HOW DO SPOTIFY ALGORITHMS REVOLUTIONIZE THE MUSIC CONSUMPTION?

A REPORT BY

Your Music Marketing

SUMMARY

INTRODUCTION

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OUR STUDY

Music streaming has experienced a real boom in recent years. Indeed, it is estimated that more than 120,000 new tracks are released daily on various music streaming platforms (Spotify, Apple Music, YouTube Music, etc.), compared to 60,000 in 2021.

This evolution is disrupting the music industry and giving rise to new challenges faced by artists and, more broadly, all professionals in the sector. The attention for their music and its lifespan is decreasing, while competition continues to grow.

Streaming platforms benefiting from this growth seek to build user loyalty. This is notably achieved through a promise: to accurately reference new releases and provide a personalized and coherent selection to listeners. A strategy well embraced by users, as evidenced by the popularity of editorial playlists, the integration of which becomes a major challenge for industry players.

Yet another type of playlist, whose ability to highlight a track to a larger audience is even more significant, remains undervalued: algorithmic playlists.

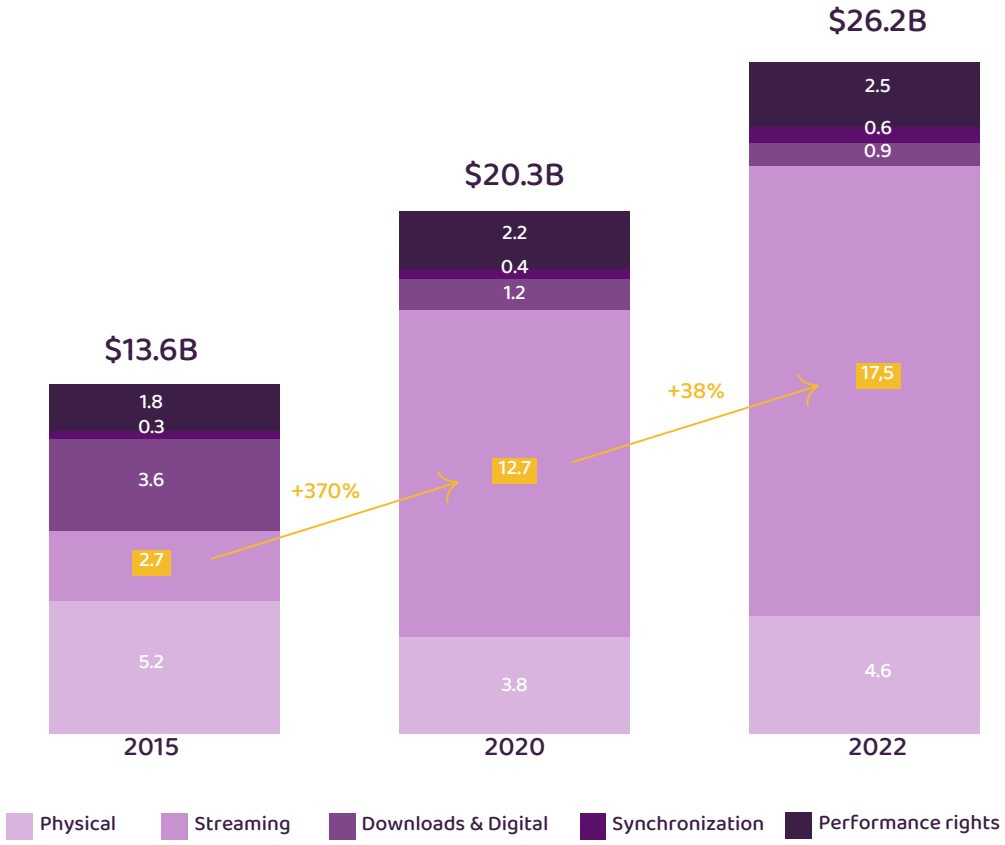
In this new report, Your Music Marketing presents a study on the influence of the Spotify algorithm. How do Spotify recommendation algorithms work? What is their impact on an artist's streams and on the streaming market in general? What lessons can industry players draw from it? These are the key focuses of this report.

MUSIC STREAMING: A FAST-GROWING MARKET

In recent years, the overall recorded music market has been expanding significantly. Indeed, its revenue continues to rise: it was estimated at $13.6 billion in 2015, $20.3 billion in 2020, and then $26.2 billion in 2022. According to Goldman Sachs forecasts, the global recorded music market could reach nearly $50.1 billion by 2030.

The primary factor behind this explosion is none other than streaming. It accounted for 19.8% ($2.7 billion) of the music market's revenue in 2015, and in just a few years, its share has more than tripled, reaching 67% ($17.5 billion) in 2022.

EVOLUTION OF THE GLOBAL RECORDED MUSIC MARKET (IN BILLIONS OF DOLLARS)

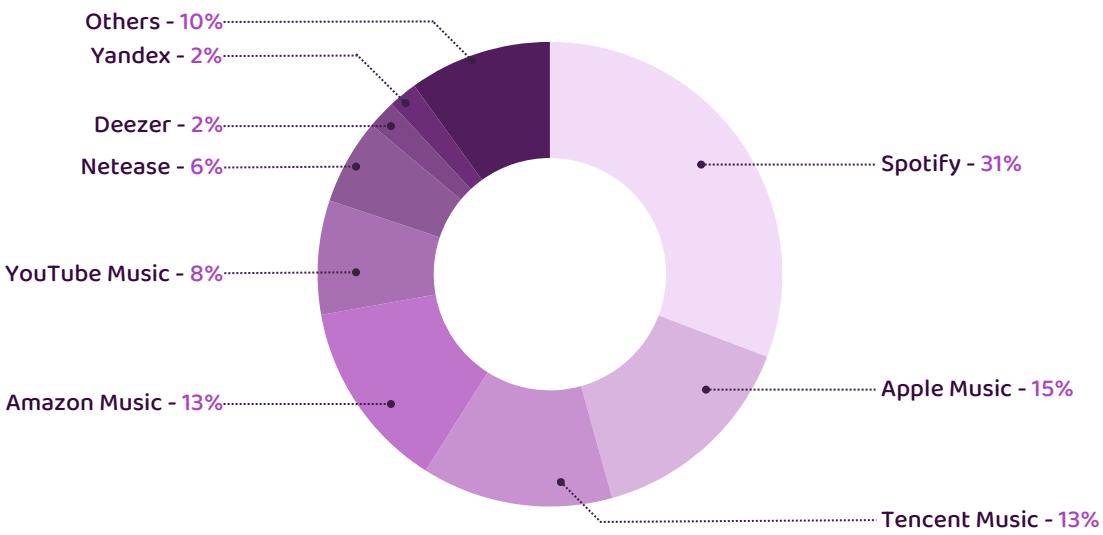


Source: IFPI (2022)

SPOTIFY: THE GLOBAL LEADER IN MUSIC STREAMING

With over 500 million users in the first quarter of 2023, Spotify alone holds a 31% share of the global music streaming services market. It is, therefore, the market leader by a significant margin, as it is followed by Apple Music, representing only 15%, and then by Amazon and Tencent Music in the third position, each holding a 13% share of the market.

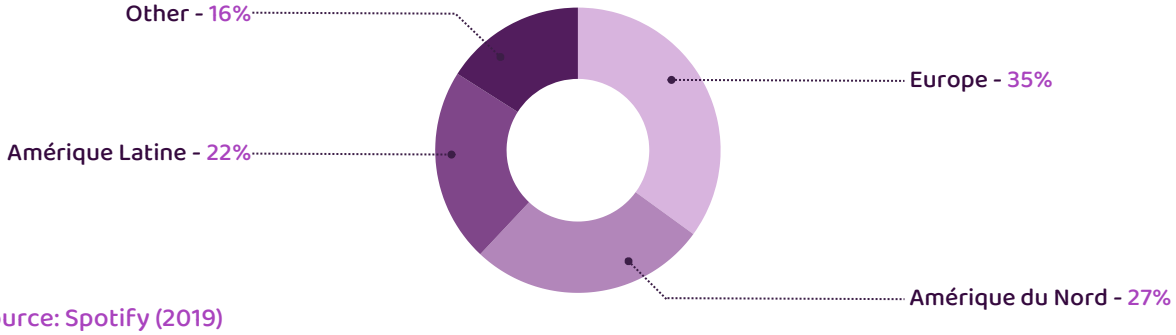
DISTRIBUTION OF THE GLOBAL MARKET FOR MUSIC STREAMING SERVICES



Source: MIDIA Research (2021)

The Swedish giant Spotify is currently available in 170 countries. Europe remains its primary territory with 35% of active users, followed by North America and then Latin America, with 27% and 22% of active users, respectively.

DISTRIBUTION OF SPOTIFY USERS WORLDWIDE



Source: Spotify (2019)

THE PLAYERS STUDIED

In total, for our study, we analyzed the streams of several hundred artists, representing a total of over 25.3 billion Spotify streams.

The studied artists are divided into four groups: the emerging, those in development, the established, and the "stars."

- **Emerging artists**

Emerging artists have fewer than 1000 followers on Spotify, with a maximum of a few dozens of thousands of listeners.

- **Artists in development**

Artists in this category have a small community of at least 1000 Spotify followers and several dozens of thousands of unique listeners. Often, they have a track that performs better than others, contributing significantly to the overall consumption on their profile.

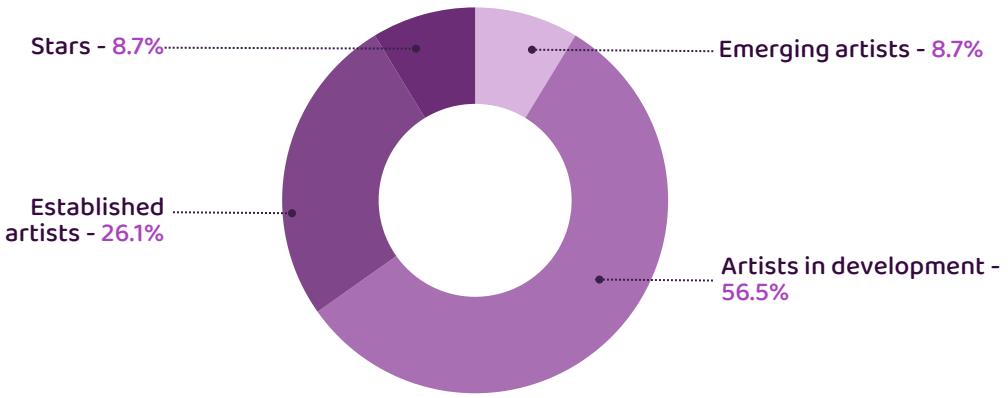
- **Established artists**

In this group, artists have a well-established community with more than 10,000 followers and over 100,000 unique listeners on Spotify. They generally have multiple singles that have performed well.

- **Stars**

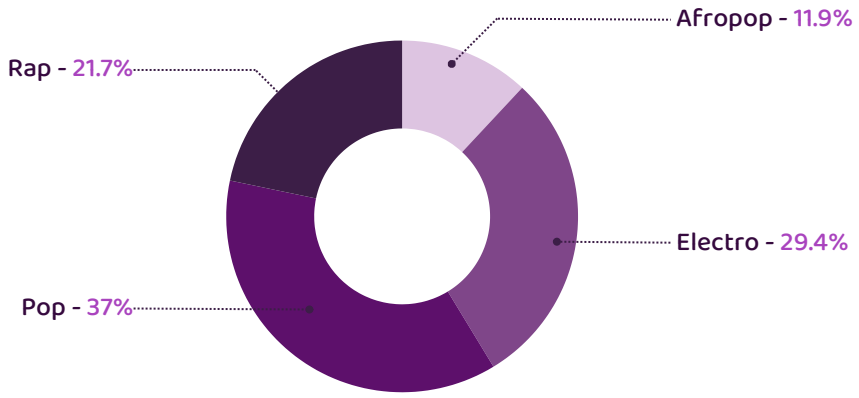
This category includes the top artists in their musical genre. They have a minimum of several hundred thousand followers and over a million unique listeners.

DISTRIBUTION OF ARTISTS IN THE SAMPLE BY STATUS



In an effort to ensure representativity, we also sought to analyze artists from a diverse range of music genres. Our sample includes 10 music sub-genres, which we have grouped into four main genres for the sake of simplifying our analysis: Afropop, Electronic, Pop, and Rap.

MUSIC GENRES REPRESENTED IN THE SAMPLE



RECOMMENDATION ALGORITHMS

How Do They Work?

STREAMS SEGMENTATION: ACTIVE LISTENING VS. PROGRAMMED LISTENING

Today, two ways of consuming music on Spotify stand out. These two types of listening allow for the segmentation of an artist's streams: we will then refer to them as active listening or programmed listening.

- **Active listening**

This type of listening includes all streams made by listeners intentionally. These streams come from active sources such as the artist's profile, album and release pages, or directly from the listener's playlists and library. The individuals comprising this audience represent 33% of the total audience but, on average, contribute to about 60% of the listening and 80% of merchandise sales on Spotify. It is crucial to engage them to ensure they continue listening and remain active listeners, as individuals in an active audience stream, on average, three times more than other types of audiences.

- **Programmed listening**

This type of listening focuses on streams made exclusively from programmed sources such as editorial playlists, algorithmic playlists, autoplay, or playlists from other users. This audience consists of individuals often open to discovery, who can subsequently become fans and thus join the active audience of the artist.

For our analysis, we will primarily focus on programmed listening coming from recommendation playlists generated by Spotify's algorithm.

THE DIFFERENT TYPES OF PLAYLISTS

Recommendation algorithms aim to suggest tracks to users that they are likely to enjoy.

These recommendations are established from an analysis of their listening history, platform habits, and behaviors of similar users. The suggestions are based on the performance of tracks, particularly those with a low skip rate or a high listening duration.

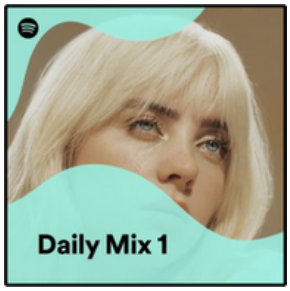
Spotify automatically generates 6 types of personalized algorithmic playlists for each user based on their consumption habits on the platform. Consequently, these playlists are unique to each user, offering a personalized listening experience for everyone.

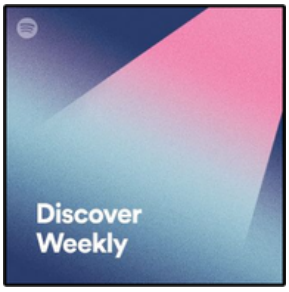
- **Radios**

Radios are instantly generated for each user from any track, artist, album, or playlist. These personalized mixes include a selection of approximately 50 songs, similar to the initially listened-to track.

- **Daily Mix**

After analyzing a user's listening habits, Spotify's algorithm generates up to 6 different playlists daily, organized by music genre or mood. These playlists include tracks or artists that the user already listens to.





- **Discover Weekly**

Discover Weekly is a playlist updated every Monday, offering each user a unique experience with a selection of around thirty tracks they have never listened to before but are likely to enjoy.

- **Release Radar**

Release Radar is a playlist updated every Friday, release day, automatically including the recent releases from the artists a user follows or already listens to.

- **On Repeat**

On Repeat is a playlist that gathers the most listened-to tracks over the last 30 days for a user, including all music genres and moods. When an artist is featured in this playlist, it can be considered that the user is a fan.

- **Repeat Rewind**

Repeat Rewind follows the same principle as On Repeat: it gathers the tracks a user has listened to the most but over a longer period, specifically more than a month, including all music genres and moods.

Algorithmic playlists, entirely generated by the Spotify algorithm, differ from editorial playlists, which are created by Spotify curators. Editorial playlists bring together tracks that align with their editorial direction, chosen by the curators who design them. The content of editorial playlists does not vary among users, unlike algorithmic playlists. However, there are editorial-algorithmic playlists: created by Spotify editors, these playlists contain several hundred tracks, but only 100 are recommended to users based on their consumption habits.

Among the most followed editorial playlists on the platform, there are New Music Friday (4.1M followers), Viva Latino (13.5M followers), RapCaviar (15.6M followers), and Today's Top Hits (34.3M followers).

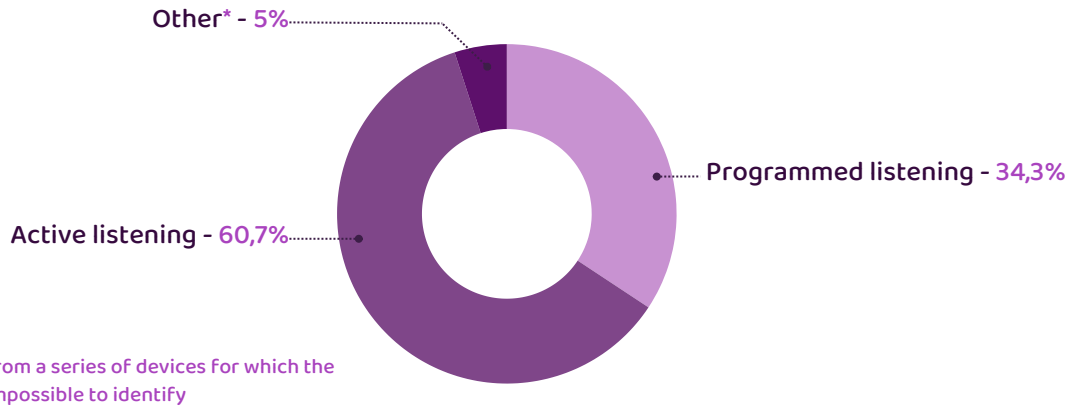
RECOMMENDATION ALGORITHMS

What Is Their Impact?

THE ROLE OF ALGORITHMS IN THE DISTRIBUTION OF LISTENING

Despite the high percentage of active listening in the total number of streams, programmed listening represent 34.3%, accounting for more than a third of the total streams. This share is far from negligible and highlights the significance of programmed listening in music consumption on Spotify.

DISTRIBUTION OF TYPES OF LISTENING ON THE TOTAL NUMBER OF STREAMS

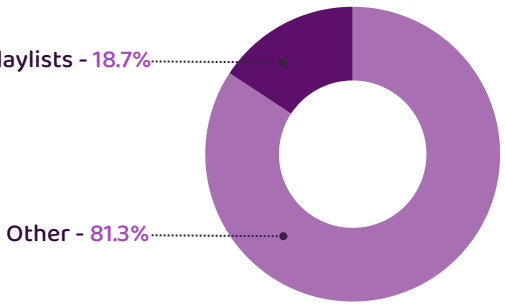


*Streams from a series of devices for which the source is impossible to identify

So what is the share of algorithmic playlists in the total analyzed streams? Looking a bit more closely at the details, we notice that since 2015, over 18% of streams come from these algorithmic playlists, accounting for almost one stream out of five!

SOURCE OF THE ANALYZED STREAMS

Total streams since 2015		
Total streams	25292275281	100%
Total streams from algorithmic playlists	4725209122	18.7%



More notably, as we examine the evolution of the influence of algorithmic playlists, it becomes apparent that their significance continues to rise, increasing from 18.7% since 2015 to over 21% in the last twelve months. Consequently, in 2023, the influence of algorithmic playlists has grown by 12%!

EVOLUTION OF THE WEIGHT OF ALGORITHMIC PLAYLISTS

As seen earlier, Spotify represents 31% of the global music streaming market, equating to 5.425 billion dollars. By applying the influence of algorithmic playlists on Spotify's share of the overall streaming revenue, it is possible to obtain an estimate of the monetary impact of Spotify's recommendation algorithm.

Thus, the Spotify algorithm could account for between 858 million and 1.16 billion dollars, representing between 3% and 4% of the total revenue in the music streaming industry! This figure underscores the significance of the algorithm for the Swedish giant, as in comparison, it constitutes half of the total share of YouTube Music (8%) and twice the share of Deezer in the market (2%).

PROGRAMMED LISTENING DRIVEN BY ALGORITHMIC PLAYLISTS

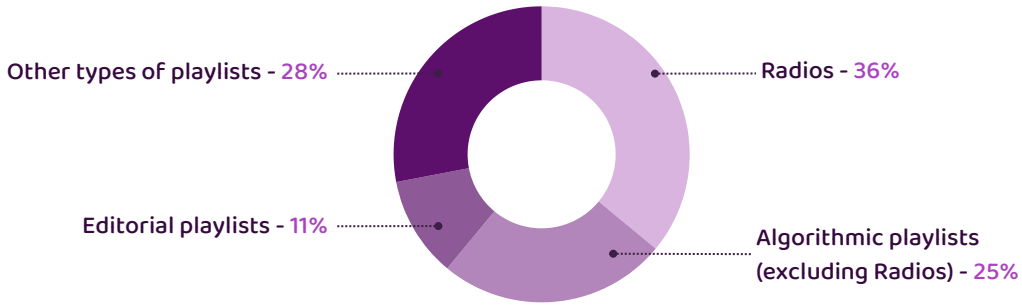
When looking at the details of programmed listening, it becomes apparent that the various types of playlists are not equivalent in terms of stream volume.

Indeed, algorithmic playlists account for 61% of programmed listening. Therefore, more than half of the streams generated from playlists come from algorithmic playlists!

Among these algorithmic playlists, Radios alone represent 36% of programmed listening: this means that more than one out of three streams from a playlist comes from a Radio. The rest of the algorithmic playlists, on the other hand, account for 25% of programmed listening, equating to one out of four streams from a playlist.

As for editorial playlists, they account for only 11% of music consumption through playlists.

DISTRIBUTION OF THE SOURCE OF PROGRAMMED LISTENING

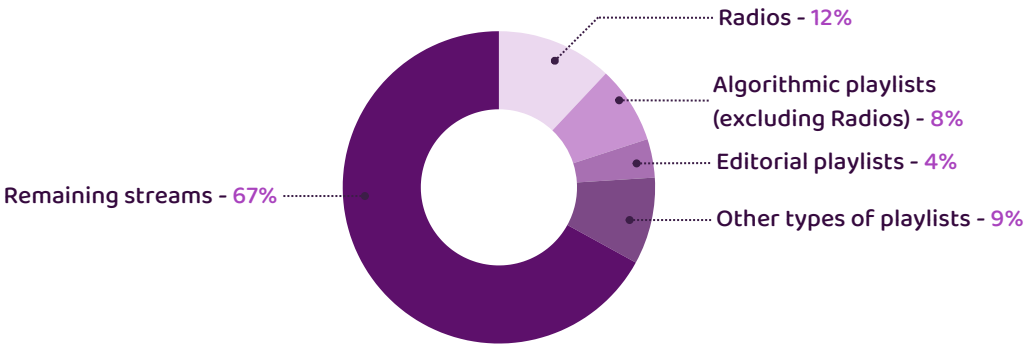


THE ROLE OF ALGORITHMS IN MUSIC CONSUMPTION

As you may have gathered, the impact of algorithmic playlists on the overall consumption of a track is very significant and continues to evolve.

Indeed, Radios account for 12% of the total streams, and the rest of the algorithmic playlists contribute 8%, bringing the total weight of algorithmic playlists to 20%. This means that out of all the streams on Spotify, one in five comes from an algorithmic playlist! This is five times more than editorial playlists, which only represent 4% of the total Spotify streams.

PROPORTION OF PROGRAMMED LISTENING IN THE TOTAL NUMBER OF STREAMS

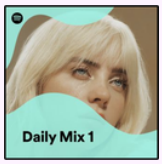


Among the algorithmic playlists, Radios and Daily Mix are the most listened to, generating 86% of the total streams from algorithmic playlists. They are followed by Release Radar, then Discover Weekly, and finally, the On Repeat playlist.

TOP ALGORITHMIC PLAYLISTS SINCE 2015

TOP 1

TOP 2

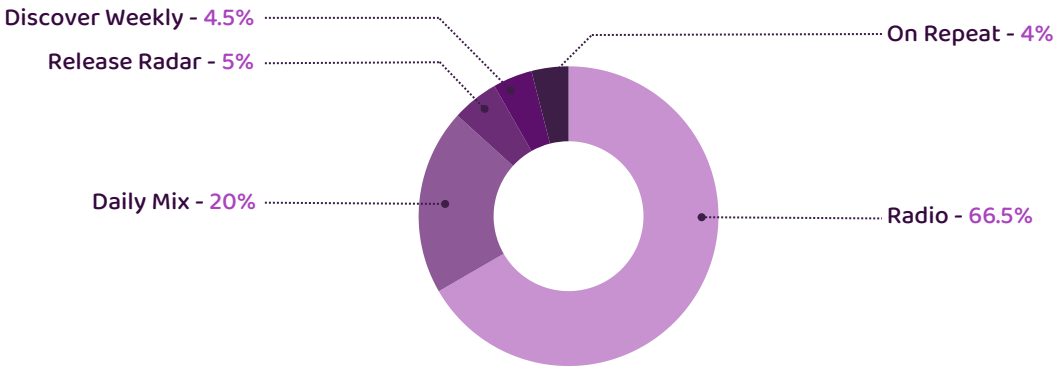


TOP 3

TOP 4

TOP 4

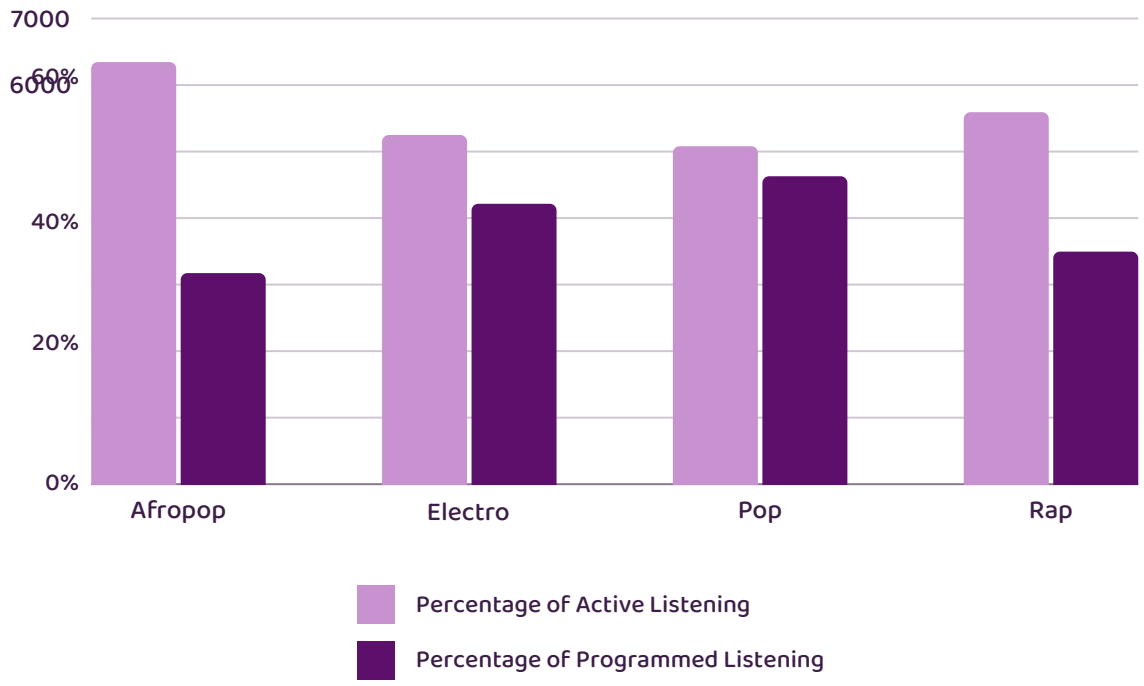
DISTRIBUTION OF STREAMS FROM ALGORITHMIC PLAYLISTS BY PLAYLIST



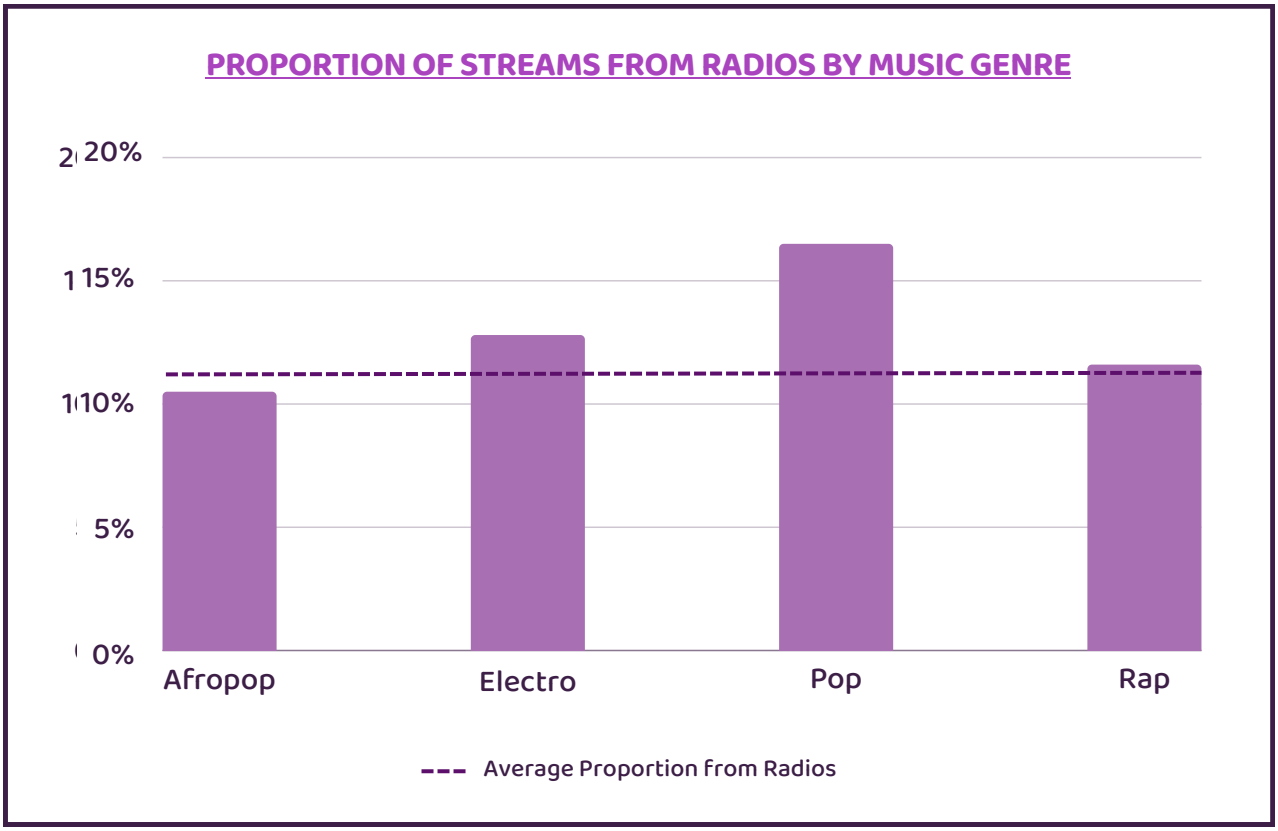
DIFFERENCES OBSERVED BY MUSIC GENRE

The distribution of active listening and programmed listening by music genre shows that the differences are far from homogeneous across genres. Indeed, some music genres are much more driven by algorithms than others. This is notably the case for Pop and Electro music, which have the highest shares of programmed listening. Pop and Electro are also the most highlighted genres by algorithmic playlists, particularly within Spotify Radios.

DISTRIBUTION OF ACTIVE AND PROGRAMMED LISTENING BY MUSIC GENRE



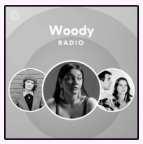
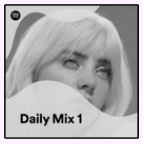
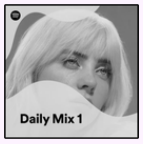
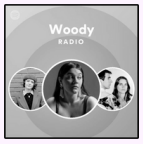
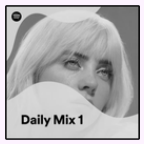
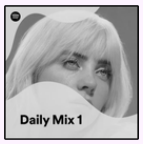
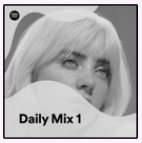
Indeed, more than 9% of the streams for each of these music genres come from algorithmic playlists (excluding Radios). If we look at the proportion of streams from Radios, this is even more significant: 12.8% of the streams for Electro music and 16.5% of the streams for Pop, whereas other musical genres hover around 11%.



By taking the top algorithmic playlists for each music genre, a repetitive pattern in the playlist order is observed, similar to the top algorithmic playlists since 2015, as seen earlier. Generally, we find the Radio in the top spot, Daily Mix at number 2, Discover Weekly or Release Radar at 3 and 4, and the On Repeat playlist at 5.

However, in this context, some music genres have a unique Top 5. This is, for example, the case with Pop and Electro music, which appear to be the genres most emphasized by the Discover Weekly playlist.

TOP ALGORITHMIC PLAYLISTS BY MUSIC GENRE

	GENERAL	AFROPOP	ELECTRO	POP	RAP
TOP 1					
TOP 2					
TOP 3					
TOP 4					
TOP 5					

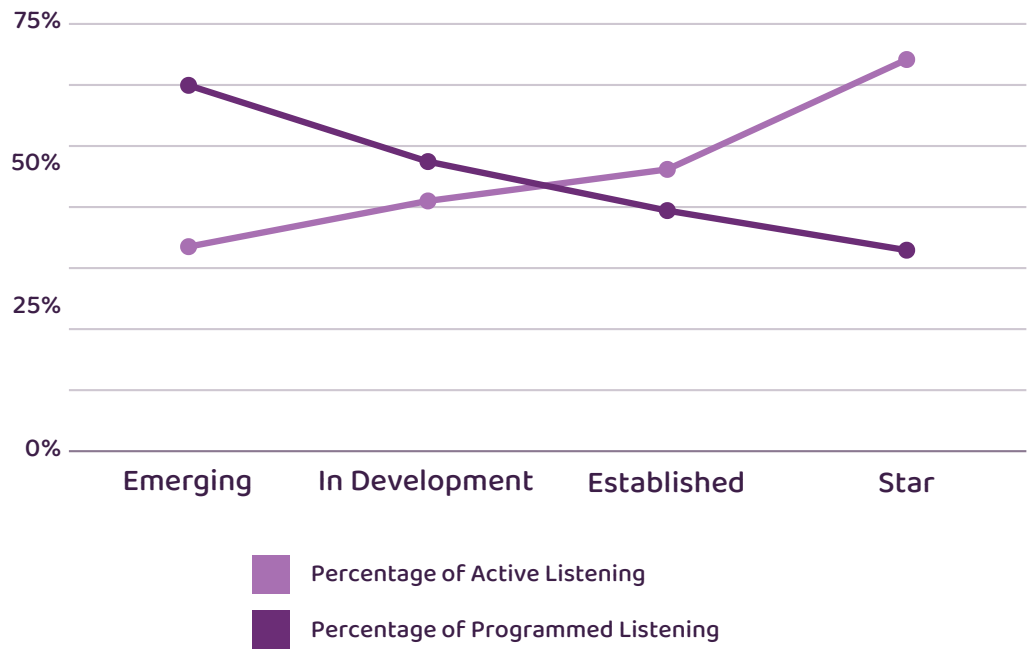
But then, how can we explain the fact that some music genres are favored by the Discover Weekly playlist in these recommendations?

Hard to say, as our sample is not large enough to draw general conclusions, but one of the hypotheses put forward could be the popularity level of these genres in Spotify's top territories (United States, Europe...) as well as their numerous sub-genres. Indeed, since Pop and Electro music are very broad genres with many sub-genres, this allows for a more precise level of referencing and, consequently, better recommendations compared to other genres. Moreover, these genres have a historical presence on the platform, unlike Afropop, for example, which means a larger volume of data about these music genres is available on Spotify, making their recommendation more recurrent. This could explain the presence of Discover Weekly in the Top 1 or Top 2 among the top algorithmic playlists for Pop and Electro music.

THE INFLUENCE OF ARTISTS' STATUS ON THEIR REPRESENTATION IN PLAYLISTS

Artists' status also appears to have an impact on the distribution of streams between active and programmed listening. By analyzing their proportion, it is quite logical to observe that the more popular artists are, the higher their proportion of active listening becomes.

PROPORTION OF ACTIVE AND PROGRAMMED LISTENING BY ARTIST STATUS

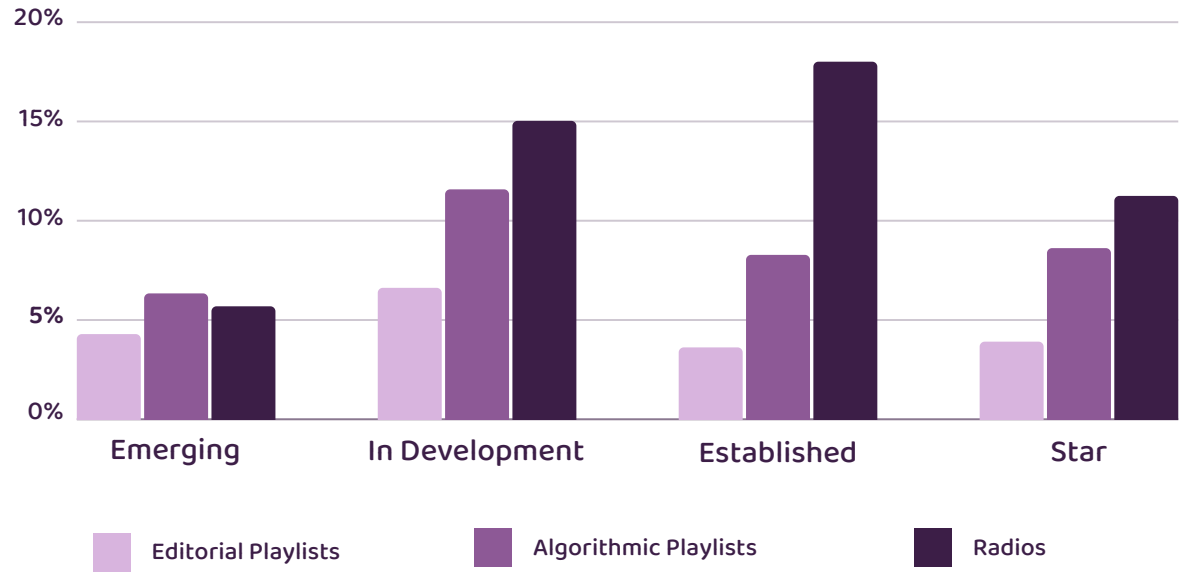


On average, emerging artists have almost two-thirds of programmed listens (59.9%). These streams come mainly from user playlists. For the most popular artists, the trend reverses: they have about two-thirds of active listens (64.2%).

If we look at the weight of playlists (editorial, algorithmic, and Radios) by artist status, it is not surprising that small artists are much less driven by Radios and algorithmic playlists. The reason is that Radios are more inclined to recommend artists who are in the process of progressing in terms of referencing and visibility on the platform (especially in terms of followers and streams).

Established artists enjoy better referencing and recommendation on the platform than emerging artists and those in development. This allows them to be more frequently recommended on Radios. It is precisely because artists in development and established artists are not as well-known to the general public as the stars that the weight of algorithms is more significant for them than their share of active listens.

PROPORTION OF EDITORIAL AND ALGORITHMIC PLAYLISTS BY ARTIST STATUS



CONCLUSION

Spotify Algorithm: Streaming Market Leader

REFERENCING AT THE HEART OF RECOMMENDATION

In conclusion of this report, it's evident that the Spotify algorithm is increasingly becoming of paramount importance. More crucial than editorial playlists, referencing and recommendation are emerging as central challenges for discovering new talents.

Already at the core of streaming platforms' strategies, Spotify maintains a competitive edge over its rivals today, thanks to its algorithmic playlists system, widely regarded as the most effective in the market.

But what are the best practices to implement for optimizing one's referencing? This is a topic we will address in a future report.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Caribbean
Arab
Afro
Ambient
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