

Written evidence submitted by Allison Noble

Evidence Submission: Economics of Music Streaming

16th November 2020

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1. Introduction

This brief report has been submitted as evidence to the 2020 Parliamentary call for Evidence in regard to the economics of music streaming services. As a PhD student studying the impact of streaming services on user behaviour surrounding genre, my positioning of focus on this topic is mostly centred around music categorisation and user and artist behaviours. The knowledge gained in my studies allow me to confidently respond to a number of the points included within this call's terms of reference, including the following:

- *What are the dominant business models of platforms that offer music streaming as a service?*
- *Have new features associated with streaming platforms influenced consumer habits, tastes, etc?*

According to annual global market research conducted by International Federation of the Phonographic Industry (IFPI), users spent around 18 hours a week listening to music in 2019, making it clear that music holds an important place in everyday lives on an increasing scale.¹ The consequences of Covid-19 have caused mass shifts online, making it crucial that platforms – such as streaming services – aiding in the distribution of music are robust, safe, and transparent and that the needs of artists and creatives are brought into discussions. The topics discussed in this report include brief discussions on streaming business models, the debate surrounding streaming platforms and artists remuneration, and the importance of music metadata, it's issues and music metadata solutions. Any views or opinions expressed within this report are my own.

1.1 Recommendations:

Based on the evidence contained within this report, the following recommendations are considered to be appropriate in regard to the aiding of artists at this current time.

Recommendations

1. Start or continue to facilitate communication with representatives of music groups and provide financial and digital support for artists and musical creatives at the digital level during the Covid-19 pandemic.
2. Investigate possibilities surrounding collaboration with standards setting organisations in order to aid the UK digital music value chain and its stakeholders.

¹IFPI (2020) <https://www.ifpi.org/wp-content/uploads/2020/07/Music-Listening-2019-1.pdf>

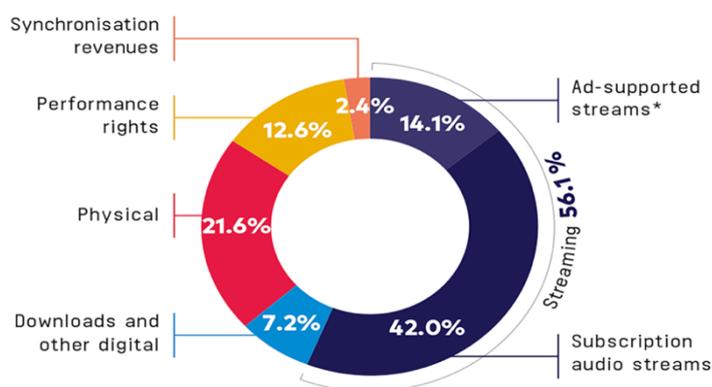
2. Music Streaming and Business Models

2.1 Popular Business Models

Each year, streaming has grown exponentially in popularity, with IFPI reporting that streaming made up for over 50% of global recorded music revenue in 2019 (as shown in figure 1).² Music streaming services operate as large-scale music databases, holding millions of files which users access by streaming from the cloud.³ Many of these platforms operate by offering users a free trial for around thirty days followed by automated sign up to a subscription, meaning that for a monthly or annual fee, users can enjoy seemingly unlimited access to music.⁴ All users initially need is a compatible listening device and an internet connection. Many of these services also offer discounted subscriptions to less-wealthy demographics (e.g., student subscriptions) in order to broaden their marketing reach.⁵

There are platforms that promote the freemium business model, where free-paying users can access streaming services but in a more limited manner than those who pay for these premium subscriptions. Examples of these accessibility compromises are Spotify free users having to experience advertisements between streams and Deezer users only having a limited number of 'skips' per listening session.

Global recorded music revenues by segment 2019



* Includes ad-supported & video stream revenues

Figure 1: A pie chart showing the breakdown of global recorded music revenue.

2.2 Business Model Debates

The adoption of these business models by streaming platforms have divided opinions; examples of this ongoing debate can be found in online journalism pieces, where optimists argue in favour of

²IFPI (2020) <https://www.ifpi.org/wp-content/uploads/2020/07/Music-Listening-2019-1.pdf>

³Hagen (2020) https://www.academia.edu/40202607/Music_in_Stream_Communicating_Music_in_the_Streaming_Paradigm

⁴Deezer (2020) <https://www.deezer.com/en/>

⁵Spotify (2020) <https://www.spotify.com/us/premium/>

music streaming and celebrate them as historically shifting mechanisms in music accessibility in comparison to previous music mediums (e.g., CDs, cassettes, vinyl).⁶ In regard to the adopted freemium business model, optimists argue that the continuous exposure to advertisements faced by free users is a small price to pay for getting 24/7 access to these services.⁷ However, those who identify as being against music streaming accuse the platforms of using these business models to manufacture scarcity and act like music gatekeepers. Unlike physical music formats, these platforms are rented space, not containing actual music, but instead acting like interactive signposts to music, being taken away once the subscription ends.⁸ Critics also argue that optimists overlook the imbalance faced by less privileged actors, such as those who do not have access to devices compatible with streaming service use due to social, political, or financial factors.⁹

2.3 Artist Renumeration Issues

It is also argued that these platforms operate with a bias towards consumer issues and snub the needs of creators and musicians; commonly citing the remuneration issues that artists reportedly face when using these platforms – due to complicated payment models which seem to only benefit the platforms themselves. According to an investigative piece on Spotify's payment models by Digital Music News, the rates of payment seem to depend on several continuously shifting factors.¹⁰ Whilst Spotify reportedly pays most artists around a third of a penny to half a penny per stream, there are two main factors which dictate pay-out levels:

- **Geographical location of streams** refers to where the streaming is taking place as different regions in the world have their own unique payment models and advertising levels.
- **Type of audience** refers to premium or free service users. Premium users earn artists more money per stream.¹¹

Due to the effect of the Covid-19 pandemic, the issues surrounding low payment rates and transparency issues have been emphasised. Artists who have lost live performance work and been pushed into the online sphere have been made to rely on digital revenue – including streaming service payments. In April 2020, as part of his '#BrokenRecord' campaign, PRS for Music director Tom Gray shared a data chart compiled by The Trichordist on his Twitter feed.¹² The chart shows the most-up to date streaming rates for the British pound and the number of streams needed to make minimum wage (as shown in figure 2). Alongside this data, Gray notes that the numbers only reflected the total rate if the artists owned all of the rights per-stream. He clarifies that an artist signed to a major label earns 20% of the rates (after contractual fees) and songwriters earn at best, 8-15% (if they write 100%).¹³

⁶Beaumont-Thomas, Snapes (2018) <https://www.theguardian.com/music/2018/oct/05/10-years-of-spotify-should-we-celebrate>

⁷Ibid.

⁸Skågeby (2011) http://www.transformationsjournal.org/wp-content/uploads/2016/12/Skageby_Trans20.pdf

⁹Spilker (2018) [Digital Music Distribution: The Sociology of Online Music Streams](#)

¹⁰Smith (2020) <https://www.digitalmusicnews.com/2020/08/17/how-much-does-spotify-pay-per-stream-latest/>

¹¹Ibid.

¹²Gray (2020) <https://twitter.com/MrTomGray/status/>

¹³Ibid.

STREAMING SERVICE	Avg. payout per stream	Number of streams to earn one pound	Number of streams to earn one hour's UK Minimum Wage
AMAZON	£0.009	111	970
TIDAL	£0.007	143	1246
APPLE MUSIC	£0.0054	185	1,615
DEEZER	£0.0045	222	1,938
GOOGLE PLAY MUSIC	£0.0044	272	1981
SPOTIFY	£0.0028	357	3114
PANDORA	£0.0016	625	5,450
YOUTUBE	£0.0012	833	7,267

Figure 2: A chart created by the Trichordist showing payment rates for the British pound and how many streams it would take for an artist to make minimum wage.

The fresh publicity surrounding low of remuneration has caused recent union action with the Musicians Union launching its 'Justice at Spotify' campaign in October 2020. The campaign calls out the industry leading platform Spotify to boost its extremely low payment to at least a cent or penny per stream.¹⁴

In summary, the most popular business models adopted by streaming services are subscription models. These models, although convenient for users, play a large role in the impacting of artists remuneration, through extremely small pay-outs and continually shifting rates. In reflection of the proposed recommendations, it would be appropriate for government bodies to begin a dialogue with representative music groups (such as the

Musicians Union). This would also help to inform future policy-based decisions via expert inputs and aid government officials in understanding the issues faced by those who are based within the digital music industry, or those who have recently transitioned online due to Covid-19.

¹⁴Gallagher (2020) <https://www.nme.com/news/music/musicians-union-justice-at-spotify-campaign-2799626>

3. Music Streaming and User Behaviour

The real effects of music streaming services are not yet fully mapped out from a research perspective, due to the young age of these platforms. These platforms operate as “black boxes”, meaning that their inner workings and outputs are accepted and enjoyed without any real understanding of their mechanisms or processes.¹⁵ This is partly due to inter-company competition, as music discovery is a lucrative marketing area, therefore data regarding the inner workings of these platforms are kept secret, whilst they race to hone their recommendation algorithms accuracy rates. Sociologist Hendrik Storstein Spilker suggests that when examining the impact of streaming services, we should adopt specific perspectives which actively only encompass the changes which these technologies have had in order to avoid over-exaggeration of impact or innovation of these digital cloud streaming systems.¹⁶

3.1 User Behaviours

The evolution from physical, analogue mediums to the current digital, intangible delivery of music has in turn affected the ways in which both industries and consumers engage with music and how it is categorised. IFPI's report on consumer behaviour in 2019 shared the following statistics:

- *Globally, 89% of consumers surveyed access their music through on-demand streaming.*
- *83% of surveyed 16-24-year olds are engaging with audio streaming platforms.*
- *When asked, 47% of consumers said streaming the most convenient way to access music*

In regard to these findings, it could be considered that the ways in which users engage and consume via music streaming are a new type of social process, as they allow for users to express their creativity and musical tastes through the cultivation and curation of playlists via tools provided by these platforms. As one-third of listening time on Spotify is spent on user-generated playlists, it can be assumed that Spotify's campaigns surrounding the experience of personalisation are effective in attracting and retaining users.¹⁷ This reflects a prominent idea which is featured within scholarly arguments surrounding digital music streaming – the notion of a ‘post-fidelity’ attitude to music consumption.¹⁸ This viewpoint promotes the theory that the uprising popularity of streaming has fuelled the user's new desire for around-the-clock access to music (as provided by devices via digital streaming services), where users subsequently prefer music quantity over quality. However, according to research within the field of sociology, streaming services sell users a branded musical echo chamber, allowing consumers to ultimately witness their musical behaviours and opinions mirrored by the streaming service they choose to adopt, all the while aiding their chosen service by supplying them with helpful data regarding their engagement.¹⁹ Streaming platforms collect various types of data regarding user consumption and behaviour, enabling it to achieve ‘mass personalisation,’ and plays a role in its user engagement strategies.

¹⁵Eriksson, M., Fleischer, R., Johansson, A., Snickars, P., Vonderau, P. (2019) <https://books.google.co.uk/books>

¹⁶Spilker (2018) *Digital Music Distribution: The Sociology of Online Music Streams*

¹⁷Prey, R., Zwerwer, L. (2020) <https://www.academia.edu/43174911/Platformpop>

¹⁸Katz (2010) *Capturing Sound*

¹⁹Webster (2019) <https://journals.sagepub.com/doi/full/10.1177/2053951719888770>

3.2 Inter-Platform Operability

One key element which separates music streaming from previous music formats is the presence of social media platforms and how these interact with music streaming services. Users are able to follow other users within their social media friendship circles and are able to share the music that they are listening to, to other forms of social media for friends to see.²⁰

Example: a user shares an album to their Instagram story which has a number of effects. This allows the user to express their musical tastes to a wider audience and this in turn promotes the artist(s) and streaming services to a wider audience in tandem.

These small, yet impactful, social connections can change user listening tastes and impact the image and popularity of an artist.²¹ This can be seen from recent articles detailing artists changing the title of their songs to improve searchability after snippets of their songs going viral on the social media platform, TikTok.²² However, artists re-marketing themselves or their sound/genre/products is not a new concept within the music industry and has been happening throughout history, although artists would usually have to rely on data regarding record or album sales and radio plays in order to gauge their audience engagement – whereas as digital platforms can provide a much more precise idea of user engagement via user downloads and streams.²³ Therefore, it can be assumed that this new social media element will only strengthen the versatility of artist re-branding and shall continue to change user behaviours and tastes including but not limited to search activity, music genre and interaction with musical trends.

In summary, music streaming services are one of the most utilised technologies in global music listening and the decisions made by these platforms have a resonating impact. From research, it is seen that the addition of social media into the relationships of users and streaming platforms has already resulted in a number of incremental changes in some user groups' listening behaviours. In reflection of the previously stated recommendations, government officials should consider communicating with UK-based music groups and organisations in order to gain expert advice on how to deliver policy-driven messages through social media platforms to this demographic of music listeners and artists.

²⁰ Prey, R., Zwerwer, L. (2020) <https://www.academia.edu/43174911/Platformpop>

²¹ Gioia (2019) [Music: A Subversive History](#)

²² Leight (2020) <https://www.rollingstone.com/pro/features/tik-tok-hits-changing-titles-983383/>

²³ Hagen (2015) https://www.academia.edu/11398199/The_Playlist_Experience

4. Metadata

When examined operationally, music streaming services are powered by specific informational data which connects them: music metadata (the term assigned to data about music data). There are three types of music metadata²⁴:

- **Descriptive:** details the contents of a recording (e.g., title, track number, genre...)
- **Ownership:** details the parties and their appropriate contractual splits for remuneration purposes (e.g., artists, labels, producers...)
- **Recommendation:** subjective data tags used to make connections between tracks (mood or genre tags, song similarity scorings)

Descriptive and ownership-based metadata are objective types – there can be only one real title and list of song credits – whereas recommendation metadata is at its core, subjective and relates to how music sounds. Unlike the objective types of metadata (descriptive and ownership) which are created at the artist's end, each platform will have a different approach to generating recommendation metadata (either internally or by affiliates) and also have their own databases. This is because on various streaming platforms, the role of curation is placed on comprehensively detailed algorithmic recommender systems²⁵.

4.2 Metadata Issues

There are a number of metadata issues identified within the music streaming space surrounding accuracy and a lack of unity. One surface level example is the lack of appropriate metadata fields: resulting in problems for areas such as language and accessibility. An example of this error is the awkward assigning of metadata fields to classical music on Spotify, the effect being terminological mistakes in role assignment which may have further effects on later remuneration²⁶.

Another prominent issue is the lack of collective unity across streaming services and affiliate companies regarding metadata field typologies, labelling and communication. The previously described “black box” nature of streaming services and their proprietary data means that the digital music value chain faces impact due to inconsistent and patchy data transfers/communication²⁷. However, in the past two years, there has been an acknowledgement of the important role played by of metadata and attempts have been made at policy level for its review. In 2019, the UK Government commissioned a report investigating the state of the UK's digital music industry. The report summarised that “*multi-layered fragmentation of metadata and a preference for proprietary walled data silos*” was severely affecting the capabilities of industry system interoperability and impacting the digital value chain severely²⁸. The report expressed desire for universal databases, or at least a more open manner of sharing.

²⁴ Pastukhov (2019) <https://soundcharts.com/blog/music-metadata>

²⁵ Ibid.

²⁶ Sisario (2019) <https://www.nytimes.com/2019/06/23/business/media/stream-classical-music-spotify.html>

²⁷ DDEX (2020) <https://ddex.net/about-ddex/purpose/>

²⁸ Lyons, F., Sun, H., Collopy, D., Curran, K., O'Hagan, P. (2019) [Music 2025 - The Music Data Dilemma](#)

4.3 Metadata Solutions: Standards

Efforts have been made to respond to these metadata issues, an example being the numerous digital value chain metadata standards created from standards setting organisations such as DDEX, whose focus is to foster efficiency in the exchange of information and data across the industry²⁹. By creating standards which aim to aid the communication and effective transfer between companies. Since forming in 2006, DDEX is now the de facto standard for the formatting and delivery of metadata relating to the digital music value chain and its standards are implemented right across the globe. The organisation is well established and its members feature some of the largest digital music brands and associations within the wider music industry. In terms of future development, DDEX keeps in close contact with its members and industry changes to ensure that their work remains synthesisable, relevant and accessible across the DDEX community³⁰.

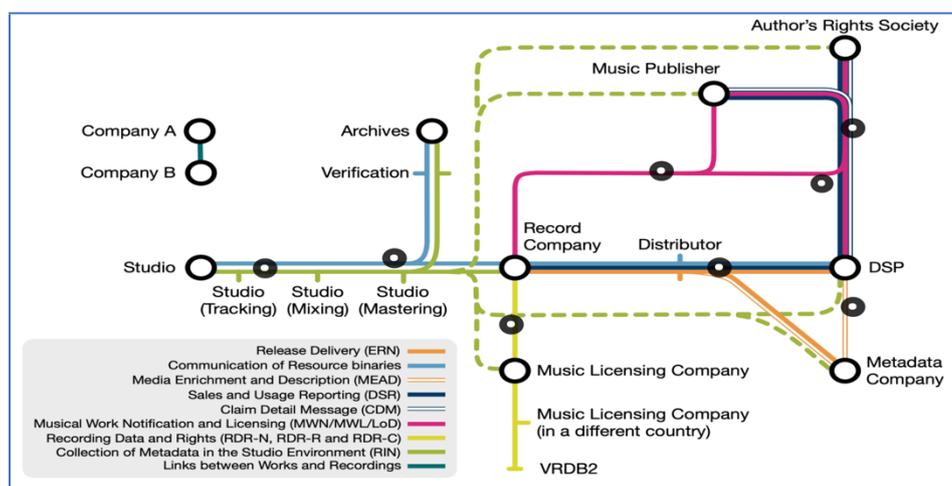


Figure 3: A map showing how DDEX's standards flow and integrate between identified parties.

The standards and work from organisations like DDEX match the desired actions expressed in previous government reports like those mentioned earlier. The continued development and implementation of these standards would help to aid interoperability and expand the processes of effective automation within the digital value chain, meaning that all parties involved would benefit.

In summary, metadata is an extremely important entity within the digital music ecosystem and the lack of unity between stakeholders can have a notable impact on those working within the industry. In reflection of the relevant recommendation proposed within this report, collaborating with standards setting organisations like DDEX would allow government officials to understand the regulatory work already being undertaken within the music industry. This would help to inform future policy-driven decisions surrounding the digital music industry and its stakeholders.

²⁹(DDEX, 2020a) <https://ddex.net/about-ddex/>

³⁰(DDEX, 2020b) <https://ddex.net/standards/>