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Digital Music Streaming and Musicians' Income: A Framework of Direct and Indirect Effects

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Dissertation  
Master in Economics

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2021

**Abstract:** Digital music streaming in the last decade became the norm for recorded music listening among consumers and, with it, the process of digitalization of the music industry continued to its next level. Such change has redefined not only the economic paradigm of musicians on how they get rewarded from their craft but also the relationships between different music mediums and their demands and supplies. By relating several contributions in contemporary literature in cultural economics and adding contributions from intermediaries of the industry in Portugal, I established a series of relationships between presence in streaming services and musicians' income streams. Presence of an artists' catalogue in a digital streaming service will allow to generate revenue through streaming royalties. On the other hand, streaming's sampling and diffusion mechanisms increase possibilities to discover potential new/ wider audiences that can boost artists' incomes in streaming royalties, live performances and merchandise, and depending on their career stage and market positioning determine a positive or negative interaction with physical sales. What is proposed is a reflection on musician's income in the streaming era, as many studies focus on the market as a whole homogenous entity, or on specific segments as those on the very top of the charts. Taking into account the reports of low value of streaming royalty payments, as well as issues on lack of transparency and availability of data, music workers should look to streaming services not as the main source from which they make their living, but as a crucial mechanism to increase revenues from other sources of their business model.

**JEL codes:** Z11, L82, O33, O34

**Keywords:** Music Streaming, Music Industry, Digitization, Music Labour Market

**Resumo:** Na última década, o *streaming* digital de música tornou-se a norma para o consumo de música gravada entre os consumidores, e com ele o processo de digitalização da indústria da música passou para outro nível. Tal mudança redefiniu o paradigma económico dos músicos e de como são remunerados pelo seu ofício, assim como as relações entre os diferentes meios musicais e as suas procuras e ofertas. Ao relacionar diversas contribuições da literatura contemporânea de economia da cultura e adicionando a contribuição de intermediários da indústria em Portugal, estabelecemos uma série de relações entre a presença em serviços de *streaming* e as fontes de rendimento de músicos. A presença do catálogo de um artista num serviço irá permitir gerar receitas através dos pagamentos de *royalties*. Por outro lado, os mecanismos de oferta de amostra (*sampling*) e difusão aumentam o potencial de descoberta a um público vasto que poderá impulsionar as suas receitas em *royalties*, performances ao vivo e *merchandise*, e, dependendo da fase da carreira e posicionamento estilístico, determinar uma correlação positiva com as vendas físicas. O que é proposto é uma reflexão sobre os rendimentos dos músicos na era do *streaming*, dado ao facto que muitos estudos tomam o mercado com uma entidade homogénea, ou apenas se focam em segmentos específicos, como os artistas no topo das tabelas de vendas. Tendo em conta o baixo valor dos pagamentos de *royalties* de *streaming*, os artistas deverão olhar para os serviços de *streaming*, não como o principal fim de onde “ganham a vida”, mas como um meio crucial para aumentar as receitas de todos das outras fontes dos seus modelos de negócio.

**Códigos JEL:** Z11, L82, O33, O34

**Palavras- Chave:** Streaming de Música, Indústria Musical, Digitalização, Mercado Laboral da Música

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## **Acronyms & Abbreviations**

A.K.A. – Also known as

CD – Compact Disk

DSS – Digital Streaming Service

EP – Extended Play

IFPI – International Federation of the Phonographic Industry

LP – Long Play

UK – United Kingdom

UMAW - Union of Musicians and Allied Workers

US – United States (as in United States of America)

## 1. Introduction

Changes of paradigm in Music Consumption are nothing new in the music industry. The 20<sup>th</sup> century had many formats that were the norm for the recorded music industry, from the LP vinyl, to the cassette tape and the compact disk (CD). Later, the change of the millennium brought the digitalization of the industry, with legal formats such as iTunes and those of illegal nature with the diffusion of file-sharing piracy practices. The decade of the 2010's saw the establishment of its own new format to disrupt the incumbent forces of the industry with digital music streaming becoming one of the preferred ways to listen to music. But not only does this format differ from its competitors in technical features, it also introduces a new dynamic between artists and their listeners, as well as the type of audiences they can reach, as we will see ahead.

However, changes in the way listeners consume, inevitably affects the way music artists make a living from their art-form. Much of the literature regarding streaming focuses on the net effects in the recorded music industry as a whole, most of the times with little nuance on which stakeholders are affected and in what way. This results in little to no attention being devoted to how this digital evolution on the market affects one of the base elements, the music artists themselves, which devote energy, creativity and resources to create and produce the product at stake.

Thus, the main point of this work is to contribute to fill a gap in research, by means of outlining a model that contributes to understand the ways how streaming affects musical artists' income, while also launching the possibility of measurement in the future. Not only direct factors and effects will be addressed, such as payment of royalties, but the model will also take into account indirect factors/ effects associated with this medium of distribution (such as the relationship between the presence of an artist's catalogue in streaming services and their promotion among their potential audience and/ or with their live performances, or the cannibalization of sales revenues from other means of distribution like physical or digital sales). Understanding how the introduction of streaming changed the dynamic of the publisher-artist relationship is also relevant in this subject.

This work establishes itself very much in the field of Cultural Economics as it pertains to the technological changes in distribution and how it affects the welfare of music creators/ producers and the value chain of this cultural market. Questions on the conditions of art workers



are some of the most common themes in this field, such as Ruth Towse (2010, p. 5) exemplifies with the question “Why are many artists poor?”, as one of the issues that this economic discipline must look to answer. Last but not least, music, as an art form, is a cultural and creative industry that can (and should) be studied by economists, streaming being a segment of the digital economy (Waelbroeck, 2013). All in all, as Ruth Towse puts it, “Cultural economics is a branch of economics but it is also a part of the wider investigation of the world of the arts and culture by other related disciplines, especially the sociology of culture and arts management” (Towse, 2010, p. 6)

Ruth Towse's interrogation is very relevant in the streaming paradigm due to the possibility of increased democratization of music publishing, which allows it to be listened almost anywhere in the world, creating opportunities for many more musicians to thrive. Additionally, the Covid-19 pandemic has affected one of the largest and most direct sources of income for musicians: live music performances. Current perspectives are that it might take a long time before live music shows can return, and there are further concerns if these will include limitations on crowd number and/ or behaviour. Under this uncertainty, studying and understanding the composition of music artists' income becomes even more important.

Beyond these questions, the change in paradigm on the music market has raised claims from artists' collectives to raise the payment of royalties per play, not only as a way to answer to the problems that artists face with pandemic restrictions, but as well as a way to redistribute revenues of the industry in a way artists (and other workers) perceive to be a fairer compensation of the contribution to the value chain of the industry by each participant. Several collectives, such as UMAW (Union of Musicians and Allied Workers) also make their claims regarding issues of lack of transparency in negotiation, promotional practices and royalty payments, specifically from the Swedish platform Spotify (UMAW, 2021), one of the giants of the industry that has one of largest shares of the market worldwide (OPUS Stream Ltd., 2020)

Understanding the impact of streaming in income and revenues of music artists is crucial to the sustainability of the current model of artistic production, and its possible evolution, considering that income can be an important factor of the music labour market supply. This is an exploratory research, anchored by literature review, aiming at contributing for future empirical research. Two interviews were conducted with two record company executives in Portugal, that act as intermediaries between artists and distribution in this cultural market.

They were purposely selected, as the objective of the interviews was to essay a provisional confrontation of our model proposal with active professionals that would be able to discuss it from the fringes of the main market: the two interviewees are experienced agents operating in two different niches (one in the hip hop and rap field, and the other in the experimental music field). Under these assumed exploratory goals, the interviews will be cited occasionally only, to highlight new or different contributions for our discussion. Annex A presents the translation of the interview script as these were conducted in Portuguese.

The structure of this report is as follows: Chapter 2 will present an overview of the existing literature about our subject and interrogation. Some core topics will be reviewed accordingly, such as the music labour market, stardom theory, income streams and copyright, digital music streaming, alternatives, digitalization on music and criticism on streaming. In Chapter 3, it is established and analysed the relationship between streaming presence, discovery, streams and royalties, sales, live performances. As these dimensions are related to musicians' income, we propose a model to test such relationships. In Chapter 4 there will be a discussion on the implications for artists and other industry players, such as streaming services and publishers. Lastly, in Chapter 5, final remarks of our results and implications for further research will be discussed.

## 2. Literature review

### 2.1 Art and music labour markets

Art labour markets and their workforce have some features that are particular to them. The seminal work by Menger (2006) has identified the main specific features that define much of the interest in the field of cultural economics, such as, the unequal income distribution, the constant oversupply of workers in the arts, or the increased flexibility of this sector.

A dominant picture arises from the research about artists' work and labour market: artists are on average younger and highly educated when compared to the overall workforce; they are concentrated on metropolitan areas; and experience higher rates of self-employment, unemployment and underemployment (such as part-time work) and multiple jobholding (e.g. Thorsby & Petetskaya (2017)). These last features can be explained by two particular situations of this labour market: its flexibility and the risk diversification performed by its actors.

Flexibility can be explained by three main factors that cover the widest range of arts and artistic labour: the artwork value being determined by its originality and differentiation, its uniqueness; demand and tastes are very variable and unpredictable; and the artistic production involves many different activities to produce it. As an example, in music, rare are the instances of a single person composing all songs of a project, playing all parts in all different instruments, produce, mix and master the project, and even create the visual artwork that serves as the project's image. Moreover, production tends to be discontinuous, in the sense that it relies on project-by-project logics, which, in turn, induces high variability, for example in production teams. The uncertainty of demand, as well as the other factors, increase the risk of failure for artists. As a way of dealing with this, artists tend to diversify their employment ties through taking non-artistic work, holding multiple jobs at a given moment and even playing different roles within their occupation such as education or management within their art field. Often this means that the career of an artist might be defined by cycling different situations (discontinuity, as referred) where they<sup>1</sup> can have art jobs and non-art jobs as well as engage in unemployment. Even when we take into account that in countries such as the United States or France, where artistic and creative sectors are well developed, an

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<sup>1</sup> I will use "they" as a gender-neutral singular pronoun throughout this dissertation, instead of "he/she", to be inclusive of non-binary people.

increase in art activity that is still dwarfed by the increase of the artistic workforce (Menger, 2001), this leads to a paradoxical situation where employment, underemployment and unemployment in art are all growing steadily (Menger, 2006).

The unbalanced growth of the number of artists when compared to the growth of the art activity leads not only to a situation of inequality of income between artists but also of inequality in the amount of work opportunities among artists (Menger, 2001), resulting in a situation of excess of supply, a situation that seems to be a constant in artistic labour markets, to the extent it becomes a defining feature of it.

There are some hypotheses that try to explain the existence of this oversupply and that have been empirically tested. Menger mentions that there are those that argue that artists do not feel accomplishment through monetary success, but rather see art work as a “Labour of Love”, very much within a philosophy of “art for art’s sake”, in which artists will engage in this activity regardless of the level of success that one achieves. Menger later presents other perspectives on the issue, such as those who believe that art workers are just risk-takers that most times underestimate the probability of failure of their artistic enterprises. A proposal that seems to be more conciliatory is that art generates a non-monetary income in form of a “psychic income” that is gained from many experiences from the job: autonomy, variety of work, low routine, social recognition, usage of their abilities and self-actualization, and that these will in the end compensate for the high insecurity and the probability of a low monetary income.

Menger is one of the authors that criticize this latter theory as an attempt to preserve the framework of rational occupation choice. He instead argues that the low chances of success do not deter the entrance of new artists into the fold or the stoppage of those not succeeding, because artists are Bayesian actors<sup>2</sup> that are constantly gathering new information, revising skills, growing networks of contacts, without ever really knowing how much “talent” they have, and hence their true chances of “making it in the business” (Menger, 2006).

Research about the work of artists poses other questions, that are considered basic in "regular" occupations and labour markets. For example, it remains difficult to even define which artists can be considered as “professional artists” (Baldin & Bille, 2021). Such concept can

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<sup>2</sup> Based on Bayes theorem on revision of probabilities, a Bayesian actor is someone that in light of new information will revise their beliefs or hypotheses (Ajzen & Fishbein, 1975)

have one of two meanings: it either refers to someone whose main occupation is art or to someone whose work meets a high “professional” standard, a standard that usually is associated with specialized education, very much alike certain professions that require said levels of training such as doctors or lawyers. However, in the art context these concepts might not go hand in hand since they can exclude people who don’t have art work as their main occupation, those who do see their art work as their main occupation but make most of their income on non-art work and those without formal education that still find success in the arts, or the other way around. The fact that quality in art is difficult to objectively define, much less quantify, and even varies in interpretation and context does not help the case for the adequacy of these concept of professionalism in the arts. As a result, reputation becomes a very important variable, serving as a proxy for the perceived talent of an artist (Adler, 2006).

Other proxies like formal education, artists’ associations membership and grants awarded can be incomplete, as for instance, there are many artists who are self-taught (Baldin & Bille, 2021). Despite the formal education of the artists, education has little impact on income and careers, with “talent” possibly being the main driver, and its recognition depending on the construction of reputation. As economists we might simply be tempted to run data as the ones collected on Census processes in econometric studies without taking into account these many caveats.

Baldin & Billie (2021), taking these ideas, and trying to refocus on the professional vs. amateur debate, using a sample of visual design artists in Denmark, identify six groups of artists, being only three of them considered as “professional artists”: those whose main devotion is the art; “subsidized artists”, usually young artists that devote close to half of their time to art; and “aspiring artists”, on the early stages of their career and usually not yet able to support themselves only on art work income. This leaves out those who look at their art as a hobby as a “secondary activity”, those already retired (the so called “senior”) and “workers related to arts”, but not artists themselves, who could be considered with some of the aforementioned criteria. In sum, we should take into account career stages when we try to define who is or isn’t a professional artist and select criteria that doesn’t leave artists in the infancy of their careers out. Although this classification was drawn upon a sample of visual artists it seems to be compatible and appropriate to apply to other sectors in art, including musicians.

When it comes to income, the previously mentioned empirical study of Throsby and Petetskaya (2017) in Australia also confirms out two persistent details, one of them directly

related to our subject, artists generally earn less than in other professions with a similar level of education and, although music artists spend 60% of their working time on music, they only earn 39% of their income from this artistic work, while their non-art work accounts for a third of their income, with only 19% of their working time, musicians being the category of artists in this study that earn the most from non-artistic endeavours.

In the same study (Throsby & Petetskaya, 2017), if we compare the median income with the average income of artists, we will notice that the latter is larger than the first, which means that artists' income is skewed towards the low end, a case that is quite noticeable for musicians - the artists group that has the biggest difference between these values. In other words, this means that the income of musicians is concentrated in the hands of a small portion of artists, while the majority of musicians' earnings are situated on the lower values of the spectrum. This meets our introductory expectation of artists being mostly poor (Towse, 2010), as well being the perfect example of the effects of Stardom Theory that will be explored in the next section.

## **2.2 Stardom theory**

As we have just seen in the previous section, income in music seems to be concentrated in a small number of individuals, with Connolly & Krueger (2006) arguing the distribution of concert revenues fits a Pareto distribution with a thick tail. But the concentration of income and success in a given field is not an exclusive issue of cultural economics, but also on the fields of economics that relate, for instance, to sports (Adler, 2006).

A first attempt to explain such a phenomenon was when Rosen (1981) argued that disparities in success were due to one main factor: differences in talent. His theory argues that an artist more talented than his peers would completely dominate the market and generate a lot of revenue, but if there was more than one equally talented they would have to share the market decreasing considerably the revenue generated for each and for the market as a whole. In sum, "small differences in talent become magnified in larger earning differences" (Rosen, 1981, p. 846). This model, when applied to a dynamic situation, could show an even more complicate further situation, as newer, equally talented artists would have a really hard time getting a share of the market from older incumbent artists, limiting significantly the entrance in the market to new artists (Adler, 2006).

Adler (1985) proposed that superstars are not chosen by the public/ consumers on basis of

talent but rather because of music, as an art form, is an experience good, whose consumption is enhanced with consumption capital. Like the term capital suggests, cultural consumption is cumulative, i.e. “The more you know, the more you enjoy” (Adler, 1985, pp. 208-209). In other words, the more you consume it, the more you like it. Regarding music, and since consumers can gain further knowledge, not only by consuming music, but also through discussing/ sharing with other listeners, there is an incentive in reducing searching costs. Concerning the market in general, it means the consumers’ propensity to choose to listen and talk about a restricted group of artists that are known to the majority of the population, the “stars”, is higher. This creates a feedback loop of sorts, where artists with a large share of the music market will have created an incentive for listeners to discuss them, leading them to increase their share of the market even further. The importance of notoriety to the future success of an artist, might also explain why stardom might not have to do with talent, with the latter being somewhat of an illusion, while popularity sometimes serves as an imperfect proxy to talent, since there is a limit to the amount of superstars at one point (Adler, 1985, p. 208).

In a later work Adler (2006) compiled some studies that tested the relationship postulated by both theories. In one, using the quality of a voice as a proxy for talent, while more talented singers sold more, the difference of how much they sold was not as great as the differences in voice quality, a result inconsistent with Rosen’s theory. In another, the probability of a consumer buying a cd would increase the number of previous sales of that same cd, which supports Adler’s conclusions.

Although, this compilation of studies that supported Adler’s vision was made by Adler himself, most of works in culture economics cite Adler’s theory, which is also consistent with the idea previously mentioned that there is no definitive way to define and quantify talent in the arts realm. As a final note, Adler also points to the possibility of the process of globalization, in this medium through the internet, to further intensify this phenomenon to a global scale, even to the point where local artists could be replaced by worldwide talents.

Until this point, we have seen concepts and issues, that can not only be applied to the music industry, but also relate to the art worlds in general. From now on we will focus on questions specific to the music paradigm, starting with musicians’ income sources.

### **2.3 Income sources & copyright**

Musicians engage in several activities relating to their art work: record music for an album to

be sold and/ or streamed, perform concerts, compose for themselves or for other performers, etc. Bacache-Beauvallet et al. (2015) point out that the three main sources of income from a given music artist are: royalties from a record company/ label, revenue from self-released music and revenues from concerts, in which merchandising revenues can be included. In this dissertation, it is of importance to focus on the royalty payments, as they have been a standard in the industry but gained a new importance due to the way Digital Streaming Services (DSS, from now on) pay artists as we will explore up ahead.

According to its legal definition, royalties are “compensation for the use of property, usually copyrighted works (...) expressed as a percentage of receipts from using property or as payment for each unit produced.” (Lehman & Phelps, 2008). Copyright, is defined by the Merriam-Webster (s.d.) as “the exclusive legal right to reproduce, publish, sell, or distribute the matter and form of something (such as a literary, musical, or artistic work)” and itself has several benefits, such as generating revenues to rights holders on the short term, as well being a long-term incentive for artists and other rights holders to keep supplying. Handke (2011) one core authors on the economics of copyright, has pointed out these benefits, but also highlighted that copyright can come at a cost, such as access costs to users on the immediate or possible obstruction of user innovation through costs of compliance on the long term. Cammaerts & Meng (2011) present an example of the latter, showing that some of the measures taken to protect copyright holders would harm anyone who distributed through peer-to-peer technology even though this technology isn't inherently illegal.

Returning to the topic of royalties, as Mortimer et al. (2012) point out it ends up being the standard contract type in the recorded music industry, with artists usually receiving an advancement to finance the production cost of making music, as well general living costs, which will be reimbursed by royalties. Some people in the industry have compared labels to a bank that only practices one type of a very specific loan. A Label will invest in an artist paying them an advancement to produce a project that the record company will release under their banner, to be consumed by the public. The record will generate income in sales or streams that the label will receive until the advancement is totally reimbursed, from which point on artists will start to receive the agreed upon percentage of royalties from that record. Ruth Towse (2020) establishes a similar comparison, but in the opposing direction, arguing that songwriters are a specific sort of entrepreneur that invest their creative resources, as well as theirs' and/ or a label's monetary resources, to produce an artistic work that might lead to a



future revenue.

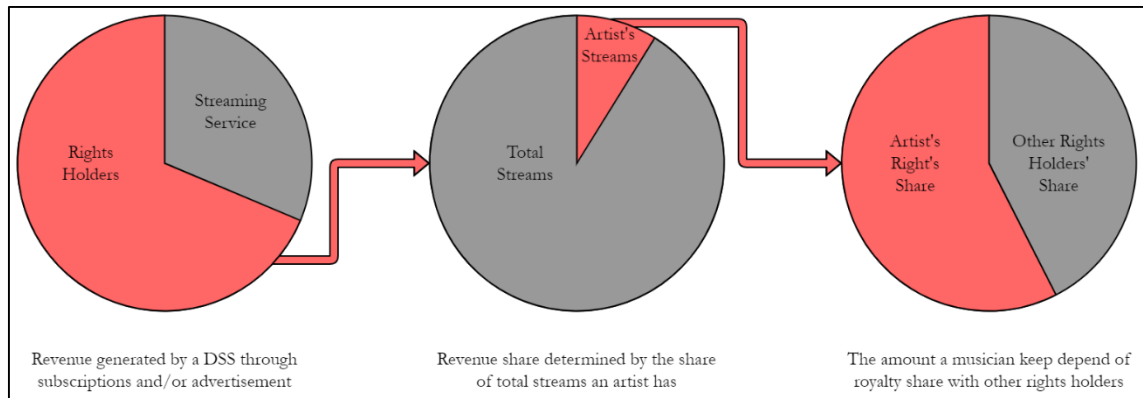
When it comes to royalties in the digital streaming context, according to an international study by OPUS Stream Ltd. (2020) the value of royalties from streaming can depend on the type of service (which will be explored ahead), time listened and the type of label contract, or lack thereof. But neither all label contracts are the same, nor can all artists do not receive all earnings from their royalties. Bromley (2016), in an infographic that focuses on Streaming in the US, shows this through some examples of the differences between artists who are signed with major labels, those with contracts with independent labels and even self-releasing artists, with the latter most likely receiving all royalties, and independent label artists receiving more from royalties in percentage, than major label signed artists.

A question we could raise then is: if an artist could keep all revenue if itself released their work, why would they have a label? Richard Caves (2006) explains that intermediaries in the cultural industries, such as labels, have significant importance since they can represent artists in negotiations with firms such as distributors to bring the art work in to the market, reducing search and negotiating costs for both parties, while minimizing the probability of adverse match making. The benefits of their work can most times outweigh the possible remuneration required.

Bromley (2016) also shows the distribution of the different rights that streaming services usually pay: one that goes to those who own the sound recording; a mechanical royalty, for the right to reproduce a song from a recording; and a performance royalty, to publicly reproduce a song, since reproduction in a streaming service falls in the category of “public performance”, in the same way as radio.

Although a lot of the debate and discourse around royalty payments of music streaming services revolves around the notion of how much it is paid to rights holders “per-stream”, Hesmondhalgh (2020) warns about the need to look at this indicator as a statistical indicator, because DSS do not pay a pre-defined value per stream. Thus how is it defined how much should services pay to rights holders? Most services pay through what is called the Pro-Rata System (Hesmondhalgh, 2020). In this system a service generates income from subscriptions and/ or advertisement, and from this income the service keeps a share from 25% to 35%, with the rest of the pot being divided according to share of the total streams a specific record/ song has, for a specific given period of time of course. From there, how much a musician earns is dependent on the contracts that are in place with other rights holders, namely

publishing companies or labels.



**Figure 1. - Example of royalty payments under the Pro-rata system (Author's elaboration)**

For the context of this dissertation I will like to take a more pragmatic/ applied approach and point out to the following sources of income musicians can take from their music work: the revenue generated through royalties from plays in streaming services, sales from physical means, such as CD's, vinyl records or cassettes, sales from digital downloads, revenue from live music shows, merchandise relative to the artists' work, such as t-shirts or other apparel and/ or collectables. I would like to make clear that I will not take into account other sources of income such as social security programs or other private sources (i.e. income from a spouse or family), since these are not income sources that are derived from music work. Other income sources that we might also refer to are, for example, some licensing agreements relative to the use of image of an artist relative to for instance advertisement. There might be other specific deals that musicians can have such as licenced "artist signature" instruments (a recurring practice in the world of instrument production, i.e. a signature guitar that is sold with the "branding" of said artist, based on specifications that fit them). Now we will take a look at what exactly is streaming and its current state and characteristics.

## **2.4 Music streaming: types & current state**

Under the circumstances discussed in previous sections, how does music streaming actually work? A DSS presents a catalogue to the listeners from which they can listen to any track as long as they have access to the internet, or have somehow saved the track for offline listening. These services can usually be accessed through a computer or a mobile device such, as a smartphone or tablet, in a specific application and in some cases directly through an internet browser.

At the moment, according to MusicWatch, Inc. (2021) profile of US music consumers, streaming is being used by 86% of music listeners, so if we take the US music consumer as a representative sample of music listeners, at least in the global west, music streaming is the preferred way to listen to recorded music. According to the IFPI (International Federation of the Phonographic Industry) (2021), Streaming is also the medium of recorded music that generates the most revenue, representing 62.1% (46% for streaming subscriptions and 16.2% for ad-supported streams) of revenues of the global recorded music industry in 2020, a total of 13.4\$ billion. Streaming has been generating more revenue each year, with a 19.9% growth in 2020, being mostly driven by an increase of 18.5% in revenue from paid subscription services. Four streaming services had 77% of the number of subscribers around the world in 2019, and Spotify, Apple, Amazon and Google (through Google Music and YouTube) account for most of the revenue from subscriptions (OPUS Stream Ltd., 2020).

In contrast, the sum of revenues from other forms of consumption of recorded music have been dropping in the last two decades, with physical sales declining since at least 2001, and digital downloads consistently declining since 2012. This decrease in revenue was often pointed out as being a consequence of digital piracy, with the rise of file-sharing platforms such as Napster or Limewire, around the turn of the century (Liebowitz, 2016). Cammaerts & Meng (2011), among others, defend that there were also other factors at play, such as the decrease of disposable income of families and different patterns of music consumption, arguing that households might have started to shift their expenditure from goods (such as CD's the standard way to consume music at the time) to services. This same report points at some data from the UK at the time that indicated that the decrease in revenue from the recorded music industry was being compensated with the increase in revenue from live performances. They also present a thesis of the preference of services over goods from consumers that as well seems consistent to explain the growth of preference of Streaming over CD's, since the former is a service instead of the latter that is a good.

Here it is relevant to explore the idea that streaming platforms are an example of a platform economy (Towse, 2020), since it is a market where artists distribute their music in hopes to meet their audience, while the listeners can find the music of their favourite artists and explore them further in one place only. In sum, streaming platforms can coordinate different participants, with different goals in just one digital place, *via* a concentration degree that had not happened before, and on an almost global scale. Besides artists and listeners, streaming

has a place for advertisers to promote products that at first glance might have nothing to do with music, to a very vast audience, while resorting to very detailed data of listeners. Due to its digital nature, streaming services can be identified as platform economies, not only for providing the freedom for its participants to interact with one and another but by collecting data on consumers' behaviours, useful not only to artists but especially to advertisers. As we will see ahead, streaming services have to do a balancing act in ways to satisfy all parties while still achieving their own goals.

Different streaming platforms work in different ways, with different models. Firstly, they can be interactive or non-interactive, which distinguishes whether consumers have control to what specific tracks they want to listen at any given moment, as happens on Apple Music or Spotify, or if they work much more as online radios that selects tracks out of revealed preferences from listeners, closer to the way Pandora functions (Aguilar & Waldfogel, 2018).

The other major difference on streaming models refers to the subscription model, either the consumer pays a subscription fee to access the service for a determined period of time, or there is no such fee, but under the counterpart of the service being supported by advertisement revenues from commercial breaks between tracks, mentioned from now on as free streaming. It is possible for a platform to use both models at the same time, differentiating each one by limiting or adding features, in a practice usually called freemium, as it is the case for platforms such as Spotify or YouTube (Aly-Tovar et al, 2020).

What determines which model a streaming service will use? According to Thomes (2013), the choice will depend on the nuisance cost of exhibiting advertisement to consumers, as listeners consider a bother to have their listening experience interrupted by commercials, and from then the platform can choose which business model is the most adequate for its interests. The work of Carroni & Paolini (2017) extended over the latter and shows how misalignment between platforms and copyright holders might surge. When nuisance costs are moderated but the market is ample enough, platforms are able to explore their market share and reduce the payment of royalties – which can be a possible explanation for the apparent aversion of certain artists towards the free models, such as the one Spotify offers.

This study (Carroni & Paolini, 2017) also explains how the purchase of content influences the attractiveness of the service for consumers, and why paid streaming generates more revenue than free streaming does for copyright holders. The more subscribers a service has, the

more artists will accept lower rates of royalties to make their catalogues available in said service, in order to reach a larger audience. Well, since free streaming has much more listeners than paid streaming, that means that companies will pay more to have tracks available in the paid service, even if they have both types services. In reality, however, catalogues between different DSS's do not vary much, as there is little incentive for artists to place tracks as exclusive to a certain service, since that will limit the audience they can reach, and there is an incentive for services to have a catalogue as extensive as possible so they entice as many people as they can. Differences between rival services today seem to come down more to specific features each has, rather than their similar catalogues (Towse, 2020), with other factors such the service's reliability also coming at play, as also mentioned by one of the interviewees, Bruno Dias (A.K.A. DarkSunn). But DSS's do not compete just with each other to deliver recorded music to listeners, but with alternative mediums as we will explore in the following section.

## **2.5 Alternatives: music purchasing & piracy**

In what ways is streaming different for consumers from alternative means of consuming recorded music? Datta et al. (2017) and Dang-Nguyen et al. (2014) differentiate that purchasing music, whether physical albums or digital downloads, fits into an ownership model, where the consumer owns tracks permanently and are able to listen to them, theoretically, at any given time. Streaming, on the other hand, works within a renting logic where, for a fee or through advertisement, listeners pay to have temporary access to a library where they incur in no additional cost to listen to any additional content. This difference will affect the way consumers listen, as streaming listeners have no “commitment” to any specific tracks or artists, and therefore have a larger catalogue to choose from, and this affects the incentives of artists when producing and releasing music.

Through different ways to consume recorded music, consumers might substitute one for another, Hiller (2016) found evidence of large displacement of sales for top albums released by bigger, more relevant artists while the effect is null for smaller artists. Although this is a result taken from YouTube in 2009, before the prominence from most streaming platforms, it seems a plausible hypothesis for today's circumstances.

Before technology allowed for DSS to establish themselves, file-sharing, the preferred method for digital piracy, was one of the ways to consume music through digital mediums.

Borja & Dieringer (2016) tried to understand whether streaming and piracy are substitutes or complementary ways to consume music. They have similar features, especially when considering specifically free forms of streaming, since both allow access to large collections of songs with little to no cost and there is some focus on a component of social networking and sharing. Because of these similarities, if it is reasonably justified, we will assume that some of file-sharing effects on music production and distribution can be transposed to the effects of free streaming.

Moreover, they face the same issue of streaming working as a way of renting, while file-sharing working within an ownership context, which becomes even more relevant since streaming can require extensive use of data for mobile listeners which amounts to an additional cost (Borja & Dieringer, 2016). Streaming and file-sharing are clearly stages of the overarching process of digitalization in music, and in the next section we will look at how it has affected the recorded music industry as a whole.

## **2.6 Digitalization in the recorded music industry**

Now that we have a better picture of what constitutes a music artist's income out of their records both in sales and in streaming, and how streaming services work, and how it generally affected revenue in the record music industry, it is important to look at the ways technological changes influence artist's motivations, therefore their music production and on a later analysis their income.

Even before the popularization of streaming, Waldfoegel (2012) noted that while file-sharing reduced the revenues of musicians, it did not reduce the flow of new music, because there were also technological changes in production, distribution and promotion of music, specially through the internet. If an artist decides to distribute through digital means only, that means they will not have any inventory and transportation cost. Software today can also turn a personal computer into a substitute of traditionally very expensive studio equipment, making it possible for small scale organizations (often even just a single person) to produce and market their music in the global music market. Very much like the case of singer Billie Eilish, that wrote, recorded and produced her debut album with her brother Finneas in their room (Harvey, 2020), becoming a top chart success, or more recently the various cases of artists that recorded "Quarantine albums" in their own home studios. Reaching other artists and producers towards possible collaborations is now easier than ever, and the internet as also

brought new ways to finance new projects with the rise of initiatives such as crowd funding (Cammaerts & Meng, 2011). In sum, as Peukert (2019) argues, technological changes in production, distribution and promotion of music have undoubtedly contributed to lower the barriers of entry in the culture industries, which includes recorded music.

Reaching a wider, potentially global audience is of utmost importance for artists, especially for those that provide works towards a niche. Waelbroek (2013) argued that online communities, such as most social media platforms, could increase exposure and discovery of less-known music much more efficiently than before the internet (because it was difficult to find recordings in their physical formats) leading to what he calls a “long-tail” phenomenon, a growth in sales for artists in digital formats, even if they did not sell much in the physical formats. This is achieved by the increased possibilities that niche artists now have to promote their music online, to their once “physically” difficult to reach potential audiences. This can help for example a shoegaze<sup>3</sup> artist in Portugal “make a name for himself” by being able to target to the wider world audience of shoegaze listeners, rather than focusing on trying to create fans in their own home country, who might have never been exposed to such niche genres.

As seen above, DSS, specifically free platforms, can have similar features to file-sharing, in that they allow access to music at little to no cost, the findings of Mortimer et al. (2012) can be somewhat applied to the possible effects of streaming in the auxiliary market of live music performances. There are two effects here at play: a demand shift, if recorded and live music are complementary, and live music is still an experience good that benefits from listening from recorded music, then file-sharing and/ or streaming can lead to more demand for live music; and a supply shift, if file-sharing and/ or streaming reduces profits (a hypothesis we will not be able to exclude for the case of free streaming as we will see further ahead) then artists might allocate more effort for their live music output. In sum this might mean that streaming can increase artists’ income from live shows. According to data from the United Kingdom analysed by Cammaerts & Ming (2011), these effects might be the reason for the loss of revenues from the recorded music industry to have been compensated by the increase

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<sup>3</sup> Shoegaze is a subgenre of Alternative Rock in which arrangements form a “wall of sound”, using distorted guitars with delay and feedback, that overrides traditional melodic instruments as the voice. <https://rateyour-music.com/genre/shoegaze/>

in revenue from live shows. It would also be very interesting to test if such effects also hold for other auxiliary markets of music such as merchandise.

Contributing to this discussion, the previously mentioned paper of Mortimer et al. (2012) evidenced that the introduction of Napster, a popular file-sharing platform in the early noughties, increased the concert revenues for less known artists, with high ranked artists feeling much less of this effect, possibly pointing out to the possibility of piracy being able to raise awareness for smaller artists. It is important, however, to note that we can only extrapolate this result for free streaming, if we assume that they are substitute ways to consume music. Curiously enough Dang-Nguyen et al. (2014) showed results that go against this, arguing that free streaming had a positive impact in demand for live music performances for stars, but not for classical music and local artists. This is an important result to highlight, as we will see up ahead, changes in the market will affect different groups of musicians differently according to their career stage, notoriety or genre segment.

In terms of music production, does streaming change the way music is made? Hiller & Walter (2017) argue that the unbundling potential from the release of albums to the release of individual tracks, and this means of non-durable nature of consumption, will lead artists, specially less established ones, to bet in a strategy to release less songs, but with higher quality, since the number of plays per track is more relevant to revenue than the number of tracks that are available. This seems to meet the comments from Spotify's CEO, Daniel Elk, that defended that artists should release less tracks in each project but reduce the time gap between releases (Laing, 2020).

Although not as talked about in culture economics literature, but discussed in other contexts, songwriters and musicologists have pointed out that the prominence of streaming has actually changed the structure of individual songs, noting that newer hits are usually shorter and have no individual part as an intro, with songs starting immediately on the chorus or the "hook" in an effort to engage listeners right from the beginning with its most memorable moments, to dissuade them from skipping their song, especially when it is placed in a playlist (Sloan & Harding, 2019).

As pointed by Peukert (2019) the internet has led to a new approach on cultural economics based on collected data of users. The algorithm based, weekly updated, playlists are a perfect



example of distributors using data on users' listening habits to find other users with similar tastes to introduce new music that the listener might not know or listen to regularly.

But since listeners rely on features such as service generated playlists to discover new music, it becomes important for artists to understand the algorithms at play that will decide whether a track will or not be recommended (O'Dair & Fry, 2020), as that will inevitably affect the number of listens and their income (as we will explore ahead). However, understanding the logic of the algorithm is "easier said than done", since there is not just one algorithm at work at one time, as well they are constantly changing, i.e., adapting as they permanently incorporate new data (namely, with the help of Artificial Intelligence software). Artists also have to multiply this process as many times as the number of platforms they make their work available in, if they want to understand the different platforms where they place their music. This complexity makes it virtually impossible to test how the algorithms react to different factors establishing a situation of asymmetry of information between the streaming platform and their users (Pasquale, 2015 *apud* O'Dair & Fry (2020)), being in this case both listeners and music artists alike.

The bigger problem for artists is not whether their music will be listened or seen, but rather, if the algorithm considers an artist' music not important enough to be recommended. And while we can believe that algorithms are neutral because they are executed by machines, O'Dair & Fry (2020) remind us that, while algorithms are in fact executed by computers, they are still written by other humans, and so, will reflect the way those who wrote them think, and therefore, their values and culture. Since these algorithms are written by the streaming companies they will most likely reflect their interests, adding factors that will guide recommendations such as human bias, financial pressure, competition between platforms and even specific licensing agreements. One illustration: Katy Perry<sup>4</sup> alleged that her track "Rise" didn't perform well on Spotify as a "revenge for the track being released initially as an Apple exclusive" (Ingham, 2016). As a matter of fact, Spotify itself has admitted the possibility of

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<sup>4</sup> Katy Perry is an American Pop singer that has had three albums reaching the number one position on the Billboard 200, the album chart in the United States.

adopting a scheme where for a percentage of royalties their algorithm would boost the probability of discovering of an artists' music (Spotify, 2020), that some have compared to the practice of payola<sup>5</sup> (Yoo, 2020).

The ability to boost a certain track, whether through heightening “awareness” by the algorithm to place it on service generated playlists/ recommendations, or directly in playlists curated by the service is what Prey (2020) describes as curatorial power, “the capacity to advance one’s interests through the organizing and programming of content” (2020, p. 3). This power is used in the choice of what tracks to boost on what playlists, since these are the most important features of Spotify that end up on having a significant impact on number of play as these have a lot of traffic and so can generate a lot of income. But Spotify should use this power in a very careful way as streaming platforms do not only have to advance towards their own interests but also to conciliate the relationships between the different actors of the markets that are connected in this specific platform economy, namely, listeners, music rights holders (usually record labels and/ or musicians themselves) and advertisers.

While this power from playlists seems obvious when it comes to the relationship between listeners and rights holders, how can it also affect advertisers? Streaming can collect a lot of behaviour data from its consumers, especially when using their “time-of-the-day” or “mood” playlists, such as playlists curated for an activity like running or for a specific time of the day like the “Have a Great Day!” playlist for the morning, which are useful for advertisers to sell their products very effectively (Prey, 2020).

If recording companies and artists have, at least in theory, reasons to support subscription based models of streaming only, why are there artists in favour of the ad-based models? Aly-Tovar et al. (2020) point towards 4 reasons: these models allow artists to be discovered by a larger potential audience; when an artist’s target audience has a higher tendency to use this type of service, namely younger listeners; because of the positive relationship between this type of service and the promotion of live music performances, since live shows provide a revenue in a more direct way; and specific artists with contracts with a major label, who have a larger share in the market, and so, hold enough power to negotiate deals in a way to guarantee artists in their roster receive more, or have higher promotion, than artists that aren’t signed or are signed with independent labels. Many of these reasons are related to points we

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<sup>5</sup> Payola is the practice of making undisclosed payments so a piece of content is included in a broadcast program (Coase, 1979)

have explored through our literature review namely the promotional effects on live performances, and heighten discovery potential. However, this does not exempt DSS's of criticism on their practices and models.

## 2.7 Criticism and debate on streaming

Musicians, as agents with direct interests, have made very significant amounts of criticism against music streaming. In a series of interviews with many participants at different levels in the music industry, Graham (2019) points that there was an initial hope of the potential positive impact of streaming on musicians' revenues, that was progressively replaced with scepticism and later by disappointment, meanwhile the major record labels saw a renaissance of sort of their revenues. Graham also notes some questions regarding Spotify's business approach, that while reaching incredible market valuation, it has seen successive records of losses, as well concerns with future problems regarding data collection, specifically regarding how it can use very detailed data to influence public opinion due to music's well-established relationships with aspects of human decision making.

Marshall (2015) remind us that this criticism has not just come from superstars like Taylor Swift<sup>6</sup> and Radiohead's Thom Yorke<sup>7</sup>, but also some many independent artists, who individually held much less power than the aforementioned stars. In response to the distressed cause to musicians due to the Covid-19 pandemic, some independent agents of this industry formed movements such as UMAW (Union of Musicians and Allied Workers), urging for streaming platforms to act and defend the already precarious industry, in an even more troubling moment, going so far as to launch a campaign for Spotify to increase their pay-out to artists to a penny per-stream (UMAW, 2021). In this UMAW article the main criticism regards the power dynamic between artists and labels, and how, even though there was a promise that the internet would democratise the market and lead to a "long-tail" expansion, the reality is that, because the major labels are becoming stakeholders of streaming companies

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<sup>6</sup> Taylor Swift is an American Pop and Folk singer that has had nine albums reaching the number one position on the Billboard 200, the album chart in the United States.

<sup>7</sup> Thom Yorke is the lead singer and composer of the British alternative rock band Radiohead, that has had two albums reach the number one position on the Billboard 200, the album chart in the United States. He is also known for his work on Atoms for Peace and for his solo work.

like Spotify, they are just repeating the same structure they had with CD distribution model, proving their power and importance as the intermediaries in this industry (Caves, 2006).

The main complaint, as explained by Castle & Feijóo (2021), is that there is a disproportionality between the high value created by performers and the low value of royalties paid by DDS's to artists. In their opinion, artists through their releases and promotion of said releases help drive subscribers and listeners towards these services, reducing significantly the costs of promotion that DSS's themselves have. From these listeners brought in by artists, services extract data that is the foundation of most automatic recommendation mechanisms and from which the service is customized and enhanced. This report also raises awareness to competition problems, like YouTube's video competing with DSS's audio in music, or Streaming's ability to compete with conventional radio broadcasting. A final criticism regards the lack of transparency and auditability in revenues and payments by DSS's.

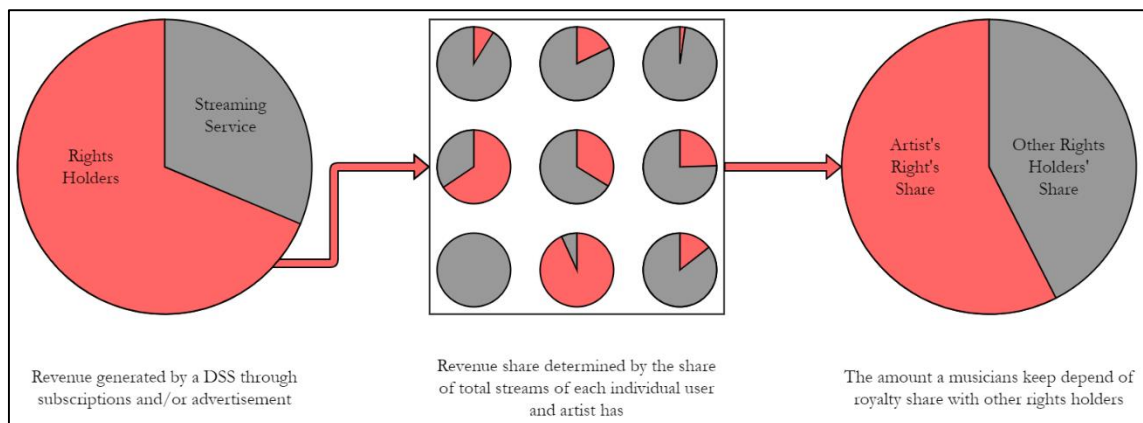
Hesmondhalgh (2020) compiles some more criticisms from musicians but also addresses some of the issues these accusations have, particularly when it concerns to evidence and data to prove the claims.

Besides the claim towards the reproduction of the power structure that concentrates power on labels, in the sense that some of the major labels held a stake of ownership of distributors both in the CD era and the Streaming era, he mentions the claim that the new system is damaging to musicians (in the broader sense, it includes songwriters and producers), making distribution more unfair but above all harder for musicians to earn a living through their art than at any other time, with the implication that this is a result from the rise of use of streaming services, that DSS's are the cause of the uneven distribution. He notes though that besides little to no evidence provided to back up the claims, some of them seems to go against the economic logic, such as the sound logic for the emergence of the long-tail phenomenon that we will address below. There also seems that most criticism implies that musicians earn all their income from streaming, which the author states that it is not true, since there are the aforementioned concerts and record sales (Bacache-Beauvallet et al, 2015). This claim was most likely done before the Covid-19 pandemic that caused the live music industry grind to almost halt.

Although some criticism raised against streaming platforms has not been validated by research, Hesmondhalgh argues that they should not be ignored, especially those regarding on

how little is paid to musicians, and that most of these problems that seem specific to streaming services are actually problems of the music industry under the modern capitalist system, and that should maybe be the focus of the debate on the larger picture instead of just the streaming services.

A possible, and suggested, way by Hesmondhalgh to deal with some of these issues is the change from the “pro-rata” payment system (see figure 1 above) to a “user-based” system. In the latter the amount paid to rights holders is not based on the share of the total streams an artist has within a given streaming platform, but on the share of stream they have of a given user. This way artists can be better rewarded of being able to create loyal fan bases (Castle & Feijóo, 2021). For instance, if a given user spends 10% of their streams on a given artist, then that artists would be entitled to 10% of the income generated by that user (subscription fee or advertisement), once the share of 25%-35% for the streaming service, as it is on the first step of the “pro-rata” system.



**Figure 2. - Example of royalty payments under the user based system (Author’s elaboration)**

There are some caveats to this model though, such as the logistics of providing data accurately. Studies in countries such as Finland, Denmark and Norway (mentioned in (Hesmondhalgh, 2020)) show that such a system would pay less to top artists and more to those with less streams, useful for local artists. If this would become a reality, then this model would benefit smaller artists in detriment of superstars, and so, we should take into account that superstars and their representatives would exercise their power and refuse the usage of their catalogues on the streaming services that use a user-centric model, leading to a blow on the attractiveness of these services to public.

As we referred, the contribution aimed with this dissertation is to focus on one of the key stake holders here mentioned, the music artists, and not on an empirical level but a more

theoretical and logical level. As we have seen, much of literature is focused on the effects on the industry as a whole, looking at musicians as just a cog in this machine. However, the complexity of contracts of musicians with labels, and the fact that they are almost always undisclosed to the public, creates an issue that might be the reason why this branch of cultural economics has not yet fully adapted to the digital paradigm potential.

In this literature review we have seen what cultural economics has developed so far on the issues on the labour market for artists, and especially for musicians, what Stardom Theory is and how it shapes the distribution of attention and income in the arts, what are musicians' income sources, what is copyright, royalties and how DSS's pay musicians, what is streaming and its different features and characteristics, how it compares to alternatives as sales and file sharing. We have seen as well the effects of digitalization in the music business and the criticism leveraged against streaming services. Now we will combine these contributions from literature to outline a model to understand how streaming services affects the income streams of musicians through direct and indirect channels.

### 3. Identified Relationships

#### 3.1 The model

My main investigation question is: how did DSS's change the way musicians earn from their art, through direct and indirect channels? Having studied contemporary literature of cultural economics, I constructed this model of established relationships between an artist's catalogue presence in a streaming service and the musician's income streams represented in figure 3.

Catalogue presence will be our independent variable which will influence our dependent variables of discovery (through sampling and diffusion), piracy, streaming royalties, physical & digital sales and live music performances & merchandising, with the last four constituting music artist's income sources. Catalogue presence is a necessary, but not sufficient, condition for presence in service curated playlists.

As discovery has an impact in all revenue sources, it will be our starting point in this chapter, and the subsequent three sections will focus on how streaming presence correlates to them. Last, but not least, in section 3.6 we will look at how could it be possible to test such a model and its possible limitations.

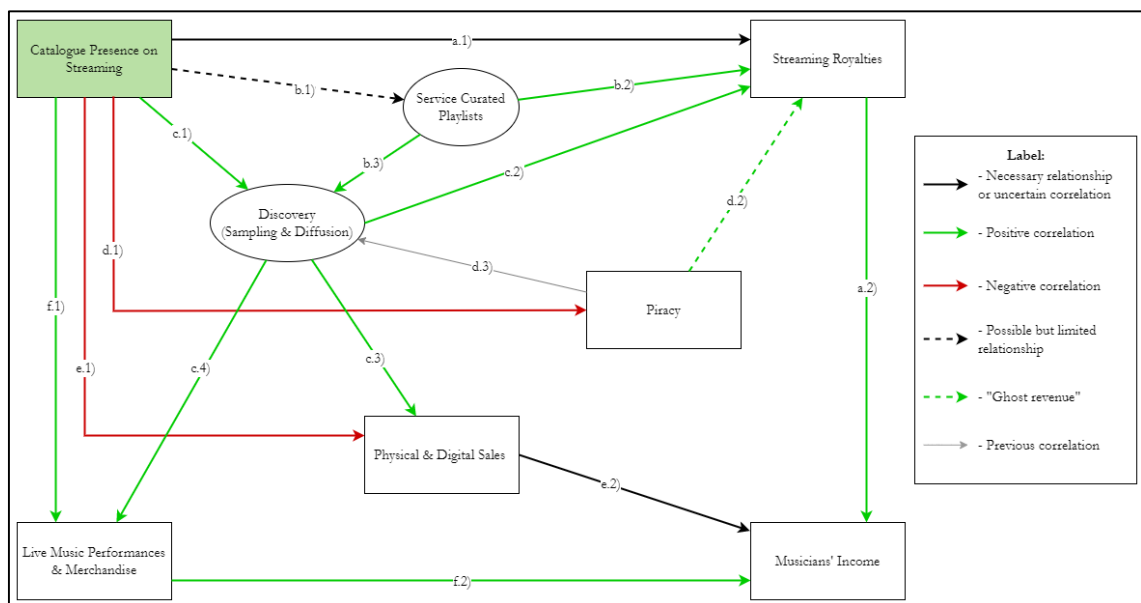


Figure 3 - Identified relationships and effects identified between catalogue presence on streaming and musicians' income streams (Author's elaboration)

### 3.2 Discovery (sampling & diffusion)

Because music is an experience good, a listener does not know beforehand if they will like the music of an artist they do not know. In other words, despite some pre-guarantee (from peers/ friends, advertisement, etc.), listeners cannot know if the music matches their taste, and hence, if it will bring them enjoyment. Sampling, listening to a new song or artist for free, is relevant to determine if a listener enjoys it and is willing to listen to it more often, which can lead to a purchase or to interest in experiencing it in a live concert. For instance, radio allows us to listen music we might not know, and this sampling allows us to discover new music and artists – in fact, radio, and later television, were for a long time the biggest discovery tool in music. As technology has evolved, we have seen new tools for discovery such blogs and social media as Aguiar & Mertens (2016) point out, especially when it concerns to amplifying the critic circle from restricted closed and specialized groups to a larger audience. Digitalization before turning discovery tools more complex, have expanded their scale.

Streaming, because it allows listeners to consume additional music at no additional cost, allows then for listeners to sample new music at no extra cost which can lead to the discovery of more and more diverse music, which leads us to the connection c.1). This is especially relevant to less known artists (Hammond, 2014) as taste mismatches are most likely to happen with new and/ or smaller artists since there is less information when compared to more known artists and for artists that supply works to niche genres or those on the “long-tail” of sales (Waelbroeck, 2013).

A study by Datta et al. (2017), based on a sample of users of a music recommendation service, finds evidence in this direction, with streaming increasing the rate of discovery of new music for streaming listeners, when compared to listeners that did not use streaming. The authors point out that that one of the key reasons is that streaming can provide information that previously listeners lacked, usually through playlists. The process of curation of playlists can either be man-made, or automated through the use of algorithms that look into the listeners’ habits and recommend new music accordingly.

Algorithm based playlists are one of the most prominent features of some of the most used streaming platforms in which a service will compare a listener’s data with other listeners’ data, most likely those with similar points in taste (i.e. a specific artist or genre), in order to suggest music with higher likelihood of matching their taste. Some of these playlists might



have a different focus: Spotify's "Release Radar" is a playlist that presents the user with recently released tracks from artists and genres that the service already knows a user likes or listens to, while "Discover Weekly" focuses on delivering tracks from artists that the listener has not listened before (at least through the streaming service) but are related to artists and/or genres that the user already enjoys. Once again it must be reminded that the implementation of such algorithm based playlists is not absolutely consensual and the possibility of these features being able to ignore artists entirely can be anxiety inducing for them, as well the notion that streaming services will not program this type of playlists to blindly promote artists, but rather to fulfil their own interests (O'Dair & Fry, 2020).

In the case of human generated playlists, these are curated taking into account a certain theme, such as exploring a certain genre or compiling the greatest hits of a certain artist. This selection amounts to a certain *a priori* consumption capital (Datta et al, 2017), since curators use their knowledge on the topic to suggest what they perceive to be the best tracks to represent the movement, genre or artist it is exploring. These may be great not only for new listeners that want to explore new sounds, but also for established fans that might find a digital place of their favourite tracks. Likewise, being present on these curated lists is beneficial to new and old artists alike. New, less established artists might feel vindicated as relevant artist in their field, while being exposed to listeners that already enjoy the style of music they play. Meanwhile older, more established artists can be introduced to newer fans of the genre that might know the newer acts but do not know those who came before. In this model this relationship is represented by the connection (b.3) in figure 3.

I will make a distinction between human curated playlists users' playlists and playlist proposed by the service, because of the user interface of almost any streaming platform will always prioritize playlists made by the service than the others. Spotify, for instance, in their search page, present a myriad of genres to explore and once you open a tab, users will be shown a collection of playlists from which to choose with the first ones being shown always being curated by Spotify itself. Apple Music in the browse page will be very similar, with a small tab on selected curators that are not Apple itself, while the rest promotes playlists curated by Apple. Because of these design choices, as well other design choices on the home page of services that once again prioritize playlists curated by the services themselves, many of these playlists gather a lot of attention and generate a significant amount of plays, that in

turn will generate a significant bump in streaming royalties' revenue (b.2) to those who own the rights of songs placed on those playlists (Prey, 2020).

But just because streaming increases the probability of artists to be discovered more often by a larger audience, that does not mean that the consumers will stick around for longer than the discoveries did in the "physical music era". The previously mentioned study by Datta et al. (2017) also looked at the "quality" of discoveries and found that while discovered songs are played less with streaming, the "best discoveries", the discoveries that played the most among the new songs, are played more often than without streaming. What this means is that it might be easier for artists to be discovered with streaming than with past mediums, while in parallel the market is becoming a fragmented market. In sum, since market entry is easier, due to a lowering of entry barriers, it might also become more difficult for artists to remain relevant in the market.

But how can this affect income for musicians under today's paradigm? As discussed before, the presence of an artist's catalogue on streaming provides a large opportunity for them to be discovered by the audience, whether it is a large mainstream audience or a "sonically localized" niche audience, and this potential new audience is not geographically bound, but bound to the range of streaming services where their catalogue is available. Artists can be discovered somewhat organically through the mentioned algorithm-based playlist features, but they can also be significantly boosted by the presence of some tracks on Service "Sanctioned" Playlists, lists curated by the service that by virtue of the user interface have the potential to command very high traffic. In sum, the presence of an artist's catalogue on a streaming service has the potential of the musician's work being discovered (c.2) through two phenomena: the sampling allowed by DSS functioning, and the diffusion through human and algorithmic curated playlists. From here, discovery in streaming will help generate new listeners that through their streams on the service will increase royalty payments from DSS to artists.

This does not mean however that this will be the only effect of discovery on income. If artists are able to become the "best discoveries" of some fans, those fans might want to expand their consumption of the work of these musicians in two ways. First, through features that are present in some services that we will explore ahead, they might become interested in participating on some of recorded music's auxiliary markets, and so increase demand for live music performances and merchandise sales, a relationship represented by (c.4), in figure 3. On the other hand, looking to MusicWatch, inc. (2021) we can see that if there were 86%

streaming users and 44% of music buyers of a sample in the US in 2020 (which we can consider a representative sample of music consumers), there has to be listeners that are listening to their music in more than one format. That being so, if streaming presence raises the potential public awareness to a music act, that means that besides the effects on streaming revenue and live music and merchandise, then streaming presence can also be a contributing factor to music sales in the digital and/ or physical format via this discovery effect, represented by (c.3) in figure 3.

During the writing of this dissertation I had the opportunity to confront these ideas with two independent label executives taking into account their experience in this market. Both of them, while discussing the relationship that their respective label and their rosters had with streaming services, referred to streaming as a “necessary evil”, in the sense that while streaming did not generate a whole lot of income for their ventures, the lack of presence in a service’s catalogue (mainly Spotify, the largest player in the Portuguese market) would be hurtful to the public’s awareness of their artists, and hence, hurt their sales and their live show demand and revenue.

This extended visibility and potential of discovery by new larger and global audience will have impacts in the demand for live performances, records sales, and, as we will see in the next section, in the number of plays and royalties paid by DSS’s.

### **3.3 Streams & royalties**

Well, for starters if an artist does not have their catalogue on a streaming service, then their music cannot be played there and obviously it will not generate a royalty revenue from streaming services, hence the relationship (a.1) in figure 3. The presence of their catalogue on the other hand, might, right from the start, generate plays as long as their established listeners that use streaming services notice that their music is available to be listened to in a streaming service.

Additionally, the royalties made from streams in these services can be boosted by two factors mentioned in section 3.1: as we have seen streaming has a large potential to increase the audiences that are exposed to an artist’s music and so its potential to be discovered by new listeners that might become fans of that given artist (Datta et al, 2017), represented by (c.2) in figure 3.; the second factor here at play is the presence on the Service Sanctioned Playlists, that due to the nature of user interfaces of these services might significantly increment

streams that present tracks might receive (Prey, 2020), a boost represented by (b.2) in figure 3.

On a final note, we have what I will call a “ghost revenue” that might come from the transfer of listeners from piracy practices to streaming, even in its free formats (d.2). Even though Borja & Dieringer (2016) find evidence that there’s some complementarity between file-sharing and streaming use, this might not be the case for all listeners. Aguiar & Martens (2016) point that such complementarity might be a result of a problem of heterogeneity, as in many of these types of studies: some people who have a high interest in music might consume more across the different platforms, when compared to others that have less preference for music listening. Hence there’s the possibility that for casual listeners these mediums might be looked at as substitutes.

If that is the case, then if listeners who use file-sharing to access music migrate to streaming services, even if only to the free versions so they keep having no monetary costs with music consumption, they will start to contribute to streaming royalties paid by streaming services as versions of these are supported by advertisements. In essence, streaming, if able to capture file-sharers because of its legality and ease of use, can create “revenue contributing” listeners even if they only use the free iterations, an idea already noted by Wlömert & Papies (2016) and Dang-Nguyen et al. (2014).

### **3.4 Physical & digital sales**

Since the introduction of streaming to the market, data from IFPI (2021) indicates that this medium has grown in revenue generated for the recorded music industry and decreased for physical and digital sales. Economic theory seems to suggest that these methods of consumption of recorded music are substitutes of each other, as we have seen on section 2.5. The presence of an artist’s catalogue on a streaming service should discourage the purchase of physical copies due to some practical advantages that digital offers, i.e. the increased portability, and especially when regarding to unbundling (Hiller & Walter, 2017). The possible effect of substitution should be stronger when regarding digital sales since these two methods already share many of the same features, and even though streaming does not allow a user

to own permanently a file, it allows a user to listen to much more different music without paying extra for each download needed to listen to a new song.

So there are strong arguments for displacement of music consumption from physical and digital albums to streaming (e.1), but what is the net effect for the industry's revenue (e.2)? Wlömert & Papies (2016) studied the possible effect of cannibalization of revenues, from sales of albums that are replaced by consumption through streaming, and defended that there is a positive net effect in the case of streaming paid by subscription, but inconclusive for ad-supported streaming, which explains why some publishers have more interest in incentivizing the first of the two business models. However, the literature is not completely consensual on this issue with Aguiar & Waldfogel (2018) defending that it is not possible to reject the possibility of streaming having a net null effect on revenues. It is crucial that we do note that the methodologies used in these studies are different, with the first taking a user expense approach, while the later organizes data at an artist and product level. The time frames of the two studies are different as well.

There is a relevant caveat to be made on the relationship between sales and streaming, as for some users these might not be substitutes of one another, but might be seen as complementary medium. As we have seen in section 3.1, music listeners might not use only one format to listen to music (MusicWatch Inc., 2021), especially those who have a high interest in music (Aguiar & Martens, 2016).

A case in favour of such an idea is vinyl discs' sales, that have seen some resurgence during the last decade, with a growth of 23,5% of this format's revenue in 2020 (IFPI, 2021), as this specific physical format gained a new cultural value, and even a social role, during the music consumption process, as a slow and localized experience (Bartmanski & Woodward, 2015), as well, due to a perceived authenticity as much of modern music canon has been conceptualized with the vinyl format as being the preferred for a minority of a more interested audience. Contributing to this idea of physical sales and digital streaming existing alongside one and other, Sarpong et al. (2016) argue that while retro-technologies, as vinyl, might have some significant shares in the market, they will not "disrupt the technological trajectories of the market".

This can lead to situations where if new listeners become fans of an artist after sampling its' music on a streaming service, then it would be very much possible for those fans, to purchase physical or digital copies of that given artist's music, a relationship represented by (c.3) in

figure 3. We should preface though, that the slice of listeners that enjoy music in more than one format will be a minority when compared to those who listen exclusively through one medium.

This last situation might even be stronger for artists of niche sections of the music market. On the interviews conducted with executives of two independent music labels, both of them with considerable focus in supplying music for niche genres, this idea came strongly across, as most of the revenue generated by these companies was made through sales, while Streaming accounted to only about 10% to 15% of revenue in one of them. Meanwhile, many studies in cultural economics do focus on data from top musicians as top charts data (i.e. Billboard 200) is much easier to come across. This, in conjunction to the concentration of success postulated by stardom theory (Adler, 2006), meaning that some of the findings made in this field are highly skewed by superstar artists, while such relationships being different for artists on lower levels of fame. As Cameron (2016) reminds us, if we focus our analysis to music that has charted, then we will have a censorship issue that excludes all other music that has not charted.

To conclude this section, while catalogue presence on DSS can diminish digital and physical sales, represented by (e.1), because of substitutability of formats, it can also stimulate sales from the discovery effect on streaming, represented by (c.3). The net effect on the income of a musician, represented by (e.2), might be connected to their career stage and their established notoriety. More established artists that used to have large success in sales before streaming, will likely have a negative effect, with listeners migrating from downloads and physical formats to DSS and with less potential for discovery as they are more known already. Newer, less-established artists, might see a positive effect as they will use streaming to promote sales to fans they have gathered in the discovery process of (c.3).

### **3.5 Auxiliary markets: live performances and merchandise**

We have been focusing on streaming, so on the recorded music industry, but there is an adjacent industry that is just as (if not even more) important for musicians in live music performance. These two interact with one and other, and one of them is able to generate

interest in the other, as after all music is a performance art that can be experienced in different mediums, and the consumption of those means can be complementary.

Records can lead to anticipation to see an artist perform in a concert, while concerts can be an opportunity to introduce and sell records to the audience. Live and recorded music have a relationship akin to an “Asymmetrical Upwards Demand Spiral” (Papies & van Heerde, 2017), which means that if a recording by an artist has success then that will stimulate demand for concerts from that artist. The opposite also seems to be true, which feeds back creating a cycle, but at a smaller magnitude, hence the asymmetrical denomination. Authors do point out that interaction of demand between these formats will be different according to an artist’s career stage. Stars benefit largely from demand boost on concerts after a successful record release, while less known artists will see a boost on their record sales/ streams after success in stage performances.

The presence of an artist’s catalogue on a streaming service has the additional potential of generating supplementary interest on a given artist’s efforts on some auxiliary markets of recorded music such as Live Music Performances and Merchandising. Mortimer et al. (2012) explain that digitalization can have a positive influence through two effects:

There is a demand effect, since the presence of the artists in a streaming service will likely raise awareness of its work, which includes the discovery effect mentioned on section 3.1 by (c.4), eventually generating more interest on the artist and driving the demand for live music performances. Additionally, Spotify already offers some features that help demand on these auxiliary markets, such as allowing the sale of merchandising directly from the platform, or inform listeners about live performances close to their location on the profile page of an artist, a relationship represented by (f.1) in figure 3, with the integration of the Merchbar and Songkick services respectively, in an example of digital technologies providing advantageous connections between firms in related areas.

Furthermore, Cammaerts & Meng (2011) relate the increase in revenues from live music as a consequence of the introduction of popular file-sharing network Napster in the turn of the century. In economic logic we can find some theoretical support for such an idea, as we can see file-sharing and concert performances as complementary of each other, as well as, the low to no cost of file-sharing contributing for diffusion of an artist’s work. In the line of thought of household production model, if listeners are not spending their disposable income in recorded music because piracy allows them to do so, then they might substitute their

“paid” music consumption from recorded to live music (Cameron, 2016). This logic might not be as relevant today with streaming, although it is still possible for listeners who purchase their music to migrate for streaming and spend the “savings” from the change, the difference between what they used to spend in music purchasing and what they now spend on a subscription (and they might not pay at all if they used the free incarnations of the service), on live shows, a possibility represented by (f.2) in figure 3.

On the other hand, there is also a supply effect, since the overall decrease in the generated revenue in the turn of the century, due to piracy reducing physical sales (Liebowitz, 2016), lead to an attempt to compensate such losses with revenue from live music performances, by either performing more shows, or by pricing them higher (Cammaerts & Meng, 2011).

With regards to merchandise a similar logic applies. Although not being music in itself, merchandising is an effective auxiliary market associated to music, since it consists usually in clothing, accessories or collectibles, branded by the artist or that, at least, references their work. This might even be more meaningful exactly within the context of the renting model imposed by the streaming medium. The lack of ownership of a given artist’s music by fans, might lead to fans looking to establish a stronger parasocial bond<sup>8</sup> with the artist through purchasing their merchandise. This might also feed into why some consumers also purchase the music, especially on retro-technologies such as vinyl or cassette tape, because of the new symbolic value, as “cultural objects exist as repositories of meaning” (Throsby, 2001, p. 29) attributed to these physical formats.

### **3.6 Can we empirically test our model?**

We have seen so far that some of these relationships have been tested by researchers. The effects of streaming on music discovery, sales and live music have been tested by different authors at different times and it is on those studies that much of this dissertation lies its ideas upon. However, those studies rely on different methodologies, datasets, markets and time frames, meaning that the further questions we could ask are limited. Questions like, does the

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<sup>8</sup> According to Oxford’s Dictionary of Media and Communication, a parasocial relationship is a psychological relationship established between an audience and a performer in mass media medium, in which the audience feels a strong connection to the performer, almost as a friend, even though it is a one sided relationship.



possible increase of revenue from live shows in (f.2) and streaming royalties in (a.2) offset the possible losses from the decline of sales in (e.2)?

There is one possible solution to study these effects, as there has been a number of artists that refused to allow their catalogues on streaming services, only to get them back at a different point in time. When Radiohead's Thom Yorke criticized Spotify in 2013 over what the service paid to rights holders, followed by him pulling his solo project as well as his "Atoms for Peace" records from the service, until December of 2017, when unannounced, the record resurged in the service (Lockett, 2017). In 2014, pop star Taylor Swift, arguably at height of her career until that point, also criticised Spotify, arguing that music should be a paid commodity as any art form, pulling her catalogue from the service, until June of 2017, when her team announced their reinstatement (Legaspi, 2017). Another curious example can be the rock/ metal band Tool, that actually had no licenced digital presence, not even on iTunes for download sales, until 2019, when they made their streaming debut (Cook-Wilson, 2019).

These boycotts can be seen as a natural experiment to study the effects of catalogue presence on streaming on sales, live performances and discovery, since there is a period of lack of presence to compare with a period of presence in the service. There are some considerable limitations to such a study. For starters it is somewhat unlikely that these artists would even release such information that might be considered "commercial secrets". A second consideration is that the timing at which catalogues were taken off and/ or introduced from services were not innocent, as Swift took hers' off around the release of "1989" and Tool debuted in digital platforms a month before the release of their first record in over a decade, and so it could induce some skewedness in results. Additionally, as we have seen before these would only represent the effects of streaming on superstar level performers. Taylor is an unquestionable mainstream star, with 9 of her albums having reached number one the Billboard 200 chart (Billboard, s.d. a), while Tool found themselves being one of the most known rock acts, having a considerable amount of number 1's on rock charts, and even 3 albums reaching the top of the Billboard 200 (Billboard, s.d. b).

This would represent the reality of those at the top, whether of their specific genre or even of mainstream music, and not the reality of most musicians. As we have seen so far, relationships between streaming, discovery, music sales and live performances can vary in nature and

intensity according to artists' stage in career, how much they are known and the market they service, especially when regarding niche genres.

These types of limitations of econometric testing in culture economics are already mentioned in the work of Cameron (2016). First we have a censorship issue of ignoring data of music that does not chart, which leads such studies to only focus on the top slice of music distribution. Secondly, studying the impact of a disruptive technology on demand leads us to the "arena of counterfactual forecasting", where we do not know how demand would behave in absence of streaming.

There are other limitations in gathering data for such a study, of which I want to highlight two. Piracy is very difficult to measure, due to its illegal nature, and even though there are tools to do so, many times such data can be highly inconsistent and unreliable. On the other hand, such econometric exercise would have to limit the timeframe to data until the end of 2019, since the following year saw the effects of the Novel Corona Virus Pandemic, an exogenous factor that led to an almost effective stoppage of the concert sector, and whose recovery is limited by reduced audiences in efforts to comply with health security measures.

Further complicating the matter, as we discussed in section 2.3, contracts in the recording industry are not homogeneous. We might have self-published artists that are the sole rights holders of their work, and while in norm, artists signed to smaller independent labels have larger share of ownership of rights than those signed to major record companies, percentages of ownership between them vary largely (Bromley, 2016). In addition to situations where performers are not song writers, sessions artists that participate but are not featured as the artist and the "advancement arrangement" as an industry standard (Mortimer et al, 2012), we end up with a very large number of possible arrangements, many of them that are extremely complex. The important role of intermediaries in the cultural industries (Caves, 2006) cannot be overstated here, since both labels (between artists and distributors) and DSS's (between artists and listeners) are intermediaries that shape the music market and its revenues in the negotiations they develop with all parties. Hence why many studies, that have been mentioned so far, focus on what rights holders earn from streaming and musicians themselves, and why on this dissertation I have to a degree do as well.

Now that we have established our model of streaming's influence over musicians' revenue sources, through direct and indirect channels, in the next chapter we will discuss how these correlations impact musicians' business strategies in the streaming age.

## 4 Discussion

### 4.1 Understanding streaming and pro-rata

With streaming becoming the preferred method of consumption of recorded music for most listeners, at least in the global west, it is clear that a new paradigm sets over the music industry as a whole. While debate on digitalization tends to be polarized between those with a utopic belief in technology as the way to progress towards a better world and those with a dystopic perspective on disruptive changes that might bring the end of the current sets of values, the approach to effects of digitalization, and in this case streaming, needs to be more nuanced to take into account the complexity of the current paradigm (Nordgård, 2018).

For one, streaming might not be the major income source for artist as physical sales once were. While this might not be a consequence of streaming, but rather of changes induced by piracy in the turn of the century when listeners for the most part stopped paying money to listen to music. Streaming, with its free, ad-based versions perpetuates such a paradigm because it looks to meet the expectations of the audiences and not of musicians.

Joaquim Durães, executive of the independent Portuguese label “Lovers & Lollipops”, in the interview developed for this dissertation, mentions that streaming royalties are not their “bread and butter” as it only accounts for 10 to 15% of their revenue. This situation, although anecdotal, is an example of the current reality for many musicians and labels that are not on the top of the market.

But how can musicians increase the amount of royalties they receive from streaming? Is UWAM’s plea for a penny-per-stream, mentioned in section 1, something feasible to be applied? To answer these questions, we have to go back and understand how the pro-rata payment system works. In mathematical terms, the amount of royalties payed to an artist for a song can be represented in the following way:

$$R_{Art} = \alpha\beta \left( \frac{q_i}{q_i + q_j} \right) (P_{Sub} \times Sub + P_{Ads} \times Ads) \quad (4.5)$$

The royalties that an artist receives from a given song on a DSS, in this case song  $i$ , is influenced by the following variables: the percentage that rights holders keep after the DSS keeps its share of collected revenue ( $\alpha$ ), the percentage of copyright rights our given artist keep of song  $i$  ( $\beta$ ), the amount of plays/ streams song  $i$  has ( $q_i$ ), the amount of plays all other songs on the service have ( $q_j$ ), and all the determinants of collected revenue by the DSS, including,

the number of subscriptions and commercials played (Sub and Ads respectively) and the subscription fee ( $P_{\text{Sub}}$ ) as well the advertisement rate charged ( $P_{\text{Ads}}$ ). To see the full mathematical demonstration please consult Appendix 1.

Artist themselves can do two things only: either they try to negotiate a better deal with other rights holders of song  $i$  to increase its' share of royalties from the song ( $\beta$ ), or they try to find ways to promote, rethink their performance and/ or composition, so their fans are incentivized stream more song  $i$  ( $q_i$ ) and increase its share out of all streams. The first of the two options might have indirect effects, mostly because, the owners of the remainder of a song's rights are usually publishers or labels, and if their share is reduced, then they will not have as much incentive to promote it, a dimension where these players are a significant help to artists. There is also the threat that song  $i$  actually has more streams than before, but earns less royalties, if the increase of plays from the sum of all the other songs surpasses the increase of song  $i$  plays, if all else holds.

DSS's, to increase their payments to rights holders, could increase the prices charged for subscriptions and advertisements ( $P_{\text{Sub}}$  and  $P_{\text{Ads}}$ ), increasing the revenue collected by the service, if all else held. However, this is very unlikely, as the number of subscribers and commercials played are determined by the interaction of demand and supply in each market. It is plausible for us to assume that if prices in these markets increase, there would be a decrease in commercials played and in subscriptions, conceivably having a negative net effect on revenues collected by DSS's. These could also simply decrease the share out of revenue collected that they keep for themselves (decrease  $1-\alpha$ , increase  $\alpha$ ). This however would not be a rational move from DSS's as it would decrease their revenues from their business and so their hurt their profits, counteracting the logic of an enterprise within a capitalism framework.

UWAM's pretention for a penny-per-stream, might not be feasible at all, even if a DSS kept no revenue for itself ( $\alpha=1$ ), since the revenue generated by advertisements and subscriptions possibly will not be enough to pay one cent per stream if there are a very large number of streams, that will dilute the amount paid per play of all songs.

## **4.2 Streaming as a means, not an end.**

So if streaming is not the best way for musicians to generate income from their work, at least for those who are not superstars, how can it help them to do so? The framework of the established relationships between presence in streaming and musicians' income suggests that

streaming selling proposition to artists is not the royalties generated from streams, but rather the sampling effect allowed by streaming's renting nature and the diffusion effects from features such as data driven playlists, that amplify the potential for listeners to discover their work and later become their consumers in other areas of this business.

For starters, without the discovery effect induced by streaming's features, only listeners who already were enjoyers of an artist's music would be streaming their songs. The discovery reaction allows an artist's music to be exposed to a potential new audience that maybe could not have been reached so effectively any other way. In other words, streaming's features that allow for discovery, feedback and raise the number of plays and artist has on their music in a DSS (Datta et al, 2017).

If this process of discovery creates a new fan, that fan might intend to consume this artist's music in any other format. This hypothesis is quite plausible according to some of the literature we have seen so far, which agrees that music consumption in one format increases demand for consumption of music in other formats (Papies & van Heerde, 2017), either in live music performances, digital and/ or physical sales. This new fan might even be interested in other dimensions and even just purchase merchandise, that is not even a direct music product. Speaking of the auxiliary markets of merchandise and concerts, we cannot forget that some platforms even have some form of integration of these on their service through Songkick or Merchbar, although limited by a minimum streams barrier (according to our interview with Darksunn).

As discussed previously, these effects do not have the same importance for every single artist, as career stages and the market segments influence in different ways these relationships. For instance, artists on the long tail, whose music serves a niche genre, can further surpass the geographical bounds and strengthen their international expansion within their niche (Waelbroeck, 2013). Although we could argue that such a process had already begun since music began to be promoted through the internet, DSS can definitely speed up and amplify

this process, and through their data based approach reach an audience with a higher likelihood of successful taste matching.

In sum, streaming should not be seen as a major end as an income stream, but a strategic means for the diffusion of a musician's work and a key element for the promotion of the other income streams of a musician's business model.

Bruno Dias, known by his artistic name Darksunn, founder of independent artist collective MonterJinx, actually argues that not being present on a DSS leads to a case of "Fear of Missing Out", as he explains that "If you are not on a streaming service, then listeners might just go listen to your neighbour who is", meaning that making your catalogue available, is as much a question of being able to be discovered, as well as a question of just being present in the music market at all. Additionally, he argues that not being present in a DSS exposes artists to potential piracy as many of today's consumers do not have a mind-set that they should pay for access to music at all.

Lastly, he mentions that access to features as Merchbar are limited to the number of plays an artist has, and since such information is public there is no doubt that such data is now being interpreted by many as a new way to measure the reputation of an artist, almost substituting the usual standard benchmarks of this industry such as gold disks.

Joaquim on his interview also shown his concern on two other topics. One is the lack of any structure that represents independent musicians and labels in a way to balance the influence that smaller acts can have when compared to the extensive power that the major labels and their artists have over DSS's. The second, were questions on streaming's industrial concentration, especially with Spotify's larger market share in Portugal, and the lack of any type of regulation to tackle with the industrial structure of the streaming market.

### **4.3 A new meaning for physical mediums**

Darksunn in our interview mentioned that a fellow music producer had made some quick math and found out that to match the income of a million streams he would only have to sell about 500 7-inch vinyl singles. Even though this is only a piece of anecdotal evidence, it

does match the idea that streaming was not made for non-superstar musicians to make significant income. Selling music in physical mediums might actually be more profitable than streaming.

One idea that supports this theory is that there is a number of listeners that listen to music in more than one format (MusicWatch Inc., 2021), and if so, it is because most likely they have a higher interest in music consumption than those who only need to use one format (Aguilar & Martens, 2016). A higher interest in music, might also mean that they are more willing to spend more of their disposable income, on the aforementioned mediums of recorded music. We should note that these multi-medium listeners are a minority compare to remainder of listeners that prefer to consume recorded music through only one medium.

But if there is a decrease in the total number of sales, how can there be situations where musicians see an increase of sales from their presence on DSS? Darksun argues that the decrease of the total of sales does not mean that each individual artist has seen their sales diminished by streaming, as while star artists who sold more records felt the effects of the substitutability between these mediums, while less known artists in the long tail have experienced more the positive effect of discovery from DSS to sales. As we have discussed in section 3.3, career stages and market positioning regarding niches might change the way artists are affected by the relationship between streaming and sales.

Physical means here gain a special importance, as formats as the vinyl and the cassette tape gained a new cultural value as a commodity, due to several factors mentioned through this dissertation: the perceived authenticity, alleged higher quality of the vinyl format, the slow almost ritualistic consumption, the nostalgia embedded, the physical connection to an object in contrast to the cold intangible nature of digitalization and the collectability of these objects of renewed cultural and social value (Bartmanski & Woodward, 2015).

In a way, vinyl and cassette tapes, with the possibility of being customizable to have different colourways, serve not only as a physical medium to listen to music, but a collectible itself that serves a way for a listener to show their appreciation of an artist, even if listener does not have a record or cassette player to use these formats. The physical records themselves

become a piece of merchandising with the same value to the customer as a t-shirt or a poster. Its value is not the intrinsic, practical value for listening, but a more subjective one.

Physical sales, and ownership models, can also bring one more advantage when compared to a DSS. Streaming's renting nature, besides of creating a lack of perceived connection between listeners and their favourite music and artists, raises as concerns of the exposition to technical problems, over aspects listeners have little to no control over, that might lead to the loss of the library accumulated through use of a DSS (Pinsker, 2021), which might also happen when there is any software or firmware update that is not compatible with the previously used DSS.

As a side note, and looking ahead for the future, Joaquim, pointed out for a new concern among musicians, listeners and publishers alike, that relates to the possible lack of sustainability of physical formats when it comes to environmental impact. These products might be seen as superfluous uses of materials such as plastic, an issue that digital distribution does not have to concern itself with. Neo-Zealand artist Lorde, for instance, decided that her upcoming album "Solar Power" would not have any type of CD release due to these environmental concerns (Reilly, 2021).

#### **4.4 Decreasing impact of piracy**

Much of literature agrees that the decrease in revenue from the recorded music industry in the turn of the century was due to the advent of file-sharing technology (Liebowitz, 2016). This combined revenue has been recouping since 2015, mostly powered by the growth in streaming revenue. Although studies have not found yet that streaming has replaced piracy practices, I would argue that this is the most likely explanation. Proving such is a difficult task as data on this illegal practice cannot guarantee accuracy.

Once you bear in mind that for listeners, free versions of DSS present very similar benefits of access to a large catalogue of free music free of cost, but replace risks of computer viruses,



and to a lesser extent the legal risks, with the nuisance costs of advertisement or limited features in mobility, the case for substitutability becomes considerably stronger.

For the members of the industry, of which musicians, they keep, if not extend, the promotional effects of having free music available online to be sampled, while creating a new, if even of low value, revenue stream.

Streaming in a sense, from a theoretical point of view, has solved the problem of illegal digital file-sharing, creating an alternative that generates income from advertising for the music industry, while allowing a considerable slice of the listening population to keep their attitude towards music. That attitude being their close to null reservation price for music consumption.

#### **4.5 Concerts and their promotion**

With widespread criticism over how little DSS pays, and the general decrease of the number of sales, it is not a surprise the comments of both respondents, that artists on the rosters of their institutions have live performances as their major income source. Maybe there is only a few of superstars that do not put as much effort on their live shows that can have streaming as their major income source but that is rather unlikely.

The introduction of streaming might change little when it comes to concerts. The digitalization and the internet had already brought down promotional costs through new ways to advertise their concerts, but streaming's additional discovery potential (Datta et al, 2017), combined with specific features that directly stimulate demand for live music, like the aforementioned integration of Songkick in an artist's Spotify profile page, help musicians to monetize their shows.

These features used correctly, updated with the information on the next concerts, and using some of DSS data on location of fans present the opportunity for artists to have a very effective tool to reach to new and established fans of their acts alike. The only limitation, is that shows, due to their localized nature, cannot take as much advantage of DSS's potential to brake geographical barriers, as incentivizing the purchase of physical format can or of further plays in a DSS can.

If there is anything for musicians to learn from the Covid-19 Pandemic, is that the live performance sector is still exposed to exogenous risks that they cannot control. If for one reason

or another, musicians see themselves limited in their ability to perform live, their income will suffer a significant blow. Joaquim from Lovers & Lollipops, that also promotes concerts for artists within their roster, confirmed that without live shows during the pandemic, the boost in streaming revenue and sales still was not enough to offset the loss of revenue caused by the nearly complete stoppage of the live music sector.

As a side note, there is also an additional threat to this sector that concerns with the possible lack of environmental sustainability of touring in the medium to long term. Live shows necessitate a high consumption of energy. Additionally, there are issues with traveling, since artists and fans need to travel to the places where concerts take place. This will linger as long as there is an understanding that energy consumption and travel are not carbon neutral, and so will cause negative effects on the environment. These are some of the reasons why, chart toppers Coldplay decided to suspend touring in 2019, until they feel it is sustainable to do so (BBC, 2019).

#### **4.6 Playlists & Stardom**

Playlists are a very important element of the Streaming experience. Listeners are invited by the services to create their own and share them with the world. But looking at the way the user interfaces are designed, most of the playlists presented are those that are curated by the services themselves (Prey, 2020). Although some of these are focused on specific artists, many others are explorations on specific music styles or time frames.

Because some of these playlists funnel so much traffic due to their privileged positioning, an artist having a song present on these might represent three important achievements: for one, recognition of quality and/ or success, as they are placed side by side with what is perceived as a selection of their best peers in given genre; secondly, a further opportunity to be discovered, in theory, by an audience whose probability of taste matching is very high; and lastly, and most importantly, a powerful increase in plays that means a significant boost in streaming royalty revenue, to the point that, it might make this income stream much more relevant for a musician's income.

But while presence on algorithm based playlists has more to do with listeners' behaviours, criteria of service sanctioned playlists remains much more of a mystery, as well being exposed to a higher degree of subjectivity as the latter are curated by people. Chances are that some data on streams is taken into account, but the rest is based on the pure subjectivity of those

who curate such lists. This is nothing new and it is a feature of the curation process, the issue where lies with the sheer scale of possible influence of a DSS to contribute to a more homogenized market, especially for more casual listeners that do not go beyond the first set of suggested playlists in the user interface, that as we have seen earlier, are almost exclusively playlists curated by the services themselves.

Darksunn on his interview mentioned that he felt many of these playlists are concentrated on a relatively small number of producers and these playlists are a potential danger of the resurgence of payola, the practice of making undisclosed payments so a piece of content is included in a program, a practice that was outlawed for radio and television in the United States in 1960 (Coase, 1979). With boost of notoriety via the presence on these playlists, these can be seen just as a new incarnation of stardom, after all only a limited number of artists can be part of such lists, and that limited selection will further concentrate notoriety and income in the streaming age.

Joaquim, on his turn argued that not all music is even made to be a part of these playlists. Playlists are usually comprised of the best hits of a style or an artist, meaning that artist that do not follow an unbundling strategy, but rather conceptualizes their work as a more complete project such and an EP or a full album, unlikely will see their tracks featured in such lists. He further added that even if DSS's tried to cover as many styles and genres as possible with sanctioned playlists, a portion of music would still not be able to be featured as it is experimental in nature, and so lacks in any definition in terms of classification.

## 5 Final remarks for further research

Digital music streaming ushered in the return of prosperity in revenues for the recorded music industry. Its introduction and popularization as the main way to consume music, introduced a new chapter in this ever-changing industry. Like the vinyl, the CD and digital downloads before, streaming will undoubtedly reshape the relationship between artists, publishers, listeners and distributors, as well as the art form itself. As Nordgård (2018) puts it “Change seems to be a defining feature of the music industries rather than an exception”.

It has definitely reconfigured the economics of this cultural good, and looking at IFPI data (2021), he have seen that its introduction and popularization has help to overturn the trend of consecutive decreases of overall revenue in the recorded music industry back to a growth phase. DSS's presented a potential legal replacement to illegal file-sharing practices, the industries' villain since the beginning of the millennia, while meeting consumers' low, to virtually non-existent, reservation price. A consequence of the established idea that music should be free of cost to access, an idea as we discussed developed with the increase of file-sharing practices.

Through this approach of looking into Cultural Economics literature, understanding current trends from some of the limited data available and the two exploratory test-interviews with some industry participants in Portugal, we have looked to understand how music streaming has affected the artists that invest their time and talent into creating this specific art form. The structure of relationships identified between catalogue's streaming presence and musicians' income streams, although not quantifying the intensity of these links, provides an insight on how musicians can perceive DSS impact on their careers and their business models.

My main inference is that the value of streaming for musicians, is not the streaming royalties paid by the number of plays, but rather the promotion that is allowed by streaming features that grant the listeners the opportunity to sample music and through data-driven technology drive diffusion to people whose probability of taste matching is higher. There are also some mechanisms in streaming to drive listeners towards the sale of physical records and merchandise, as well to take advantage of the known stimulation relationships between different ways to experience music, from the records to the live experiences in concerts. In sum, streaming maybe should not be seen as the main end from where musicians get their income, but as a mean that can help them stimulate most other streams of it. The only possible exception

might come through the appearance on service curated playlists, that due to their special positioning gather significant traffic to generate substantial amounts of royalties to the rights owners of songs present in those lists.

But the market is not homogenous. Career stages and market segments can lead to different relationships with streaming and its effects. Artists whose music populates a market niche are allowed to target the world audience of their specific genres to gain notoriety in their fields, further breaking the geographical bounds that limited them before the usage of internet for promotion (a process that did not start with Streaming). Older artists, that had their careers established in the “CD Era” might see streaming as the final nail in the time of high numbers of sales, that started to decline in the 2000’s with the popularization of internet piracy, while new less known artists might understand how crucial DSS is to introduce themselves and gather fans for their shows and to purchase their merchandise.

Additionally, while streaming changed the business model for musicians, it might have not been the “democratization of music” revolution that some were hoping for. Market structure for publishers remains similar, not only in concentration but, as well the restabilising the models of ownership during the CD era, now with the added bonus that streaming, while not yet generating the revenue at the same level, generates some that piracy did not, at the same time amplifying its promotional effects. Another thing that remains the same is the concentration of success in a small number of artists, but we must understand that Stardom does not happen because of streaming. In this medium, service curated playlists and public displays of number of plays are new incarnations through which stardom manifests.

Like with stardom, streaming critics should take into account that many of their problems they identify are not exclusive of DSS’s, but rather issues of the music industry under contemporary capitalist competition. Likewise, pleas to lift stream royalty payments to a cent per play are very unlikely to be feasible, not because services refuse to do so out of greed, but rather as a result of the near-zero reservation price set by consumers since the dissemination of file-sharing in the internet age. A price that DSS’s has found a way to meet in the free versions of streaming while still generating revenue for rights holders through advertisement.

Unfortunately, there is little that this work can contribute to the debate on the disparity of the high market valuation of DSS’s when contrasting to the low royalties pay outs to artists,

as well when it comes to issues of lack of transparency and auditability of algorithms, revenues and payments revolving Streaming services

However, like I pointed in the beginning of this section, this market is ever-changing, with many disruptive and creative innovations always coming and going depending on their success. Some DSS's have actually broadened their jurisdiction by expanding their catalogues to podcasts, with Spotify and Apple Music even allowing creators to integrate music into their programs (Carman, 2020), as well during the pandemic experimented with some live performances (Castle & Feijóo, 2021). Services have shifted their business model from the music category to the more extensive audio category, which makes musicians not only having to dispute their markets with other artists but also with another completely different product. Only the future can tell if this new development will affect the industry in a meaningful manner.

Nonetheless, it is relevant to remember that the work developed on this dissertation is one of a theoretical nature and there are many opportunities for further investigations on this market, especially those of a more practical, econometric approach, as well as the growth of Cultural Economics as a field. Maybe with a higher level of transparency, with the data driven approaches of many cultural businesses today, there will be a higher opportunity to comprehend and to better intervene (or not) on economic issues in the arts world. And if I am allowed some more wishful thinking, put to rest the stereotype of the poor artist.

## Appendix 1 - Pro-rata model in mathematical form

### Stage 1 - Collecting revenue

A Streaming Service that has a Freemium model, meaning has a subscription version and an advertisement based “free” version simultaneously, collects revenue from two sources: Subscription fees paid by listeners that are subscribers and Advertising revenue, from commercials played to users of the free versions of the subscription service. This can be reduced to following equation:

$$R = R_{Sub} + R_{Ads} = P_{Sub} \times Sub + P_{Ads} \times Ads \quad (1)$$

R represents revenue collected by a streaming service.  $R_{Sub}$  represents revenue collected through the number of subscriptions (Sub) that are paid the price of the Subscription Fee ( $P_{Sub}$ ). Subscription fees, even in the same national market, can vary as there are promotional campaigns such as family plans or discounted fees from university students. We will however for the sake of simplicity assume only one value for this variable, so that we have only one equation at a time to work with.  $R_{Ads}$  represents revenue collected by advertisement, constituted by the number of commercials played (Ads) in between tracks for users of the Ad-based “free” versions, times an advertisement rate ( $P_{Ads}$ ) that once again we will assume as only one value for the sake of simplifying this equation. All these values are positive but could be zero.

$$R \geq 0; P_{Sub} \geq 0; Sub \geq 0; R_{Sub} \geq 0; P_{Ads} \geq 0; Ads \geq 0; R_{Ads} \geq 0$$

### Stage 2 – Streaming taking its cut

Once revenue is collected then the Digital Streaming Service (DSS) will keep a percentage for its self, usually 25 to 35%. This results in the following:

$$R = R_{DSS} + R_{RH} (=) R_{RH} = R - R_{DSS} (=) R_{RH} = \alpha R; 0 \leq \alpha \leq 1 \quad (2)$$

$R_{DSS}$  represents the cut that is kept by the streaming service, whose percentage is represented by  $(1-\alpha)$ .  $R_{RH}$  represents the remainder of the pot that will be distributed by rights holders of the songs present in a given service.

### Stage 3 – Sharing the pot

From here, the remainder of the revenue pot will be divided by rights holders of songs according to the share that a given song had when compared to the totality of streams:

$$R_{RH} = \sum_{i=1}^n R_i (=) R_i = \left(\frac{q_i}{Q}\right) R_{RH} \quad (3)$$

$R_i$  represents the royalties owed to the rights holders of the song  $i$ . The amount owed is determined by a share of the pot of all rights holders ( $R_{RH}$ ) proportional to the share of plays song  $i$  ( $q_i$ ) has of the total number of plays of the service ( $Q$ ). Once again these variables are positive but can be zero, and since  $Q$  represents the total number of plays of all songs, then  $q_i$  is smaller than  $Q$ , except if it is the only song with plays in a given service, then  $q_i$  will be equal to  $Q$ .  $q_j$  will represent the number of plays of every other song, that is not song  $i$ , on the service.

$$Q = q_i + q_j; q_i \leq Q; Q \geq 0; q_i \geq 0; q_j \leq Q; q_j \geq 0$$

#### Stage 4 – What reaches artists

For simplicity sake let's assume our artist only has one track available on this service, and that track is said song  $i$ . Most likely, as we have seen during the development of this dissertation, the rights of that song are shared between the artist and the publisher, usually a label or a publishing company what we end up having is the following:

$$R_i = R_{Art} + R_{Pub} (=) R_{Art} = \beta R_i; 0 \leq \beta \leq 1 \quad (4)$$

$R_{Pub}$  represents the amount of royalties are owed to the publisher whose share is represented by  $(1-\beta)$  and  $R_{Art}$  represents the amount of royalties owed to the music artist based on their determined share of  $\beta$ .

#### Connecting the Stages

Now we'll look through the stages to better understand what ends determining the amount of royalties owed to a musician for song  $i$ . Let's include stage 3 in stage 4:



$$R_{Art} = \beta R_i (=) R_{Art} = \beta \left( \frac{q_i}{Q} \right) R_{RH} \quad (5.1)$$

Now let's go further and add stage 2 to stages 3 and 4:

$$R_{Art} = \beta \left( \frac{q_i}{Q} \right) R_{RH} = \beta \left( \frac{q_i}{Q} \right) \alpha R \quad (5.2)$$

And lastly let's add how streaming services generate income and tidy up our expression:

$$R_{Art} = \beta \left( \frac{q_i}{Q} \right) \alpha R = \beta \left( \frac{q_i}{Q} \right) \alpha (P_{Sub} \times Sub + P_{Ads} \times Ads) \quad (5.3)$$

So the amount of royalties an artist earns from song  $i$  can be represented by:

$$R_{Art} = \alpha \beta \left( \frac{q_i}{Q} \right) (P_{Sub} \times Sub + P_{Ads} \times Ads) \quad (5.4)$$

Or

$$R_{Art} = \alpha \beta \left( \frac{q_i}{q_i + q_j} \right) (P_{Sub} \times Sub + P_{Ads} \times Ads) \quad (5.5)$$

### The effects of each variable

So how does each individual variable affect the amount of royalties earned by a musician under the Pro-Rata payment system? Let's analyze variable by variable.

$$\frac{dR_{Art}}{d\alpha} = \beta \left( \frac{q_i}{Q} \right) (P_{Sub} \times Sub + P_{Ads} \times Ads) \geq 0$$

If there is a positive variation of the percentage which the pot that will be distributed to the rights holders of all the songs in the service ( $\alpha$ ), which means there is a reduction in the percentage of revenue kept by the streaming service itself, then in the end musicians will earn more, *ceteris paribus*. If it is a negative variation, income for musicians will suffer.

$$\frac{dR_{Art}}{d\beta} = \alpha \left( \frac{q_i}{Q} \right) (P_{Sub} \times Sub + P_{Ads} \times Ads) \geq 0$$

If for some reason musicians are able to get a larger percentage of royalties of song  $i$  ( $\beta$ ) in their negotiations with publishers/ labels, then they are able to get more royalties from streaming, *ceteris paribus*.

$$\frac{dR_{Art}}{dq_i} = \alpha\beta \left( \frac{q_j}{(q_i + q_j)^2} \right) (P_{Sub} \times Sub + P_{Ads} \times Ads) \geq 0$$

If a song  $i$  gets more plays ( $q_i$ ), *ceteris paribus*, then that will increase the share of streams song  $i$  will have and therefore increase the royalties earned from streaming.

$$\frac{dR_{Art}}{dq_j} = -\alpha\beta \left( \frac{q_i}{(q_i + q_j)^2} \right) (P_{Sub} \times Sub + P_{Ads} \times Ads) \leq 0$$

If the number of streams of the rest of the songs in the service increase ( $q_j$ ), then the share of song  $i$  will decrease and therefore result in lower royalties paid to our artist, if all else holds.

In a situation where both number of plays of song  $i$  and of the rest of the songs raise then what will determine if our given artist will receive more from song  $i$  will be the magnitudes of the increases. If streams of song  $i$  increase more than the streams of the rest of the songs ( $\Delta^+q_i > \Delta^+q_j$ ) then it will raise the share of revenue for all rights holders that song  $i$  will receive. This also means that there is a scenario where song  $i$  actually has an increased number of plays, but if the increase of number of plays of the rest of the songs is of a larger magnitude ( $\Delta^+q_i < \Delta^+q_j$ ), then our given artist will receive actually less royalties from song  $i$ , *ceteris paribus*.

$$\frac{dR_{Art}}{dP_{Sub}} = \alpha\beta \left( \frac{q_i}{Q} \right) (Sub + P_{Ads} \times Ads) \geq 0$$

$$\frac{dR_{Art}}{dP_{Ads}} = \alpha\beta \left( \frac{q_i}{Q} \right) (P_{Sub} \times Sub + Ads) \geq 0$$

If the DSS decides to charge more to either to subscribers, raising the subscription fee ( $P_{Sub}$ ), or advertisers, raising the advertising rate ( $P_{Ads}$ ), then it will generate more revenue collected and that will increase the revenue to be distributed among songs and increase the royalties that song  $i$  can generate for our given artist. Here we most notice the limitation of our static

model, as it is intuitive that a raise of price of subscription will influence demand of subscriptions, most likely leading to a decrease of the number of subscriptions, with the same logic being applied to the rate of advertisements. As we don't know the determinants of both demand of subscriptions and of supply of advertisements, even though it would be an interesting exercise, it would have extended this dissertation wide of its intended course, so we will not take such dynamic features under consideration.

$$\frac{dR_{Art}}{dSub} = \alpha\beta \left(\frac{q_i}{Q}\right) (P_{Sub} + P_{Ads} \times Ads) \geq 0$$

$$\frac{dR_{Art}}{dAds} = \alpha\beta \left(\frac{q_i}{Q}\right) (P_{Sub} \times Sub + P_{Ads}) \geq 0$$

In our last exercise, if for any reason, there is an exogenous shock to our model that results in an increase of Subscribers or of Advertisements shown, if all else holds then we will see an increase of generated revenue by the DSS and therefor, and increase of the royalty pie that will be distributed among the rights holders, which in turn, will lead to an increase of the amount of royalties paid to our given artist for his share of rights on song *i*.

### **Who can increase royalties?**

So far we have seen what variables can increase royalty payments for musicians, but these variables are all under control of different actors at different stages. Musicians, for instance, can only really control two of the eight variables we have seen so far. For one they can try to negotiate better deals with their publishers, labels and/ or other rights holders, so they can keep a larger percentage of the royalties ( $\beta$ ) owed to the owners of the rights. Once I again I must remind that this is a simple model and so, we are ignoring the possible effects of increasing such a percentage as it would reduce of other holders, like labels, which might end up having less of an incentive to collaborate in the promoting of song *i*, which can lead to less streams. The other variable is to further promote their music in an attempt to increase the plays of their tracks in the service ( $q_i$ ), but this is only an indirect influence over a variable they do not control. In this example we look at an artist that only had one song (*i*) but increasing the number of songs available in the service can increase their revenue.

So is there a way for streaming services to increase payment of royalties? Well they control to an extent the prices practiced on subscriptions and advertisements played, but those will

affect the number of subscribers and commercials and most likely not in a positive way, throwing some doubt on the direction of the net effect. They could decrease the percentage of generated revenue DSS keep for themselves (decrease  $1-\alpha$ , increase  $\alpha$ ), which would lead to a larger pot to be distributed among the rights holders of all songs available on the service. This however is not to the interest of DSS as it would obviously reduce their revenue and so their profits, so it is very much unlikely. Changes in prices would be more rational to DSS as it would actually increase the revenue that DSS's keep.

The increase of the number of plays of the rest of the songs in the service is something that can be influenced by the efforts of every other artist, which might mean that the market might become much more cutthroat when it comes to the battle for listeners' time and interest. Other than that, the number of commercials played and the number of subscribers are in way under control of artists as these are determined by the interaction of supply and demand in each respective market.

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## Annex A – Interview script

This is the interview script for the interviews conducted as part of the investigation for this dissertation. Interviews were held digitally through the videoconference software Zoom, and had a semi-structured nature due to the section that worked as a debate/ exchange of ideas. This document is a translation of the original script, as the interviews were conducted in Portuguese.

- Do you consent the recording and storage for transcription purposes?
- In case of citation, do you consent an identified citation or would you rather remain anonymous?

**Explanation of the context of this interview** as an element for a dissertation as part of a Master's Degree in Economics from School of Economics and Management of University of Porto (FEP- Faculdade de Economia da Universidade do Porto).

**Presentation of model** of established relationships of catalogue presence on a streaming service and music artists' income streams with assistance of figure 4. (Note: The presentation and the figure were based on an earlier draft of chapter 3 and figure 3)

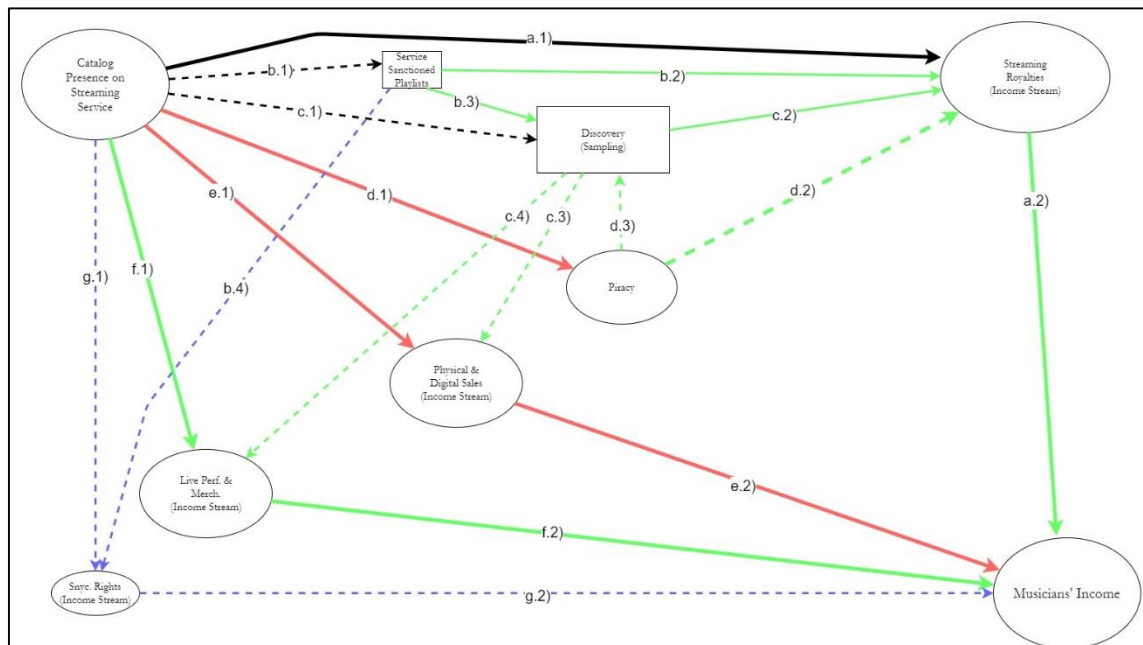


Figure 4 - Identified relationships and effects identified between catalogue presence on streaming and musicians' income streams (Presented on the interview - Early Draft) (Author elaboration)

Begin the **exchange of ideas/debate** section with the following questions:

What do you think of the ideas presented in the model? In your experience in the industry, do you think these ideas have application in the reality of music artists' income?

Follow up questions if interviewee does not mention some of the elements of the model.

After the interviewee mentions all elements in the presented model ask the following question: Do you think there is any other element connect to musical activity (i.e. not public support subsidies, non-musical work or private support) not mentioned in this model that was affected by the introduction and popularization of the streaming business model?

After the end of this exchange of ideas section proceed to **characterization of interviewee:**

- Entity represented:
- Name:
- Age:
- Qualification (both artistic and otherwise, professional specialization):
- Professional activity (how does the interviewee describe itself, if they hold/held any more activity):
- Years on their current entity:
- Position on current entity (hierarchy, distinguish professional activity in entity and judicial position i.e. shareholder):

Follow up questions on entity to contextualize contributions regarding on market segments.

In sum, **characterization of entity represented:**

- Establishment date and years in activity (mention if there was intermissions or significant evolutions):
- Legal format:
- Number of workers/collaborators:
  - What is their positions (activity and legal status)?
  - Type of employment relationship (i.e. contract terms, “*recibos verdes*”)?
- Estimation on average age and qualifications of workers/collaborators:
- Description of entity activity (what services and business model):

- Does the entity use DSS as a distribution platform? If so, in what way? How do you evaluate their impact?
- With what type of artists does the entity work with (main common characteristics)?
  - How many artists<sup>9</sup> does the entity work with?
  - Are artists national and/or international (relative to Portugal, what percentage each, what other nationalities)?
  - Are there, and if so, what are the selection process? What is the importance of contact networks?
  - What services are provided to artists? (Is there a demand for them, how are they provided? Contract basis, service-by-service basis)?
- How do you evaluate entity performances on:
  - Client satisfaction?
  - Compare to competition (national and/or international)?
  - Artist satisfaction (income, entity's advantages)?

As the interviews were recorded, video and/or audio files will be available for the jury.

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<sup>9</sup> A duo/band/group project will be counted as a singular artist

## Annex B – Characterization of interviewees

### Interview 1 – Bruno Dias, Monster Jinx – 27<sup>th</sup> of July, *via* Zoom

#### Characterization of Interviewee:

- Entity represented: Monster Jinx;
- Name: Bruno Dias (artistic name: DarkSunn);
- Age: 39;
- Qualification (both artistic and otherwise, professional specialization): Self-taught artist “professionalized amateur”; Higher education on Environmental Engineering;
- Professional activity (how does the interviewee describe itself, if they hold/held any other activity): Music producer, DJ, CEO of Monster Jinx, radio broadcaster; Consulting in Environmental Engineering area;
- Years on their current entity: 13 years (Founding member);
- Position on current entity (hierarchy, distinguish professional activity in entity and judicial position i.e. shareholder): CEO and roster artist; Member of the association;

#### Characterization of entity represented:

- Establishment date and years in activity (mention if there was intermissions or significant evolutions): 2008, uninterrupted;
- Legal format: Association;
- Number of workers/collaborators: 7 operational members;
  - What is their positions (activity and legal status): association members;
  - Type of employment relationship (i.e. contract terms, “*recibos verdes*?”): No contracts, payments through “*recibos verdes*”;
- Estimation on average age and qualifications of workers/collaborators: 30 years on average; Higher education on average as well;
- Description of entity activity (what services and business model): Artistic collective based on artists’ collaboration; publishing platform and music distribution; Concert, show and party planning;
- Does the entity use DSS as a distribution platform? If so, in what way? How do you evaluate their impact: Streaming is mostly a “necessary evil” due to a necessity to be

present to increase visibility, but a channel with diminutive revenues; fonder of hybrid models (streaming + digital sales) such as the Bandcamp platform;

- With what type of artists does the entity work with (main common characteristics): Independent sonorities and uncompromised ideas; usually in the hip hop sphere, but not necessarily; above all, personal and musical independence;
  - How many artists does the entity work with: 16 currently active, 21 overall;
  - Are artists national and/or international (relative to Portugal, what percentage each, what other nationalities): Currently, all Portuguese or established in Portugal; no geographical barriers, but dependency on personal connections between members;
  - Are there, and if so, what are the selection process? What is the importance of contact networks: Personal connections to other members is very relevant; there's a possibility to contact even if there is no previous connection;
  - What services are provided to artists? (Is there a demand for them, how are they provided? Contract basis, service-by-service basis): Conceptualization, production, publishing and distribution; own studio; connection to visual artists;
- How do you evaluate entity performances on:
  - Client satisfaction: Recognition of the niche they serve, the “underground/alternative”
  - Compare to competition (national and/or international): At a national level has on average longer longevity to other similar groups
  - Artist satisfaction (income, entity's advantages): Strong connection to artists; exposition, sales and show attendances increase since entry to the group.

## **Interview 2 – Joaquim Durães, Lovers & Lollipops – 2<sup>nd</sup> of August, *via* Zoom**

Characterization of Interviewee:

- Entity represented: Lovers & Lollipops;
- Name: Joaquim Durães;
- Age: 38;
- Qualification (both artistic and otherwise, professional specialization): Bachelor's degree in Audiovisuals;



- Professional activity (how does the interviewee describe itself, if they hold/held any other activity): Editorial and curation;
- Years on their current entity: 16 (22 years of career);
- Position on current entity (hierarchy, distinguish professional activity in entity and judicial position i.e. shareholder): Employee

Characterization of entity represented:

- Establishment date and years in activity (mention if there was intermissions or significant evolutions): 2005, uninterrupted;
- Legal format: Association;
- Number of workers/collaborators: 4 operational members, plus 3 in communication;
  - What is their positions (activity and legal status): 4 employees;
  - Type of employment relationship (i.e. contract terms, “*recibos verdes*”): 4 under contract, 3 paid through “*recibos verdes*”
- Estimation on average age and qualifications of workers/collaborators: Between 23-43 years old; Bachelor degree on average;
- Description of entity activity (what services and business model): Record label with record publishing, distribution and promotion; Concert promoter;
- Does the entity use DSS as a distribution platform? If so, in what way? How do you evaluate their impact: A “necessary evil”, “the lesser evil” of current options;
- With what type of artists does the entity work with (main common characteristics): Experimental music; curiosity to explore;
  - How many artists does the entity work with: 42 artists plus 17 former members;
  - Are artists national and/or international (relative to Portugal, what percentage each, what other nationalities): Both, 70% Portuguese and 30% foreigners (estimate); promotion has led to opportunities with new artists;
  - Are there, and if so, what are the selection process? What is the importance of contact networks: Usually through contacts with other members of the entity;
  - What services are provided to artists? (Is there a demand for them, how are they provided? Contract basis, service-by-service basis): Publishing, agency,

concert promotion and a support structure to help roster artists; Usually roster artists have all shows booked by the entity;

- How do you evaluate entity performances on:
  - Client satisfaction: “As long as it makes sense” the entity will continue; ups and downs;
  - Compare to competition (national and/or international): Endless exchange with other entities, regardless if seen as competition or not;
  - Artist satisfaction (income, entity’s advantages): “As long as it makes sense” the entity will continue; ups and downs.