crisis of "authenticity" with regards to the musical experience (29-30). Dan Brooks's (2014) article for The New York Times, "Streaming Music Has Left Me Adrift," reads like an elegy. For Brooks, streaming incites a crisis of authenticity because "The shift away from physical albums destroyed [the] mechanism of consumer individuation." One's choices of which records to buy (and in so doing, which records *not* to buy) helps construct one's identity. Brooks mourns the apparent loss of his "indie-snob identity." He writes of while it is easier than ever to find music and lots of it through streaming, it comes at a cost. Before the Internet, he claims, "esoteric taste was a measurement of commitment." Cultivating that taste meant coping with less than pleasant parties to hear about different bands and flipping through vinyl at the record store for example. One could look at another's CD's collection to gauge how much they had in common, if anything. Taylor (2016) echoes such a practice. He describes how there used to be a clearer "show-and-tell" where you could get an idea of someone's taste by looking at their collection of records and books (148). Going to the trouble of finding a record demonstrated one's commitment to and investment in a band. Now, however, as Brooks claims, with streaming and compiling digital lists, what one listened to was no longer a

measure of how much one cared; it merely reflected what you liked. It was less evident that one was "ethically righteous," no longer having to support local businesses. Finally, with everyone having access to virtually all music, it is harder to find those with the same tastes as you. Listening to music via streaming can be considered shallower and less serious; more Tinder and less eHarmony. While Brooks ends his article in writing that his record collection is no longer a lifestyle, a biography, or a status, the resurgence of vinyl suggests the opposite. He claims that his identity was rendered obsolete but *choosing* to listen to vinyl today continues to say something about who one it as a listener, helping construct one's identity.

The first couple of steps of vinyl's circuit of practice involve the rise of digital technologies and activities which affect listener's habits and activities as it pertains to their relationship with music. For step three, these changes in tools, ways in which one finds, acquires, and listens to music is then perceived as less authentic and significant overall. Next, step four sees this advance towards the digital, the ethereal, being met by a push back to materiality, specifically towards vinyl and the turntable. In so doing, with step five, the meanings, values, and feelings surrounding music in the digital age begin their reconfiguration, this time around what would otherwise be considered obsolete technology. The last step sees the reintegration of vinyl as a socio-material music practice, with pre-existing and new members alike joining this particular music culture. The reintegration promotes the development of new activities and behaviours surrounding the buying, listening, conservation, and appreciation of the older format (30-31). It is also worth noting that use of the old and new are not mutually exclusive. One can dance among several formats, enjoying music played on their phone or iPod while they commute and come home and put a record on as part of their ritual for winding down the day.

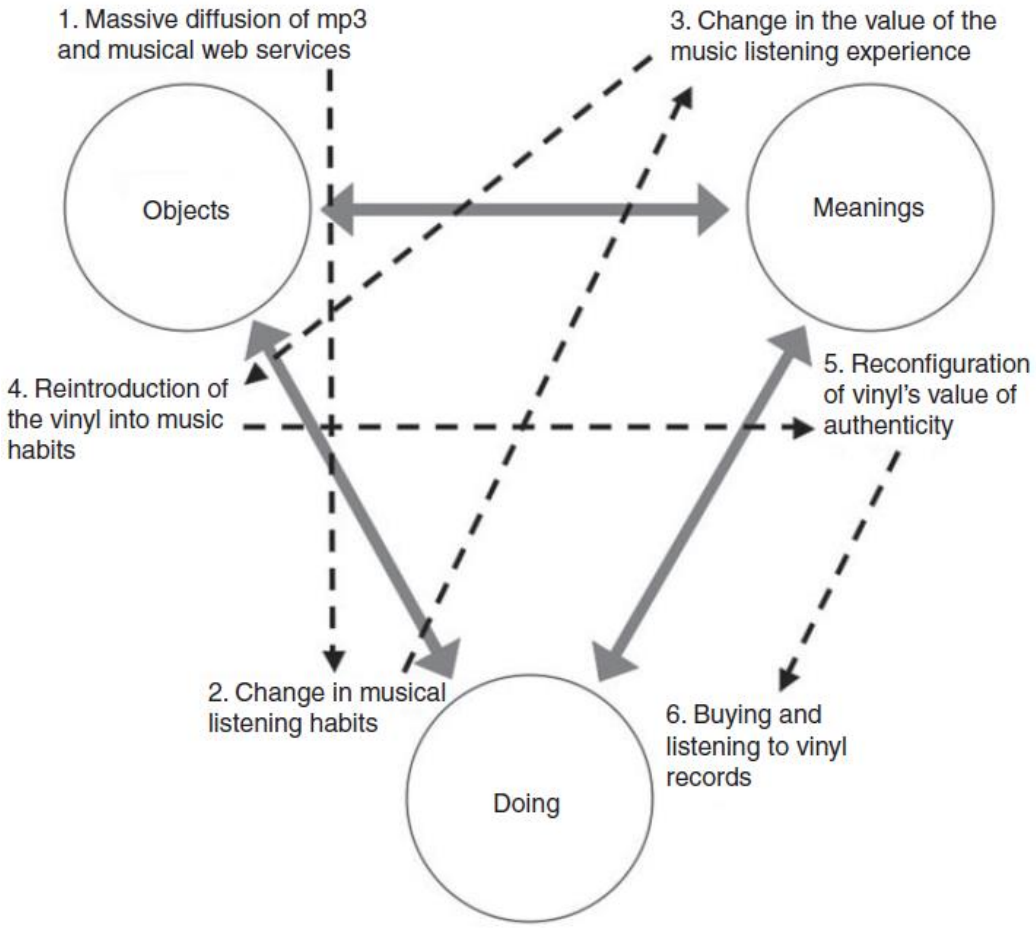


Figure 6 Maugadda's circuit of practice for the vinyl record (2011, 30).

The "Diderot Effect"

This intertwining of commodities (ie media technology and enhancing accessories) also contributes to their domestication. Our exercising choice helps veer away from technological determinism. To quote Pantzar directly, he states that "Choices we make today will guide and restrict the choices we make in the future" (57). In particular, Pantzar refers to something called the "Diderot Effect." When we choose something that is indicative of a certain lifestyle, it can lead to a craving of more objects that fall under that lifestyle's umbrella. When one buys a single on iTunes, they are more likely to look at that lonely song and buy it a friend, then another and another, expanding their iTunes collection. These chain reactions are exemplified in the story of the Diderot Effect, wherein the 18th century French

encyclopaedist Denis Diderot had received a new academic outfit as a gift. However, its burgundy colour was out of place in his study. In remedying the issue, Diderot bought new bookshelves, chairs, desks, and repainted his study so that everything matched and Diderot himself became that which was out of place in these new surroundings (57). Again, as a means of defining the self socially, when one dips their toe into the Apple's hardware and services, it may only be the beginning. Mac or PC? Apple or Android? Buying the iPod may lead to buying the iPhone, then the MacBook, then the iPad; one is encouraged to be an "Apple person."

Media technologies can have several applications and are thus not exclusive to a single lifestyle, the iPod or smartphone, for example can speak to a commuter lifestyle. Given its portability, there are several other commodities that would entice the iPod owner. For one, there is the protective case mentioned earlier, given that the outside world is full of perils such as gravity that could cause a cracked screen if we drop our device. There are also a plethora of headphones to choose from, ranging from earbuds that are made specific for the iPod (their small size also feeding into the idea of portability) to high quality headphones, which also can say a lot about the person wearing them. Over-ear headphones can suggest caring about the quality of the listening experience, and/or a desire to shut out the outside world as much as the music will allow. Brands also talk, such as how some brands are of good quality but expensive, saying something about the user's financial priorities and/or their financial status and that they potentially savvy when it comes to music technology. Other lifestyles, such as a more active one, have their own sets of commodities. A runner will appreciate the portability of the iPod more if they also buy a holster for it that can be strapped to one's arm and out of one's hands. As Pantzar (1997) elaborates, these sorts of chain reactions result in what he considers a sort of consumption cycle wherein "commodities independently begin to make claims on one another" (57). This results in either a harmonious

and homogeneous lifestyle or one of irresolvable conflict. A CD, for example, cannot claim to work with an iPod holster; taking a stack of CDs on a run is problematic. As commodities attain mutual interdependency of one another, the networks of material objects grow tighter, more "solidly fixed," standardized and routinized. There is less room for the boombox and the CD collection. As a result, the climb of the iPod and the MP3 left the CD by the wayside. Pantzar goes as far to say "Indeed, modern consumer society...could be viewed as a vast metabolistic organism which perpetuates itself" (58). However, as we saw with McLuhan (1965), we are not passive, powerless witnesses to such processes. We go with our desires, and when they shift, so does our technology. We are no longer concerned with the tape deck or turntable; music going digital allows us to be more concerned with how we take our music places, and as a result the accompanying commodities compliment portability. As the latter is used more and more, the former is used less and less.

Pantzar's (1997) views also mesh nicely with our own. Pantzar writes of how a group of commodities must belong to autocatalytic feedback cycles in order to exist. What we have already discussed is a good example of this. The autocatalytic feedback cycle "is a concatenation of positive influences, in which one item in the chain catalyzes another. These causal loops are embedded within larger networks of causalities" (63). Pantzar also offers a more palatable explanation in writing that if one commodity increases the probability of the genesis and maintenance of the second, and the second does similarly for the first, then the pair of commodities find themselves in an autocatalytic cycle wherein they "mutually enhance each other's rates of replication and gain an advantage over other commodities" (63). When the iPod sells, so do MP3s on the iTunes store; when MP3s sell, so do iPods. Each consumer can only afford to spend a certain amount of money; stores only have so much room on their shelves; we only have so much space in our homes. Certain commodities, certain forms of materiality will be favoured over others. As the MP3 and its

accompanying/hosting technologies proliferate, the feedback cycles of the conjunctural level become widening spirals, feeding-forward back into the situational/socio-economical cycle once they become influential and significant enough.

Conclusion

In summary, the concepts of path dependency, transectorial innovation, circuits of practice, the Diderot Effect, and autocatalytic cycles all help explain how rather than dematerializing, music has undergone a shift in its materiality, with new technology and commodities being domesticated and becoming part of everyday life. If new objects and technologies can integrate within pre-existing configurations of practices, they can overtake old ones.

With regards to Pantzar's (1997) notion of media technology moving from toy towards art, the idea that art refashions reality can be seen in how new media technology has refashioned lifestyles. As discussed this chapter, the introduction of the iPod allowed for innovations and the refining of certain practices. Given the increased volume of music made portable in a smaller package, users can effectively do more with less. Taking music out for a run or showing off one's collection in social situations or even using music in more places to avoid human interaction had never been easier. The athlete, the socialite, and the solitary for example, gained a versatile tool for defining and solidifying lifestyles.

While Magaudda (2011) also uses the circuit of practice to explain the repurposing and rearticulations of existing technology such as the external hard drive, this chapter has in large focused on the iPod in part because of this recurring notion of portability, which will be explored in greater depth in the next chapter.

While Magaudda's (2011) circuits have been useful thus far (as they are specific to certain objects and contexts), this is also their limitation. They are perhaps paradoxically too

simple and too complex. In reviewing the circuits, they span three main nodes: objects, meanings, and doing. The linear pathing, the process Magaudda draws out, is a little too chaotic and is not exactly efficient or predictable. One would think the point of representing practices/processes into a circuit would be to make patterns more visible and easier to understand. Not to dismiss the model we have used substantially during this chapter, but if we look to earlier sources, we can find other examples of circuits that may prove more useful in the long run. One such circuit comes from Richard Johnson (1986) (see below).

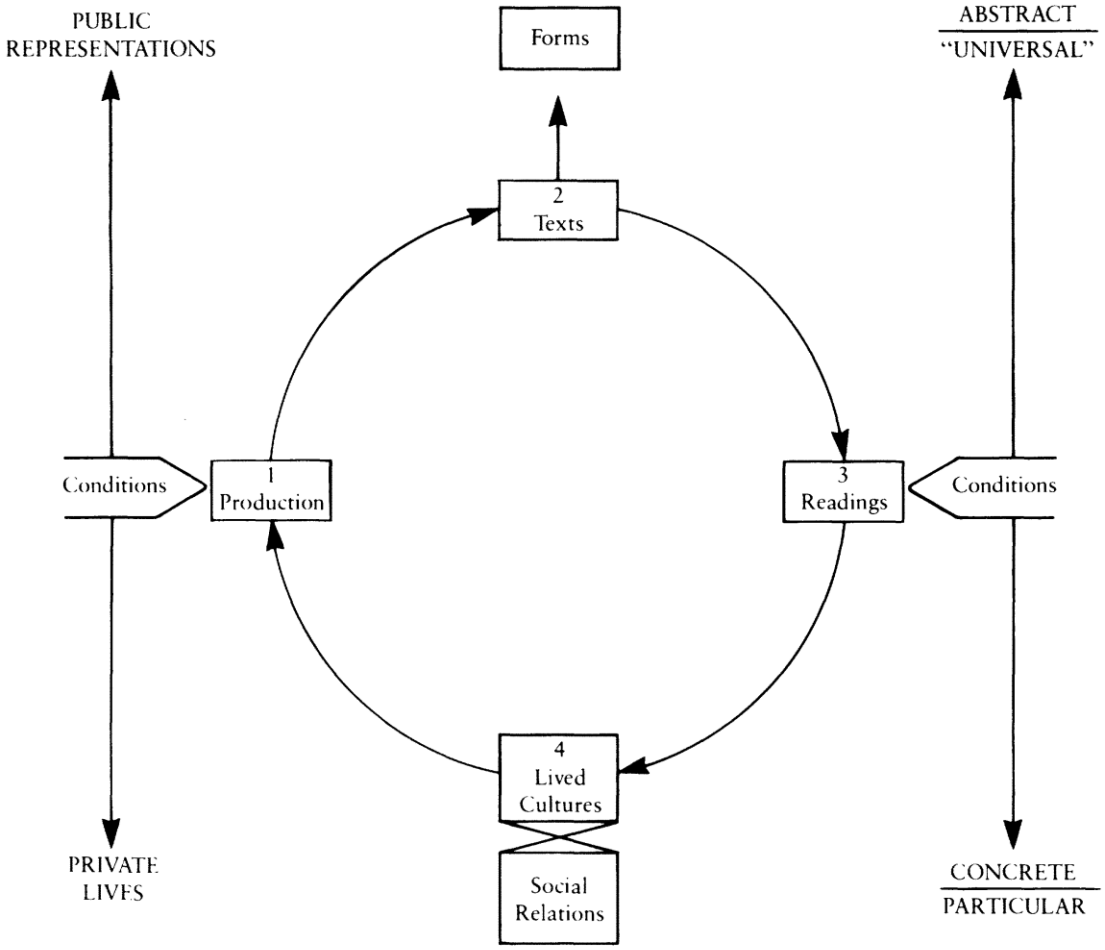


Figure 7 Johnson's (1986) circuit of the production, circulation, and consumption of cultural products (47).

In his article "What Is Cultural Studies Anyway?" Johnson draws out a circuit of the production, circulation, and consumption of cultural products. If we focus on the inner circle,

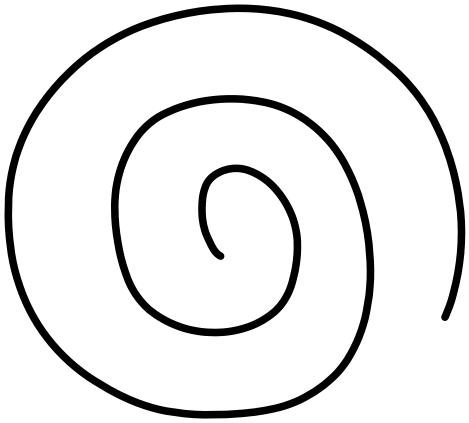
each box represents a moment in the circuit; while each depends on the others and is indispensable to the whole, each moment remains distinct. What is interesting, however, is that while we are in one moment, we do not necessarily see what is happening in others. An example harks back to Hall (1980); when a text is produced, there may have been an intended reading in the minds of the producers, but they cannot necessarily predict what readings will actually take place. The iPod was also seen as a status symbol in addition to a music player. As the device went through the "lived cultures" moment, those readings are then taken into account as the circuit is brought back to the moment of production. The readings and social relations that occur as a result of consumption inform further moments of production – speaking to Hall's point that consumers are also akin to producers as they give meanings and purpose to cultural products, influencing what is subsequently produced (47-49).

Each object we have discussed this chapter – the iPod, external hard drive, and vinyl record – could find a home for analysis in this circuit. Though Magaudda's (2011) circuits are a good start, they do seem to come to an "end" (in that Magaudda outlines in numerical steps, reaching 6 and stopping there). A circuit like Johnson's (1986) however, has a perpetual nature to it, implying cyclical development. Technology and it uses (and the meanings we imbue it with), are hardly static; they shift and evolve, rise and fall as progress and innovations allow.

As we will see in greater depth in the next chapter, part of the moment of cyber culture is defined by the ubiquity of music. With the ability to take music anywhere, music is effectively everywhere. The iPod was just the beginning, and after portability came a shift from ownership to access, scheduled programming to streaming. As users gained more control over their music and other media content, the strength and demand for choice, what one wants when they want it, results in changes to the nature of consumption. Next, we will

explore whether this is the beginning of democratizing media or continuing the legacy of false choice and gatekeeping.

Chapter 3 – Decorating Spaces Sonically: Schizophonia and Ubiquitous Listening



Introduction

> Then she broke down, for with the cessation of activity came an unexpected terror—silence.
>
> She had never known silence, and the coming of it nearly killed her—it did kill many thousands of people outright. Ever since her birth she had been surrounded by the steady hum. It was to the ear what artificial air was to the lungs, and agonizing pains shot across her head… (Forster, 2009)

The above was taken from the ending sequence of E. M. Forster's 1909 short story *The Machine Stops*. In it, civilization lives underground, the surface of earth no longer habitable. Their lives are facilitated by the Machine, and everyone lives isolated in a room with everything they could need at the touch of a button. The story centers around a woman named Vashti who communicates with others and gives lectures through the Machine. There is always music, there is always the Machine: "Above her, beneath her, and around her, the Machine hummed eternally; she did not notice the noise, for she had been born with it in her ears" (14). While the story chronicles Vashti's harrowing encounter with her son and the inevitable crumbling of the Machine, this theme of omnipresence and everything being at the

touch of a button parallels with the theme of this chapter; let us just hope our ending is less tragic.

In reference to technologies such as radio and the phonograph, and their ability to act like thermostats and lighting in helping us control our environment, Kassabian (2015) writes "Recorded music immediately became ubiquitous music," (550). It became possible to hear music just about anywhere. While music has been recorded and therefore ubiquitous for well over a century, with our moment of cyber culture comes an upgrade with regards to size, speed, and scale. As we continue following music's increased portability through the advent of the iPod and our smartphones, we will also explore the ramifications of having more music in more places at greater speeds. This chapter will investigate how digital technologies have made music ubiquitous and the consequences of such an achievement. Music's constant presence has become the norm and rendered silence a rarity—a source of discomfort even. It has become a companion to everyday tasks, the soundtrack to a workout, a facilitator for study, amongst innumerable other practices. However, this leads us to ask, "What sort of effects does music's constant involvement with our lives have on our relationship with sound?" as well as "With music being ubiquitous, has finding new music alongside our favourites become effortless?" Regarding the latter question, if we know what we are looking for we will have an easier time finding it now than at any other point in history. However, having the impression that we will be barraged with new music at all times speaks to the idea that the Internet has democratized music. In this chapter, I will argue that this is not the case. In our upcoming discussions about social media as an echo chamber as well as how gatekeeping is alive and active on platforms such as Spotify, it is my hope that it becomes clear that although music is indeed everywhere, not *all* music is everywhere. Regarding the former question, we will see that music's increased portability has also given it some degree of subjectivity.

Ubiquitous Listening and Distributed Subjectivity

If our last chapter was primarily concerned with objects, this chapter will be more concerned with subjects. Born (2011) writes that "Music requires and stimulates associations between a diverse range of subjects and objects—between musician and instrument, composer and score, listener and sound system, music programmer and digital code" (377). While such a comment provokes images of intimacy between us and our musical practices, recorded music has in certain ways delineated our focus away from these productive and consumptive pairings. Kassabian (2015) notes the term "Schizophonia," as coined by Canadian composer and sound theorist R. Murray Schafer. Schizophonia describes the separation of music production from music consumption. Since the phonograph, "music became…part of our environment, and it was the first form of mass mediation to do so" (550). Today, we could say that our western society has become incredibly schizophonic. As Kassabian writes, it is not the ability to carry out tasks while listening to music that is new; that has been possible for centuries. This ubiquitous availability and control have led to a new form of listening, which she calls "ubiquitous listening" (551). Being everywhere, music seems to come out of nowhere. It is part of the air we breathe. The term speaks to how music has penetrated everyday life. She suggests that ubiquitous musics are the precursor "for what Anna McCarthy (2001) has called ambient television, what Weiser called ubiquitous computing, and the overwhelming ubiquity of advertising, among other things" (551). The defining feature of ubiquitous listening is its concurrence with other activities; we are often busy with some other task as we listen. Hosokawa (1984) also notes that listening to music on the go has become overlapped by and mixed up with different acts: "it is not exclusive but inclusive, not concentrated but distracted, not convergent but divergent, not centripetal but centrifugal. In an *additional* listening act, as opposed to a *subtractional* one (for example, a

classical concert), music is in-corporated with alien elements which are usually taken as non-musical" (176).

Whether we are out for a run, meeting a friend for drinks after work, washing the dishes, or virtually any other activity, music accompanies us. While music just happens to be playing in all sorts of place we visit, be it the gym or the bar, we are also free to take music with us wherever we go. As noted in the previous chapter, the iPod was a "game changer." Being able to carry most, if not all of one's music collection in the early 2000s was an accomplishment that remains undiminished today. While our current smartphones are much more than just music players (encompassing the functions of phone, camera, computer, amongst others), that fact acts as an extra layer of assurance that our music will always be with us. For a lot of us here in the West, myself included, as the years have gone by, the lights have grown brighter, the screens bigger, the storage vaster, the speed faster, and as a result, we have become largely dependent, if not addicted, to our phones. In being tethered to our devices, we are reluctant to go anywhere without our phones—even the bathroom. Ergo, yes, even a bowel movement or a teeth brushing can have its own soundscape, its own sonic flavour. If music is not at our destination, we can be sure that it will be part of journey.

Music helps us resolve feelings of isolation, solitude, and loneliness. With ubiquitous music wrapping us all like a blanket, we may never have to feel alone again. Kassabian (2015) notes how "Music offers a guarantee of the presence of an undefined group of other people, distributed widely—in many cases globally—who are listening to the same things we are at the same time" (556), which lines up with Riesman's (2005) idea that when we listen, we do so in the company of imaginary others (8). While the immediate imaginary others may be those we know personally as friends and acquaintances, Kassabian's take extends this to a global scale. How can one feel lonely when we know the whole world may be listening to Nirvana too? As Prior (2015) notes, "The Internet is no longer a strange and exotic land. Its

proliferation and ubiquity mean that it is deeply rooted in the everyday lives of increasingly large swathes of the global population. It is influential but normal, important but ubiquitous" (493). The Internet has facilitated ubiquitous musics, meeting the human desire to have as much music as possible at our fingertips (and at little to no cost). It has made ubiquitous musics a widespread phenomenon, and in making more music more portable, we can, by extension, bring people with us, even if it is just in our hearts and minds.

With this comes Kassabian's (2015) idea of distributed subjectivity, which is based on three principles: 1) that we are always interconnected and live in awareness of that interconnectivity; 2) units of interconnectivity are not obvious, ranging in size from "subatomic particles" to "populations or the Internet," and certainly not limited to human individuals; and 3) the way we experience that interconnectivity is significantly through music (557). Ubiquitous music carries so much weight in the mundane and everyday life that "it is most frequently through the ubiquity of musical sounds that we are reassured of the presence of something else, of more than ourselves: that's why people are in such a rush to put music on all the time, if it isn't already there" (557). With ubiquitous music too, comes the issue of attention. As noted earlier, a defining characteristic of ubiquitous listening is its concurrence with other activities. With the sheer amount of music that happens to be everywhere, and the fact that we interact with music in a state of distraction, it has become rarer that the music is the focus of our attention.

Varying levels of attention and focus thus result in the distribution of subjectivity. Kassabian (2015) conceives subjectivity as now being distributed across "non-human, part-human and human part-subjects and part-objects" (558). In short, the subject-object relationship becomes blurred as our more distracted way of interacting with music calls into question the role of "subject" as exclusively a human property. Using football as an example, Kassabian explains how the ball becomes a subject in its own right. While ordinarily the

players are the subjects and the ball the object, what quickly becomes the focus of the play? The ball of course. The team works collectively, and "their point of application is the ball." As the play progresses, we are confronted with the question of "are the players moving the ball," or "is the ball being moved by the players"? The ball becomes the center of attention; it becomes the subject of the play. Although the ball "catalyzes millions of players, trainers, fans, gamblers, owners, parents and children," because the ball has no agency of its own and its effect is dependent on the players, other objects, and rules, it may be called a "part-subject;" "The part-subject catalyzes the play as a whole, but is not itself a whole" (558). Likewise, Kassabian argues that ubiquitous musics are part-subjects as well: "It moves people through spaces… changes their perceptions of time… and much more. And that makes listeners its part-object" (558). We become part-objects because of our distracted listening practices. We are not addressed as a whole. Rather, we are addressed through "separate sensory channels," and as such, when synthesized, it results in not a subjective whole, but a state of "intensive readiness for reflex response:"

> So when my ears are the part-object of ubiquitous music, I am put into a state of readiness for … whatever the music is meant to do, depending on the venue. Readiness for drink if I'm in a pub; readiness for relaxation if I'm in a new age health practitioner's office; ready for a rowdy night out if I'm home getting pumped for a night out (558).

Kassabian concludes that across fields of musical study, we cannot presume that listeners are solely focusing on the music. We live in a time when music is a catalyst for action, augmenting the activities we carry out daily by providing them a soundtrack. It has become rarer to focus on listening to music and nothing else. It sounds odd to say that music has been normalized, but similar to Kassabian's claim that the extent of simultaneous listening is what is new, perhaps we could say that the extent that music has been normalized is what is new in our moment of cyber culture.

Music as Architecture

Benjamin (1935) writes of how concentration and distraction form polar opposites that influence how the masses interact with art. For the sake of brevity, he writes that "A man who concentrates before a work of art is absorbed by it," and by contrast, "the distracted mass absorbs the work of art." Benjamin follows this thread by writing "This is most obvious with regard to buildings. Architecture has always represented the prototype of a work of art the reception of which is consummated by a collectivity in a state of distraction" (239-40). Through sensory appropriation, we form habits, and from habits comes normalization and the art no longer requires attention. Likewise, if we consider music as architecture—in the many ways that it actually is, invisible, sonic architecture, manipulating and shaping spaces—then the idea of ubiquitous music not only makes more sense, but gives us a visual image to reflect the scope and scale of ubiquitous listening. As Frith (1998) writes, "Simply in its accumulation music ceases to be special. It can no longer be defined against the everyday as something unusual; music is now the everyday" (237). We are in buildings or surrounded by buildings nearly all the time and yet, how much do we notice them? Yes of course we are aware of them, but architecture has been subsumed into our consciousness as a part of our life; we need shelter but do not always recognize the shelter itself—it has become a given. Music has become the expected rather than the exception. It is as though the bar has been raised, a new baseline erected. Music must be woven into the architecture of our daily lives.

Portable Music and "No Dead Air"

Let us expand on the role that the enhanced portability of music has had in facilitating ubiquitous musics. As we continue with our music as space idea, we inevitably have to return to the iPod as discussed in the last chapter. While certainly this discussion can extend to our

current smartphones, focusing on the iPod will, for now, limit our scope to a device designed for playing music and not much else. Music is in more spaces than ever before, and we can now bring our own music to and through those places. Hosokawa (1984) offers the useful term "musica mobilis" to describe such a phenomenon. Hosokawa defines musica mobilis "as music whose source voluntarily or involuntarily moves from one point to another, coordinated by corporal transportation of the source" (1984, 166). A perfect example of this is listening to one's iPod while commuting to work. This is especially significant when we consider urban life, where in most cities there is what we can call "dead time," or as Bull (2006) notes from an interviewee, "dead air." A sizable portion of a city dweller's day is spent in "in-between" spaces (344-345).

Going from our front door to work means a commute involving travel on foot, by car, bus, train, or other forms of transit. In any case, our commutes are hardly what we would consider productive; we are simply trying to get from one place to another. Our commutes are our own, and we often undertake them alone. We may even prefer it that way. However, as Bull (2006) notes, "this desire for solitude is often joined to a need for social proximity and contact in daily life…. For many this solitude is an accompanied solitude in which people walk to the personalised sounds of their personal stereos and MP3 players" (343). Sterne (2012) also notes how "Reading in transit has long been considered a way of managing alienation and placelessness. We don't ask after the immersiveness of someone's experience of reading on a train or outdoors. The valued experience is precisely the combination of the mediatic and place-specific experience" (236). While it is indisputable that books remain a tried and true way of engaging the imagination, managing solitude, and passing the time while commuting, there are certain elements present in a portable music collection that puts sound in a league of its own.

Mentioned in chapter one, music has inherent spatial qualities and affects space by giving it an audible emotional wallpaper. Hosokawa (1984) goes further by writing that musica mobilis creates distance between "the reality and the real, the city and the urban, and particularly between the others and the I" (171). In this space between borders, the listener is free to decontextualize and recontextualize the coherence of the "city-text." Through interactions with the city-text, "reading" it and interpreting it, listeners effectively deconstruct meanings while also constructing them based on what they are listening to. Music allows us to transform our environments (171-173; Middleton, 1990, 93). A relaxing walk through the park may be enhanced by listening to something serene – a slow, legato piano solo perhaps; while listening to metal may prove to be a dissonant combination, or an interesting one, depending on the person's tastes. In Bull's (2006) article "No Dead Air! The iPod and the Culture of Mobile Listening," there is a recurring mention of the iPod (and music in general) as forming a sort of accompanying "soundworld," an accompanying solitude, and privatization within the public space (353-354).

The iPod presents the user with choice; now one can exercise some degree of autonomy and control over their journeys. Not only does the "privatised auditory bubble" help with this, but it also serves as a method of managing "the user's thoughts, feelings and observations" (Bull, 2006, 344). "Mobile Privatization," a term coined by Raymond Williams, will help explain. Observing traffic, Williams noticed that although externally, all the cars (or "shells," as he then referred them as) moved in flow, regulated by some sort of social order, but simultaneously, internally there was "movement, choice of direction, the pursuit of self-determined private purposes" (Jones and Holmes, 2011, 145). Shells, as exemplified by portable media, such as the iPod, granted privatization the ability to become mobile. Key to this idea of "shells" is that they offer a means of portable, mediated privacy; they "condition" the "atmosphere" of the individual (147). From a bird's eye point of view, city-dwellers

commuting may look like a homogenous colony of ants scrambling from one place to another, but internally, each individual is transforming the world around them, terraforming it to suit their moods and tastes.

One of the more commonly cited examples in Bull's study is using music to manage one's mood while on the move. While of course there is pleasure in listening to music in general, appreciating it aesthetically, there is also appreciation for the way music seemingly prepares us for the day ahead. Bull mentions one of many such interviewees. Jean, a 35-year-old bank executive in New York, said that for her morning commute she would "scroll though her song titles looking for a particular song to listen to that would suit her mood at that particular moment and, whilst listening to that song, would scroll through her list for her next choice – her musical choices would merge seamlessly into one another during her journey time" (344). Bull notes that many users would create several playlists to accommodate a variety of moods, times of days, weather conditions, and times of year (344). The iPod gave its users some degree of agency, some control in the urban jungle. Bull also mentions another interviewee's response, who claimed that she used her listening experiences to practice control when the rest of her life feels out of control: "Work tells me what to do and when. Traffic decides how quickly I get from here to there" (346). At least in being able to play whatever music we want, whenever we want, wherever we want, we can exercise some autonomy during our otherwise routine and mundane workweek.

This gift, blessing, curse, whatever you want to call it, has, for lack of a better term, spoiled us. While being able to add a soundtrack to our otherwise blah commute is great in that it makes that time feel less wasted and/or more valuable, we can also effectively "change" the soundtrack of places that already have music integrated within the space. Bull notes how places such as the supermarket and department stores (places in general where we expect there to be muzak playing) come pre-packaged with an aural environment that may

not fit with our own desires. Even in places such as health clubs, he writes, that believe their music choices are made with their clientele in mind, it becomes more likely for a customer to bring in their own tunes.

Even more chaotic and potentially discordant with our intended point of focus are the random sounds of the streets. As Bull notes, like muzak in stores, street noise acts as a poor configuration for a listener to focus their thoughts in a desired direction. One's personal music collection is therefore used to personalize both time and space, bridging home with the destination and thus constructing a narrative consistent throughout their journey (349).

Working with mood management, portable music is addictive. One such interviewee considered music to be a drug, one that can "magnetise" one's existing mood or change the mood you were already in: "Music can make you feel, horny, sad, wanting, etc… It can do wonders" (2006, 348). An interesting point of reference, much like how Benjamin (1935) wrote of how architecture and buildings have become subsumed into our consciousness, Bull also notes that iPod users rarely mention the "spaces that they daily pass through on their way to work; this may well be because they are so habitual as to not merit mention." Rather, users are more attentive to their own mood and re-orienting and re-spatializing their experiences, as facilitated by the iPod, the exterior world unable to penetrate their personal sound-world (348)[8].

[8] While I personally do not think of mood as a genre, it is understandable how that may seem to be a logical transition. As Middleton (1990) notes, "An important part of the arranger's function was to create a band *style* (hence its 'image') and a song *atmosphere*." Within the context of popular music, combined with ubiquity and scale of production, these styles and atmospheres were then interpreted as musical "colours" such as "Spanish," "pastoral," "cowboy," "hippie," and "punk" (50). Interestingly, punk is considered a bona-fide genre in the sense it's in the same league as "rock" or "pop." However, the idea of genre alone can easily be problematic and warrants its own discussion (ie sub genres or fusions such as punk-rock or pop-rock). In any case, the idea of "colour" rather than genre seems to be a step toward mood in that a "colour" does evoke certain imagery just as mood evokes a certain feeling. The issue, however, remains with subjectivity opposed with a dictation of how one *should* feel. It as though you have to follow the directions when listening; a song in a upbeat playlist should make you feel upbeat, and it becomes wrong to feel otherwise. The idea of mood then, speaks to our upcoming discussion of prescribed lifestyles: people who live in "this" way feel "this" way when listening to music, potentially homogenizing communities.

Bull concludes with this recurring idea of our music being a soundtrack, we being the protagonists of our own stories. Though we cannot shut our ears like we can our eyes, portable music can at least give us some agency in deciding what we do hear, and as a result, we become more autonomous. For one such interviewee, music is like a defense, one which allows her to concentrate on her own sounds rather than the cat-calling she deals with: "If I forget my iPod, it pretty much ruins my day. I crave it – need it – in order to tune out guys 'hey baby'-ing me, other people's conversations on the bus or subway, and colleague's phone conversations (work-related or otherwise). It also helps me feel less bored and soul-drained in malls, and less claustrophobic in crowds, which is very important to me" (352-353).

As we will see later in our discussion, because Bull's article was originally published in 2004, its range only extends so far, and especially as far as playlists are concerned, it unfortunately does not cover the shift from creation to curation. The distinction will prove invaluable when we turn our discussion on Spotify, but suffice to say, with streaming platforms, despite (assumed) best intentions of the platform, music consumption gets less personal as our favourite services begin recommending what we should listen to. We are no longer the protagonist of our own story; we are the protagonist of the story we are given.

Spotify Knows Best

The storyteller I am referring to is, of course, Spotify. The streaming platform has become more or less synonymous with music listening. In going back to the platform's genesis in 2006, founder Daniel Ek claimed that he started Spotify to not only save the music industry but to help those with bad taste in music to "discover better music" (Eriksson et al, 2019, 41). While much can be said about Spotify (in fact, Eriksson et al's book is all about the platform), especially in terms of its pro rata approach, leading to low payout to artists (the

estimated revenues per played track runs as low as $0.005 (76, 155))[9], I will be focusing on Spotify's role as both curator and narrative designer. In response to the issue of music being everywhere in multiple capacities, rather than allow for more serendipitous discovery of new music, Spotify overwrites what we may perceive as our desired personal narrative through putting forth its own rigid recommendations.

As a slight caveat and digression, it is worth noting how ironic it is that Spotify has achieved such a status that when one says "music," another is likely to say "Spotify." In looking at the early stages of the platform, the technology that was proclaimed as a solution to music piracy had more in common with it than most realize. For one, as Marshall (2015) notes, Ek was formerly the CEO of uTorrent, which was considered to be the most popular client for BitTorrent sharing (184). The connections do not stop there. Spotify's early software was based on the same P2P networks that made Napster (the software synonymous with music piracy as discussed in chapter one) so effective and infamous. The software distributed data over the Internet from a central server through the P2P network in order to unburden said central server. In doing so, Spotify used the extra bandwidth on their user's server to minimize the cost of digital distribution. The funny thing too, was that a large portion of the content they initially had available had been downloaded from file-sharing services such as the Pirate Bay, and as such, Spotify did not have the licenses needed to distribute the music online. As Eriksson et al remark, "Spotify began as a de facto pirate service" (2019, 42-43). This went on for a number of years. With the exception of music on phones, only 10 percent of music playback came from Spotify's server, with approximately 35 percent coming from P2P networks and 55 percent from the user's local cache. Ricardo

[9] Taylor (2016) notes that "According to one musician, it takes 47,680 plays on Spotify to equal the profit of the sale of one LP. Some prominent musicians such as Thom Yorke from Radiohead and David Byrne have removed their work from Spotify because it pays so poorly ("Paying the Piper" 2013). David Byrne (2013) puts financials this way: for a band consisting of four people that earns a 15 percent royalty from Spotify, it would require 236,549,020 plays for each band member to earn $15,080 a year" (127).

Vice Santos of Spotify described the process of streaming music as thus: “Request first piece from Spotify servers | Meanwhile, search for peers with track | Download data in-order | When buffers are sufficient, switch to P2P | Towards end of a track, prefetch next one” (90). In Spotify’s “defense,” they stopped using P2P networking in 2014 when they were able to upgrade their infrastructure. Lastly, if the connections were not glaring enough, one of the investors of Spotify in 2010 was none other than Sean Parker, the cofounder of Napster. For Eriksson et al, “As Parker took a place on Spotify’s board of directors, this seemed to emphasize a certain continuity in which Spotify represented the fulfillment of the very same disruption that Napster had started” (52). One must fight fire with differently branded fire, it seems.

Spotify, oddly enough, more closely resembles cable and satellite companies rather than a music company. As Eriksson et al (2019) describe it, Spotify operates as an American media company rather than being a tech company as they are “in the business of providing content to audiences while selling those audiences to advertisers” (163-164). Furthermore, the authors consider Spotify to act as a “broker,” a type of middleman who “gains from the mediation of valued resources that he or she does not control” (163). Seeing that as a result of Napster and file-sharing, listeners were used to getting their music for free, Spotify did not want to place a price tag back onto music. Instead, if the Internet was to grow it had to be ad-supported (154). “Free,” then became a two-way street. While consumers could get access to content for free, that also meant that their data was forfeit and given voluntarily to advertisers (154-155).

Aye, there’s the rub. What exactly, could this data be used for? Recommendations from Spotify of course! In 2012 Spotify addressed the issue of there being too much music to sort through, as well as what users confessed: that Spotify was great when you know what music you are looking for but not so great when you do not. The recommendations would then help

the listener find the "most relevant content" as well as being able to follow the musical suggestions of "artists, trendsetters, editors and experts" (60). However, this is where we have a break from the idea of democratized music. Yes of course, you *could* still search for music on your own or stick to what you knew, but the system had drifted away from what Eriksson et al call the "symmetrical" sociality of a platform like Facebook, where friendship is more of an equal two-way relation. Rather. Spotify leaned towards the "asymmetrical" following system of a platform like Twitter, where a smaller number of users end up being largely influential (60-61). In this way, as Spotify wrote in a press release: "Now you can get music recommendations from only your most trusted musical influences," they are essentially saying you can no longer rely on or trust your friends to help you find new music—that is best left to Spotify, your new personal curator (61).

Spotify promised not to just provide users with music, but with *better* music. Eriksson et al (2019) write of how this distinction meant that Spotify would have to then juggle and navigate pure relativism and pure absolutism. In brief, the former means that the user's subjectivity remains intact, that each individual retains their own standards and ideas of what "good" music means to them; the latter implies more of a statement that reads "X is better than Y," more or less dictating what "good" music is to its users given that they can no longer be trusted to think or feel for themselves (62). This is where the gatekeeping and feeling of false choice and "discovery" come into play.

Taking Up the Gatekeeper Mantle

One form of gatekeeping is aggregation. As Eriksson et al describe it, aggregation is similar to what a library or museum does: make cultural content available for free (or at a small cost). While aggregation is therefore not new, again, in the digital perspective, the scale becomes more vast, given that through the Internet content can be drawn from a variety of

sources and then made accessible at dedicated sites such as Spotify (91). In short, aggregators "perform the job of cleaning, sorting, and selecting which types of sounds end up on platforms such as Spotify" (Eriksson et al, 2019, 73). Aggregation is an example of "infomediaries," a term used by Jeremy Wade Morris. Echoing the above definition of aggregation, infomediaries are "organizational entities that monitor, collect, process and repackage cultural and technical usage data into an informational infrastructure that shapes the presentation and representation of cultural goods" (92). Despite the fact they seemingly operate behind the scenes, they play an important part in deciding what counts as music in our digital landscape. The authors recount their own experience uploading "breakfast sounds" to Spotify and having to first go through the aggregator RouteNote. Before submitting, they had to choose between thirty-nine genre designations, organized into "first genre" and "second genre." This, they observed, was also an example of micropolitics in which artists are encouraged to engage in games of self-representation (in accordance to what others have set for them) (73).

All in all, this amounts to a recommendation system that evidently does not take user feedback into serious account. In the authors' investigation of Spotify Radio, they found that the recommendation algorithms, supposedly functioning to personalize content, were a disappointment. In their experiment they used bot accounts, Spotify Free users with no track record or listening history. In order to study the repetitiveness in loop patterns, they varied the bots' listening so they were listening to popular hits and obscure tracks, while interacting with Spotify via "liking," "disliking," or "skipping" tracks (100-101). The results showed that despite user feedback, the radio loops tended to look the same. The authors concluded that "traditional radio recommendations" were less significant for Spotify as they moved towards "computational recommendation formats based on taste profiles, song identification, and digital fingerprints" (102-103).

This data collecting, (mining), and push of recommendations comes with its own issues. Spotify uses data to "personalize" a user's experience, but because behind all companies, all media, are people, those same people are understandably biased and skewed towards a certain agenda. To quote Eriksson et al (2019) at length, they write that

> The emphasis on recommendations illustrates how Spotify, similar to other digital content providers, not only delivers music but also actively frames and shapes data. The service thereby promotes certain values and identities over others, with music files being contextualized in a range of different ways: through playlists and other classificatory systems, through visual and textual elements of the interface, and through recommendations delivered to particular groups of users. Such operations are central for turning digital music into goods, but they also constitute a politics of content through which the delivery of music implicates prescriptive notions of the streaming user (115).

In short, Spotify as a service has become increasingly asymmetrical, prescriptive even, of what consumers should be listening to, how they should be listening, and how what they listen to should make them feel. The playlist in particular plays an important role in putting a product to this idea. While the playlist is nothing new, given the history of compilation albums, radio, and homemade mixtapes, the pulling of disparate resources into a new entity means that the playlist becomes a new articulation of sorts. Songs are reconfigured and through association with other songs (which they may or may not have been associated with before), have new meanings and are indicative of a certain mood or lifestyle. With Spotify as curator doing the work, the "social and interactive element" of a playlist plays second fiddle to "editorial and algorithmic expertise" (117). As we discussed in the previous chapter, music can help us establish and be conducive to a given lifestyle. Likewise, Spotify, through its playlists, offers prescriptions for the sorts of lifestyles we should be fulfilling. The authors note the notion of living "the good life," that involves getting out of bed, going to work (presumably in an office), exercising in the afternoon, and socializing with others in the evening. The addition of music in this context makes all these activities more productive and increases one's performance in "time-bound" activities (121).

On a more personal note, as someone who lives and has grown up in a major city, there is an air that pervades the entirety of one's day to follow a schedule that maximizes productivity and growth that presumably leads to a successful future (success in this case is often synonymous with wealth). An urban lifestyle promotes a mantra similar to "time is money;" rather "time will be money," "time will be becoming more attractive," "time will be health," and most importantly, "time will not be wasted."

Living the Good Life

The playlist becomes a situational tool, functional for its corresponding activity (ie working out, chilling). The authors note that at the time of their study, Spotify's homepage featured such playlists titled "Have a great day!", "Focus with Your Favorite Coffee!"; and "New week, new opportunities!" (Eriksson et al, 2019, 119). Again, these sorts of playlists seem to evoke activities rather than genres of music; sounds to augment and facilitate experiences.

While playlists can come from different sources, such as independent curators (ie Indiemono or Soundplate) or even created by users, Spotify's in-house playlists are not only "thematically tailored to match advertisers' potential target groups, they can also be sponsored by advertising clients." Eriksson et al (2019) continue, writing that "Because 'curation has been rendered a neutralized marketing term for taste-making and gatekeeping,' the selection and inclusion of specific artists on Spotify-curated playlists—some of them with millions of followers—have enormous effects for building a fan base and for increasing the number of streams and generating more revenue" (120). In short, money talks; certain advertisers, artists, and record labels are promoted over others.

In looking at the titles of some of these sponsored playlists, as mentioned a certain lifestyle is being advertised—and with it the promotion of spending money on gym

memberships, bar tabs, and potentially making the grueling workday less depressing (or to be more extreme, to dull the senses, to just work during the day, then spend the rest of one's time spending the money one has spent the day earning). As streaming music is likened to water flowing from a tap, suggesting fluidity and abundance, in its pairing with ubiquitous listening there comes not only the shift that music should be primarily used for utilitarian purposes, but the playlists in particular privilege specific ways of thinking, feeling, and acting (Eriksson et al, 2019, 123).

The notion of "self-governance" is facilitated by music as a mood management tool. As the authors note, the music recommendations "can be understood as products of mood enhancement and the management of psychological capital" (123). For Spotify in particular, tying in with their promotion of "the good life," their branded musical experience is linked with optimism and "evok[ing] fantasies of one specific state of mind and the moral values that come with it: happiness" (124). Positive psychology comes to the fore here, as one's cognitive outlook reflects emotional well-being and a continuous regimen of self-improvement (124). The fulfillment, the achieving of happiness is found in a "self-governing subject… in control of their inner life and social circumstance, so long as they stream the right playlists, with the right attitude (128). Again, this betrays the subjective nature of music in its clear promotion of absolutism—a need to trust in Spotify that it knows the best way for you to feel and live your life, one way of life is strictly and measurably better than another. As the authors conclude, the target audience of these advertisements, the ideal users are millennials with progressive values (127), so of course Spotify is going to tailor a "personalized" experience to that category. Again, to quote the authors at length, their findings helped them to conclude that

> While alternative points of identification were present in our collected data, music streaming at large was rendered intelligible through references to neoliberal and capitalist values of individualism, self-fashioning, and self-responsibility. The mode of packaging and (re)presenting music mostly served

> to reinforce the notion of the user as a happy, entrepreneurial subject - young, urban, middle-class. At the same time, happiness and an entrepreneurial ethos were promoted as the taken-for-granted ideals toward which users should strive (136).

There rises an element of "soft biopolitics" in that the recommendations "regulate our lives without us being fully aware of it" (136-137). McLuhan (1965) notes similar ideas. He writes that our senses (by which media are extensions) are also "fixed charges" on our personal energies, configuring our awareness and experiences. McLuhan also references psychologist Carl Jung to expand on how our environment, our sensory experience shape who we are: "Every Roman was surrounded by slaves. The slaves and his psychology flooded ancient Italy, and every Roman became inwardly, and of course, unwittingly, a slave. Because living constantly in the atmosphere of slaves, he became infected through the unconscious with their psychology. No one can shield himself from such an influence" (21).

Media scholar Zuckerman (2013) describes a similar phenomenon, writing that social media can contribute to the construction of an echo chamber. In browsing Facebook there is less inclination to seek out news or coverage of world events. Rather, in these online environments, one encounters what their "friends" have shared and posted, the sort of news they chose to "amplify" (106). With friend counts climbing into the hundreds and thousands it would be impossible to scroll through a feed that includes what all those "friends" have been posting. However, thanks to Facebook's algorithmic curation and the ability to "follow" and "unfollow" with a click, while we are "personalizing" what we see, we can potentially make our inner circle become smaller and smaller, dismissing anyone with different political beliefs or that support different ideologies or even have different musical tastes than us (223). Coupled with the prescriptive nature of recommended content, is it possible that the range of lifestyles, approaches to living a life, is becoming narrower? Or is it merely becoming harder to stay open-minded?

In a world of ubiquitous listening, music distribution has the potential to be incredibly good or incredibly dangerous depending on your perspective. The now pervasive nature of music, infiltrating virtually every aspect of our lives regardless of choice asks some burning questions: how are we to defend ourselves from the sort of psychology—and by extension, lifestyle—streaming services, Spotify specifically, are prescribing? Especially when those around us (online and offline), those we may end up having relations of various kinds with, are listening to the same sorts of playlists and messages to live in the same way? I suppose one answer lies in taking a page from Spotify and fight fire with differently branded fire: that is, to search for and discover new music on our own, and think for ourselves (the former pretty straightforward, the latter easier said than done).

Returning to McLuhan (1965), he includes in his book a chapter on advertisements. In short, ads are not for conscious consumption; rather, they work in a similar fashion to brainwashing. McLuhan writes that "They are intended as subliminal pills for the subconscious in order to exercise an hypnotic spell" (228). Through a "barrage of repetition," some small pill within the noise will gradually assert itself in the audience's unconscious. At its base, advertising is an attempt at extending the principals of automation to every aspect of society, bringing production and consumption to a state of pre-established harmony with desire and effort, resulting in the ad becoming liquidated through its own success (227). The implications of this with regard to our previous discussion are terrifying. Would it be too out there to speculate that in prescribing a certain lifestyle, that services such as Spotify are trying to push us to automate our very lives and existence? "This is the life you will have and you will like it," perhaps they will say, using music and sounds as a sort of mnemonic sonic device for scheduling different activities, like the school bell ringing to signal the end of math class and the beginning of recess—except that for adults it might signal getting on a train or an afternoon coffee.

Conclusion

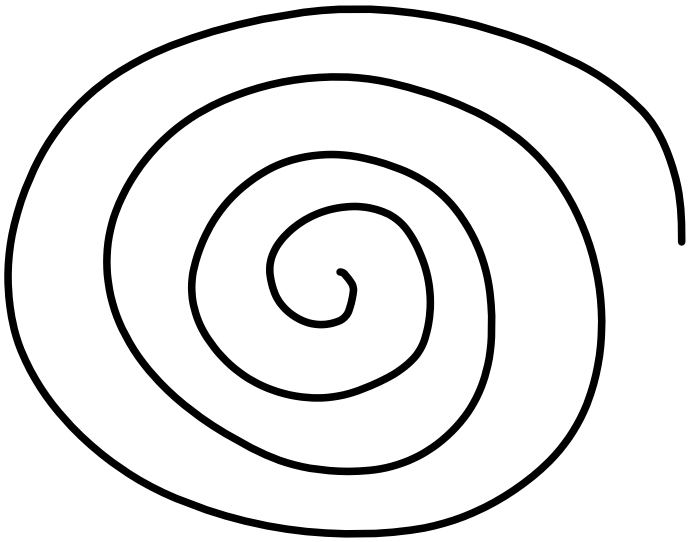
While this is on the verge of becoming dystopian speculation, if we connect these ideas with our prior discussion on Spotify, what are some potential implications? We already have the task of resisting the narrative put forth by Spotify's playlists and conforming to their "ideal user" (which parallels with the values of millennials, arguably its core/intended demographic); if we add the construction of echo chambers via social media, would the effects be compounded? Not only are our virtual lives becoming less varied and more homogeneous (as it pertains to each individual), but if we are managing the outside world through music (and presumably through "personalized" playlists), and we end up listening to more of the same things as others, carrying out the same narratives of "get up, go to work, go workout, go socialize, go sleep, repeat," then would our individualities be at risk as we all begin to swirl together, our perspectives growing narrower? Would it be like Forster's story, with everyone living the same sorts of lives underground, without the need to expand beyond what we (want) to know? I would rather maintain a more optimistic attitude; and though I consider myself a fairly cynical person, I would still rather temper positivity with caution.

In studying music, something so indicative of who we are as individuals, it becomes clear that while we may use music as a means of communication, identity construction, and forming community, we cannot help being different from each other. It may be worrying that one day we will become little more than brainwashed receptacles for advertisements, but with a firm sense of self, some exercise of awareness, critical thinking, and perhaps most importantly, the ability to think for oneself, I believe that we will continue to be as varied and beautiful and strange as all the music that we have made so far.

To continue this more positive take (isn't it clear that I'm a millenial?), for our last chapter, we will discuss prosumption. In the moment of cyber culture, it has never been easier

to be a prosumer—to use what cultural content is already out there and create our own content, our own contribution to cultural industries.

Chapter 4 – Get with the Program: Prosumption and the Digital Musician



Introduction

> The distribution channels that people had built over the last century or so are in flux for print, for visual artists, for musicians, for creative people of all kinds. Which is, on the one hand, intimidating, and on the other, immensely liberating. The rules, the assumptions, the now we're supposed to's of how you get your work seen, and what you do then, are breaking down. The gatekeepers are leaving their gates. You can be as creative as you need to be to get your work seen. YouTube and the web (and whatever comes after YouTube and the web) can give you more people watching than television ever did. The old rules are crumbling and nobody knows what the new rules are. So make up your own rules (Gaiman, 2013).

The above is from the tail-end of author Neil Gaiman's 2012 commencement address, which he delivered to the graduating class of Philadelphia's University of the Arts. The speech, which was then referred to as his "Make Good Art" speech, is eight years old, but rings true today. The dust has progressed in its settling, with streaming platforms such as Spotify and Apple Music becoming the norm, but there is still room for speculation as to what will come next. While streaming has brought a new set of gatekeepers, as we saw in the last chapter, there is still room in the fluxing organism that is the music industry for creators to make a name and a living for themselves. The drastic shift in distribution has allowed for

more work to get into the hands of more consumers. From that, followings grow, audiences are built, loyal to the once obscure and/or indie artist. With this shift in distribution comes opportunity: an opportunity for the dividing line between amateur and professional to become further blurred.

Much like how the 21st century experience has undergone a shift away from binaries and toward spectrum perspectives (ie, gender fluidity), music in the moment of cyber culture is undergoing a similar shift. Pairing with fluidity is a blurring of hard divisions, lines separating one denotation from another. If we look back to Middleton (1985), one of the characteristics of the "pop culture" moment (which began after World War II) was the encroachment of youthful amateurs on music production (12). It was no longer an island on which only the professional could live.

Borschke (2017) echoes this, writing that twentieth-century culture cannot be summed up with a division between professional performers and amateur audiences. She explains how musical genres, as well as cultures more generally speaking, have benefited from both sides. Both the amateur and the professional have contributed to innovations made in the field. With regards to increased access to recorded material, she refers to Toynbee (2000). He writes of the mass circulation of records leading to a "mediated orality" in which young musicians could then learn the craft through listening to records (and even playing along), thereby extending the possibility of participation in music-making (62; 74). Not only had recordings become more accessible, but the tools of production had as well. Borschke continues, writing of how throughout the 1980s and 1990s "amateurs and starving professionals" alike had rented studios, bought low-cost samplers, and made use of home studios and cheaper cassette tape technologies to produce their work (62). In this final chapter, I argue that this division between amateur and professional, consumer and producer, becomes further blurred in the digital age thanks to the Internet. The blur cumulates to a whole new denotation, a new status

or title by which one can refer themselves. Blending qualities of both together, we have what scholars refer to as the "Prosumer." The not-so-average consumer uses the consumed cultural content to produce something of their own, contributing in their own way, to the cultural lexicon.

Prosumption

Prior (2015) notes that through the Internet, the amount of participation and creation of music-based material not only blurs the line between amateur and professional production, but also questions whether or not such distinctions continue to be relevant. In surfing the web one can find blogs about music, videos footage of performances, comments (and conversations) on content, remixes, parodies, guitar tabs, and a plethora of other material (499). Sinnreich (2015) makes a similar observation. As commercial music is no longer scarce and effectively everywhere, anyone who can listen to a Rihanna song can also "mash it up, remix it and share it with any of the billions of Internet users around the world, in less time and with less effort than it used to take to walk down to the local record shop and home again" (621).

While prosumption has more buzz at the time of writing, it, like most of what we have discussed in the previous chapters, is not a new phenomenon. Rather, the Internet has facilitated greater accessibility, allowing for more consumers and amateurs to throw their hat into the arena; they can reach more people that may enjoy their content faster than ever before. Middleton (1990) writes of how easy-to-learn performance and production techniques along with accessible models in recorded form change the way music is made (69). With the Internet came bedroom producers, who could compose hits on a laptop using (often pre-installed) software and DAWs (digital audio workstations) without any need for a professional studio. MIDI (musical instrument digital interface) has vastly improved and

sounds closer to live instruments. Samples are easily obtained. Information and tutorials are available on blogs and YouTube. Work can be uploaded straight to SoundCloud. Prosumers can create and maintain an online presence and a virtual identity. The core principles, however, are not new. Fanzines were put together and mixtapes (otherwise known as ye ole playlist) were made for road trips or gifts for loved ones, showing how much you appreciated and knew them. As Taylor (2016) writes, in studying technology, it is important to historicize the present and in so doing answer the questions "Just what is new, and what isn't?" For Taylor, technology does not create new social relationships or new forms of behaviour—at least not right away. Rather, "they help us do what we have been doing, and only slowly do we find uses for them that could be considered to be new and offering change" (120).

We will therefore discuss how the Internet affects being a musician (especially those trying to make a career in music). What has remained the same, what has changed? This discussion will revolve around Baym's (2018) work as well as the influential work of Horton and Wohl (1956). The ramifications of an ecosystem based around reach, fluidity, and speed has led to what Baym describes as a "commodification of intimate life" (9). Whereas there once was a clearer division between your work persona and your home/private self, now there is a blending, a blurring of the two. Who you are behind the scenes must match with who you are on stage. A sustainable career as a musician is based on maintaining "never-ending," "always-engaging," and "continuously innovative conversation[s]" with one's audience, as well as being entrepreneurial, technologically proficient, and putting forth one's authentic self both online and off. Professional relationships more closely resemble intimate ones. In short, intimacy has become a dominant necessity in pop music (5-10, 20). Before we dive too deeply into this topic, let us first discuss some of the technological innovations of the moment of cyber culture and its implications with regards to prosumption.

Prosumption, Technology, and the Internet

For Taylor (2016), one of the more striking early examples of prosumption is Jungle music. Later known as "drum and bass," Jungle music was associated with the electronic music scene in London during the 1990s. While it was associated mainly with people of colour, it became multicultural, as "junglists" made sure that Jungle music was accessible to everyone; everyone was welcome to produce Jungle music. Evidently, many did. Taylor looks to the *Wall Street Journal*, which in 1990 wrote of a dramatic increase in sales of electronic keyboards and music software. Manufacturers shipped over a hundred thousand electronic keyboards to retailers in 1989, more than double the amount compared to five years before. Music software sales were less crazy, but a 10 percent increase from the previous year is still significant (122-123).

Taylor (2016) continues by writing of the rise of remixing and remix culture. As we saw in the first chapter through our discussion of Borschke (2017) and the creation of dance mixes on acetate records in the 1970s, likewise during the 1990s and early 2000s the available technology not only enabled remixing, but it was even promoted. Given the dominance of the MP3 format, remixing software companies and websites coated their sales pitches with enticements such as "anyone [can] create, exchange, share and distribute music regardless of experience or ability" (130; 2001, 21). Taylor tempers this enthusiasm, however, by reminding us that remixes were possible before digital technology (some prior examples being the dance mixes above as well as Jamaican dub, which was made with analog technology); but practices such as the mash-up underwent something akin to a rebirth and a boost in popularity. Some even garnered fame and infamy, as in the case of Danger Mouse's *The Grey Album*, which was a mash-up of the Beatles's *The White Album* and Jay-Z's *The Black Album* (130).

Baym (2018) also notes earlier examples of prosumption. She writes of the year 1969, when early computer connections allowed for fans, especially women, to remix television footage to create their own fanvids, as well as writing and editing their own zines, creating costumes, singing original folk songs, painting images, all of which were inspired by favourite television series (82).

However, we cannot ignore the boon (and burden) that came to the prosumer by the way of digital technologies. Just as how the Jungle music example demonstrated how the increased accessibility of the technology had presumably increased the number of prosumers and music-makers, the access to information had a similar effect. As Prior (2015) notes, the Internet makes it easier to educate oneself on the skills and abilities needed to engage with music on a deeper, potentially more constructive level. He writes of how education and technology "mediate the acquisition of instrument-specific skills from an early age" and cites the platform YouTube as an example (503). Through watching video tutorials, play-alongs, performances, and the like, an amateur can pick up a guitar and start their journey as a musician regardless of prior experience, if any. A search engine like Google too, has more than enough information for those willing to look. The ease in finding guitar tabs and chord charts also contributes in the legitimacy and potential caliber of the DIY artist. It is also worth noting that those who post guitar tabs or upload play-along videos are often prosumers themselves. For Prior, this wealth of content not only questions or poses a shift in knowing where musical expertise can be found, but prosumptive practices, in its blurring of production and consumption gives rise to those who he refers to as the "new amateurs" (503).

Accessibility and convenience, let alone normalized and widespread use of personal computing facilitates prosumption. Many authors agree that "bedroom producing," that is, creating music on one's laptop, and software-based industries have made a mark on music production (Prior, 2015, 504). Witt (2015) wrote of how Doug Morris (CEO of UMG) had at

one time been a gatekeeper, the key to getting into the professional music studio, the pressing plant, the distribution network. Now, however, instruments and studios are downloadable entities as VSTs (virtual studio technologies) and DAWs (digital audio workstations) and plugins, pressing plants are MP3 encoders, and distribution networks include platforms such as SoundCloud and Spotify (228; Prior, 2015, 504; Baym, 2018, 67-68).

Prior (2015) however, makes a point of stating that newer, digitally-based practices and technologies have not replaced their analog equivalents (in the sense that rather than an *out with the old, in with the new* sort of attitude we have more of a simultaneous appreciation and use of both sides). We are not divorced from the past. Rather, we continue to embrace the past, using digital means and technology to extend the use and longevity of older technology. Some of the more coveted and sought-after plugins are made and designed to emulate analog hardware, such as those that emulate the acoustic environment of Abbey Road Studio (as produced by Waves). Others even emulate older playback technology such as cassette tapes and vinyl by adding hiss and dust and crackling to a given track. This could be so sought after because if you've ever opened a DAW, you will notice that the digital soundfloor is silent. Sterile. Some may say it lacks character or any discernible identity of its own, whereas you know the sound of a needle dropping on a vinyl record when you hear it. Whether or not this is a nostalgia-influenced choice, or suggesting that we are used to hearing music sound a certain way, digital technologies have passed the torch of music creation to more people than ever before, and we take the past with us, bringing in elements we would rather not forget.

The MP3 Blog

Baym (2018) remarks that a notable prosumptive practice was the MP3 blog, undertaken by fans during the mid-2000s (Borschke, 2017, 113). She writes of fans around the globe who wrote MP3 blogs to highlight the music they liked, as well as for posting videos and creating

archives. The blog allowed for online music scavengers to find and listen to music they may not have otherwise found. Like Baym, Borschke mentions fanzines as a predecessor to the MP3 blog, but also suggests that the MP3 blog could be seen as a predecessor of social media. Like social media, the writing and publishing of the blog was based on the possibility of connection. Borschke refers to Austin et al's (2011) notion that file-sharing foregrounds two social functions of sharing media: "the desire to be part of an engaged media community and/or conversation and the desire to share the pleasure that a media property induced in its user" (119). Technology is used as a means of practicing a new kind of sociality, wherein one's self is represented in an online environment. Contradictory to the idea that musical listening has become more private, more individualized, as we saw in the last chapter, the MP3 blog opened the way to a digital discourse around music, making music consumption less private and more public (117).

MP3 blogs often addressed music in the margins—music that was considered "indie" or obscure. Borschke (2017) cites Novak's (2011) argument that projects such as the blog have an "aesthetic of discovery," wherein one has "blind encounter[s] with pure mystery" and experiences a "punk transcendence of negotiable meaning—" much like the underground cassette trading culture of the 1980s and 90s. This signifies an ideology of redistribution that "recognizes that media are limited by their own structures of reproduction, that appropriation is multidirectional, and that any attempt to regulate access is an attempt to control public consciousness" (118). This mirrors our previous discussions on the nature of the Internet and serendipity, as well as Napster and file-sharing. In a less regulated digital space, it was more akin to being given a flashlight in a dark room, bumping into walls, with a varying sense of direction and purpose—whereas now, gatekeepers, algorithms, and advertisers have a path of light set just for you.

MP3 blogs often included conversational reviews of recordings (as facilitated via commenting on blog posts, for example), opinionated reports on musical and cultural trends, and interviews with "indie"/lesser-known artists, labels and even other bloggers (Borschke, 2017, 119). Borschke writes of how those she interviewed emphasized not only this feeling of community, but also of blogging as a communicative form of expression. They sometimes experienced vulnerability and validation, posting music they liked alongside their thoughts and opinions. They maintained online identities comprised of preexisting and newly created media. With this, combined with the fact that bloggers often adopted an online persona, came a feeling of intimacy among the community, both of being part of a fandom of certain artists, as well as being a part of a new circle of creators—an element we will discuss next (120-123).

Intimacy, Authenticity, and Personas

Technologies and their innovations have made popular music specifically a more intimate culture between artist and fan. As Frith (1998) writes, because technology has affected what we hear just as much as where, when, and how we listen to music, there is more potential for a sense of intimacy. Not only are details more vivid given higher sound quality and improved recording practices, but we can also stop and play back specific sounds, analyzing them on a near microscopic level. With regards to popular music, this means a greater emphasis on the "personal" touches of specific artists. How a star expresses their personality, for example, is "thus a perception of intimacy" (240).

Baym (2018) has her own definition of intimacy as it pertains to musicians. Her definition is a bit more wide-reaching; to quote her book *Playing to the Crowd*, she writes of intimacy as "an awareness of the innermost reality of one person by another; it is a privileged knowledge of what is disclosed in the privacy of an interpersonal relation, while ordinarily

concealed from the public view… Intimacy is also about how and with whom we co-construct ourselves" (21). In this age of connection, fans want to feel as though they have a relationship of some kind with an artist. With so many prosumers on the web, via YouTube or Soundcloud or Twitch to name a few, what will help an artist stick out and find a loyal audience that will grow with time? Part of the answer is intimacy. Two artists, if not dozens, can offer music lessons via their YouTube channels, and dozens of artists can upload punk songs to Bandcamp. The content, however, is no longer what is special. Information is easily found; music is easily accessible. Punching "Guitar for beginners" into Google would generate reams of articles about how to play guitar with respect to learning the fretboard, tuning, right-hand technique, etc, most of which pushes the same sort of material and instruction. Similarly, punching in "New rock music" is likely to generate more results of professional and amateur artists alike of varying competence and sound quality. There's too much to sift through. Being a good artist is no longer good enough. With the Internet, more people can become better musicians, joining the artists already putting themselves out there onto the Web. What becomes crucial to visibility and any degree of success is the fan's willingness and desire to have an "intimate" relationship with an artist who they believe to be "authentic."

For Baym (2018), for a musician to be considered authentic, they must conform to an idealized representation of reality and is therefore be qualified to speak as a legitimate member of a subculture (172). It is conceded that there is no single, enduring definition of authenticity; it is not an objective quality inherent in things. Rather, it is socially constructed, renegotiated as time goes on. Currently it appears that an authentic artist is one who interacts with their audiences as though they were all friends. Authentic artists today should be keen to regularly share their private and everyday lives with their fans (especially on the Internet) (172-173). Baym writes of how, for example, artists can use social media to interact with

their fans one-on-one and in group discussions; they share the same stage. As it differs from the concert experience, since social media is not bound by temporal or spatial limits, it becomes more grounded in the everyday; rather than a single or a few intense encounters, interactions between artists and fans can take place over time, cumulating in what feels like a relationship (163). The actions and practices of an authentic musician help foster intimacy.

Baym (2018) also notes however, that this desire for intimacy with artists is not new. Since the nineteenth century, fans have pursued understanding artists as authentic people with whom they had an intimate bond (171). Horton and Wohl (1956)[10] notice something similar. They consider the illusion of a face-to-face relationships within mass media (such as radio and television), between artist and audience to be what they call a "para-social relationship." A characteristic of which is a "simulacrum of conversational give and take." Even today, there is an element of one-sidedness to the interactions between artist and fan. Even if the fans are eager to engage in online conversations or email the artist, the artist can ignore their fans or reciprocate the attention. The artist remains in control.

A key part of para-social relationships is the artist's establishment of a "persona." How one "brands" or identifies oneself, how one presents oneself to their audience is done through a persona, adopted to help the artist flourish and grow and survive. Through the persona, as Horton and Wohl (1956) claim, an artist can forge intimacy with their audience. This intimacy causes the audience to feel as though they "know" the artist similarly to how they know their own chosen friends. Seeing as music has pervaded the everyday, and that artists are successful and authentic because they share everyday lives every day, for Horton and Wohl, this is precisely why adopting a persona can be so effective. A persona offers a continuing relationship.

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[10] The article in question, "Mass Communication and Para-Social Interaction: Observations on Intimacy at a Distance" was not the easiest to access, and while I found a copy via "https://www.participations.org/volume%203/issue%201/3_01_hortonwohl.htm," there are no page numbers in this version.

As Horton and Wohl (1956) write, “[their] appearance is a regular and dependable event, to be counted on, planned for, and integrated into the routines of daily life.” At the time of writing, the authors describe how the artist’s devotees “live with [them]” and share glances of their public and private lives. This leads the fan to believe they know the artist better than others, a gift rewarded via loyalty and devotion. They do mention however, that the relationship is illusory, as it remains one-sided and is hardly reciprocal. During the moment of cyber culture, this notion becomes more complicated. As mentioned above, social media encourages the artist to go to their audience, rather than the other way around (Baym, 2018, 141). However, that remains a choice. So far our discussion gives the impression that an online presence (specifically through social media) is a necessity in making a career out of music; Baym (2018), however, offers a slight caveat. She notes that many of the musicians she interviewed for her book were not sure themselves that their social connections actually led to increased revenue. While the logic is clear that artists who have more followers, likes on their pages and posts, for example, may have an easier time getting opportunities for gigs and recording contracts, as rewarding as building connections with an audience may be, there are no economic studies that examine whether or not this results in increased revenue (72). To further complicate matters is the nature of an online persona.

Given that in many cases, an artist can interact with their audience via text (tweets, facebook posts, etc), this opens the doorway to artifice. As Baym (2018) also notes, “On social media, the person who appears to be the musician online may be their manager, an intern in the management office, someone else entirely, or even a bot trained to speak on their behalf” (161). The artist’s “authentic” self can be a facade. Though, to be fair, this applies more to artists who have experienced some degree of success. If prosumption allows for more consumers to be creators, it follows that most artists work independently and are unlikely to be able to afford such services, such as a social media manager. They can still lie, however.

In wanting to be more palatable, more "authentic," an artist can still use deception to portray themselves as someone an audience would want to follow. That said, this may be more difficult to achieve in the moment of cyber culture. History is logged online—virtually nothing disappears entirely once it is on the Internet. Fact-checking is incredibly easy. Inconsistencies in successive lies will be called out; truths about what one is really like will be brought to light. It would seem then, that it is easier to just be honest from the get-go, for an artist to genuinely present their authentic self to their fans. In this way, doesn't the Internet look mildly utopian, in the prospect that one has the tools and resources to become an artist and present who they actually are, for the whole (online) world to see, and be loved and praised for it?

Conclusion

At the very least, one must admit one positive aspect about the Internet and intangible cyberspace: there is room for everyone. Perhaps not enough room for everyone to be the rich-and-famous kind of successful, but without the limitation of physical space, everyone (for better or for worse) has the potential to be seen and heard. The distance to becoming an artist is measured in clicks and keystrokes. Clicks to create that remix, clicks to upload that guitar tutorial, clicks to create a facebook page; keystrokes to compose a tweet, keystrokes to fill in a blog post for your "bio" page on your website. Of course, this all comes with time. It still takes time to practice an instrument, to learn software, to navigate social media. In this moment of cyber-culture, however, more people than ever before can participate in this satisfying, rewarding process; the feeling of fulfillment is incomparable. Accomplishing what many could, but (still) do not, is unlike anything else in the human experience. We often feel alone, as creators, let alone human-beings, that the fact that communication and connection is just a facebook post away is breath-taking. Not only can we show our reverence and awe for

artists we admire by reviewing their albums or covering one of their songs, but we might then be praised ourselves for what we created. We can be less afraid of putting ourselves out there, showing who we are, through our own work or our public declaration of what music we like, taking comfort in the fact that there will be someone, somewhere in the ocean of cyberspace, who resonates with us and feels as we do. What a time to be alive.

Coda

THE TYPEWRITER MANIFESTO

We assert our right to resist the Paradigm,
to rebel against the Information Regime,
to escape the Data Stream.

We strike a blow for self-reliance,
privacy,
and coherence
against
dependency,
surveillance,
and disintegration.

We affirm the written word
and written thought
against
multimedia,
multitasking,
and the meme.

We choose the real over representation,
the physical over the digital,
the durable over the unsustainable,
the self-sufficient over the efficient.

THE REVOLUTION WILL BE TYPEWRITTEN[11]

Any measurable progress—or any new situational change, to return to Middleton's (1985, 1990) terms—will inevitably come with some kickback, some resistance. Technological innovations that help spur situational change are not perfect, far from it. The above quote represents just that[12]. While it may be construed as heresy that I have transcribed the

[11] Polt, Richard. "The Typewriter Manifesto." https://typewriterrevolution.com/manifesto. Accessed March 18, 2020

[12] The Manifesto was written by Richard Polt, a professor of philosophy at Xavier University, and has since been translated into several languages by typewriter enthusiasts across the globe.

manifesto into a word processor, I hope my admiration of it will tilt the scales toward forgiveness (I even intend on finding a typewriter of my own). “The Typewriter Manifesto” expresses concern and criticism of the less pleasurable and “praisable” aspects of the digital age. The nostalgia for analog technology is well warranted. Discussions around user privacy, technology such as Amazon’s Alexa or Google Home being used for surveillance, and our addiction to our personal devices are at a fever pitch and are unlikely to be concerns quelled any time soon.

With the moment of cyber culture has come many shifts; the last of which we will be discussing is the shift in transparency of different forms of labor. Certain forms of labor have become more obvious in the digital age. Terranova (2000) writes of the possibility that the disappearance of the commodity is not a material disappearance, but rather a visible subordination to the quality of labor behind it. Music is surprisingly consonant with this idea. Terranova writes of the commodity becoming more ephemeral and more of a process than a finished product (47-48). Music, while always intangible, emerged from its vinyl and cassette cocoon, and emerged as a digital butterfly, files stored on devices. Being an artist too, is more about the journey—the continuous slog for attention, visibility, and an audience in a world that’s always plugged in to something. Much of this has to do with what we discussed in the last chapter: the work that goes on behind the scenes, the work that is not directly involved in making music or other forms of creative content. What is significant here, is the notion that much of this labor is not normally thought of as such. As we discuss “free” labor, immaterial labor, and relational and emotional labor, I hope it will become clear that, for better or for worse, a characteristic of the moment of cyber culture is the requirement of skills beyond one’s craft.

It seems as though to be successful, the independent artist must always be working. Terranova (2000) and Taylor (2016) both refer to Lazzarto’s (1996) ideas concerning

immaterial labor. It is simply defined as “the labor that produces the informational and cultural content of the commodity” (Taylor, 2016, 133), with informational content being the shift in labor skills that involve cybernetics and computer control, and cultural content being that which is not usually recognized as work: “the kind of activities involved in defining and fixing cultural and artistic standards, fashions, tastes, consumer norms, and, more strategically, public opinion” (41; 132). Taylor notes that everyone, producer and consumer, professional and amateur alike, contribute to this sort of labor. He cites blogging, surfing the web, and our own conversations as examples of how we are all laborers working for “free,” but we can definitely expand this to include social media interactions and promotions, compiling tracks for playlists, and so on (134). Terranova, however, makes a point that this “free” labor does not necessarily equal exploited labor. She writes of how building a community may not have been met with financial reward but was “willingly conceded in exchange for the pleasures of communication and exchange” (48). As we have seen numerous times throughout our discussion, music is a means of constructing community. It is doubtful that those who wrote blogs or shared music online did it for the money (if anything, our first chapter on Napster explains exactly that), but rather, to help construct an identity and a space to connect with others.

The distinction that free labor also includes the user/consumer is critical. For Terranova (2000), free labor is the line of continuity between older and newer media. They share a reliance on the users as productive subjects. She writes of how users keep websites alive through their discussions with friends, hours of accessing the site, and so on (46, 49). Given the age of the article, it is no surprise that we must now fill the twenty-year gap with social media, perhaps the most obvious way users sustain an artist. Likes, views, follows, and shares are crucial parts of an artist’s current diet.

In the beginning of her book, Baym (2018) writes that "When we ask musicians to be direct, unique, and personal with their audiences, we ask them to redefine a relationship that has been structured in particular ways for decades. We ask them to do more work, work that requires relational, communicative, self-presentational, entrepreneurial, and technological skills that music work had not previously demanded" (6). Key to this are labors that seem akin to a "cultural feminization of work" (18). Baym bundles emotional and relational labor at times, given how they often go hand-in-hand to achieve a desired result. She sees emotional labor as that which requires contact with the public, meant to produce a state of mind or feelings in others, and is supervised by organizational superiors. Relational labor, on the other hand, for the sake of brevity, is seen as the "ongoing, interactive, affective, material, and cognitive work communicating with people over time to create structures that can support continued work" (17-19). These forms of labor are associated with the feminine as they are "mundane and domestic, mirroring housework in [their] multiplicity of tasks, never-ending nature, [and] lack of recognition" (195). One can always be interacting with their fans more. There are always more e-mails to reply to. One can always take…one… more… photo. The list goes on and on. Speaking from personal experience, this sea of labor is vast and unyielding. In building a website, it is hard enough having to learn how to use a platform such as WordPress; there is always something to learn, something to do, and something to improve: Insert a widget for your email list, look at improving your SEO (search engine optimization), and configure firewall and security settings so your site doesn't get hacked. Artists who primarily work independently have to figure out how to do all this on their own, developing a skillset they most likely did not anticipate needing (or wanting, for that matter).

Terranova (2000) speaks similarly about the endless nature of work on the web. She writes that "the Internet is about the extraction of value out of continuous, updateable work, and it is extremely labor intensive" (48). She continues by saying that having a good web site

is not good enough; it needs to be constantly updated and maintained to keep users interested and to fight off obsolescence. One also needs to keep up to date on the latest equipment, the latest software. Twenty years later, this is evidently true as consumers line up at Apple stores the night before the new iPhone or iPad is released. Lastly, she writes of how the commodity is only as good as the labor that goes into it and therefore, for the Internet to be sustained, it will require tons of labor, paid or otherwise (48). Taylor (2016) reflects on what this means for musicians, particularly those who are online and independent. He writes of a musician who markets himself primarily online and thus spends up to six hours a day working on tasks not directly related to music. The musician in question must write e-mails to fans, write in his blog, view fans' videos of his music, and so on. A lot of hard work and long hours are thrust upon musicians today, leading to a understandable amount of burnout. It is common to hear independent artists who make a social media page and press a CD, but they often stop there and then become invisible (124).

Taylor (2016) writes further on the ramifications of the music industry going online. Since the 1980s, there has been less need for a composer working in media to have formal training (ie. reading music, arranging and orchestrating). Though digital technologies such as synthesizers were initially sought out for the new sounds they brought (enjoying a level of novelty as Toy, the concept from chapter two), they quickly became mainstream and re-shaped the landscape of commercial music. MIDI (musical instrument digital interface) made each musician more flexible, no longer needing live, recording instrumentalists. As MIDI improved, putting strings out of business, followed by horns and drums, it imposed a degree of standardization on musicians' work across the cultural industries (136-140). The fact that this is all happening online also means a breakdown of spatial and temporal borders. Digital technology internationalized the music industry, allowing for more musicians to be able to compete (139-140). Work-life balance is thrown out the window as work consumes all in its

ability to be done anywhere at anytime. There is the assumption that because everything is on the computer, it is fast and easy to produce work or make adjustments when that is not necessarily the case. To quote Taylor at length, he writes

> Most people I spoke to in the commercial music world agreed that digital technologies had resulted in their working harder and longer than ever, in part because of increased competition, a consequence of the leveling of the playing field by digital technologies, but also because clients and bosses know that making changes to music that is stored on the computer isn't difficult, so many demand numerous changes, even at the last possible moment (141).

Flexibility has become the norm, the expectation. It is possible that the blessing of more people becoming musicians is tainted with the realization that more musicians means more competition. Staying relevant and maintaining enough of an audience becomes crucial to having a chance at making a career out of music. However, it is not my intent to end on a sour note. This has been a lengthy discussion, one we would not undertake if there was not going to be light at the end of the tunnel.

There is much to celebrate in the moment of cyber culture. As we have seen during our discussion, the advent of the Internet has in a sense liberated music from its commodified form. Illegal file-sharing knocked the first domino, allowing for music to loosen the shackles of monetization. After Napster, we no longer felt the need to pay for music—it quickly became the expectation that it should be free. With the need for physical copies of music dwindling, the CD falling out of fashion, music's materiality shifted. It was found less in CDs and vinyl records and more as MP3s on an iPod or a smartphone. However, with a bottomless sea of music now available to everyone, there grew a "need" for an online curator. Streaming doubled down on being a solution to music piracy and as a way for listeners to have access to all the music they could want; platforms such as Spotify could even recommend some for you. While streaming may be a convenient solution for the listener/fan, the artists however, depend on it to build an audience despite the fact they may not (probably won't) generate

much revenue from streaming. Gatekeeping may still be alive and well through aggregation and recommendation systems, but that does not me the arena is closed. Far from it. Perhaps the most brilliant aspect of the moment of cyber culture is that it has opened music production to more people than ever before. All the information about learning an instrument or software is waiting for the patient and eager; DAWs and other recording programs are readily available for little-to-no cost; the global nature of the web allows for distribution that allows for music to reach corners of the earth, and develop an audience and fandom that one might not otherwise have.

To bring it all full circle, it is good to remind ourselves that the Internet did not expose us to music's social value; using music as a font for building identity and community is not new. What the Internet has done, is allow for the production, consumption, and distribution of music to be done at greater speeds, with greater reach, and with greater fluidity than ever before. As Baym (2018) writes near the end of her book, "To an extent, new media of any historical moment enhance and make visible practices that have long histories, whether in musician-audience relationships, friendships, or any other field of human endeavor" (197). McLuhan (1965) writes of something similar, that "technologies are extensions of our physical and nervous systems to increase power and speed;" and where there is more power and speed, there is more control at much greater distances (90). The underlying need, the pre-existing use of music, has been in a word: amplified. As we have discussed throughout, many instances of how music is used, produced, distributed, are not entirely new. They are practices with roots digging deep into human history.

Despite the bleakness earlier, it is difficult to debate that while not perfect, the moment of cyber culture has been a great step for humankind. The wheels will continue to turn; conjectural epicycles will feedback into the larger situational cycle, and usher in another moment of situational change. It is exciting to watch and speculate at where we might go

next: Virtual Reality? Faster Inter-Continental travel? Mars? But while there is much to look forward to in the future there is much to remain skeptical and cautious of. Artificial Intelligence and automation, for example, will have to be used responsibly: with great power comes great responsibility, as the hero was told.

We are in uncertain and trying times. Covid-19 has pushed us further apart. While I am fortunate enough to have friends and family that are only a text or phone call away, I find myself equally grateful for my well-stocked bookshelf and a laptop full of music and games. How amazing is it that we can, as artists, extend and twist ourselves across time and space, ready for when our work will be needed most? It is my hope that during these dark times, we will come out of it with a greater appreciation for the arts, realizing the role they played in helping us cope with the pandemic, carrying us as we drift towards the dawn.

In closing, let us take comfort in that wherever we are headed, our music will be there with us, helping us get through tomorrow and the darkness and light alike; and let us not forget to enjoy the present—it's pretty damn great, and right now it's the best we've got.

Now if you'll excuse me, I have some Math rock I've been meaning to listen to, plus whatever else I might be in the mood for—because that's just the world we live in.

Cue the music.

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