



Centre national  
de la musique

Monday 16 January 2023

## Fake streams, real phenomenon: the CNM working with the industry to fight streaming fraud

Jean-Philippe Thiellay, president of the Centre national de la musique

After more than 18 months of work, the Centre national de la musique is publishing its study on stream manipulation on music streaming platforms, and more specifically on streaming fraud, or fake streams. It constitutes as the first documented and concerted study in the world on this topic.

The stakes are high for the industry in France and worldwide. Whether they're free and ad-supported or financed through paid individual or family plan subscriptions, the development of online music services constitutes a huge opportunity for the music sector, especially after multiple years of crisis. According to the International Federation of the Phonographic Industry (IFPI), revenue from paid subscription and ad-supported streaming accounted for 65% of global recorded music revenues in 2021; in France, with more than €500 million, the digital economy contributed to 70% of the total market value in 2021, compared to 10% in 2011 (source SNEP). This growth whets the appetites and stimulates the creativity of those who seek to abuse the system.

The proliferation of fake streams - that is, processes which artificially increase the number of plays or views to generate an income - is simply equal to theft. Here is a market-centric system in which rights-holders are paid based on the share their song represents in the overall national market share annually. So when somebody inflates their streaming statistics, they take away a share of compensation from all those who don't cheat, by lowering all rights-holders' average payout per stream. Therefore, it was incredibly important that we ascertain the reality of this phenomenon, to document and qualify the different fraudulent methods used, to measure their impact on the market, and to seek ways to fight against such fraud. This is what the CNM endeavoured to do, at the request of the Ministry of Culture.

It took us many long months to convince industry players (platforms, distributors, collective management organisations, producers, music publishers, professional organisations, media, and lawyers) to collaborate, especially when it came to agreeing upon a common definition for each type of fraud, to sharing assessments and data, and to building a roadmap. Deezer and Qobuz were the first to come on board, followed by Spotify, committing to providing us with data on the overall volume of fake streams detected on the French market, as well as more detailed data based on the top 10,000 most listened-to tracks. This data was supplemented by figures from certain distributors, who overall represent the majority of the French market.

Regrettably, certain major industry players, such as Amazon Music, Apple Music and YouTube, were either unable or unwilling to share their data according to the defined scope of observations, despite CNM's repeated guarantee of confidentiality. We had already experienced a lack of cooperation from them in the past, while working on our 2021 study on streaming platforms' revenue distribution (User centric vs Market centric distribution models). Furthermore, Qobuz, Deezer and Spotify used different fraud detection methods, scopes and tools, making it very difficult to analyse and explain clear differences in the respective results. Let's hope that in the future, all platforms will be fully committed to taking part in CNM's upcoming studies, with a view towards transparency and cooperation, which are both vital for the proper functioning of the industry and to instil confidence in its business model.

The main conclusions to be drawn from the study are:

---

Centre national de la musique  
151-157 avenue de France, 75013 Paris  
cnm.fr    

EPIC, sous tutelle du ministère de la Culture  
RCS Paris n°882 539 786 00047

### 1. Stream manipulation is a reality.

Fake streams operated by robots or individuals that exceed the 30-second threshold for a stream to count, fake playlists, and fake uploads on platforms are now all fairly well known practices. From streaming farms to account hacking, hackers are constantly evolving their strategies and coming up with inventive new ways, to the point that countermeasures initially designed and implemented by platforms, as well as distributors and music rights-holders, must not only constantly evolve and improve, but also anticipate any counter-offensive from fraudsters.

Thanks to the data provided by the platforms, as well as additional data from distributors, we were able to establish that these practices are widespread: abnormal streaming activity of varying degrees was observed in the catalogues of both major and independent labels of all sizes; amongst both French and international repertoires; for new releases as well as what is known as back catalogue (i.e. in the context of this study, any track over 36 months old); and all genres were concerned - from hip-hop to pop-rock, classical music, chanson française and ambient music.

According to data from Deezer and Spotify, **more than 80% of streaming fraud detected occurs on the services' long tail (outside the top 10,000 tracks). Some industry professionals interviewed for the study remarked that this could be linked to lesser-known rights-holders determined to stand out amongst the wide choice available, or a strategy of "parasitism" consisting in generating low-volume artificial income over the long-term, while remaining under the "radar"**. With regard to the top charts, we can also formulate two alternative and cumulative hypotheses: either the most-listened to tracks are proportionally less affected by fraudulent streaming activity, or they are the subject of streaming fraud techniques that are more difficult to detect, techniques which aim not to create a very large volume of fake streams over the whole year, but to optimise short-term rankings for better search engine optimisation.

2. Based on data provided by Deezer, Qobuz and Spotify (each with their individual fraud detection methods) and a panel of distributors (Universal, Sony, Warner, Believe and Wagram – representing more than 90% of Spotify's top 10,000 most-listened to tracks and more than 75% of the overall volume of stream made on Deezer), the report establishes that in France in 2021, **between at least 1 to 3 billion streams were detected as fake, i.e. between 1 and 3% of total streams.**

It should be noted that this observation is based on fraudulent streaming activity detected by the platforms, for which any royalties generated are then withheld. **There is no doubt that the reality of fake streams goes well beyond what is detected**, without it being possible to arrive at a precise figure - since much of the activity goes undetected. Figures that circulate in the media are often much higher than 3% and aren't based on any recognised or proven data - which doesn't allow us to contradict them.

On top of these billions of fake streams, the extent of which streaming fraud goes undetected must therefore be highlighted. The methods used by fraudsters evolve and continue to improve, and it seems to be increasingly easier to commit fraud. Some industry professionals revealed that they have even been approached directly by artificial streaming service providers offering to increase stream figures, meanwhile Deezer observed an increase in fraud detected in 2022.

3. If we take a closer look, the following elements are more prominent within the top 10,000.

**All genres are affected by this phenomenon**, from hip-hop/rap to chanson française, pop, rock/metal and even classical music. None of these genres should be singled out and streaming fraud occurs in proportions consistent with each genres' market share.

If we take a closer look at Spotify and Deezer, the majority of streaming fraud detected is in hip-hop/rap. This seems quite logical since it's the most listened-to genre (more than 50% of the top 10,000 tracks on Spotify and 40% on Deezer). Hip-hop/rap represents 84.5% of fake streams detected on Spotify and 27.7% on Deezer. However, the number of fake streams in the hip-hop/rap genre only represent a very small percentage (0.4% on Spotify and 0.7% on Deezer) compared to the genre's total number of streams. Yet, the amount of abnormal streaming activity detected amongst all streams of a given genre is significantly higher in ambient music (4.8% on Deezer) and non-music tracks (3.5%). The data from distributors also confirms this trend.

In terms of catalogue age, on Spotify's top 10,000 most-listened to tracks (supplemented with data from distributors), **96% of streaming fraud detected comes from new releases and 93% from the local French catalogue**. The amount of streaming fraud detected on local new releases amounts to 0.46%. This figure is at 1.18% on Qobuz's top 10,000 and 0.75% on Deezer.

#### 4. The CNM acknowledges the participating actors' increased action and growing mobilisation against streaming fraud

Everyone is aware of the challenges as paid streaming services develop. In a context where the penetration rate of streaming services in French households still has room for growth compared with our English, German and even American neighbours, and where in some households, the issue of purchasing power is may cause some families to decide against paying for online music services, users' possible distrust of systems which leave room for cheating to occur is a risk that should not be underestimated.

In addition, several industry professionals revealed that they cannot currently rely on an artist's platform performance (for signing an artist to a label, booking them for a show, or getting them on a radio playlist), creating a lack of trust in the platform-distributor relationship.

Finally, for the artists themselves, apart from the reputational damage they may incur if suspected of cheating, fakes streams disrupt algorithmic profiles and weaken engagement rates, which reduces an artist's "recommendability" by providing misleading information, as fake users don't behave like normal music fans.

Since the study launched in the summer of 2021, the CNM has observed that platforms, distributors and producers are increasingly mobilising their voices and actions on the issue. For some, this has resulted in hiring new teams and increasing resources dedicated to fighting against stream manipulation.

#### 5. Efforts must be ramped up, yet the issue goes beyond fraud detection: how to penalise fraudulent streaming activity should be brought to the fore.

In both criminal and civil cases, the applicable law offers a range of legal remedies that may be used by legal entities or individuals harmed by stream manipulation. Fraud, unauthorised access to automated data processing systems (STAD), unfair commercial practices under criminal liability, but also tort liability, non-compliance with contractual conditions or general conditions of use, trademark infringement, and unfair competition under civil liability can allow the courts to rule. Nevertheless, one major difficulty remains in that most cases, the person or provider who is at the root of the stream manipulation activity will rarely be identified and identifiable.

In this context, **joint industry action is necessary to increase efforts** already undertaken to fight against fraud. The CNM recommends developing an **inter-professional charter for the prevention of and fight against stream manipulation**. If the recorded music industry were to adopt the charter, it would help to define and outline precisely what these practices are; raise awareness amongst industry professionals and artists of the legal risks associated with stream manipulation; and finally to formalise and standardise warning processes and graduated penalties.

In addition, with the same reasoning applied and in close collaboration with all the stakeholders, an audit on data and fraud detection methods could be carried out by a specialist and trusted audit firm. Furthermore, the *Pôle d'expertise de la régulation numérique* (PEReN – the national centre of expertise in digital regulation), a service within the French Ministry of the Economy, would collaborate by providing data transparency indicators. The General Directorate for Competition Policy, Consumer Affairs and Fraud Control (DGCCRF) could also be called upon to highlight the possible existing clampdown measures before considering, if necessary, implementing or defining new industry-specific measures.

In any case, the CNM will regularly meet with a committee to monitor measures to prevent and combat stream manipulation and a new study will be carried out in 2024 to ensure their effectiveness.

**Jean-Philippe Thiellay**

President of the Centre national de la musique