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MA Music Business

New Technology In Music and Creative Entertainment

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**How new technology has turned the music
industry from a product to a service sector.**

In this essay I will be discussing, and critically evaluating how new technology has turned the music industry from a product to a service sector. I will be diving into the history of technology in the music industry, evaluating the present of new technology, and then making a prediction into the future of new technology. I will be critically evaluating how new technology has turned from a product to a service sector, and where it might be going.

Some research of technology in the music industry can go back 40,000 years ago when the first invention of an instrument (product) was made; the flute. Discovered in a cave in southeast Europe in 1995, apparently created by Neanderthals. As important as that may sound to the history of music, the technology that supports, and lays our foundation of the music industry today as we believe dates back to the 20th century. From Thomas Edison's invention of a product, The Phonograph to Daniel Ek's invention of a service, Spotify, and to the "Future" of Blockchain, another service created by the brilliant mind of Satoshi Nakamoto who's true identity is still yet to be known, and in that ultimately predicting the future of technology as a whole to be a Banksy type future. Music as we deem to know has been birthed through technological involvement, and has enhanced the music industry so very much that one could say without technology, music would not be where it is today.

So before I delve any further into the history of technology, and critically analyze new technology, and how new technology has turned the music industry from a product to a service sector, I start by briefly describing what a product, and a service is and the difference between the two so one can identify the product, and the service within the music industry much easily later on in this essay.

A product can be defined as something to be offered for observation, possession, acquisition or use that can satisfy a need, and or want. A product does not only involve goods such as a phone or a bike, but can also include non-physical objects as they can also be offered to a market. So in hindsight a product includes services, places, and events leading to things such as a bike, and or phone, which are products, but also can a holiday or council from a doctor. One could argue and say if the meaning of a product already includes 'services' where is the difference? Yet a service is a special type of product that involves projects, well-being or fulfillment offered for sale but that are non-physical, and do not end in the ownership of anything to the customer.

The first sign of technology that allowed music to be heard was 'The Phonograph' invented

by Thomas Edison in 1877. In that era the only way you could listen to music was live, or you played it yourself. The Phonograph helped several genres of music be heard and be popularized, genres such as blues, jazz, 'hillbilly' music, and opera were among the many. This musical product made music possible by grooves of tin foil discs that would need a metal needle when in rotating to create sound waves that came out through a horn shaped metal speaker. The first sound of music to be played on the phonograph was none other than Handel, the German baroque composer. The technology of this product has been somewhat emulated later down musical technology to products like the vinyl player. Neither the less The Phonograph played an important role in the technology of music as a whole, redefining the entire music industry. The Phonograph changed how people heard music, and was the start of an 'on demand' type of listening where the product became a music system that you can listen to when you want, and wherever you want. People could then choose either to be social by going to a bar, and or go to a live music event with a group of friends, or choose to stay at home alone in some sort of isolation from the world, and immerse themselves with the sounds from The Phonograph.

The next technology invention that impacted the music industry was a product that was initially first used as communication in Morse code for maritime communication, and in 1920 became a mass communication for the whole world. Music hit the airwaves becoming a national sensation in especially the US. Till this day radio has become an essential part of peoples lives, from hearing the radio on the way to work, and even to almost every household having a radio. Early radio consisted of a microphone hung over a Phonograph to send airwaves out to large audiences, and till this day radio is basically the same thing but with a better microphone, and an up to date 'Phonograph'. Not too long after came the invention of the Television, which was able to bring music into a visual aspect, and musicians became popular from the comfort of peoples homes. Through this new technology, the music industry was able to use marketing, and distribution to the best of their abilities, as radio, and television where the primary sources of distributing music to the wider public.

Television birthed MTV on the 1st of August 1981, a channel that plays music videos of musicians, and artists helping these bands to get exposure around the world. Around 1984 MTV became one of the most watched channel in almost every American house hold, leading record companies, and advertisers to spend millions of dollars on music videos for artists making MTV to become a pop cultural phenomenon. Television plays a huge part of the birth of the music industry, and was a product that was used by the music industry to target audiences through the channel MTV, transforming the music industry to a powerful weapon of marketing, and distribution.

The two products that where huge transformations in technology in the music industry where the cassette tape and the CD. The cassette tape was created in 1962 in Belgium, developed to create a new technology in storing audio. This product replaced the reel-to-reel recorders which dominated the music industry in the late 1940's until the 1990's when digital technology started to take over. The cassette tape allowed people to record audio similar to the way of the reel to reel but without all the bells and whistles, and high technical skills needed to

work a reel to reel. Cassette tape became extremely popular as Sony walkmans were created so an owner of a walkman can carry their music everywhere with them. By the late 80's cassette tapes peaked dropping drastically in the European, and North American markets. The only new technology that could take the cassette out of the market was the compact disc, CD. The CD became extremely popular in the 1990's and by 2001 cassette tapes had basically almost disappeared from the market as its market share was less than 5% and by 2002 music companies had stopped producing cassette tapes. CD's were better because they had better data storage capacity, better ability in humid conditions, higher bandwidth, better sound quality, cheaper to reproduce, and longer life span, and quality overall. CD's were also playable off portable devices, I personally remember having a portable CD player at the age of ten or so, and it was super cool.

Another of the biggest changes in the technology of the music industry was created by the German genius Karlheinz Brandenburg, and it was called MP3. Karlheinz creation of the MP3 was designed to compress audio at a 12 to 1 ratio without losing quality. This creation found its way around the internet, and was big trouble for the music industry. MP3 changed how people carried music around, allowing creations such as MP3 players, and the iPod to come to existence, and not forgetting Peer to Peer sharing services that allowed people to share music over the internet such as Limewire, and Napster created in 1999 which to many of the music industry professionals, and artists almost destroyed the music industry due to the trading, and sharing of millions of free songs, and albums. MP3 players were launched in 1997 evolving from computers, and battery technology allowing people to carry hundreds of songs in their pocket. One could even say the launch of iPod, and iTunes created by Steve Jobs in 2001 was highly influenced by the technology of MP3. In 2004 iPod dominated the drive-based player market with 90% share. The MP3 technology has created massive waves in the music industry to allow users to carry music around with them. I believe the whole concept of MP3 has inspired today's music industry with the likes of Spotify, and iTunes streaming music through a service provider. One could question, without the creation of MP3 would we have one of the biggest music streaming companies in the world, Spotify?

As we can see from the examples above, the way we consume music has changed in many ways, and technology has played a huge part in the evolution of music, and the music industry as a whole. New technology has been able to transform our engagement, and relationship of music in today's day and age from a product to a service sector. We now have smart phones, with paid subscriptions to online streaming services, and platforms allowing us access to millions of songs just by the touch of a button. Physical sales such as CD, and cassette decreased immensely from 132 million CD's sold in the UK in 2008, and ten years later in 2018 this figure completely changed to 32 million, which shows a drastic fall of physical sales. The usual way, and accepted way of engaging with music through new technology obviously didn't happen over night, but during the last few years it has. When we delve into services such as Spotify, Apple music, and Amazon music unlimited we see how new technology has become a service provider, rather than a product as these are all digital music streaming services that give a member access to millions of songs, and podcast from musicians, and artists all over the world. Spotify for example in April

2019 is such a great service sector for consumers that it engaged with more than 100 million users worldwide who now pay for Spotify Premium. I personally do not believe the music industry would have been able to reach that many people in the time of the Phonograph, if so we would still have them in the stores today. Services such as Spotify, and Apple Music who from launching in 2015 till April 2019 engages with 60 million paid users globally are service sectors that are doing something right in today's generation, and are not just engaging with a few people, but the whole world itself. The intensified growth of services such as Spotify, Apple Music and others show a change in the expectations of music consumption for consumers; the need for access of music wherever, and whenever. New technology services such as YouTube Music, Tidal (an American music streaming service) and Soundcloud are used by the masses that they can be put in categories such as independent artists (YouTube, and Soundcloud) better music quality (Tidal) and discovery of new artists.

New music technology has become solely service sectors because of the use of collating algorithms. These algorithms is the reason why these new music technologies are able to cater to any type of listener. Algorithms are used to find out what listeners like listening to through machines installed in the music software, and these algorithms are able to collate listening habits for their users making music engagement very personal to the individual. We can see this through personalized user playlists on Spotify and Apple music.

The future of New Technology in the music industry in my opinion looks very bright. As the world advances, so does technology as a whole, and service providers such as Spotify I believe will keep expanding, and providing more answers to problems that consumers of music may encounter. Goldman Sachs predicts in a report on the recorded music industry that paid streaming will generate 27.5 billion dollars for labels and artists ten years from now in the year 2030, and the overall annual global trade steaming revenue will reach 37.2 billion dollars. This prediction shows that streaming services will continue to grow, and make money for the music industry as a whole. Goldman also predicts that in 2030 there will be 1.15 billion paying streaming subscribers globally, and out of this over two thirds (68%) will come from emerging markets, rather than established markets. This prediction again shows that even more new technology will be created from entrepreneurs, and new businesses that target the service sector of the music industry. There will be more platforms like YouTube, TickTock, and Spotify and the world will be more than engaged in the music industry. Music labels will be more active in the approach of service to consumers, and will find ways of providing this, and or working with companies that provide this service sector as they see that this is where the world is moving towards, and engaging more with.

"We should never be complacent and think that happy days are here to stay. You should always be looking to evolve, to anticipate the needs of the market and the changes in the market and to serve your audience and serve your fans." - Stu Bergen (Warner Music Group) April 2019

Technology continues to push the boundaries, and continues to advance to higher standards. At one point cassettes were the popular route to listening to music, now in the 2020's we can stream our favorite artists from the internet, and from applications on our hand held devices anywhere, and anytime. Edgar Bronfman Jr the former head of Warner Music sums up the achievement of new technology in the music industry very well.

"The history of the music industry is inevitably also the story of the development of technology. From the player piano to the vinyl disc, from reel-to-reel tape to the cassette, from the CD to the digital download, these formats and devices changed not only the way music was consumed, but the very way artists created it." - Edgar Bronfman, Jr

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