

# Most Rated – A fairer music streaming platform

## Introduction

In 2013 I ran live music events in London as a music promoter. Dubbed ‘Most Rated’, the events would showcase new talent that I had discovered on the new music scene via attending live shows, social media and music blogs. I saw that there was a mutual need between an audience looking for new acts and artists looking to grow their audience. I started a website that would promote these artists, but the project waned when I found that interest was drawn to the then new Spotify streaming service.

I have followed the trajectory of streaming both as a promoter and an artist, finding first hand how difficult it is to gain traction, how much exposure seemed to be down to chance, and as a producer of largely ambient electronic music, how this often failed to resonate with audiences looking for instant gratification. Far from beckoning a golden age of musical discovery and developing new tastes, streaming was, for me, a consumerist race to the bottom, which only generic pop acts would flourish.

While the prevailing narrative has been that streaming has failed to fairly compensate artists, I wanted to explore what research had been done to support that view. I found a body of research that supported the view that questions the efficacy of streaming, painting an unequal picture of ‘superstars’ taking all the winnings with everyone else left out. While this is nothing new, it sticks in the craw when reading fawning articles such as ‘Spotify saved the music industry’ (Fortune 2019); where ‘saved’ meant saving the major labels bottom line, not the job security of working musicians.

In this paper I describe a new streaming service that I have developed that allows anyone to participate and upload tracks to a communal internet radio station. By removing gatekeepers, I explore the benefits and challenges of musical discovery. In choosing a radio format that prevents listeners from skipping, I challenge the orthodoxy around consumer driven playlists and experiment with putting artists back in the foreground of music curation. I explain how relying on transparency and listener data to control quality could result in a better all round experience for artists and listeners.

## Research Background

Since 2010, Information is Beautiful have produced infographics that demonstrate the harsh reality for musicians, trying to earn a living through music streaming services (MSS). Their most recent version shows the industry leader Spotify would require artists to have around 366,000 streams to earn the minimum wage.

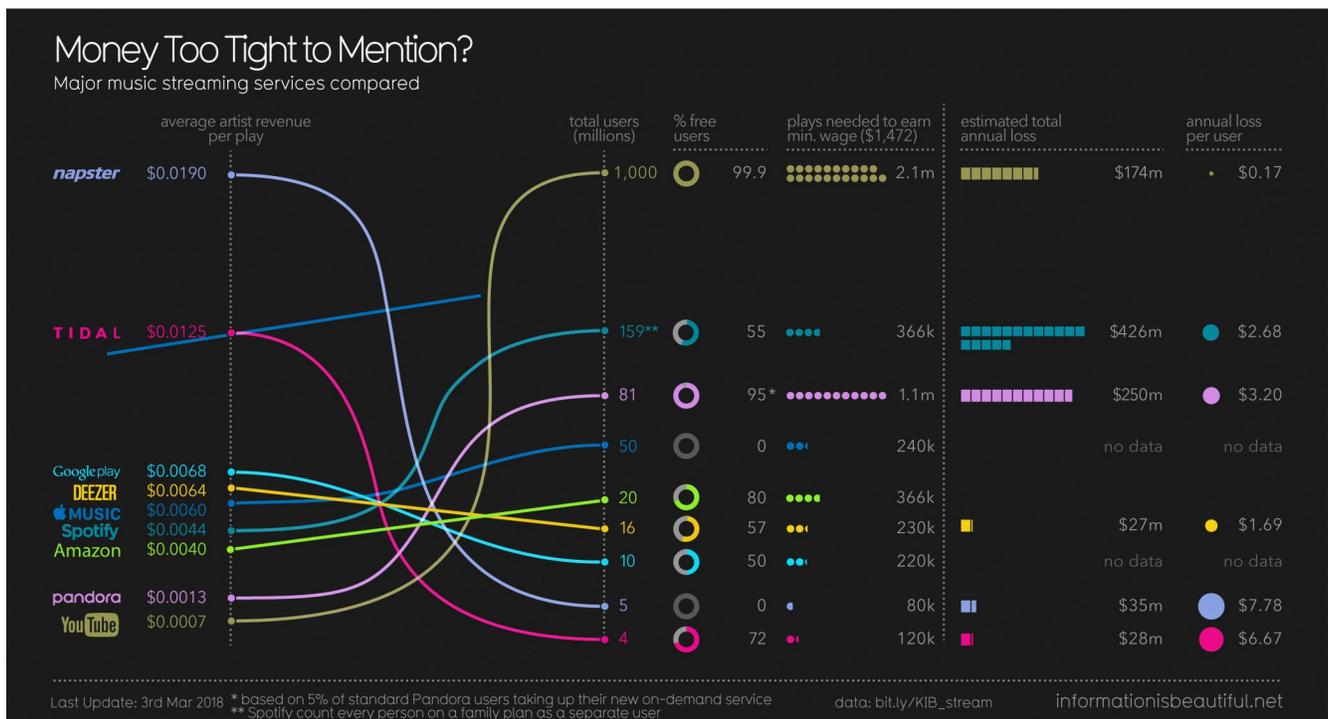


Fig 1: Major music streaming services compared

According to Spotify's *Loud and Clear* website, there are around 200,000 professional or semi-professional acts promoting content on Spotify globally, 29% of whom generated over \$10,000 on the platform in 2022. For a four-piece band, this would pay them minimum wage for a month. However 1,060 Artists generated over \$1 million. This discrepancy shows that after ten years of streaming, the same inequalities exist that favour superstars over new indie Artists. Anderson's 'Long Tail' concept failed to materialise in the music industry. (Anderson 2006)

Since Spotify calculate payouts based on 'streamshare'; rights holders receive a pro-rata proportion of the 70% allocation of Spotify's subscriber revenue, in accordance to the number of streams played on the platform. Given that subscriber fees are fixed, this necessarily means that as one Artist gains prominence, others must lose out; they have less 'share' of the pie. This in turn has fuelled inequality on music platforms, favouring already famous and major label artists (who have the means to market across various media), at the expense of emerging artists.

Criticism of MSS goes beyond the business model however. Liz Pelly compares the music content on Spotify with clickbait articles: "Spotify loves "chill" playlists: they're the purest distillation of its ambition to turn all music into emotional wallpaper" (Pelly 2017). This view has been corroborated by research which has shown that the average intro time for a track has dropped from an average of 20 seconds to 5 seconds since the mid-1980s (Gauvin 2018). Pelly also riles against the lost of political control over an Artist's music, pointing to auto inclusion on corporate playlists such as Nike, what she calls "the automation of selling out" (Pelly 2017)

In defense of MSS, Hesmondhalgh (2021) suggests that there is little evidence that they harm musicians, in particular criticising the focus on per-stream royalty rates, arguing "What really matters for the welfare of musicians is the *total money paid out to them*, not the 'per-stream rate'". (Hesmondhalgh 2021). On a cultural level, he points out that bland compilation albums are not new,

and that criticism is misdirected at MSS, even suggesting a kind of sonic snobbery: “a sense that contemporary audiences no longer listen attentively, positing dualistic notions of engagement and distraction which are at odds with evidence about people’s actual musical practice” (Hesmondhalgh 2022).

## Curation or Gatekeeping?

In an attempt to provide a complete musical catalogue, MSS inevitably have had to address the problem of choice. “Digital music catalogs typically have 25 million or more tracks and are growing at a rate of 100,000 tracks per month.” according to Coelho & Mendes (2019). They find bias towards what they call the “superstar effect”, with the top 1% of tracks being frequently accessed, the next 5% infrequently and the rest hardly at all. They acknowledge that “More people making more music does not mean more quality.” and hence some curation is needed; but who should decide?

Rather than recalibrate the relationship between artists and fans, the ability for MSS to curate playlists has instead supplanted historical gatekeepers such as DJs and labels. In their study of MSS, Bonini and Gandini argue “that platform gatekeepers exert a kind of “algo-torial power” that may be able, as a primary consequence, to set the “listening agendas” of global music consumer” (Bonini & Gandini 2019). For McKelvey, “Greater agency over discoverability is a power relation, closely related to economic and cultural power”. This power is significant, and Freeman, Gibbs and Nansen assert that “As in other algorithmic settings, it is crucial to understand ‘who’ we allow to make proxy decisions for us, judging carefully how well they make those decisions, and crucially also asking *how* those decisions are made at a technical level”. (Freeman, Gibbs, Nansen, 2022). Jansson points to the extend of this control beyond the platform itself, “as streaming media have become a normalized part of everyday life and integrated into the environment, we should pay closer attention to how power relations unfold not just between users and platform industries, but also among people as part of their everyday dwelling”. To this extent we can think of the control over our cultural lives as a class issue: a technocracy versus the rest; “those who lack relevant skills are not just hindered from managing and claiming autonomy in relation to streaming technology per se; they are also increasingly disqualified from *speaking about* their own everyday environments and how to navigate in them” (Jansson 2021)

As jealously guarded commercial secrets, the workings of these algorithms are opaque to stakeholders and listeners. “Listeners through their extended interactions with the streaming service and algorithmic features would come up with idiosyncratic theories and explanations of how the system works.” (Freeman, Gibbs, Nansen, 2022), often leading to anthropomorphising the algorithm and even attaching emotionally to its recommendations. Their research also pointed to the many factors outside of the platform that comprised a listener’s musical taste and identity: “In other ways many users described a musical life, a history and an identity outside of the app, that couldn’t be accounted for or understood by the system. This included going to see live music regularly, having a classical and/or musical education, or the types of music listened to on other platforms (SoundCloud, Mixcloud, YouTube etc.), as well as songs or artists listened to in analogue formats (LP records). ... Overall, a number of participants were sceptical or distrusting of the system’s capacity to curate a subjective, or emotional listening experience like a human could” (Freeman, Gibbs, Nansen, 2022).

## **Towards an improved streaming platform**

In seeking to challenge the status quo, a new streaming platform could consider the following problems:

- Curation / gatekeeping leading to inequitable distribution
- Uneven revenue share between artists
- Loss over artistic control

I envisage an improved music streaming platform 'Most Rated' that uses data driven from the feedback from listeners to drive playlisting. In response to Coelho and Mendes, to address the "dilution of quality", we propose that listeners decide what is played – the 'Most Rated' being the most prominent.

### **Transparent, Data-driven**

Sim, Park, Cho, Smith, June (2022) found that appearing on a top 100 chart "immediately increases the discovery of songs by 11–13%". Rather than manually curating these lists, I would transparently put the listener in control, linking the placement of a track to the number of ratings it has received, thus promoting the 'Most Rated' artists.

By allowing listeners to rate daily, I would encourage engagement through repeat visits, with 'superfans' (i.e. the most engaged) having the largest influence. Crucially, by rating tracks and not artists, it encourages individual songs to become the focus and less about the star power of the Artist (although undoubtedly the name is a big draw). By displaying the number of listens and ratings on the site, I create trust in the algorithm and give artists something deterministic to aim for in their promotional efforts.

By further segmenting these to localities (city, region, country) I create opportunities for listeners to find artists in their local area, whom they can therefore see live (driving ticket and merchandise opportunities for artists). By having localised playlists based around geographical areas, I cater for bands to build a local following and build organically, without vying to become the top 100 globally for a musical genre.

### **Redressing the balance between audience and listener**

Gauvin (2018) found that on Spotify, "Twenty-one percent of the billions of plays analyzed were skipped in the first 5 seconds. That number reaches 34% after the first 20 seconds. Moreover, only 51% of the songs are listened to in their entirety". While many MSS upsell on the ability to skip, clearly the convenience of doing so is contributing to a decline in musical variety and represents a loss of control of artists. "It's survival-of-the-fittest: Songs that manage to grab and sustain listeners' attention get played and others get skipped. There's always another song," L veill  Gauvin said. "If people can skip so easily and at no cost, you have to do something to grab their attention."

The alternative is a return to tried and tested radio format of algorithmically creating a schedule, that includes everyone but is weighted towards the 'Most Rated' artists. E.g using listener feedback to play tracks more regularly and remove the ability of the listener to skip.

Beyond forcing tracks to be heard in their entirety, this create two important benefits: first, it allows for a collective listening experience: we're all hearing the same material. Secondly it allows for a sense of appointment: if you are not online at a given moment, you miss out. In this sense we seek to create a version of streaming that has more alignment with live music in so far as we create an event for the audience that is shared and can be dissected over social media.

## **Tyranny of Choice**

A fixed schedule of tracks approximately 3:30 in length would afford about 400 songs per day, which obviously wouldn't scale to the entire back catalogue of MSS which run into the millions. Instead we focus on actively gigging musicians, which provides a natural quality and professional barrier to entry, and promotes those acts who are actively touring and seeking to sell tickets and merchandising.

By further breaking playlists down into geographical areas ('Most Rated London, Most Rated Brighton' etc) and genres ('Most Rated Hip-Hop Brighton') and even venues ('Most Rated Brighton at the Prince Albert') which we contend would provide a compelling discovery mechanism for listeners looking to attend gigs in a local area. This in turn drives the importance of promoters and venues, who could use the platform as a tool to drive attendance (and another potential revenue stream).

By using ratings data to drive playlists, we could also offer playlists based on what is being rated by artists themselves, allowing them to create their own playlists. In a study of the now defunct MSP 22tracks, Barna observes "what I have called a strong notion of curation, referring to curation as creative practice, as musical self-expression, the expression of personal taste and individual style. Through performing music curation, curators are able to acquire (sub)cultural capital that may contribute to their own music industry careers and prestige, but, indirectly also to the well-being of informal music economies" (Barna 2017).

## **A Fairer Deal**

An improved business model for streaming has two main levers to pull: making a bigger pie and controlling the share of that pie. With 500 million users, Spotify have paid \$40 billion to rights holders since its inception, \$3 billion in the last two years alone, which are impressive figures. If the \$3 billion was shared equally amongst all its 200,000 professional members, they'd each earn \$15K. While this is absolutely equal, it doesn't cater for the differences in talent and the artist's expenditure, which seems intuitively unfair. On the other hand, when 1% of artists earn 77% of revenue (Mulligan 2014), it's hard to argue that is a fair distribution that is proportional to talent. So what is a fair distribution?

A new streaming service with no subscriber base can't expect to offer artists any income when there isn't any revenue to share; and given that we intend to be less personalised and consumerist than mainstream MSS, it seems unlikely that a subscription revenue would be significant. On the other hand, from our earlier discussion of revenue models, its clear that a more direct form of remuneration could benefit artists. Hesmondhalgh (2021) discusses the concept of 'user-centric' payouts, which would see an individual subscriber's fee allocated exclusively to the artists they had played (or rated), rather than as an overall percentage. He suggests that this could be more equitable, citing a report from 2017 that "user-centric model appears to favour less successful musicians" (although no less talented).

Given that this would very much be a hypothetical for the purposes of a new streaming service, it is possible to envisage other forms of direct revenue that would benefit artists, such as selling tickets and merchandise through the platform, or up-selling on promotional materials targetting venues and promoters. Perhaps musicians with larger catalogues might be incentivised to pay more, because they would have more tracks that would attract ratings and therefore engagement. Or perhaps promoters or venues would highlight their events. In each of these examples, it's clear that the revenue is closer to the artist, and more likely to stay in the local economy.

## Methodology

Over a six week period, I developed a web application that provides an internet radio station. I took an iterative approach to software development, planning some milestones and high-level tasks, and working on each module in turn: the back-end streaming module, the front-end listener/artist rating interface and the behind-the-scenes operations that was required to enable scheduling and deployments.

The radio station's schedule is algorithmically generated on a daily basis, and uses listener ratings (1-5 stars per track) to weight tracks more prominently in relation to others, so that a highly rated track might expect to be played once an hour, whereas a less popular one might be scheduled daily. I was responsible for all the coding, design and copywriting.

By publishing this schedule ahead of time, artists and promoters can see when their track is coming up, and use this to drive engagement with this fans via social media. Since everyone is hearing the same music at the same time, any discussion or commentary creates a collective sense of enjoyment, more akin to attending a gig than listening to a streaming service.

The application allows artists to sign up, and upload tracks, without any prior gatekeeping or quality control. Behind the scenes, the software transcodes audio files into a standard bitrate and format (128kbs mp3), whereupon it is stored in a cloud storage service. I use the open-source Icecast streaming server to provide the content stream, and wrote a bespoke client that sends tracks to Icecast from the artist's roster according to the schedule. This provides a continuous stream of music akin to a radio, but is fully automated and doesn't require any manual curation.

I created a way to visualise the schedule on the website as a series of tracks, drawn from submissions from artists. Listeners can then rate the currently playing track, or the previous two. In this way, we create an 'active' listening experience for engaged listeners, whilst also providing a 'passive' experience for those who wish to enjoy the radio in the background.

To support multiple geographic locations and genres, more streams can be added. In future I intend to offer a city / region / country wide breakdown, combined with genres, so it would be possible to listen to Indie rock from Manchester or Drum and Bass from Liverpool or all UK Jazz.

## Reflections

I faced several challenges along the way. The obvious ones were technical in nature. I took longer than I had hoped in developing some aspects of the site, which meant that for launch I haven't yet incorporated the locations and genres, providing one single content stream. Until I build a critical mass

of artists, no further subdivision is needed at present and I have a technical solution that would enable such categorisation at that point.

I prioritised the listener rating experience, as I feel that everything flows from that interaction, which in turn necessitated an artist upload journey. Going forwards I intend to listen and get feedback from users to decide how best to progress the experiment and improve the experience.

While I have tried to learn the lessons from the research, risks remain in my approach. On face value, it does seem daunting to assert that a new streaming service could succeed in improving artist outcomes where multi-billion dollar companies have failed. Does this just become another streaming service? While Spotify attracts most criticism for being unfair to artists, it is clear from the data that it raises the most money for artists, regardless of whether you agree with the distribution. Would a new service further dilute the audience, or take the audience away from other services and paradoxically hurt an artist's revenue?

The other potential risk in avoiding having any kind of gatekeeper is the risk of low quality or even dangerous, extremist content finding a place on the platform. At small scales, it seems possible that even amateur artists can call on friends and family to game the ratings system, or for artists touting extremist ideology to reach an audience. I concede it may be inevitable therefore for some basic curation to be required, perhaps through a policy that would enable Most Rated to take down any content that was deemed hateful, racist or misogynistic, but that would risk open up questions of censorship.

The project has both strengths and weaknesses. In devoting much time to the development of software, the complexity of the build took up the lion's share of my time, when I might have otherwise been engaging with the potential audience and end-users. However, as working software, I can now observe the behaviour of artists and listeners in a real setting. Rather than protesting against MSS, I am building an alternative.

## Conclusions

10 years of music streaming has failed to provide a sustainable career path for musicians, and some researchers assert that it harms musical creativity and diversity, for the benefit of a tiny proportion of superstars, major labels and tech billionaires.

I have developed a platform that addresses some of the underlying problems in MSS and redress the balance of power towards artists, the creators of the content. If Spotify is Capitalism's solution to streaming, perhaps Most Rated could be Anarchy's; a set of radio playlists without DJs or any other barrier to entry that lets listeners decide what artists are played and rewarded most. In creating this proof of concept in a short space of time, I'm optimistic that it can serve as a useful experiment and case study that will help shape the discussion around fairness and equality in the streaming world.

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