DOI: 10.23977/artpl.2022.030107 Clausius Scientific Press, Canada

Critically Evaluate the Impact of Digitalisation on the Cultural Industries

-To what extent for the digitalisation of music had an impact on music sale?

Huang Jiaoya

University of Nottingham, Quanzhou, 362000, China

Keywords: Cultural industries, Digitalisation of music, Spotify, Qq music

Abstract: This essay has explored the extent of the impact of the digitalisation of music on music sales. This essay has revealed that technological advancements which have facilitated the creation of the gramophone, the Internet and P2P social networks have all contributed to the digitalisation of music. However, it is also evident that digitalisation has effectively become an efficient music promotional tool that is used by artists and record labels alike to promote newly released music. Studies discussed in this essay have revealed that digital platforms such as Spotify and QQ Music have stimulated music sales both online and offline.

1. Introduction

The music industry prior to wide-spread digitalisation, consisted of a vertical market structure whereby musicians provided a small number of large record labels with their music, who then funded, produced and marketed the music to consumers through a fragmented music industry (Hesmondhalgh, 2009). Digitalisation has led to the creation of a new disjointed market structure in the music industry, which has contributed to the demise of large record labels (Hesmondhalgh, 2010). Bustamante (2004) defines digitalisation as a process of incorporating digital technologies into everyday life by digitising everything that can possibly be digitised. The most complex technology innovation that has impacted the music industry is digitalisation since it has led to the music industry worldwide experiencing radical changes in the amount of profit that large record labels can accrue (Hesmondhalgh and Meier, 2018). Several countries globally have experienced a disintermediation of record labels, with more power and profit shifting to musicians due to the emergence of self-publishing streaming platforms such as Spotify, Soundcloud, Pandora etc (Aguiar and Walfogel, 2015; Datta et al., 2017).

Situated within a shift towards the disintermediation of record labels, this essay explores one key research question. To what extent has the digitalisation of music had an impact on music sales? In examining the literature on the digitalisation of recorded music in the music industry, this essay contends that self-publishing platforms such as a Spotify which are a product of digitalisation have reduced the amount of physical music sales while shifting power away from record labels and into the hands of musicians globally. The research question is answered in the three sections: the first section of this essay will briefly explore the music industry pre-digitalisation globally. This is to determine the impact that digitalisation has imposed on musicians on music sales. The second

section of this essay will critically explore the impact of music streaming in the UK and US as well as exploring music streaming in the US in-depth and using Spotify as a case study. This essay will conclude by discussing the implications of digitalisation for musicians and record labels in China by using QQ Music as a case study.

2. The Music Industry Pre-Digitalisation

The music industry worldwide has undergone several transitions within the past few decades, and this has been heavily shaped by the rapid evolution of media technologies (Moreau, 2013). There has been a clear and apparent recent change in the way music is consumed in contemporary society and this has significantly negatively impacted music sales. Over the past 20 years, there has a been a significant shift away from the prior dominant ways of consuming recorded music (Molteni and Ordanini, 2003). Maxwell and Miller (2012) note that in the mid-1990s music was mostly purchased by financially comfortable consumers in wealthier parts of the globe who purchased CDs or cassettes from specialist music stores such as HMV in the UK. However, Hesmondhalgh and Meier (2018) argue that there has been a shift and an emergence of a new ecology of music consumption instigated by the digitalisation of music. This has led to the emergence and use of online subscription based music streaming platforms such as Spotify in the relatively wealthy Global North (Oestreicher and Kuzma, 2009).

Prior to the digitalisation of music, the phonograph invented by Thomas Edison in 1877 is acknowledged as the first playback music device, that was used to read the pressure exercised by the recorded soundwaves embedded in the device (Knowles, 2003). This was a significantly difficult way to listen to music, as the music played by the device was barely audible. Therefore, the device was enhanced by Alexander Graham Bell and Charles Tainter, who used the features of the phonograph to devise the graphophone in 1887 (Knowles, 2003). This device heightened the sound of music, but this technology was too costly to purchase for private music consumption. However, this later changed in 1887, when Emil Berliner invented the flat disc so music could be played on a gramophone. Berliner's invention commercialised and transformed music into a convenient and private activity. McCourt and Burkat (2003) argues that this led to a dependence on physical mediums for consuming music and cultivated the music industry into an oligopoly.

Following this crucial invention, Moreau (2013) argues that the invention of the 'star system' by Decca in 1929 which used the radio to play and promote music in the 1920s and 1930s had a positive impact on music sales. This is because the major record labels viewed the radio as an efficient marketing and promotional tool that could be used to broadcast the work of new music artists, which stimulated and encouraged music purchases. This illustrates that pre-digitalisation, the invention of different media technologies have had a relatively positive impact on music sales as both the gramophone and radio have encouraged music purchases, which has increased music sales (Huygens et al., 2001).

Sinclair and Green (2015) note that during the pre-digitalisation era where the music industry enjoyed a substantial oligopoly, there were less opportunities for illegal music consumption. Therefore, music sales were more likely to be guaranteed during this era. However, digitalisation and the growing dominance of the Internet combined with the popularity of social media platforms such as Facebook and Instagram have led to the emergence of P2P (peer-to-peer) technologies such as Frostwire and Limewire which contributed to a rise in music piracy in the early 2000s. This has significantly harmed music sales, as individuals are now able to access a wide catalogue of music for free (Wang et al., 2009). Therefore, Sinclair and Green (2015) theorise that digitalisation has had a negative impact on music sales due to the existence of P2P networks and technologies.

Therefore, they suggest that if these technologies continue to exist unrestricted there will be a likely reduction in music purchases, which hinder the amount of music sales the industry can accrue.

3. The Impact of Music Streaming

The extent of the impact of digitalisation on music sales can be seen in the rising dominance of music streaming platforms (Carboni, 2014). Patokos (2008) argues that music sales have reduced due to digitalisation, as music streaming has become a convenient manner to consume music. Bourreau et al (2008) refers to the reduction of music sales as a by-product of the 'digital revolution', which has led to reduced production and purchase of physical copies of music. There is no longer a reliance on purchasing physical mediums such as CDs for music consumption purposes. Similarly, Hiller (2016) supports this argument by further stating that the rise of music streaming has meant that consumers are no longer only passive listeners. Consumers have more control in the sense that they can actively determine the financial success and viability of a song, due to their capacity to simply play a song on a music streaming platform. Therefore, Warr and Goode (2011) notes that the ease of music streaming for consumers has completely changed the sphere of music for record labels and artists, as this has led to less of a need for record labels and intermediaries in the music industry. Thus, Warr and Goode (2011) refer to digitalisation and the wild west nature of the internet as a type of metaphorical Pandora's Box which has placed the music industry in a precarious position with increasingly declining music sales.

However, Butler (2018) argues that digital music streaming has fuelled the biggest rise in UK music sales for the past two decades. Butler (2018) states that there has been a significant surge in music streaming via digital streaming services such as Spotify and Apple Music worldwide, and this has promoted the UK to experience the fast growth in music consumption since the 1990s. UK consumers are said to have purchased 135 million albums in 2017 across a variety of formats including CDs, digital downloads, music streams from subscription based platforms and vinyl albums. This represents a 9.5% increase from 2016, which illustrates that music streaming has effectively encouraged music sales to flourish in countries such as the UK. Similarly, Wolfson (2018) supports Butler's (2018) argument, by stating that music streaming has saved the music industry, as the decline in physical music sales has been cushioned by an increase in music streaming. In the US in 1999, annual revenues for music industry label players fell from \$14.6 billion in 1999 to \$6.3 billion in 2009. Wolfson (2018) notes that the tables have turned, and now key music industry label players are experiencing a 10.6% yearly rise in revenue which is attributed to the popularity in music streaming. This indicates that the digitalisation of music which brought about music streaming has had a positive impact on music sales, to the extent that the impact of the reduction in the purchase of physical copies of music is softened for record labels and artists (Thomes, 2013; Thomes, 2011).

On the other hand, Lal (2018) criticises this positive perception and evaluation of the impact of digitalisation of music on music sales. Instead, arguing that subscription based music streaming platforms such as Spotify only pay artists on average \$0.0038 per stream in the US. This is a much lower rate of pay than what artists received pre-digitalisation, and this is because the financial value of streams is much lower than the value of physical copies such as CDs or vinyl albums. Therefore, Lal (2018) contends that although streaming and the overall era of digitalisation in the music industry has made listening to music more convenient for consumers. This has come at a cost to record labels and artists, who are producing the same content for lower pay in the US. Moreover, Lal (2018) also notes that there has been a fall in the purchase of physical music mediums combined with the low rate of pay for streams, digitalisation has had a significantly negative impact on sales by reducing the amount of commercial profit available for both record labels and artists.

Additionally, Dang Nguyen et al (2012) supports this criticism by stating that record labels in the US have continued to maintain outdated royalty agreements with artists even in light of the dominance of digitalisation. This has led to music streaming platforms such as Spotify becoming substitute music consumption modes. Record labels typically have clauses in their contractual agreements with artists, which entitle them to additional percentages from an artist's music sales for the cost of promotion, production and distribution of music. However, as subscription based streaming services have become more popular, record labels are still deducting percentages from artist's sales despite streaming services not incurring the same expenses as the physical production of CDs or vinyl records. With the growth of social media, this has led to a substantial number of artists educating their fan base on this contractual loophole in an attempt to dissuade consumers from purchasing physical music mediums, to reduce the amount of physical music sales they acquire.

In an effort to further explore the extent of the impact of the digitalisation on music sales, Spotify's presence in the US is used as a case study in this essay to illustrate both the negative and positive impact that music streaming has brought about for the music industry. The US is the main focus due to the industry having a substantial presence in American society. Spotify is an online and offline streaming music service that launched in 2008 and was later valued at \$5 billion US Dollars in 2015 (Elberse and Pfyffer, 2016). Spotify has given artists that do not have record deals, money to support their musical development, to encourage them to release their music directly onto Spotify (Shaw, 2018). Spotify users have the option of either subscribing the to the platform's 'freemium' model which displays advertisements or the paid subscription where there are no advertisements nor any restrictions on using the platform. There are approximately over 100 million users, with 83 million users paying £9.99 or £5.99 monthly, which makes Spotify the biggest music streaming subscription service platform in the world (Gartenberg, 2018; Statista, 2018). Eliot Van Buskrirk from Wired magazine described Spotify as, 'a magical version of iTunes, where you've already bought every song in the world' (Swanson, 2013, p.208). A wide variety of music genres can be accessed on Spotify's online and mobile application platform. Figure 1 illustrates Spotify's mobile application interface, consumers can use the application to create their own playlists from the over 20,000,000 songs available on the platform (Limjoco, 2016).

Swanson (2013) argues that Spotify has radically transformed the music industry and has arguably had a positive impact on music sales. This is because artists who own their masters are given 70% of the royalties their song has acquired in accordance with the popularity of their song on Spotify. This means that artists are able to by-pass record labels, who no longer hold an oligopoly on the music industry (Maftei et al., 2016). Moreover, artists who produce popular songs may be able to earn more income than what they would have been entitled to under the traditional income stream model pre-digitalisation. However, Swanson (2013) notes that under the traditional income stream model, on a CD that retailed for \$10 US Dollars, popular artists earned 20% of the retail revenue which is equivalent to \$2 US Dollars per CD. However, Swanson (2013) states that the majority of artists are more likely to earn \$1.20 to \$1.40 per CD. The remaining revenue is split between production, the record label and songwriters. This frequently resulted in 97.9% of artists earning nothing from their albums, as record labels need to recoup their financial investments in albums. Therefore, Wlömert and Papies (2016) argue that digitalisation has had a partially positive financial impact on music sales, as the convenience of streaming has led to higher rates of music consumption.

Furthermore, Swanson (2013) states that several academics and commentators have ignored the fact that Spotify has paved the way for several online revenue streams that artists can utilise to accrue more music sales. For example, Spotify's popularity has led to the emergence of Advertisement Revenue, fan funding, cloud storage payments, and label settlements. Therefore, it is

evident that Spotify has substantially changed the economics of the music industry and changed the way music sales can be accrued. Thus, Nordgård (2016) states that the digitalisation of music via Spotify has led to a challenge and continuous disruption in the power dynamic between record labels, artists and consumers. There is a desire to stimulate music sales.

4. The Implications of Digitalisation for Musicians and Record Labels in China

A key implication of the digitalisation of music for musicians in China which differs from the US and UK market, is that music streaming platforms such as QQ Music, Xiami and Wangyi often engage in copyright infringement and intellectual property theft to be a leader in the revolutionised music industry in China (Mateer, 2016). Therefore, Mateer (2016) argues that several musicians and small record labels that distribute indie non-mainstream music in China do not have the power to remove their music from streaming and online digital music libraries. This illustrates that digitalisation has not arguably enhanced the amount of power that Chinese musicians hold compared to the US, where musicians are more in control of the distribution of their music. Mateer (2016) refers to this as a 'stream first, licence later' perspective, due to the minimal amount of copyright regulation that does not protect music artists. This illustrates that digitalisation has facilitated a wild west culture that has negatively impacted music sales. Chinese artists such as Fu Han the frontwoman of Queen Sea Big Shark who reported that she does not earn any income from her music as a result of digitalisation (Mateer, 2016).

To illustrate the implication of the digitalisation of music on music sales in China, QQ Music which is a streaming platform in China that belongs to Tencent Music will be used as a case study. Tencent Holdings Ltd is acknowledged as China's largest music and entertainment company that's owns QQ Music which is regarded as a highly popular streaming platform. Tencent has encouraged the continued digitalisation of music in China and has taken note of the 478 million people in the country that listen to music online especially via their mobile phone (Werner, 2016). This figure is larger than the entire population of the US and illustrates the substantial impact that digitalisation has had on the Chinese music industry. There are reportedly 700 million users that use the freemium version of the mobile and computer application to listen to music with paid advertisement interruptions. There are also 120 million paid subscribers that use the application without any advertisements or interruptions.

Lin et al (2017) suggests that the digitalisation of music has killed music sales and uses QQ Music to state that the platform has acquired a market monopoly over the music industry in China, and the platform established itself via piracy. This indicates that there is a substantial disregard for musician's potential profit or revenue accumulation from digitalisation. Therefore, Lin et al (2017) remark that independent artists who attempt to use QQ Music as a substitute for physical music medium sales receive minimal royalties and are in a weaker position compared to record labels who can negotiate beneficial streaming royalties for their artists. Moreover, compared to Spotify which charges consumers from \$5.99 to \$9.99 US Dollars per month for a single paid subscription, QQ Music only charges consumers \$1.47 US Dollars per month. Despite QQ Music offering almost identical features that Spotify offers to consumers in the US. For example, QQ Music's \$1.47 US Dollars per month package provides consumers with high quality music, which is an identical feature offered by Spotify in the US for a much higher monthly price. This indicates that streaming for independent artists in China is not economically viable, due to the low monthly fees' consumers pay, there is a lack of opportunity for artists to economically viable royalties.

However, Lyon (n.d.) disagrees with Lin et al's (2017) suggestion, instead Lyon (n.d.) argues that music sales pre-digitalisation in China were always remarkable low. This is due to rampant music piracy during the CD era, whereby there were consistent acts of large scale copyright

infringement orchestrated by consumers and retailers. Therefore, Lyon (n.d.) states that the reduction in music sales is not solely attributable to digitalisation, as this occurred long before the existence of QQ Music. Moreover, Lyon (n.d.) reports that since 2011, there has been legal and regulatory changes in China that have been implemented to strengthen the rights of musicians and increase music sales. This is illustrated by China's Ministry of Culture that created the Alliance of Digital Music Industry in 2011, which consists of 9 companies that abide by copyright legislation and ensure that digital product owners e.g. musicians are able to effectively participate in a profit-sharing mechanism to acquire their deserved portion of royalties. Thus, Lyon (n.d.) states that demonising the digitalisation of music in China and regarding it as the era that has killed music sales exaggerated and digitalisation has actually stimulated sales, by making newly released music in China more widely known by consumers.

On the other hand, it is arguable that copyright laws and profit-sharing regulations in China are still relatively new. Therefore, enforcement of these laws and regulations are highly likely to be imperfect. When contrasted with the US, who have long-standing copyright laws and regulations that protect both artists and record labels, China appears to have less protection for musicians and has progressively reduced the number of music sales via piracy and a focus on affordable streaming (Lyon, n.d.). However, Hiller and Kim's (2014) study on the impact of digitalisation on music sales using music video availability on YouTube and other digital platforms globally as the research tool, found that when Warner record label removed music from YouTube and other digital platforms, music sales increased both digital and physical music sales i.e. CDs. The findings of this study indicate that streaming has the capacity to cannibalise music sales. The findings of Hiller and Kim's (2014) study support Lyon's (n.d.) postulation that digitalisation has not killed music sales alternatively, digitalisation be viewed as a powerful promotional tool, that can be used to build awareness of newly released music. This is similar to the findings of Kretschmer and Peukert's (2014) study which examined the impact of music videos excluded from digital platforms such as YouTube and streaming platforms such as QQ Music. The study found that when music was removed from digital platforms, album sales were low. In contrast, when music remained on digital platforms, album sales were high.

Thus, Aguiar and Waldfogel (2015) argue that a positive impact of digital platforms such as QQ Music is that they can stimulate music sales. This is because of the interconnected nature of the Internet, individuals usually learn about new music via social media platforms such as WeChat in China. Therefore, if certain song were unavailable on popular digital platforms, potential consumers are unlikely to be aware of their existence. Aguiar and Waldfogel (2015) state that digitalisation has a had a positive impact on music sales globally especially in countries such as China where, large streaming platforms such as QQ Music have dominated the online sphere. The extent of the benefits of digitalisation are limited to the amount of financial gain that artists and record labels are able to negotiate and accrue from digital downloads and streams.

5. Conclusion

To conclude, this essay has explored the extent of the impact of the digitalisation of music on music sales. This essay has revealed that technological advancements which have facilitated the creation of the gramophone, the Internet and P2P social networks have all contributed to the digitalisation of music. This has led to the creation and dominance of streaming services such as Spotify's dominance in the US and QQ Music's popular presence in China. These music streaming platforms have cannibalised physical music sales as well as paid digital downloads, due to the convenience of streaming sites which offer a wide catalogue of music to paid and free subscribers.

However, it is also evident that digitalisation has effectively become an efficient music promotional tool that is used by artists and record labels alike to promote newly released music. Studies discussed in this essay have revealed that digital platforms such as Spotify and QQ Music have stimulated music sales both online and offline. This demonstrates that the digitalisation of music has not had an overwhelmingly negative impact on music sales, which is the perspective that is most perpetuated in the media. Evidently, China has been plagued by lax copyright infringement rules and piracy from the pre-digitalisation era and even in the digitalised era, music sales remain at a similar level. In contrast, the US has seen lower earnings for artists and record labels, as well as low physical music sales. However, there are far more opportunities for independent artists to accrue profit from their music in the US. This indicates that digitalisation has a negative impact on music sales when artists rely solely on one revenue stream i.e. Spotify or QQ Music as a means of acquiring an income for their music in both the US and China.

References

- [1] Aguiar, L., & Waldfogel, J. (2015). Streaming Reaches Flood Stage: Does Spotify Stimulate or Depress Music Sales? (Working Paper No. 21653). National Bureau of Economic Research.
- [2] Bourreau, M., Moreau, F., & Gensollen, M. (2008). The Digitization of the Recorded Music Industry: Impact on Business Models and Scenarios of Evolution (SSRN Scholarly Paper No. ID 1092138). Rochester, NY: Social Science Research Network.
- [3] Bustamante, E. (2004). Cultural industries in the Digital Age: some provisional conclusions. Media, Culture & Society, 26(6), 803–820.
- [4] Butler, S. (2018). Digital streaming behind biggest rise in UK music sales for two decades. The Guardian. Retrieved 19 December 2019, from https://www.theguardian.com/business/2018/jan/03/digital-streaming-behind-biggest-rise-in-uk-music-sales-for-two-decades
- [5] Carboni, M. (2014). The digitization of music and the accessibility of the artist. Journal of Professional Communication, 3(2), 149–164.
- [6] Dang Nguyen, G., Dejean, S., & Moreau, F. (2012). Are Streaming and Other Music Consumption Modes Substitutes or Complements? (SSRN Scholarly Paper No. ID 2025071). Rochester, NY: Social Science Research Network.
- [7] Datta, H., Knox, G., & Bronnenberg, B. J. (2017). Changing Their Tune: How Consumers' Adoption of Online Streaming Affects Music Consumption and Discovery. Marketing Science, 37(1), 5–21.
- [8] Elberse, A., & Pfyffer, A. de. (2016, July 28). Spotify. Retrieved 16 December 2018, from https://www.hbs.edu/faculty/Pages/item.aspx?num=50247
- [9] Gartenberg, C. (2018). Spotify hits 83 million paid subscribers. Retrieved 5 January 2019, from https://www.theverge.com/2018/7/26/17616404/spotify-paid-subscribers-83-million-streaming-music-quarterly-results
- [10] Hesmondhalgh, D. (2009). The digitalisation of music. In A. C. Pratt & P. Jeffcutt (Eds.), Creativity, Innovation and the Cultural Economy (pp. 57–73). Abingdon-on-Thames: Routledge.
- [11] Hesmondhalgh, D. (2010). User-generated content, free labour and the cultural industries. Ephemera, 10(3/4), 267–284.
- [12] Hesmondhalgh, David, & Meier, L. M. (2018). What the digitalisation of music tells us about capitalism, culture and the power of the information technology sector. Information, Communication & Society, 21(11), 1555–1570.
- [13] Hiller, R. S. (2016). Sales displacement and streaming music: Evidence from YouTube. Information Economics and Policy, 34, 16–26.
- [14] Hiller, R. S., & Kim, J. H. (2014). Online Music, Sales Displacement, and Internet Search: Evidence from YouTube (pp. 1–30). CAPRI Center for the Analysis of Property Rights and Innovation.
- [15] Huygens, M., Van Den Bosch, F. A. J., Volberda, H. W., & Baden-Fuller, C. (2001). Co-Evolution of Firm Capabilities and Industry Competition: Investigating the Music Industry, 1877-1997. Organization Studies, 22(6), 971–1011.
- [16] Knowles, S. D. G. (2003). Death by Gramophone. Journal of Modern Literature, 27(1/2), 1–13. Re
- [17] Kretschmer, T., & Peukert, C. (2014). Video Killed the Radio Star? Online Music Videos and Digital Music Sales (CEP Discussion Paper No 1265). London School of Economics and Political Science, London.
- [18] Lal, K. (2018). Is music streaming good or bad for artists? Retrieved 3 January 2019, from https://www.redbull.com/au-en/music-streaming-pros-and-cons

- [19] Lin, L. E., Stewart, A., & Cook, A. (2017). China and the Monopoly of Music Streaming | Music Business Journal | Berklee College of Music. Retrieved 18 December 2018, from http://www.thembj.org/2018/01/china-and-the-monopoly-of-music-streaming/
- [20] Lyon, R. (n.d.). Mobile Music Streaming In China: A Vibrant Industry In A Tough Market. Retrieved 16 December 2018, from https://www.hypebot.com/hypebot/2019/01/mobile-music-streaming-in-china-a-vibrant-industry-in-a-tough-market.html
- [21] Maftei, V. A., Gerogiannis, V. C., & Papageorgiou, E. I. (2016). Critical success factors of online music streaming services-a case study of applying the fuzzy cognitive maps method. International Journal of Technology Marketing, 11(3), 276–300.
- [22] Mateer, N. (2016). The Impact of Online Music Streaming on Chinese Artists. Retrieved 14 December 2018, from http://www.thatsmags.com/shanghai/post/13698/the-impact-of-online-music-streaming-in-china
- [23] Maxwell, R., & Miller, T. (2012). Greening the Media. Oxford: Oxford University Press.
- [24] McCourt, T., & Burkart, P. (2003). When Creators, Corporations and Consumers Collide: Napster and the Development of On-line Music Distribution. Media, Culture & Society, 25(3), 333–350.
- [25] Molteni, L., & Ordanini, A. (2003). Consumption Patterns, Digital Technology and Music Downloading. Long Range Planning, 36(4), 389–406.
- [26] Moreau, F. (2013). The disruptive nature of digitization: The case of the recorded music industry. International Journal of Arts Management, 15(2), 18–31.
- [27] Nordgård, D. (2016). Lessons from the world's most advanced market for music streaming services. In P. Wikström & R. DeFillippi (Eds.), Business Innovation and Disruption in the Music Industry (pp. 175–190). Cheltenham: Edward Elgar Publishing.
- [28] Oestreicher, K., & Kuzma, J. (2009). The Music Industry & Its Consumers: A Potential Divorce through Technology and Shifting Market Linkages? (pp. 1–13). Presented at the EBES 2009 Conference, Istanbul, Turkey, Kadir Has University Istanbul.
- [29] Patokos, T. (2008). A new era for the music industry: how new technologies and the internet affect the way music is valued and have an impact on output quality. Hertfordshire: University of Hertfordshire.
- [30] Shaw, L. (2018). While Music Streaming Sales Surge, Singers Still Get Paid a Song. Retrieved 19 December 2018, from https://www.bloomberg.com/news/articles/2018-08-06/while-music-streaming-sales-surge-singers-still-get-paid-a-song
- [31] Sinclair, G., & Green, T. (2016). Download or stream? Steal or buy? Developing a typology of today's music consumer. Journal of Consumer Behaviour, 15(1), 3–14.
- [32] Statista. (2018). Spotify users subscribers in 2018. Retrieved 19 January 2019, from https://www.statista.com/statistics/244995/number-of-paying-spotify-subscribers/
- [33] Swanson, K. (2013). A Case Study on Spotify: Exploring Perceptions of the Music Streaming Service. Journal of the Music & Entertainment Industry Educators Association, 13(1), 207–230.
- [34] Thomes, T. P. (2011). An Economic Analysis of Online Streaming: How the Music Industry Can Generate Revenues from Cloud Computing (SSRN Scholarly Paper No. ID 1866228). Rochester, NY: Social Science Research Network
- [35] Thomes, T. P. (2013). An economic analysis of online streaming music services. Information Economics and Policy, 25(2), 81–91.
- [36] Wang, C., Chen, C., Yang, S., & Farn, C. (2009). Pirate or Buy? The Moderating Effect of Idolatry. Journal of Business Ethics, 90(1), 81.
- [37] Warr, R., & Goode, M. M. H. (2011). Is the music industry stuck between rock and a hard place? The role of the Internet and three possible scenarios. Journal of Retailing and Consumer Services, 18(2), 126–131.
- [38] Wlömert, N., & Papies, D. (2016). On-demand streaming services and music industry revenues Insights from Spotify's market entry. International Journal of Research in Marketing, 33(2), 314–327.
- [39] Wolfson, S. (2018). 'We've got more money swirling around': how streaming saved the music industry. The Guardian. Retrieved 10 January 2019, from https://www.theguardian.com/music/2018/apr/24/weve-got-more-money-swirling-around-how-streaming-saved-the-music-industry