Digital downsizing

The effects of digital music production on labor

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Bio

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Word Count: 7,312

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Abstract

Music production and reproduction has always been effected by the implementation and adaptation of new technologies. Digital technology works to displace labor in the music industry in two parallel ways. (1) It displaces labor in the manufacture, distribution, and retail of the physical music commodity through transmediation. (2) It reduces the labor required by musicians in the production process. This paper focuses on the latter form of musician labor by looking closely at the effect that digital audio workstations and drum machines have on studio record production. I argue that while technologies are developed to solve practical problems for musicians, the recording industry adopts the same technology to increase profit by eliminating labor.

Keywords: Digital Production; Music Industry; Media Studies; Labor; Popular Music; Political Economy

Look at technology, they call it downloadin’

I call it downsizin’, somebody follow me

Does a computer chip have an astrology?

And when it f--k up, could it give you an apology? Styles P – “Rising Down”

In the above quotation, Styles P describes a problem that Karl Marx addresses in *Capital: Volume I*, specifically the introduction of machinery into the production process. Marx describes the process of industrialization in the nineteenth century whereas Styles P assesses the twenty-first century digital transformation of music, a transformation explored throughout this project. As this paper will demonstrate, Karl Marx’s theorization of the devaluation of skilled labor is a premonition of the effects that digitization in the music industry has on the devaluation of skilled labor on at least two fronts. First, digital technology eliminates the actual labor that is displaced through disintermediation, the removal of intermediaries in the distribution chain, in the shift from producing music as a digital as opposed to physical commodity.¹ Second and the focus of

this project, digital technology displaces the labor that goes into the performance of music itself: i.e. the labor of the musicians. A by-product of the digitization of music is a transformation in the relationship between capital and labor. Digital technology enables producers to control everything from sampling/performance to quantization, the process through which imprecise timing and intonation is made more precise using Digital Audio Workshops (DAWs), in addition to their traditional roles of cutting, mixing and directing; producers perform various tasks previously undertaken by a variety of workers. In this essay, I argue that the digitization of the music production process is eliminating the need for musicians in the recording process; this analyzes the changing role of drummers in the studio, specifically. Furthermore, I contend that little attention is paid to the labor of musicians because musicians are constructed as artists, not workers, and fetishized in their role as artists, through the idea that they are autonomous and creative.

The drum sequencer is the easiest and most widely used technology that replaces skilled human labor in the recording industry;² for this reason, I use drum sequencers to anchor a nexus of ideas about the evolution of labor skill as a result of new technologies.³ Anyone with a basic competency in operating music software (ex. Reason's Logic Studio) can create drumbeats with little to no musical background. In turn, the separate roles of musicians and producers are consolidated into that of the producer, who becomes a composer, musician, and a sound engineer. While the first process of labor elimination in the recording industry (i.e. disintermediation) is often talked about among both academics and the media (Arditi; Burkart and McCourt; Leyshon et al.; Park), the second process is often neglected. Andrew Goodwin asserted that the "use of sampled sounds is motivated largely by economics rather than aesthetics – getting 'good' sounds and the 'right' performance from a machine is cheaper and easier than

hiring musicians” (46). While Goodwin made the assertion that the move to sampled sounds was a product of economics rather than aesthetics in 1989, little work has been done since that time about the effects of digital music on labor. This essay aims to create a new area of inquiry that focuses on the effects of digital music at the intersection of labor and music.

This analysis uses critical theory to illuminate the contradictions within the digital production of music. As Theodor Adorno contends, “the transition from artisanal to industrial production transforms not only the technology of distribution but also that which is distributed” (“The Curves of the Needle” 271) meaning that industrial technology changes the form of what is recorded. The same impact can be expected during the transition from industrial to digital production because digital production disturbs the very notion of what it means to record music. For Adorno, the contradiction in recorded music is contained within the recording medium. Musicians, composers, and producers are restricted as to what music they can create by the technology that they use to create it. The gramophone’s 78-rpm records prohibited recordings longer than 3.5 minutes in length, and therefore, shaped the composition of popular music to this length (Adorno, “The Form of the Phonograph Record”). Whereas industrial production of music limited recorded music, digital production appears to eliminate all barriers to the manipulation of sound. However, to understand the role of digital production in the music studio, we must look beyond the benefits of digital production to explore the negative side of the dialectic. While this essay focuses on music in the digital era, the implications of its effects on labor are far more wide-ranging.

The producer: consolidating labor

It is machines that abolish the role of the craftsman as the regulating principle of social production (Marx 491).

While Marx discusses how capitalism tends toward unskilled labor through the implementation a number of things such as assembly production, machines induce the most important part of the shift toward unskilled labor. In the case of artisanal labor, machine operators replace artists and artisans because in order to use new machines to produce goods it is necessary for laborers to learn new skills. In turn, the new machine operators are usually skilled workers capable of using new complex machines. The process of deskilling labor begins when technology becomes easier to use; as a reserve army of labor develops with the skills necessary to operate those machines, skilled laborers can be replaced with unskilled laborers. Marx describes that often times it is the same skilled laborers who lose their jobs that reappear as unskilled labor in the reserve army of labor (Marx 567). Furthermore, as Harry Braverman discusses, the move from workers to machines is a product of hierarchical control. “Thus, in addition to its technical function of increasing the productivity of labor,” Braverman asserts, “machinery also has in the capitalist system the function of divesting the mass of workers of their control over their own labor” (133). The autonomy of workers creates economic inefficiency in the system, and by eliminating this autonomy exercised by workers in the process, management can exert tighter control over production. This process is clearly at work in the recording industry, especially with the proliferation of DAWs, as producers begin to perform the labor of musicians, composers, and engineers in addition to their previous position as managers of the recording process. As studios become digitized, producers replace musicians (their replacement of drummers will be discussed here) among other positions in the studio.

While producers often replace drummers in the production of percussion sounds in contemporary music, producers rarely possess the skill to play drums. Learning to play drums at an adequate level for recording takes years of practice. Drummers may begin playing for any

number of reasons under any number of circumstances, but the one commonality of learning to play drums requires practice. Whether that is getting experience by playing with other people or practicing alone, all variances require repetition and the cultivation of skill. There are requisite costs that go into this cultivation as well. Some people take private lessons, others purchase instructional books and videos, and all time spent accumulating the skill to play drums is time spent that could have been used learning a different skill or as productive labor. Accordingly, the price of a seasoned studio drummer's labor power (his or her wage) is high when compared to the hourly wages of other workers. This is a product of both the skill of the drummer and the non-waged time that goes into studio preparations. Where the hourly wage of studio drummers may seem high alone (typical rates can range from \$50-150/hour), part of the reason for the high wage is that they only work for those wages a few hours a week – they rarely work 40 paid hours per week. In order to cover the cost of production and reproduction of a studio drummer, actual hourly wages must be high.

In demand session drummers are paid in excess of the typical rates because of their precision, experience, names (i.e. brand) and the speed at which they can get their job done. The two most important characteristics are speed and precision. First, since these musicians are being paid by the hour and the song, drummers who earn top dollar can get a song recorded faster (i.e. on the first take) will be in higher demand. Part of the reason that speed is so important in the studio is that the person paying for the recording session is also paying for studio time along with the hourly wages of everyone else in the production process. If a drummer takes several hours to record one song, it costs exponentially more to pay for everything else over that duration of time. Whereas an efficient studio drummer can reduce the overall production cost by lowering the overall studio time needed to record.

Second, precision is important for the entire recording process. Drummers that can accurately play to a metronome have always been in more demand than those that cannot for two reasons. A steady tempo is important in contemporary western music. But more importantly, a steady/precise tempo allows for easier editing in the production process. Editing multiple takes and tracks of music has been a part of the recording process for a long time. In a way, every take that a musician records in the studio may be reusable even if the overall performance in a given take was unacceptable. Different takes can be mashed together by producers to create a better song. In the case of drums, a drummer may play an excellent fill on an otherwise subpar take, but the producer can capture that fill and splice it into a better take. However, this is not possible without the use of a metronome and a drummer that stays right on the click (i.e. metronome), as well.

Increasingly, drummers, and musicians more generally, do not need to perform as precisely in the recording studio since new technologies make music editing a simpler and more cost efficient process. Whereas editing was once a labor-intensive process that involved literally cutting and splicing tape, digital technologies allow this to be done on computers. With the use of Digital Audio Workstations (DAWs), such as Pro-Tools and Garage Band, producers can salvage subpar takes or splice together different tracks to create a better recording. “The contemporary DAW . . . is a visually oriented, random-access form of technology that allows engineers to record not only ‘tracks,’ in the traditional sense, but to operate at the sub-track level, freely editing, processing and moving bits of digital audio data around in ways that would be impossible in a linear, analogue system” (Théberge 82). One of the features of a DAW is that they put the recorded sound waves of a performance on a visual grid. Producers can see how far from the beat a drummer or any musician is from that grid and realign the performance. As a

result, producers can zoom in on any given sound wave, then cut-and-paste (or drag) the performance to align with the grid. With this capability, producers may realign a track for the entire song or realign a section to loop (i.e. repeat) it in different parts of the song.

There are two consequences of the digitization of record production. The first consequence is aesthetic because it eliminates any intention on the part of the performer. For drummers there is always slight variation within two beats that cannot be precisely mathematically measured and mapped onto a grid. While some authors have discredited any significant difference between human feel and computer feel to the danceability of music, there is a difference of intention on the part of the performer.⁴ There is something beyond the quantifiable/time aspect of playing the drums that computers cannot replicate. Here I am not pointing to “feel” per se, but rather the sound of a specific drummer similar to the timbre of a singer’s voice. A drummer, for example renowned studio drummer Steve Gadd, is easily identifiable because of a combination of phrasing, drum sounds, timing within a beat, etc.; the combination of these aesthetic qualities create Gadd’s sound, but the elimination of any of these qualities through quantizing would diminish the characteristic sound of Gadd’s performance. Furthermore, cutting and pasting, sampling, and looping all eliminate the variation within a phrase and a song that is intended by the performer. For instance, Carter Beauford of The Dave Matthews Band provides constant variation throughout his recordings that provide overall color to the band’s recordings. A more specific example would be Questlove’s drum groove on “You Got Me” from The Roots’ album *Things Fall Apart*. In that song, Questlove plays a very distinct four bar phrase, but every time he plays the phrase it varies by a note or two on the bass drum pattern throughout the song. If the producer of “You Got Me” looped the drum track, this subtle

variation would have been eliminated. Quantization by producers has the effect of eliminating individual aesthetic characteristics of specific drum performances.

The second consequence of the digitization of music production is the increasing workload of producers and engineers in the production process. Throughout this process, producers are being given more work by editing drum tracks to align them with the metronome grid. There is no longer a reason for drummers to record takes repeatedly to get the “perfect” track because no matter how many times they record the song, the producer will still edit the song. The quicker a producer can get drummers out of the studio, the more money that can be saved in the production process because the work becomes redundant. After one adequate take, a producer may have enough material to splice together a song. This may involve realigning the beat – a practice that has become so routine that it is expected – but it may also involve re-orchestrating the track. For instance, a producer can copy a cymbal crash from one part of the song and paste it in another. In fact, it is common practice for producers to record drum sounds (cymbal crashes, snare rim shots, kick drum beats, etc.) on their own, so that they have clean sounds that they can paste into the song wherever they desire. Andrew Goodwin argues that “it is sometimes possible for everyone but the producer to go home, leaving the computerised manipulation of these sounds to do the work of performance and recording” (39). As a result, the producer’s job has shifted from getting the sound “right” – mixing the sound level and asking the performer to play it again until they produce the optimal track – to “writing” the song. This in effect puts controls “in the hands of management” (Braverman 134) thereby eliminating the need of highly trained drummers. Instead of a musician being the main part of creating a recording in the studio, a technician-manager (i.e. the producer) is increasingly the actual creator of a song.

Of course, there are variations in this relationship where a drummer signed to a label as part of a band can still request to record multiple takes. Since the performer in this instance is ultimately associated with the final product and in control of the way that money is spent, a drummer can make the decision to keep recording. However, the Artist and Repertoire (A&R) representative can still encourage bands to make economic decisions about studio time and the ultimate sound.⁵ The A&R representative, in collaboration with the producer, in the booth may encourage the drummer to stop for the day and allow the producer to piece together the track. Again, if the label decides that it wants the drum part to be aligned to a grid, and the artist resists this perspective, the label can decide not to release the album. This varies considerably for artists that hire session musicians. Since session musicians have no control over the final product, they are required to stop recording when the producer, A&R staff, and recording artist agree that the track is good enough to edit. In these instances, the costs associated with studio time, and session musician fees, outweigh any desire on behalf of the performer to control what the track sounds like.

As a result, producers are increasingly controlling the sound of music. Only a handful of producers, like The Neptunes (Pharrell Williams), Rick Rubin, Steve Albini, Dr. Dre, Danger Mouse, Kanye West, and Łukasz “Dr. Luke” Gottwald, produce albums for a large number of recording artists. In turn, it is often the sound of these producers that comes through on any given album. It has always been the job of the producer to deliver the music to the record producer “in time and in tune,” but the “long-dreamed-of tools for relatively easy pitch and rhythm ‘fixing’ have now arrived along with the DAW” (Savage 25). Yet, the ease with which producers can “fix” an artist’s sound has also put more work on these producers. While the producers listed

above have production teams, they and their teams see an increase in their responsibilities in the recording process.

Furthermore, the value of the producer's labor is being undermined through the implementation of digital production. Paul Théberge discusses the process through which the studio itself has changed because of DAW studios. As people began to make their own home studios, the factory studio model began to decline because large record labels could derive more value from shuttering these spaces. For instance, studios in Nashville are closing down and many country music stars are recording their albums in independent studios instead of large record label studios (Stark; Walsh). Rather than using record labels' studios and staff, producers use their own studios and staff; consequently, the producers and their staff become subcontractors of the labels for which they work. This constitutes a break in the social relations of production of the studio that lends itself to demanding that producers have a degree of capital up-front without the requisite assurance of paychecks in the end. As a result, producers contribute capital and time into their studios without knowing if they will be able to make money from their investment. At first, the producer in this situation appears to function as a *petite-bourgeois* (small business owner); however, like other workers, a producer "possesses no economic or occupational independence, is employed by capital and its offshoots . . . and must renew its labors for capital incessantly in order to subsist" (Braverman 279). In other words, producers work for record labels in exchange for a wage regardless of their contractual relationship to these labels because their services have no value without capital from record labels.

Furthermore, the social relations of production that have changed between producers and studios are also changing the ways that producers use other labor and become trained in their craft. Since studios are now independent of the major labels, producers look for cost-cutting

techniques to increase their profits. DAWs eliminate the need for certain types of labor in the studio such as “part-time apprentices – ‘tape-ops’ – whose jobs ranged from the mundane (coiling microphone cables at the end of a session) to the technically skilled (aligning the tape machines)” (Théberge 87). These jobs have been eliminated because either they are obsolete or they have been placed on the producer. However, these jobs were also often an important part of the process of learning to become a producer. Under the new regime of social relations of production, future producers go to school to learn the trade, but Théberge describes that this process goes even further:

Today, for those cannot afford the cost of college tuition, some engineers in small and mid-sized studios are now opening their doors to interns for a fee, thus generating income during periods when the studio would otherwise be unused. This reversal of the traditional apprenticeship model is even supported by a structured instructional curriculum and a web-based placement service, such as that offered by The Recording Connection . . . that helps place students in local studios and offers engineers ready-made pedagogical materials (Théberge 88)

Studios no longer see apprentices as a form of paid labor that is necessary to train the next generation of producers, but rather as a source of free labor from which they can profit. While the exploitation of these “interns” may be a coping mechanism for individual studios to survive as their pay from labels is reduced, it points to the greater lack of instability that parallels the transition to digital studio production.

As digital technology has created the opportunity for producers to have more control over the final recorded product, there has been a new need developed for producers to ensure that recorded music uses the most advanced technology to “perfect” the final product. At first, this creates less work for studio musicians as one take can be good enough for the producer to work with to make it sound good, but second, this new technology reduces the need for musicians at

all. The drum machine/sequencer is the quintessential machine that reduces the number of workers in the recording process while increasing the work of machine operators (i.e. producers).

Drum machines

This shift away from musician performances to producers in the studio production process is crystallized in the form of sampling and drum programming. While my main focus here is on the latter, the former is crucially important to understanding this process, but needs a longer format to be fully treated. However, this shift is only one shift in labor relations that predates the recording industry itself. Machines tend to replace labor; unskilled machine operators replace skilled artisanal labor (Braverman; Marx). While I mentioned that the work of drummers becomes redundant above, the drummers themselves are made “redundant” as their jobs are eliminated; now, producers are also drum programmers. This is not to argue that producers are “unskilled,” but rather to argue that they are differently skilled in a way that they become a jack-of-all-trades who can do the work of multiple people without having the actual skill of the workers they replace: i.e., drum programmers may not necessarily know how to play the drums. Braverman develops a thesis, in *Labor and Monopoly Capitalism*, that as machines replace workers, engineers enter the workforce to program and manage the machines. The following is a critical analysis of the implementation of the drum machine that demonstrates the effects that these machines have had on the labor of drummers.

A drum machine is a programmable device that synthesizes the rhythmic performance of drums. Drum machines were developed as early as the 1930s, but the first commercially available drum machine was the Chamberlin Rhythmate in 1959 (Weir). Contemporary machines use computer boards (newer ones are software on computers) that align beats using a metronome. Each beat has subdivisions that can be adjusted on the program. Drum machines

also have multiple tracks that allow the user to select different sounds to be programmed into a beat. Once a user selects which sound they want on each track, they can adjust the sound with mixers and effects. After all the sounds and the subdivisions are set, a user pushes buttons that represent the subdivisions of the beat to program when they want the drum machine to make a sound. These buttons usually stay lit on each subdivision that has been pushed and a user can easily see what beats the drum machine will play. All of these changes can be made while the drum machine is playing, so the user can hear the beat as it is created. To use one of these machines and create a drumbeat, the programmer does not need any knowledge or experience of how to play drums.⁶ While samplers are discretely different machines than drum machines, Nelson George articulates a parallel problem in discussing the E-mu Emulator sampler by stating that “No musical expertise was needed to use it . . . you just had to know how to push the buttons” (George 439). While George may be overstating the simplicity to operate these machines, he points to the acquisition of technical musical expertise. Drum machines and samplers not only “enable a musician to program rhythmic patterns without actually hitting any drums” (Goodwin 38), but they also eliminate the need for prior musical experience to program drums and create music.⁷

Initially, drum sampling and programming developed to fit a need. The first major use of these new techniques was in hip-hop music. Murray Forman exhorts us “not to adopt a technological determinist position identifying technology as the motivating force in the change and evolution of cultural practices” (Forman 389). A more productive approach takes into account, he continues, the way “technologies of hip-hop are culturally inflected at diverse scales of effect, woven into prevailing social contexts, and enfolded within the systems of production and exchange that are prone to transition in the face of historically specific stimuli” (Forman

389). In other words, the use of DJs and sampling in hip-hop music was not only a product of the existence of new technologies, but also the product of people responding to circumstances. There has been much said about the cultural development of hip-hop music, from Tricia Rose's description of hip-hop as a response to the effects of post-industrial New York City to Greg Dimitriadis's emphasis on the live face-to-face community on which hip-hop was founded. However, music exists within a political economy that was shaped by the availability of musicians as well. Rose hints at this with her discussion of the evisceration of music education in schools in New York City. In fact, Rose contends that technology became a way for hip hop musicians to circumvent the system; early hip hop artists

found themselves positioned with few resources in marginal economic circumstances, but each of them found ways to become famous as an entertainer by appropriating the most advanced technologies and emerging cultural forms. Hip-hop artists used the tools of obsolete industrial technology to traverse contemporary crossroads of lack and desire in urban Afrodiasporic communities. (Rose 35)

In other words, the use of technology was a means to negotiate a particular political economic circumstance.

As a means to negotiate political economic circumstances, it is important to explore hip-hop's technological appropriations by exploring the political economy of music. Hip-hop grew out of a party and club scene that used already existing disc jockey (DJ) set-ups at parties. There has also been much written about the influence of Caribbean sound systems being introduced in New York, especially by Jamaican Kool Herc (Hebdige). These histories are very important for the development of hip-hop music, but I do not think that they alone tell the whole story about the instrumentation in hip-hop music. As emceeing became a discrete activity from DJing, emcees needed music over which to rhyme. Having a drummer set-up drums everywhere that hip-hop was being created/performed was impractical. Early recordings, for example The

Sugarhill Gang, used instrumental musicians in the studio to recreate samples, but this appropriation was short-lived (Schloss). Having a live band would also have created an awkward barrier to performance for emcees; they would always have had to find a drummer to play with them. The easiest thing to do was to find ways around having to use drummers. In some instances, this meant relying on a DJ to create the music, and in other instances, this involved using a Roland TR-808 or another drum machine. While DJs like Kool Herc and Grandmaster Flash made groundbreaking steps for the way that music is performed and produced, we need to keep in mind that these types of shifts have had equally groundbreaking effects on the social relations of production. Kool Herc and Grandmaster Flash were responding to a utilitarian need: creating instrumental music with minimal resources. By using turntables, DJs can show up to a gig with minimal equipment that can be easily plugged into an already existing sound system. For aspiring emcees, there is no need to have a drummer, bass player, keyboard player, etc. at a show to create the music. An emcee can bring the music themselves or find a DJ. As drum machines and samplers developed, emcees could show up with pre-programmed beats, either on the samplers or pre-recorded on tape cassettes (these became important for the use of boomboxes on the street), and play a set without the need for a band. When hip-hop music moved from the street/party to the studio, DJs developed their craft to become producers (Schloss). This was a part of an emergent subculture that was using technology to circumvent the means of production. However, the recording industry soon noticed these very techniques and used them to circumvent labor.

The history of this process is much longer than the development of DAWs and drum machines.⁸ One clear historical point that a utilitarian technological development was appropriated by capital can be seen in the development of the drum-set itself. Advancements in

metalworking allowed people to create the modern drum-set. The drum-set allows one person to do the previous work of a drum section. For example, a New Orleans brass band had several drummers playing the bass drum, snare drum, cymbals, etc., but with the development of the drum-set, one person could do the job of three or four drummers. In the band, the musicians themselves would choose to use a drum-set player because it reduces the number of people that must split any payment to the band and reduces the number of people that need to coordinate for a performance. This is a similar utilitarian need to the development of drum machines and sampling. Furthermore, the development of the drum-set did not radically break from the aesthetic organization of percussion sounds prior to its development.

The aesthetic organization of sound of drum machines represents one of the fundamental ironies in the shift in labor; drum machines and sampling are made to replicate drummers. The conventions of the aesthetic organization of sound of popular music are the product of the physical limitations of drummers, but drum machines have been slow to abandon these limitations (though there are increasing and notable exceptions, especially in so-called Electronic Dance Music). What this means is that drum programmers try to replicate the drumbeats that drummers create even though drummers are limited by only having four limbs and the coordination between those limbs is somewhat connected. For right-handed drummers, the right-hand usually keeps time by playing beat subdivisions on a hi-hat or a ride cymbal. They use the left hand generally to keep the backbeat, while the right foot plays the bass drum and the left-foot operates the hi-hat pedal. In this configuration, the right foot and the left hand playing the bass drum and snare drum, respectively, are the limbs that have the most variation within the beat.⁹ There is very little rationale for this configuration beyond the limitations of the human body and the way that a drummer could replicate previous drum/percussion section configurations. Since

the aesthetic organization of sound of the drums in popular music is over-determined by the physical capabilities of the human body, one would expect the beats created by drum machines to be radically different from those played by drummers. However, drum programmers, for the most part, do not attempt to change the role and the sound of drums in popular music; rather, drum programmers try to make their drum programs to simulate the sounds of a drum-set player.¹⁰ Therefore, the switch from studio drummers to drum machines and samplers is less a product of an aesthetic demand and more the result of a shift in the social relations of production.

Digital drum machines are the same type of shift from skilled to unskilled labor that Marx discussed in *Capital: Volume I*. Marx describes that under capitalism there is tendency to go from skilled artisanal labor to unskilled machine operators. Where the labor of the artisanal workers cannot be readily replaced, and therefore it demands a higher wage, the unskilled work of operating a machine is easily teachable and there is always a reserve army of unskilled workers available to do a job, making their labor cheaper. Studio drummers require a high wage partly because of the scarcity of finding someone experienced enough to record at an advanced level, but also partly because of the cost that goes into reproducing new highly skilled drummers (i.e. the hours of practice, cost of drum lessons, and experience playing drums); whereas, the cost of drum programmers is minimal, and resembles the characteristics of relatively unskilled labor. Indeed, there are very few people that would sell their labor solely as drum programmers; rather, drum programming is one of many skills that producers and sound engineers are required to have in the studio.

Conclusion

Digital production has permanently changed the norms of the studio. While change has been the norm in the recording studio, the implications of such change on labor must always be

re-evaluated. There is no technologically deterministic role of machines replacing labor in the recording process. Rather, what has happened in the recording studio is that a subculture (i.e. hip-hop) has found a means to subvert the costly means of production that has been necessary for aspiring musicians to compete with music produced by the major record labels. As a result, major record labels have reappropriated these new recording technologies and techniques to eliminate labor in the recording process.

Musicians have become a costly vestigial appendage of a previous configuration of the social relations of production in the recording industry. DAWs have changed the social relations of production in the recording industry by displacing labor from high-cost factory studio configurations to low-cost home studios as expensive equipment that used to fill large studios can be synthesized on computers. Not only do DAWs replace expensive equipment, they do a better job at editing music than analogue equipment. Furthermore, there is no longer a reason for record labels to pay high wage studio musicians when the mistakes of low wage studio musicians can easily be “fixed” through the use of DAWs. This creates new demands for producers as they are expected to “fix” music in ways that had not been possible previously. The idea of “perfect” music has created more work for producers as they spend more time sitting in front of DAWs attempting to quantize recorded music.

Producers have stepped in, first, to refine the recorded product of musicians, then to replace them, as in the example of the drum machine. Unskilled labor replaced skilled labor as machine operators replace artisanal labor. Furthermore, in the process of this labor substitution, there is an increased demand for producers to do more work. Not only has this resulted in the exploitation of producers’ labor, this new labor often goes unpaid as producers build their own studios and must use their income to manage their studios.

Notes

¹ Since music is stored as computer files, there is no need for physical media to distribute music. In the process, there is no longer a need for retail store clerks, distributors (especially truck drivers), and workers at the CD manufacturing plant. The materiality of the music commodity and the labor tethered to the production, distribution, and sale of physical objects is transformed in the process of digitalization. It is this transformation that Styles P is explicitly identifying in the quotation that I opened this paper with.

² “Music industry” signifies the broad industries that produce and sell music and music related products from musical instrument manufacturers to music publishers, record labels to live performance venues, and everything in between. Whereas the term “recording industry” refers specifically to record labels that produce recorded music. The primary players in the recording industry are the three major record labels known as the Big Three: Sony Music Entertainment, Universal Music Group and Warner Music Groups.

³ In this paper, I critique the role of producers and drum sequencers in the production process because skilled laborers are being replaced, but I am not arguing that music made by live musicians in the studio is aesthetically ‘better’ than music made by producers. In fact, it is often the case that digital production *is* more precise, and in the end, more complex than what most live musicians are capable of performing. It is important to note that I am approaching this from a Marxist position with labor as my object; it is not an aesthetic argument about the sound of music.

⁴ See Anne Danielsen’s collection entitled *Musical Rhythm in the Age of Digital Reproduction* for a discussion about human feel and computerized music.

⁵ See Hull et al., Krasilovsky et al. and Negus for further information on the role of A&R staff.

⁶ As an unscientific experiment, I asked an advisor in the University of Texas at Arlington Interdisciplinary Studies program to try to make a beat using Reason’s Redrum Drum Computer. This advisor had no musical experience playing an instrument (nonetheless experience playing the drums) neither did she have any experience with drum programming. After some very basic instructions, she created a nice beat within ten minutes. The beat that she created would have taken me months, if not years to teach her to play on a drum-set.

This is not to say that drum machines do not have redeemable qualities. In fact, being able to create a drumbeat with such ease is quite empowering. However, the point of this essay is to look at the social relations of production.

⁷ At the same time, programmers can program drum machines and drum sequencers with analog inputs giving them the capacity to create the same type of intentionality discussed above with Steve Gadd and ?uestlove. This has enabled many classic hip-hop producers to jam in the production process and include those jams on albums. However, even these analog recorded drum sounds are often quantized using DAWs today.

⁸ I intend to trace the genealogy of these shifts and their impact on modern music through a longer discussion of the drums as a cultural object as a book.

⁹ Today, there is a similar shift occurring in Afro-Cuban music where the percussion section has remained a key component of any band. However, instead of the left hand playing the backbeat on the snare drum as in American music, Afro-Cuban music is driven by the clave. To accommodate the clave in this style of music, Afro-Cuban drummers have developed ways of playing the clave with their left foot on a specially mounted cowbell or woodblock.

¹⁰ Gradually, these conventions are changing, but there has not been a radical break. It is likely that music listeners are the primary reason for the continuation of the status quo of drumbeats, but this is beside the point. Drum programmers are emulating drummers; the reason for this is to eliminate labor, save time and ultimately, generate more profit for the record labels.

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