Changes in the Music Industry Monetary Flow with Streaming Services

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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STS Research Paper

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Introducing the Largest Player in Music Revenue: Streaming Services

Starting with its introduction in the mid-2010s, music streaming services have taken prominence in the way music is distributed and consumed. Music streaming prominence is seen by an increase of 41.8 percent of audio streams between 2017 and 2018 (Wang, 2019). A music streaming service is an internet-based service which allows its users to stream music to internet-accessible devices, such as Spotify or Apple Music (Chen, 2021). Users are unaware of how their mainstream acceptance of streaming services is changing the music industry. For the music industry, monthly revenue, which had never existed before, is a new change brought about by streaming (Ovide, 2021). For users, the access to music consumption at the fingertips of internet-powered devices increases the demand for music and its technologies in daily life (Sundet & Colbjørnsen, 2021).

With music streaming services, the technology is shaping the music industry and the higher demand for music consumption allowed streaming services to be widely accepted. The changes in monetary flow and the changes in user interaction with music consumption can be explained through the theories of technological momentum and paradigm shifts. Technological momentum explains why streaming services have become mainstream and accepted along with how these services are the cause of economic changes in the music industry. The theory of the paradigm shift supports technological momentum for the reasoning why music streaming platforms have become mainstream. Both theories will ultimately answer the following: what changes in the music industry have followed with the introduction of streaming services from an

economic standpoint, and how have these changes affected the different stakeholders in the industry?

Research Question and Methods for Analysis

What changes in the music industry have followed with the introduction of streaming services from an economic standpoint, and how have these changes affected the different stakeholders in the industry?

In pursuit of the research question, background research is done to see how music was produced and distributed before the introduction of streaming services. The two frameworks used to analyze the acceptance of streaming services are technological momentum and paradigm shift. After exploring the relationship between technology and society for the mainstream acceptance of these platforms, the effects on the music industry are analyzed, specifically regarding the music industry's monetary flow. Numbers are evaluated using case studies to interpret what the numbers mean and what the trends are. Research is organized based on the background research, history of the music industry, evolving music technology, reasons for mainstream acceptance of streaming services, and the supporting arguments for the claims being made in the project. Keywords used to conduct research include "music streaming services," "music economy," "music revenue distribution," "music economic history," and "changes with music streaming services."

History of Music Consumption Technology

The main methods of music consumption prior to streaming were digital and physical album purchases, listening to the radio, and pirating (Burgress, 2014). Streaming services were

introduced in the early 2000s following the use of MP3 and digital music downloads (Lee, 2020). The importance of the early beginnings of portability and personalization of music starts with history. Without having to go back in history to the origin of transmitting sound across distances and the underlying science, the era of recorded music will be the beginning of this research. Before digital delivery methods, recorded music can go back to flat discs, better known as records (Burgess, 2014). The machinery used to play recorded are playback only and heavy. Following the records, the version of the radio, called the Audion, worked as a detector, amplifier, and transmitter of music. The radio's popularity rose during the Great Depression as it brought some relief and escape from the reality of life. The radio was the first step in making music mobile (Burgess, 2014).

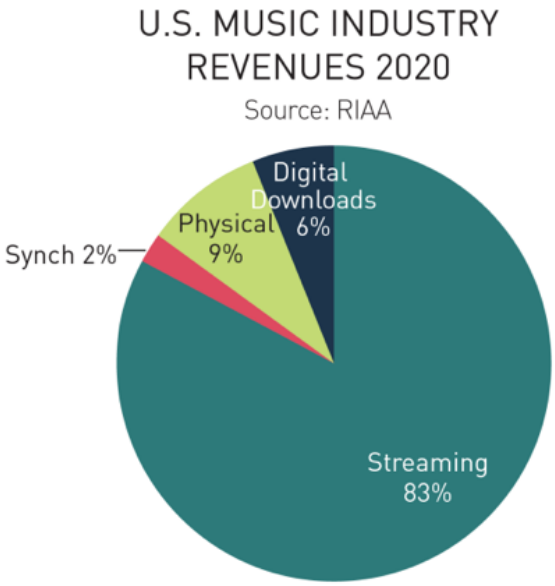
The appeal of mobile music turned into the cassette tape, which allowed consumers to take their own music and listen to it anywhere, acknowledging the societal demand for personalized music. In 1983, the rise of the CD came as it was smaller, lighter, and held more music than the previously popular eight-track tape (Burgess, 2014). The doors for music production increased as the demands for music were met and then would continue to grow.

To better understand the concept of streaming, it can be thought of as a system of delivery for media content on the internet. Streaming is a process of copying "bits" of data and is reliant on large data sets, which is how current streaming platforms function (Vonderau, 2014). The more common knowledge of streaming is the ability to consume media using the "cloud," where the media is not downloaded on the user's device (Johansson et al., 2018). The "cloud" could be thought of as the location where the media is stored, and the user has access to media instead of having a direct copy. Without the internet, streaming services would cease to exist, as it is a byproduct of the internet. Digital streaming has changed the distribution and consumption of

music and can be seen in Figure 1. As of 2020, the music industry revenue in the United States was made up of streaming by 83%, showing a total of 89% of revenue from a digital platform (Friedlander, 2022).

Figure 1

U.S. Music Industry Revenues 2020 (Friedlander, 2022)



Widespread acceptance of music streaming, services like Spotify, Apple Music, and Youtube Music have brought about a new change in the music industry: monthly revenue and a new stakeholder (Ovide, 2021). Monthly revenue is an outcome of music streaming services accounting for a majority of music industry revenue. Different stakeholders involved in the industry, such as the consumers of music, are another aspect explored with their interactions and effects on the music streaming. The new stakeholder of streaming platforms is also introduced with streaming technology. Economic changes in the flow of money for music streaming services is the main purpose of the paper, encompassing both the consumers and producers of music.

Technological Momentum, Paradigm Shift, and Streaming

Technological Momentum

The first theory employed in this analysis is technological momentum. Hughes defines technological momentum to be a "more complex concept than determinism and social construction, technological momentum infers that social development shapes and is shaped by technology (Hughes, 1987). In layman's terms, technological momentum is the idea of technology being shaped by society but also shapes society. Compared to technological determinism and social construction, technological momentum is a theory with more flexibility (Hughes, 1987). Through the lens of technological momentum, society is defined as the users of the music streaming services and technology is the streaming platform. The byproduct of economic changes in the music industry can be explained through the interaction between society and technology through the lens of technological momentum. A higher demand for music and a global reach for streaming services occurred because of the normalization of mobile devices and immediate access to media (Sundet & Colbjørnsen, 2021).

An aspect of Hughes' theory which is criticized is the momentum aspect of technology because technologies will continue to influence society and technologies will change in response to societal changes. Not understanding the extent of the impact technologies will have on society is dangerous (Dyer, 1995). Yet the success of technologies comes with the timing it is introduced. If streaming services had not followed the millennial generation's desires for speed with mobile devices, pirating may have continued to be the largest digital method of music sharing. These music consumers accepted music streaming services as a change and these streaming services have changed the music industry, showing technology and society do work hand in hand (Ovide, 2021).

Paradigm Shift

Paradigm shift is the second theory being used to analyze why streaming services are widely accepted. A paradigm shift is defined as a change of a basic concept society holds to be true. This could be a change in interpretation or a fundamental change of the concept. Thomas Kuhn initially coined this term in relation to scientific revolutions, the physical sciences (Kuhn, 2012). There is criticism regarding the extent of topics where the paradigm shift is being applied. Cohen comments on how the idea of the paradigm shift has spread from the physical sciences to social sciences, and even topics such as technology and society (Cohen, 2015). The original scope of the paradigm shift was for physical sciences to define normal science. As it has spread into other fields of knowledge, the application and core concept are of a shift in worldview to creating a new normal definition still holds (Cohen, 2015).

Paradigm shift is applied to the project supporting and explaining why music streaming services are the mainstream way of consuming music. The shift from the ownership-based format to the access-based format can be seen as a paradigm shift for music consumers. Streaming platforms desire more users to interact and subscribe to their streaming services, shaping the company tactics (Tschmuck, 2016). And if successful, the users stay and more users are gained. The users continue to shape the way technology evolves and shapes. Streaming services are digital access-based platforms, which makes room for the paradigm shift to take place (Sundet & Colbjørnsen, 2021). Currently, music industry changes, specifically regarding revenue flow, have not been researched through the lenses of both technological momentum and paradigm shift. Scholars suggest points about industry change but do not directly use the terms of technological momentum. Not defining the terms directly allows this research paper to put definitions of technological momentum and paradigm shift on scholarly reasoning.

Analyzing Industry Revenue Change Before and After Streaming

Technology continues to shape the way music consumption needs are being met. An addition to the stakeholders surrounding music industry revenue has been added with the introduction of music streaming services and platforms. The already existing stakeholders, who played a larger role in commercial recording production before streaming services, now are facing competition from a new force in the industry. The history of the music industry is researched to show the changes seen in music technology and the music economy after the usage of streaming services.

To understand the changes in technology in the music industry and its new economic changes with music streaming, the history of the recorded music industry must be understood with the sub-categories of stakeholders, revenue, and technology. Music distribution works on the idea of platform-controlled access and its monetization (Burgess, 2014). Currently, the monetization of music happens either through direct sales, such as digital media stores, or by advertising subscription sales, or a combination of the two methods, which is what streaming services cater towards (Meier & Manzerolle, 2019).

Music Industry Stakeholders

According to Burgess, there is a higher demand for work by producers and record label companies when more music is in demand. During the earlier times of the music industry, the producers were the main moneymakers of the music industry. Their jobs center around a product, the recording of music, which lies at the intersection of technology, music, and finance. The initial demand for production jobs came about with the demand for recorded music for shows, making room for the record business and commercial music production (Gaisberg, 1946). Shows

had a set repertoire so musicians would either play or singers would sing the needed music for production (Moore, 1977). The record label would distribute the money to those involved in the recording and production process (Gaisberg, 1946). In this case, the payment would go into the hands of the producers and the musicians or artists.

Music Industry Revenue

The main complementary sources of revenue are records sales, live performances, and music publishing (Meier & Manzerolle, 2019). The record companies held control over the production and circulation of music (Meier & Manzerolle, 2019). The music industry centered around the production of the studio album, giving record companies control. Record company control meant the music trends would center around what the companies would release, as they had control over music production and its circulation (Burgess, 2014).

Payments for the right to music are done through music royalties. The way payments through music royalties are made and divided is complicated, especially now with the new changes in streaming services. The easiest way to define music royalties is being the compensation for the rights holders of the music. These rights holders can include the record label, producers, songwriters, composers, and artists (Burgess, 2014).

Changes in the Digital Delivery of Music

The biggest leap in music consumption came with the introduction of MP3 players and streaming services to phones. However, the desire for mobility and personalization of music did not start with MP3 players or phones. Through the paradigm shift framework, the shift from the normalcy of immobile to portable and personalized music started back with the introduction of

the radio, as stated in the background. Moving to the beginnings of digital forms for music sharing, the MP3 must be mentioned, which was introduced in the late 1990s. MP3 files were able to be downloaded on MP3 players, allowing for music to be portable and in a digital format (Jones, 2011).

A significant technology of the times affecting the music industry was the internet - first used commercially in 1991. By 1998, there were more than four million websites. Apple introduced iTunes, helping to reestablish the singles market with reasonably priced albums and singles with a legal and revenue generating digital delivery platform. Younger audiences of music consumers demanded singles. And music is very much defined by the younger generation who pushes and pulls the popular music of the times (Burgess, 2014). Napster came about in 1999 as a platform through a peer-to-peer network for file sharing, becoming the first service to share digital media. Napster brought the base of music streaming platforms utilizing the internet (Schwarz, 2013). Technological momentum's aspect of society influencing technology can be seen because Napster's popularity grew with the desire for personalized and mobile music for its consumers. Its library was created by crowdsourcing and reached heights that iTunes could not reach. Society contributed to the technology through crowdsourcing, showing the society shaping the technology. The platform started to grow and became the pirating icon of music (Schwarz, 2013).

Digital delivery is conducted through a digital platform. A digital platform is defined by Sullivan as software entities which enable the commodification of 'both the content and the technology which transmits content to consumers' (Sullivan, 2016). The digital phase of music consumption was characterized by "on-demand services, offering almost any music, anywhere, anytime, while giving more control to the consumer (Burgess, 2014)." As noted, in the history

surrounding the music industry, the changes in music technology focused on the personalization and mobility of music. With a continual demand for music to be increasingly personalized and portable by society, the technology used for music consumption continues to work in the consumer demand direction. Streaming technology continues to create a greater social demand as the needs regarding personability and portability are met, showing how society and technology can shape one another through technological momentum.

Early Disruptions Due to Technology: Napster Case Study

As mentioned above, Napster was one of the first largely used platforms for digital delivery among music consumers. The main idea behind Napster and its users was that "big artists make lots of money so it will not affect them, and small artists are not receiving royalties from the labels anyway (Burgess, 2014)." Napster created a platform convenient for music consumers to personalize the music they desired to listen to and had a vast library to choose from, becoming a widely accepted technology (Schwarz, 2013).

The widespread use of Napster disrupted the music industry but also began to revive the declining singles market. Apple, again, tried to create a solution to the portable media and free music problem with the introduction of the iPod, but ultimately did not fix the entirety of the problem (Burgess, 2014). Following Napster, other music radio services were introduced to the music industry such as Spotify, Pandora, and iHeartRadio. A well-known service, called Spotify, was released in 2008 but did not gain popularity until the mid-2010s (Johansson et al., 2018).

As this was a free source to utilize, Napster's popularity hurt the music industry's overall economy. The distributed music being free through this digital and convenient platform decreased the perceived value of music among consumers, shifting and accepting the change in

music consumption through the lens of the paradigm shift. Napster was easy to use and viral, which made more music consumers want to take part in this platform. Music consumers want what is easiest and convenient with the desires of personalization and portability, influencing the design and success of technologies. Consumers will jump to whatever platform fits these desires, creating a paradigm shift in the technology accepted. However, the consumers are not always aware of how their changing choices of technology influence the greater music industry. More usage of Napster triggered a downfall in revenues as there was less major label work to be done, lower budgets and advances, and reduced royalty income (Burgess, 2014). Paradigm shifts of accepted technologies have unpredicted outcomes. The record label, sound engineers, producers, and artists were all affected by the downfall in revenue with the decrease in their work and income (Burgess, 2014).

Shift in Music Industry Monetary Flow: Spotify Case Study

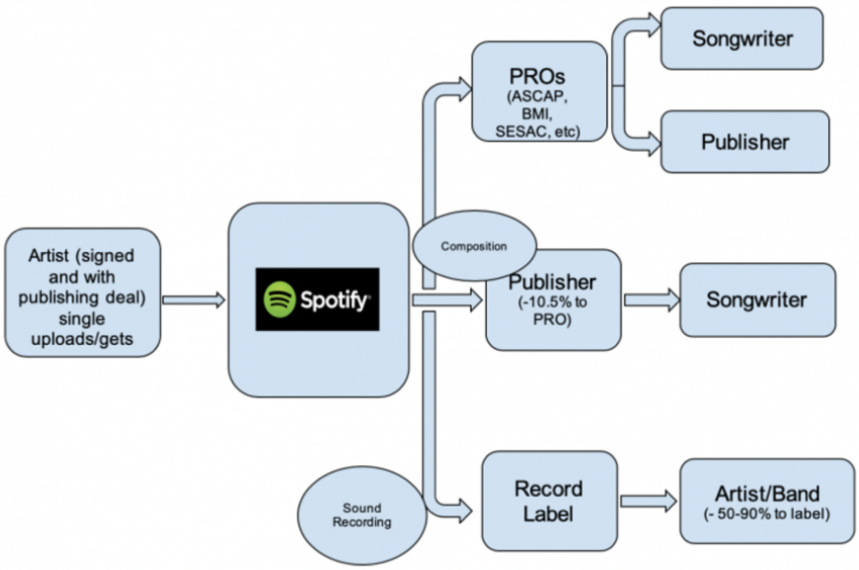
The acceptance of streaming technology, through paradigm shifts and technological momentum, has caused a change in the music industry's monetary flow. To explore the role of streaming services as a stakeholder in music industry revenue, Spotify's revenue distribution will be explored.

In 2017, streaming services made up 70% of the total music industry's revenue, making it a dominant force (Purcell, 2018). Of the streaming services, Spotify is the top streaming platform, making up 20% of the recorded music industry revenue in 2019 (Aswad, 2021). Yet, artists still complain they are not paid enough by the streaming platform (Roche & Smith, 2019). In an article by Roche and Smith, the breakdown of the flow of money through Spotify is represented, seen below in Figure 1. The current model used by Spotify, which is seen in Figure

1, is called the “pro rata system.” Spotify makes money because users pay for their premium services through a subscription and advertisement revenues on the free mode. With the total revenue Spotify makes from these two sources, the company keeps 30% of the money and distributes the rest based on an artists’ total listening numbers. The top 1% of artists listened to on Spotify, as of an article in 2017, made 77% of all artist revenue distributed by Spotify (Brooke, 2016). This means even if a user does not listen to a certain top streaming artist on Spotify, their subscription fee will go towards the top artist.

Figure 2

Spotify Revenue Flowchart (Roche & Smith, 2019)



In the pro rata system, the artist is not paid directly by Spotify. The payment from Spotify goes to the rights holders, who are normally the record labels responsible for the artists (Aswad, 2021). From here, the publishers have the final say in the money going to those involved in producing the artist’s music: sound engineering, producers, managers, and artist (Roche & Smith, 2019).

In 2021, Spotify released a site called “Loud and Clear” with the intent to transparently explain the economics behind streaming (2021). The website addresses how the rights holders are paid and once the money is given to rights holders, it is up to them to distribute the revenue to the artists. In comparison with 2017 when the top 1% of artists made 77% of Spotify’s total revenue, by 2020, Spotify’s overall payouts have grown by 50% (2021). When comparing Spotify’s total royalties payments, it has increased greatly with the more widespread usage of the platform. In 2017 there was $3.3 billion USD of payouts to rights holders, but the number went up to $23 billion USD by 2020 (2021). More artists are sharing the success of Spotify’s mainstream acceptance as a music streaming platform. According to Charlie Hellman, Spotify’s head of marketplace, the platform has seen the number of artists representing 90% of streams quadruple over the past 6 years (Aswad, 2021). Hellman’s words mean the distribution of their pro-rata system is now encompassing a greater pool of artists (Aswad, 2021).

An alternative model of royalties payments from streaming services, called the user-centric model, has also been proposed. The user-centric model still takes the user’s monthly subscription payment for the platform’s premium services, but the distribution to the artists of the money is different. Instead of putting all the platform’s revenue into one pool and dividing the money by the top artists on the platform, the individual user’s money would be distributed to which artists the individual listened to (Ingham, 2018). Streaming services are aware of this model, including Spotify. The data for each user would have to be stored by the streaming service for each month to pay each of the artists on the platform accordingly. It is easier for a platform to make one calculation of their total revenue than to look at analytics for their overall platform, instead of the user-centric model. Spotify made a statement saying the user-centric model has not been adapted as it would have more operational costs (Ingham, 2018).

In comparison to the former model before the introduction of streaming services, a middleman has been added to the process of payments. Rights holders still have the final say in how much their staff and the artist receive from sales (2021). The addition of the streaming platforms as the middleman brings in another stakeholder taking money from the total music industry revenue pool. While Spotify, a streaming service, does not take responsibility for revenue distribution they have been transparent about how its distribution to the rights holders works. Technology services have become a new stakeholder in the music industry, seeming to take away from the original breakdown of revenue distribution. Yet, music streaming in 2020 made up 83% of music consumption in the United States, showing the monthly revenue for an artist is more stable than other means (Friedlander, 2022). These streaming services do provide an aspect of stability as they provide a monthly revenue to rights holders and artists, which was not seen before the introduction of streaming services (Ovide, 2021).

Next Steps

The technological momentum and paradigm shift surrounding music technology and its effects on the music industry's economy will continue to be seen as time passes. The idea of monthly revenue and the middleman have been introduced due to the introduction of streaming services. The history of music technology was explored to retroactively tackle the reasoning as to why these technological platforms and devices had been popular and useful. To continue this research, it would be helpful to look at the technologies moving the music industry forward. More research could be done among the younger generation with polls to see what types of technology would be helpful for their music consumption along with their current music consumption needs.

Final Takeaways as Music Consumers

Moving forward, the idea of digital music consumption through streaming services will continue to be the technology used and accepted by many. Its convenience, personalization, and mobility are aspects which consumers desire and focus on. These key reasons are why the technology for music consumption has changed from stationary record players and their records to streaming services on any device with internet access. The desires of society for wanting these three aspects with their music consumption has changed the technology, which is used and widely accepted, seen through the lens of technological momentum and paradigm shift. This technology continues to shape society as it meets their demands for convenience, personalization, and mobility as society continues to demand more of each aspect. It is important to know what changes the music industry has seen with the different types of technology accepted, and in which ways consumers will not be as disruptive to the music industry.

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