Music Streaming and Surveillance Capitalism

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Abstract

This chapter charts the development of the consumer surveillance-based business model that dominates the contemporary music recording industry. Drawing from the surveillance capitalism framework, the contemporary processes music streaming applications use to extract large consumer datasets are explored. Emphasis is placed on the marketing value of music consumption data to both the music streaming providers and potential third-parties. The dominance of this surveillance-logic is considered in the context of its current and potential future impact on the music 'product', artist autonomy and the consumer experience. Specific focus is placed on the potential implications of the continued information inequity for both artists and consumers.

Introduction

> 'Dear person who made a playlist called "One Night Stand with Jeb Bush like He's a Bond Girl in a European Casino," we have so many questions' (Spotify Billboard Campaign, 2016)

The disintegration and commodification of our everyday lives into an infinite series of data points is one of the defining issues of our time. For almost 20 years, following the initial Dotcom financial crash of 2000, the default business model in Silicon Valley, quickly spreading to the rest of the world, has been the development of prediction products and the trading of human futures markets (Zuboff, 2019). We, or more accurately our cumulative human experience, is the oil that has fuelled this market-logic creating unprecedented crises that speak to eroding individual privacy/autonomy, the symmetry of informational access and to the very structures of our democratic institutions.

The impact of surveillance capitalism, (Zuboff, 2019), has taken 10-15 years to pervade our collective consciousness and attract meaningful public scrutiny, fuelled in large part by recent scandals (e.g. Cambridge Analytica, Google Nest) associated with Silicon Valley's biggest data barons (Facebook and Google). These examples, reported on in mass media, are only the tip of the data surveillance iceberg. Academic research has explored privacy concerns beyond search and social networking (e.g. Chang et al., 2016) within a wider number of contexts from location applications (e.g. Banerjee et al., 2020) to electronic identification technologies (Miltgen et al., 2016). However, issues concerning surveillance and privacy have received little consideration in arts marketing research. This is surprising, considering how central consumer surveillance market-logic has been to the recent growth of media platforms such as Netflix and Spotify. Although there has been increasing attention in media studies regarding the position of recommendation algorithms as cultural intermediaries (see Gillespie, 2014) and subsequent implications in terms of consumer personalisation (see Prey, 2018), gender

and racial bias (Benjamin, 2019) and ultimately cultural power (Lash, 2007); there has been a lack of research that has mapped out the dynamics and implications of such changes through the specific lens of consumer surveillance. This chapter uses Zuboff's (2019) framework to chart the emergence of the surveillance model in the recording music industry and the impact this has on the music 'product', consumer experience and the artist.

Meanwhile, Rome burns

> Marcus Licinius Crassus created the first fire brigade for the city of Rome in approximately AD 60. They would rush to burning buildings and negotiate a cheap price to purchase the building with a panicked-stricken owner. If the owner refused, they would let the building burn to the ground.

The music recording industry has suffered many crises in its short history. It is an industry tied up with the usual economic and social shifts that any other business is vulnerable to but it is also particularly susceptible to technological disruption. For example, the advent of commercial radio in the 1920s (Liebowitz, 2004) and recorded cassette tapes in the 1980s (Laing, 2012) were viewed as potential threats to the entire business model. However, the industry, and the major labels in particular (Sony, Warner, EMI, Universal and their various guises), have found ways to control new formats (e.g. gatekeeping of radio stations) or the pivoting of new technologies in ways (e.g. re-issuing of back catalogues on CD) that have further centralised their power over artists.

The arrival of Napster at the end of the 20th century changed everything. The impact of peer-to-peer file sharing and related piracy on the recording industry has been documented in detail in a number of academic disciplines, including economics (see Hui and Png, 2003), law (Wingrove et al., 2011) consumer marketplace research (see Giesler, 2008), sociology (Rojek, 2005) and media studies (Marshall, 2004). The headlines are essentially that (1) revenues collapsed. Between 1999 and 2015 recording industry revenues fell by 47% (The Recording Industry Association of America, 2015). Although the degree of the collapse and the direct role that digital piracy played can be disputed (see Cusic et al., 2005), in addition to its impact on revenue outside the immediate recording sector, the (2) ineptitude of the industry's response to the digital revolution is much harder to argue with. Instead of seeking to embrace the emerging technologies and work them into their business model, the early 21st century was mostly wasted time in which the record labels sought to attack consumers both legally (Fisher, 2004) and morally (Cesareo and Pastore, 2014) for pirating music. Although, it is somewhat unfair to criticise a business for taking the required steps to stop what can be essentially viewed as the 'stealing' of their product, the reality is that the genie was already out of the bottle. The act of piracy was/is incredibly difficult to police (Taylor, 2006), the presumption that piracy is morally wrong in the first place is problematic (Rojek, 2005) and the majority of consumers had little sympathy for the major labels. Essentially, rightly or wrongly, consumers found ways to align their piracy with their morals. The glacial pace of the industry reaction is perhaps typified by the oft-repeated story that the major labels had the chance to do a deal with Napster, potentially turning it into a music streaming service, much like those we have today, and turned it down. It would be naïve, however, to expect that doing a deal with Napster would solve all of the problems related to digital disruption.

Furthermore, one could argue that there were broader economic and legal issues that also contributed to its demise in the first decade of the 21st century.

It may have taken the record labels almost 15 years, but they have finally leveraged the power of almost a hundred years of recording music into a viable digital business model by partnering with music streaming applications such as Spotify and Apple Music. The industry narrative has been rosy as a result. Total revenues grew by 7.4% in 2020 (IFPI, 2021) and this was mostly a result of an increase (22.9%) in streaming revenue, offsetting a decline (5.3%) in physical revenue. Growth in revenue is connected to a reduction in overall piracy (Hampton-Sosa, 2017). Furthermore, the streaming platforms (please put on your techno-utopian lenses) have provided a platform that has allowed the consumer an almost infinite access to music for 'free', encouraged individual creativity and the development of consumer communities (Hampton-Sosa, 2017). In addition to receiving royalty payments for their work, a greater number of artists now have platforms in which they can potentially earn a living (Hesmondhalgh, 2020) independent from the cultural hierarchies that have traditionally acted as gatekeepers for music dissemination (Prey, 2018). For example, Prey describes how Pandora's Genome Project specifically attempts to offer consumer recommendations, free from genre categories and the 'distorting influence of cultural taste hierarchies' (2018: 1089-90). Spotify does incorporate cultural conversations about music into its algorithm but again, the idea is that this is democratised, as it quantifies data across a much wider spectrum of cultural discussion than the traditionally smaller numbers of influential gatekeepers.

There are a number of problems with this 'democratisation' narrative for both artists and consumers (see Hesmondhalgh, 2019). Sinclair and Saren (2019) explain the re-decentralisation of corporate power within the recording industry as a consequence of the significant back-catalogue of rights the major labels own and the need for the major music streaming platforms to have access to them. Furthermore, Hesmondhalgh (2019) maintains that the rise of streaming has just created more layers and complicated systems of copyright and ownership that further disenfranchise artist labour and in fact diminish control. The issue of low royalty payments for artists has caught the attention of academia (Marshall, 2015) and contemporary music journalism (see Swift, 2014; Pelly, 2018). Pelly, in particular highlights the increasing payment gap between commercially large and small artists. However, it is important to note, as Hesmondhalgh (2020) argues, that coverage of music streaming payments has been somewhat misleading in focusing its attention directly on 'per stream' income metrics. The reality is that artists are mostly paid as a percentage of the total streaming revenue pot (mostly subscriptions and advertising revenue). These critiques overlook the fact that royalty payments have always been low for artists. Furthermore, such agreements between labels/publishers and artists and now labels/publishers and streaming platforms are highly significant in dictating the level of pay an artist is likely to receive from streaming consumption. This remains unacknowledged in most commentary. Regardless, the artists, with what little choice they have, are trapped within this evolving unequal system. The labels have sold the burning building (that was already structurally unstable) to Crassus. The labour inequity and exploitation on display within this capitalist system is not just evident in artist payment. The central issue, that has received less attention (in the arts at

least), is the wider implications of the contemporary consumer-data led business model. How does the emphasis on the surveillance of music consumption and the distribution of information flows impact the characteristics of the music 'product', artist autonomy and the overall consumer experience? We turn to these issues in the next section in greater detail.

Surveillance Capitalism

Zuboff (2019: 1) explains the surveillance system as an economic logic/order that is based on the mining of human experience as raw material (without permission) 'for hidden commercial practices of extraction, prediction and sales.' The conquest of our experiences in the twenty-first century follows the same pattern as industrial capitalism in the two proceeding centuries. The only difference is that nature was the resource then, as opposed to the behavioural surplus left behind by our digital footprint in this 'rogue mutation of capitalism' now. Zuboff describes it as 'parasitic', deeply undemocratic and a threat to human autonomy. In articulating the rise of this contemporary economic order, she documents the influence of investor pressure to monetise internet consumption beyond traditional advertising techniques, focusing on the development of hyper-personalised and targeted prediction markets. The success of Google and later Facebook in navigating the architecture of behavioural future markets was dependent on the appeal of these seemingly free products/services, the evolution of Skinner and Pavlovian behavioural theory through persuasive and captive technologies (captology) to keep us hooked on said services and a complete lack of regulatory oversight while such powerful monopolies came to be.

Surveillance capitalism and music: How does it work?

In short, we are talking about the commodification of human experience, so what took them so long to do this with music? It can be argued that the entire history of the recorded and live music industries can be described as the commodification of a very particular type of human experience, our relationship with music. Similar to other mediums for consuming recorded music, music streaming has economic value in terms of the monetary exchange that takes place between consumer and producer. Furthermore, the data collected through consumption also has financial value. This is the extrinsic value (Holbrook, 1999) of the data that consumers also supposedly benefit from as it is used to algorithmically feed/curate music recommendations. Research (see Sinclair et al., 2019) has commented on the increasing functionalisation (Merriam, 1964) of music via the streaming format as the infrastructure of applications such as Spotify prioritises highly personalised playlists that target specific moods and contexts where consumption occurs (e.g. work, exercise). In such contexts music streaming can be viewed as a resource in which to increase productivity, structure our everyday routines and manage emotions.

The extrinsic value that comes from the music streaming consumption exchange is inherently tied to the intrinsic value that comes with the experience of consuming music. Holbrook and Hirschman (1982) highlight the significance of the experiential aspects of consumption and emphasise the importance of considering types of value (e.g. symbolic, hedonic, social) that go beyond the traditional economic framing. This is particularly evident in the consumption of the arts. Preece et al. (2016) demonstrate the complex interplay between the different types of value that are co-constructed by a diverse number of actors within the visual arts market. They place emphasis on overlooked value creation actors. Although, contemporary marketing literature no longer ignores the value co-created by consumers, the extent of the value they

provide in the music streaming consumption context has not been examined in sufficient detail. Specifically, the value that can be mined from the music experience. That is, music consumption offers clues in uncovering the emotions being experienced by consumers and associated personality traits, identities, values and beliefs. Marketers have historically used knowledge about the music experience to communicate to audiences and to symbolically brand products/services. The use of music by third parties in the marketplace was a convenient by-product and there wasn't a formalised data collection architecture upon which to base it. The difference in the contemporary context with music streaming is that individual and collective data associated with the music consumption experience can be mapped in significant detail. The architecture of the music product/service (i.e. music streaming platform) has been designed specifically with the goals of the third party marketplace in mind. In short, the value of the music experience, private or otherwise is now being maximised for purposes beyond the value of the experience itself or the direct economic exchange-value between producer and consumer.

How exactly does this work? Adverts are sold to third parties via an automated system of programmatic advertising that runs on real-time demographic and context specific consumer data, generating hyper-targeted marketing communications for users both directly through the application (for freemium customers) or indirectly through other mediums (e.g. social media). It is a 'business model based on technology and process: music is promoted as merely functional for defining and micro-targeting divisions of audiences' (Vondreau, 2019: 10). Every click you make on a music streaming application like Spotify is real-time information about the consumer. By clicking on 'gym workout', in addition to revealing your location (data which most applications pick up on anyway), it reveals the context in which you are listening and potentially your mood. This can be then linked to other points in a particular day when you are using a music streaming application (e.g. 'Monday Commute') to build a pattern of your typical day and the likely moods you will be experiencing. Furthermore, this real-time data is just one aspect of a much larger data picture each consumer contributes to from the usual demographic information provided in signing up for the application to the history of your music consumption on the platform. Music taste is a strong predictor of important behavioural factors such as for example personality traits and even political preferences (Greenberg et al., 2016). Genre and taste have long been used in branding and marketing communications as a way of reaching specific segments of the market. Music streaming applications offer a means of collecting that data in a more calculated and systemised way in addition to capturing mood and context from real-time consumption as stated. It is not only the quality and quantity of the data that makes a company like Spotify valuable to investors. Investors are also betting on how the data can be further maximised when the technology improves in the future. Zuboff (2019) writes that surveillance capitalism technologies and business models are moving beyond the automation of consumer information flows to a model that is geared towards automating our behaviours. In short, behaviours that are shaped by the market do not have to wrestle with the problem of uncertainty that usually comes with prediction and future markets. This is quite a dystopian vision but one can see how music, which has historically been used to try and shape behaviour could be utilised in this fashion for a mass audience.

As the technology and the systems built around consumer surveillance improve in efficiency, how music will be used in this way is worth considering. Right now, prediction is a key selling point of the music streaming experience. Music streaming applications use consumer data to develop recommendation algorithms. The more consumers use it, the better the suggestions for new music are. Data patterns are shared with users (e.g. 'End of year Wrapped' annual reports) as a means of boosting consumer engagement. Consumers joyfully share these reports with their peers on social media as a contemporary articulation of (sub)cultural capital (Sinclair and Fox, 2020). Spotify even boast about the high level of consumer detail they have in marketing communications campaigns.

> *'Dear person who played "sorry" 42 times on Valentine's Day. What did you do?' (Spotify Billboard Campaign, 2016)*

Consumers welcome the employment of their data in this fashion. Their knowledge of the third-party use of their data beyond the direct music consumption recommendation application is poor but research still indicates that consumers underestimate the value of this data and have rationalised/normalised the exchange of their privacy for the benefits that come with online consumption (Sinclair and Fox, 2020).

How does this impact the music 'product' and key stakeholders?

Although the surveillance model is not something that consciously impacts consumers, its influence can be understood when we look closer at how it has transformed the music product and its relationship with both artist and consumer. The music 'product' is now something that is primarily streamed, rather than downloaded or played via ownership of a physical format. The emphasis on streaming speaks to the increasing mobility of consumption and the context and mood-related playlist architecture of how we access and organise our music consumption. The playlist is king now and the algorithms and individuals that decide what does/doesn't make the cut for popular curated playlists are just as (if not more) important than national radio DJ gatekeepers used to be. Consequently, there is more focus on singles as opposed to albums. There is greater attention played in the creative process to the context of consumer listening. There is increased technological scope in the form of big data analytics and machine learning to replicate the formula for what makes a playlist. Does this lead to less diversity of content? It is a complicated argument to make as it has been reported (Schneider and Gros, 2019) that there has been a significant increase in the yearly number of artists who chart (e.g. Billboard Top 100) but would a label or promoter be more likely to drop an artist if the algorithm predicts a song won't be a hit?

Furthermore, because of the high demand, more artists are now being signed than ever before. There is also the potential for artists to release their work on streaming platforms without record label support and the potential artistic restrictions that come with such commercial relationships. This suggests a greater freedom in which to release work in genres that have traditionally been blocked by industry gatekeepers. Regardless of the impact on diversity of content, the reality is that there is more music and hence greater competition for artists. Consequently, to make a living from recorded music, artists have to play to the whims of the streaming platforms. For example, the average introduction of a song has decreased significantly (Léveillé, 2017). Consumers have so much choice now that they can simply skip

a song if it doesn't catch them straight away. Hence, there is more pressure to develop a hook earlier in a song. This transforms the creative process and its outputs. Artists are also releasing albums with a larger number of tracks that are typically shorter than we have become used to and they are releasing content quicker than the traditional two-year gap between albums that had become standard. This is speaking to the need to maximise plays to appease streaming logic. There is an increasingly scientific approach to how commercially successful artists work the system with quicker hooks, longer albums as stated but also strategies such as the release of remixes for popular songs and the targeting of popular genre playlists. An artist doesn't necessarily need the large data analytical resources of an Ed Sheeran and the commercial team behind him to build their career in this way. There is a lot of data that is out there which is freely available to anyone and artists like Billie Eilish and Lil Nas X have taken advantage of that to build a following with innovative marketing. This logic suggests that using big data can empower artists. This is reminiscent of the techno-utopian narratives around information and knowledge flows that we have been sold since the emergence of the web. The reality is that just as there is a large information asymmetry between streaming platforms and the consumer, there is also an information imbalance between the major record labels, the streaming platforms and the artist. As discussed earlier, most attention within this topic is paid to the issues of unfair artist payment. As Hesmondhalgh (2020) argues, streaming payments are caught up in a system that has always been structurally unequal. However, we argue that as a consequence of the new music consumption architecture built around surveillance, there is a new inequity, that is significantly impacting upon not only the professional practices of the artist, but the product and the consumer experience as well.

Discussion: The inequity of music value distribution

Music streaming platforms are not just benefitting from a musician's artistic output. They are profiting from the value of extracted experience and everything else it reveals about the consumer related to the act of music consumption. Parallel to this, consumers no longer simply provide money in exchange for music, they provide said intrinsic experiences, the value of which are extracted and distributed amongst relevant third parties for the purposes of hyper-targeted marketing practices. This has a number of wide-reaching implications. The most apparent are the indirect impact on the music product itself and how artists adapt to a rapidly changing landscape. Furthermore, the knock-on impact this has on the consumer experience cannot be dismissed. Such indirect implications are ultimately both good and bad for different stakeholders, depending on the context. However, if we are to return to the central objective of this chapter – evaluating the ethics of surveillance business model –we might be met with a shrug of the shoulders from the reader. Certainly research indicates that consumers are unmoved by this (Sinclair and Fox, 2020). Furthermore, major players like Spotify hide their business model in plain sight with campaigns that celebrate what they can do with consumer data and the importance of this data for recommendation algorithms. This understanding of consumer value is central to the Kotlerian marketing concept (Holbrook, 1999). The idea that each actor in a transaction sacrifices something in return for 'something else of greater value' (Holbrook, 1999: 2). This has become a well-worn trope in the digital age (i.e. 'the cost of free' – Zuboff, 2019). Consumer buy-in for such tropes is guided in this context by lack of consumer knowledge on privacy implications and feelings of helplessness

and indifference even if they do possess some understanding of how their data can be used. The question is why should consumers care?

Zuboff's argument for why we should take surveillance capitalism more seriously ultimately boils down to two key points that we can consider in this context. The first is how this logic undermines individual autonomy. Our music consumption decisions are guided and manipulated to feed markets that are about us but not for us (Zuboff, 2019). Furthermore, artists, regardless of size, have little choice but to engage in this system as means of survival. The job of the arts marketer, as articulated in the call for this book, is to enrich lives. When we think of our relationship with music, listening or playing, it is about the freedom of discovery, engaging with the creative act in a spontaneous way. We are not so naïve as to ignore how previous incarnations of capitalist logic have monopolised taste and restricted artist and consumer autonomy in different ways. However, there is something perverse about the systematic way in which our private experiences with music are captured and ultimately used for purposes that are mostly outside our knowledge and benefit.

The second argument is that such inequitable information flows are antidemocratic. Again, the music industry has never been democratic. It has always been dominated by a small number of entities/individuals. This is reflected in the historically unfair and imbalanced payment structures that artists have faced since there has been an industry. The streaming model has just added more complexity to a problem that already existed. We are aware that the conceptualisation of music streaming in this chapter will likely leave the reader with a sense of despondency and for artists (and concerned consumers) perhaps feelings of powerlessness when considering the way forward in navigating an industry defined by surveillance capitalism logic. One of the common suggestions made with regards the streaming payment issue is that of a user-centric system, as opposed to the dominant pro-rata system. In a user-centric system, payments would be allocated directly to the artists that consumers stream. Although this system is by no means perfect, we suggest that it could extend to a user-centric system that accounts for the value of the data that is collected per stream too. This acknowledges the different types of value that an individual stream provides, speaks somewhat to the data imbalance that currently exists and also offers the opportunity for an artist to have agency over how that data is used in the context of potential third parties and any income that is earned as a result. This is no doubt optimistic but if the entire business model is built on the data value extracted from experiences artists created with their music, artists should have a bigger voice in how that value is operationalised and the hope is that this would lead to a more democratic and ethical use of consumer data.

Further to the recommendation of a user-centric data system, which requires meaningful engagement across a number of stakeholders if there is to be any change, the most important point that artists should take from this discussion, in practical terms, is that of recognising the significance of the data value of their art, to fight to have this recognised and compensated by the relevant stakeholders in a meaningful way. We have already discussed the utility of engaging with consumer data to build a following and respond to artistic and consumer trends but there is of course still an information asymmetry and a power imbalance between the actors who possess the data and the infrastructure in which to maximise it as a resource. This

is reflective of a power imbalance that has always existed within the music industry, regardless of the context of the resource (e.g. money, copyright, data). Hence, we are forced to consider two traditional paths. The first is for artists to come together in an organised fashion and to fight for control of their data labour through public education and the lobbying for fairer regulation and compensation. The second is for consumers to take a stand by supporting artists in these actions and putting pressure on streaming companies to provide greater transparency concerning the collection and use of data. The consumer is implicit in this system whether many of us actually realise it or not. Furthermore, as we have shown in this article, it is not just artists who are being exploited. Ultimately it is consumer data and private experience of music that is the product here. Consequently, supporting artists in these issues is not only the right thing to do from a moral perspective, it is the right thing to do to for the sustainability, quality and privacy of future music experiences.

Bibliography

Banerjee, S., Xu, S., & Johnson, S. D. 2020. How does location based marketing affect mobile retail revenues? The complex interplay of delivery tactic, interface mobility and user privacy. *Journal of Business Research*, DOI: 10.1016/j.jbusres.2020.02.042.

Benjamin, R. 2019. *Race after technology: Abolitionist tools for the new Jim Code*. Polity.

Cesareo L, Pastore A. 2014. Consumers' attitude and behaviour towards online music piracy and subscription-based services. *Journal of Consumer Marketing* 31(6/7), pp. 515–525.

Chang, S. E., Shen, W. C., and Liu, A. Y. 2016. Why mobile users trust smartphone social networking services? A PLS-SEM approach. *Journal of Business Research,* 69(11), pp. 4890-4895.

Cusic, D., Faulk, G.K., and Lamber, R.P. 2005. Technology and music piracy: Has the recording industry lost sales. *Studies in Popular Culture,* 28(1), pp. 15-24.

Fisher, W. 2004. *Technology, law, and the future of entertainment*. Stanford University Press, Stanford, CA.

Giesler, M. 2008. Conflict and compromise: Drama in marketplace evolution. *Journal of Consumer Research*, 34,(6), pp. 739–753.

Gillespie, T. 2014. The relevance of algorithms. In *Media technologies: Essays on communication, materiality and society.* (eds) Gillespie, T., Boczkowski, P.J and K.A. Foot., pp.167-195, MIT Press.

Greenberg, D.M., Kosinski, M., Stillwell, D.J., Monteiro, B.L. and Levitin D.J. 2016. This song is you: Preferences for musical attribute dimensions reflect personality. *Social Psychological and Personality Science*, 7(6), pp. 597-605.

Hampton-Sosa, W. 2017. The impact of creativity and community facilitation on music streaming adoption and digital piracy. *Computers in Human Behavior*, 69, pp.444-453.

Hesmondhalgh, D. 2019. Have digital communication technologies democratized the media industries? In *Media and Society*, (eds) Curran, J. and Hesmondhalgh, D., pp. 101-120, London and New York, Bloomsbury Academic.

Hesmondhalgh, D. 2020. Is music streaming bad for musicians? Problems of evidence and argument. *New Media & Society*, Available at https://doi.org/10.1177%2F1461444820953541

Holbrook, M. B. and Hirschman, E. 1982. The experiential aspects of consumption: Consumer fantasies, feelings, and fun. *Journal of Consumer Research*, 9(2), pp. 132-140.

Holbrook, M. B. 1999. *Consumer Value: A framework for analysis and research*. Routledge: London.

Hui, K.L and Png, I. 2003. Piracy and the legitimate demand for recorded music. *Contributions to Economic Analysis and Policy*, 2(11), pp. 1-22.

International Federation of the Phonographic Industry, 2021. *Global Music Report 2021: Annual State of the Industry*, London.

Laing, D. 2012. The recording industry in the twentieth century. In (ed) Marshall, L., *The International Recording Industries*, Routledge, pp. 31-53.

Lash, S. 2007. Power after hegemony: Cultural studies in mutation? *Theory, Culture & Society*, 24(3), pp.55-78.

Léveillé, G.H. 2017. Drawing listener attention in popular music: Testing five musical features arising from the theory of attention economy. *Musicae Scientiae*, Prepublished March 1, 2017. doi: 10.1177/1029864917698010

Liebowitz, S.J. 2004. The elusive symbiosis: the impact of radio on the record industry. *Review of Economic Research on Copyright Issues*. 1, pp.93-118.

Marshall, L. 2004. The effects of piracy upon the music industry: a case study of bootlegging. *Media, Culture & Society*, 26(2), pp.163-181.

Marshall, L. 2015. 'Let's keep music special. F – Spotify': On-demand streaming and the controversy over artist royalties. *Creative Industries Journal*, 8(2), pp.177-189.

Merriam, A.P. 1964. *The anthropology of music*. Chicago: Northwestern University Press.

Miltgen, C. L., Henseler, J., Gelhard, C., & Popovič, A., 2016. Introducing new products that affect consumer privacy: A mediation model. *Journal of Business Research*, 69(10), pp. 4659-4666.

Pelly, L. 2018. Unfree agents: Spotify pushes an Uber-like model for independent artists. *The Baffler*. Available at: https://thebaffler.com/downstream/unfree-agents-pellyGoogle Scholar

Preece, C., Kerrigan, F. and O'Reilly, D. 2016. Framing the work: the composition of value in the visual arts. *European Journal of Marketing*, 50(7/8), pp.1337-1398.

Prey, R. 2018. Nothing personal: algorithmic individuation on music streaming platforms. *Media, Culture & Society*, 40(7), pp.1086-1100.

Recording Industry Association of America (RIAA). 2015. Anti-Piracy. Available at: http://www.riaa.com/faq.php (Accessed on September 20, 2018)

Rojek, C. 2005. P2P leisure exchange: Net banditry and the policing of intellectual property. *Leisure Studies,* 24(4), pp. 357–369.

Schneider, L. and Gros, C. 2019. Five decades of US, UK, German and Dutch music charts show that cultural processes are accelerating. *Royal Society Open Science*. Available at https://doi.org/10.1098/rsos.190944.

Sinclair, G. and Fox, G. 2020. Music consumption, ageing and transformative consumer research. *American Marketing Association Summer Conference*.

Sinclair, G. and Saren, M. 2019. Marketing and music in an age of digital reproduction. *European Journal of Marketing*, 53(3), pp.402-411.

Sinclair, G., Tinson, J and Dolan, P. 2019. Music in the time-spectrum: routines, spaces and emotional experience. *Leisure Studies,* 38(4), pp. 509-522.

Swift, T. 2014. For Taylor Swift, the future of music is a love story. Wall Street Journal, 7 July.

Taylor, A. 2006. Publishing and electronic piracy. *Learned Publishing*, 19(3), pp. 168–174. https://doi.org/10.1087/095315106777 877539

Vonderau, P. 2019. The Spotify effect: Digital distribution and financial growth. *Television & New Media*, 20(1), pp.3-19.

Wingrove, T., Korpas, A.L. and Weisz, V. 2011. Why were millions of people not obeying the law? Motivational influences on non-compliance with the law in the case of music piracy.

Zuboff, S., 2019. *The age of surveillance capitalism: The fight for a human future at the new frontier of power*, London: Profile Books.