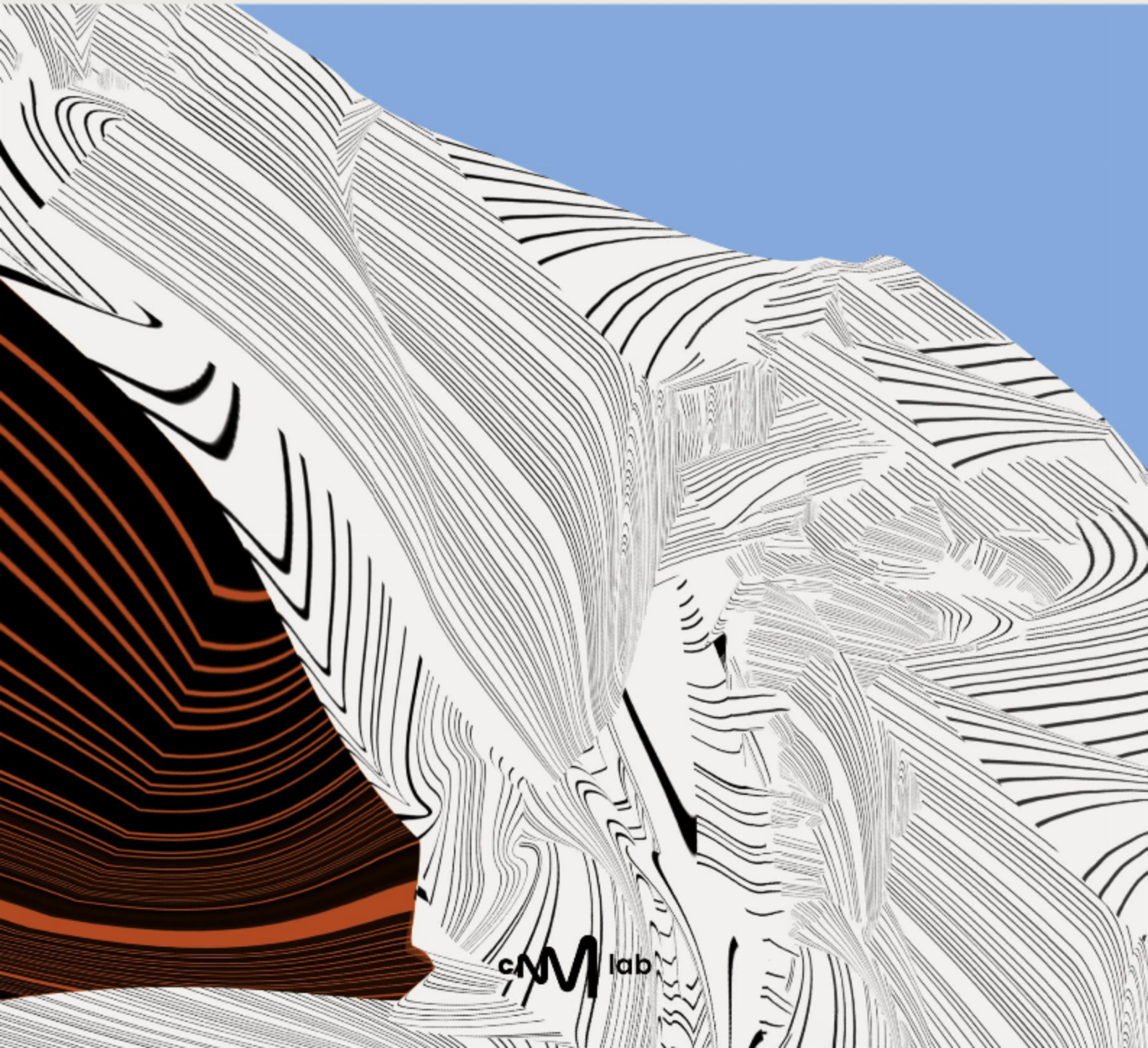
The Influence of Performance Metrics on Musicians

The artist and the prism

By Robert Prey



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Introduction

Performance metrics are a specific type of data that are used to evaluate how an individual or organization "performs" regarding an established objective. Our work and our personal lives are saturated and shaped by such metrics and their resulting rankings and ratings. Few domains, activities, or sectors escape the desire and ability to metrify. As academics we are all too familiar with our citation counts. As social media users we privately wonder why a friend's post received so many likes, or why a colleague has more followers. These metrics increasingly shape how we see ourselves and others – and how we present ourselves to others.

Musicians have not escaped this pervasive phenomenon. Indeed, as Richard Osborne points out in *Music by Numbers*, the music industry's engagement with statistics and numerical rankings – through popularity charts and sales awards (i.e., gold, platinum, and diamond discs) – has arguably been "more widespread, more public, and more profound" [1] than other creative industries. The shift to online streaming has resulted in a widening and deepening of data on music listening consumption. Today, performance metrics that range from streams, to views, skips, likes, and shares are increasingly important determinants of career viability in a data-driven music industry. Indeed, revenues often directly depend on such metrics.

Data is never merely descriptive however – it is always also performative. In other words, it doesn't simply represent the measured subject but actively shapes their understanding of the world and their place within it. Feedback in the form of performance metrics challenge how artists see themselves, their relations to others, and how others see them. In turn, such metrics can profoundly influence how artists approach, produce, and release music.

However, this is where the difficulty lays: *How can we conceptualize the influence that performance metrics have on artists?* Should we think of performance metrics as a "magic bullet" that exerts a direct, immediate, and powerful impact on music artists?

Metrics can certainly prompt artists to consider how to best "optimize" their content, performances, and selves for discovery and circulation through online platforms. There are no doubt musicians who alter their music according to what their YouTube or Soundcloud metrics are telling them. However, after conducting over 40 in-depth interviews with musicians at various stages in their careers and representing a diverse array of genres and music cultures, I am convinced that very few artists relate to their metrics in such an instrumental or strategic manner.

I propose that we can better formulate the relationship between musicians, metrics and music in the following way: Musicians *are* influenced by their metrics; but this influence is 1) *refracted* and 2) *reflected*. The analogy of light shining through a prism is potentially helpful here. A prism is a triangular-shaped glass. Prisms work by bending – or refracting –

the light that hits them. Light bends again when it leaves the prism. In addition to refracting light, prisms also reflect light. Following this analogy, I argue that metrics are both refracted and reflected by the prisms through which recording artists view them.

Before explaining this perspective in more detail, I will first discuss some key related literature upon which my research builds.

1. Research on metrics and music

The Metric Society

In the past decade diverse societal sectors and fields – from computer science to politics and marketing – have celebrated the availability of massive quantities of information produced by and about people, things, and their interactions. These vast amounts of digital data have the potential to be analyzed to reveal patterns, trends, and associations. The academic literature on so-called Big Data is extensive, covering a wide range of topics and perspectives. [2] Performance metrics comprise a subset of these debates.

Metrics, as defined by David Beer, are "a form of data through which value can be measured, captured, or even generated." [3]

Like data in general, the range and availability of performance metrics is growing rapidly. Social media is held partly responsible for this flood: Benjamin Grosser describes how Facebook activates the desire for "more friends, more 'likes', more comments, more photos, more connections, and more points of analysis." [4] In turn, as Helen Kennedy has argued, "value becomes attached to quantification, worth is synonymous with quantity." [5] While quantification has long engendered faith or trust by acting as "a technology of distance," [6] social media has seemingly brought about a new intimacy to our relationship with numbers and metrics. As a result, some commentators have argued that in recent years we are witnessing a renewed faith in numbers. [7]

Until relatively recently, the social impacts of quantification were largely ignored by social scientists. The focus, as Wendy Espeland and Mitchell Stevens have remarked, tended to be on "the accuracy of the measures" rather than their "social implications." [8] This has changed somewhat in recent years as sociologically-minded scholars have turned their attention to the costs of living in a so-called metric society. For example, in *The Tyranny of Metrics*, Jerry Z. Muller argues that the widespread use of metrics in education, healthcare, and government, has led to unintended consequences that undermine the very goals that these metrics were designed to achieve. [9] Other scholars have blamed our metric society for heightening status competition, [10] affecting well-being and our sense of self, [11] and impinging upon our capacity for self-governance. [12]

However, there is still a lack of in-depth work on how individuals in different fields, domains and cultures are adapting to metrics and life in the so-called metric society. There is some empirical research that focuses on individuals and how they engage with metrics on a daily basis. [13] Such an approach aims to capture how individuals reflexively ignore or incorporate data into their daily practices, and as a recently developed research paradigm, social analytics has been mainly used to study data practices in civic, [14] community, [15] and public sector [16] organizations, but as Nick Couldry and Alison Powell point out, this approach "has the potential to be expanded to many more areas." [17] In this regard, the music industry – and musicians in particular – would appear to present a rich field for analysis.

Metrics in the Music Industry

It was only around 2015 that music metrics became sufficiently detailed for music artists, managers, and record labels to use. The beta launch of Spotify's Fan Insight in November 2015 followed by Spotify for Artists in April 2017 was has been called a "milestone in music metrics." [18] Around the same time competing analytics services on other platforms popular with artists were also introduced: YouTube for Artists launched in 2015 while Facebook's Audience Insights was introduced a year earlier. Today there are several prominent analytics companies operating in the music sector – such as US-based Chartmetric or France's Soundcharts.

It is easy to forget what a sea change these analytics services represented. As Nancy Baym points out, musicians "have rarely had direct access to their own sales figures." [19] Before the arrival of social media, musicians quantified their audiences on the basis of "what venues they could fill, fan club memberships and the number of people who signed up for their (snail mail) mailing lists." [20] Today, musicians have detailed quantified insight into audiences and their consumption practices. The data trail that used to end at the record store checkout counter now includes every song skip or repeat, every thumb up or thumb down, and every social media like or share.

It is widely accepted that these online performance metrics can make or break a career in the contemporary music industry. Radio stations will look at an artist's YouTube views, while festival programmers will analyze local Spotify streams. In this way metrics provide diverse industry actors with a common "discursive framework" through which to engage each other and make decisions. [21] However, this is a framework that is still very much in development. A recent study by Arnt Maas [22] and Anja Nylund Hagen explores how music professionals such as managers or label executives in Norway use metrics provided by streaming services. [23] Mass and Hagen acknowledge that while the volume and sophistication of data that is available is growing, most industry professionals focused on "salient spikes that were noticeable 'at a glance'" and other easy-to-understand metrics. [24]

To-date there have been few studies that have examined how musicians use, understand, and are influenced by performance metrics. For musicians, datafied feedback provides unprecedented insight into the consumption patterns of their audiences. Music artists and

their teams are – at least in theory – able to exploit this information to benefit their careers. Some research has argued that data provided to artists through services such as Spotify for Artists aids both signed and unsigned musicians in making important strategic decisions, such as deciding how to plan a tour and which cities to visit. [25] In recent years there has been no shortage of journalistic articles evangelizing the benefits of data for the music industry and for musicians. [26]

Nevertheless, the growing reliance on data has also been critiqued as further evidence of the rationalization of culture. [27] Philip Napoli argues that the growing ability to collect and analyze data indicates "a persistent rationalization of audience understanding," in which creative producers and the media industries they work in have become "increasingly scientific and data-driven." [28] Indeed, there is some research that demonstrates that musicians may be tailoring or "optimizing" their music and activities to what these metrics tell them. [29] To the extent that this occurs, it is an example of what some scholars have called "the metricated mindset," whereby "the quantities presented by the metrics – and the anticipation of popularity expressed – privilege certain types of social action and guide behaviour in digital space." [30]

As different as "data evangelists" and more critical commentators may seem to be from each other, it is interesting to note what is shared by both sides: both assume that data will be directly used to make decisions. They only differ on the question of whether this is desirable or not. Empirical research on musicians and music industry stakeholders however indicates that the reality is much more ambivalent. Baym et. al surveyed and interviewed professionals from a wide variety of music-related industries and roles, including musicians. [31] Their findings suggest that music professionals employ data such as performance metrics in a manner that is in fact "complicated and highly varied." As they put it:

[M]usic workers do not take metrics on faith or reject them out of hand; rather, they make

sense of them, deploy them strategically, and narrate their meanings to give themselves

rationales to make investments and predictions and to persuade others to do so. [32]

Baym et al.'s results do not make a distinction between music artists and other professionals within the music industry. There are no doubt important differences between how and why a concert promoter, an employee at a record label, and a musician understand and employ metrics for their work. However, their findings broadly echo what I have found in my interviews with musicians.

Metrics and Musicians: Our Research

Our work has focused on how musicians understand and use their performance metrics. Interviews were conducted in different countries and in different time periods over the course of the past five years. I conducted seven interviews with Dutch musicians in the Netherlands and 12 interviews with musicians in South Korea. Two trained research

assistants conducted a total of 22 interviews with musicians from Finland (4), the United States (2), Ireland (1), Norway (1), Switzerland (1), the United Kingdom (1) and the Netherlands (12). [33] The overrepresentation of interviewees from the Netherlands can be explained by the location of the interviewers and the qualitative sampling strategies (purposive sampling and snowball sampling) adopted in this research. In total we interviewed 27 male and 14 female musicians. The age of the interviewees ranges from 23 to 66 and included a wide range of genres – from rock, to pop, electronic dance music, country, and hip hop.

Given the relatively small sample, in what follows I will not attempt to compare genres, genders or countries of origin in regard to the focus topic. Instead, drawing from some of these interviews I will reveal the often intimate and always complicated relationship artists have with their metrics. For the most part, I have found that music artists do not either categorically accept or reject metrics. Thus, I argue that we can best understand the influence of metrics not through a simplistic linear effects model but rather as the outcome of a complex and ambiguous process of sense-making. But how can we conceptualize this more complicated and ambivalent way that metrics pervade the lives of music artists?

In what follows, I will employ the analogy of the prism to describe the influence of metrics on musicians. While Big Data is sometimes represented as a flashlight that illuminates dark corners and facilitates the exploration of greater efficiencies, critics warn that we risk being "blinded by the light." The argument I am making here stays with the analogy of light beams and rays but adds the object of the prism to describe the twin processes of refraction and reflection that take place. It is my contention that this analogy provides a framework through which to more accurately convey how the "light" of performance metrics impacts and influences musicians.

2. Refraction

While the pervasiveness of performance metrics is obvious, it is not always clear what these metrics actually mean. What should the ratio of likes to views be for an emerging artist in comparison to a popular artist? Is a Facebook video view equal to a YouTube view? How many track skips on Spotify are acceptable? How do you compare metrics across genres? Within the music industry there is little agreement on how to assess success or compare artists through performance metrics. As scholars have long recognized, the challenge of Big Data is not in storing data, but in "figuring out how to make sense of it." [34]

However, musicians themselves are not passively waiting for someone else to make sense of their performance metrics. My interviewees have described in detail how they figured out which metrics to pay attention to, and which to ignore; what actions gained them more followers; and how to weigh disparate metrics.

Some musicians described how they try to contextualize the metrics they receive on different platforms. A Dutch country music singer-songwriter remarked that he makes a distinction between the ratio of likes-to-views on Facebook and likes-to-views on other platforms like YouTube. As he put it: "I think there's a difference between really watching a video (on YouTube) and just scrolling over it and it starts playing (on Facebook) because that's counted as a view too." [35]

Here, this artist is pointing out how different platforms encourage and measure engagement differently, and how any attempt at commensuration between platforms needs to recognize this distinction. Thus, even if we accept that performance metrics illuminate and provide insights into how listeners respond to an artist and their music, it is important to recognize that the "light" these metrics provide is always refracted through the prism of the platform's interface. Musicians must then begin the interpretative process of sensemaking, [36] often by reassembling these refracted rays of light through the work of commensuration. [37]

How any one particular artist makes sense of their metrics is of course highly dependent on several variables. For example, different music acts will have contrasting goals and measures of success. Not every band or artist aspires to have a charting single, and many actively resist mainstream success. How an artist justifies their response to their performance metrics is dependent on contrasting sets of principles, rules and criteria they might employ. Following the French sociologists Luc Boltanski and Laurent Thévenot, we could call these *orders of worth*. [38]

Social life is marked by conflicting and contrasting evaluative regimes or orders of worth. In their book *On Justification: Economies of Worth,* Boltanski and Thévenot identify six orders of worth that shape how people evaluate and justify their actions and decisions. Each order is characterized by its own logic and system of value. For example, the "industrial order" is based on the principles of efficiency and productivity in the workplace, while the "civic order" is based on the principles of rights and duties. We can think of each of these order as a "repertoire of legitimate principles of justification which people can use in situations with contested values." [39]

When I asked musicians how they relate, make use, and make sense of their performance metrics, they responded in ways that tended to correspond with several of Boltanski and Thevenot's six orders. Some music acts interpret and justify their performance metrics through the order of worth that resembles Boltanski and Thévenot's order of "fame", whereby "worth depends only on the opinion of others." [40] For example, I interviewed a popular Dutch DJ who performs as part of a duo that compose both instrumental club tracks and tracks with vocals. When I asked him whether, and to what extent, the stream counts and other metrics generated by his music help him make creative decisions, he remarked, "We want to keep our output diverse, but we also want to make another hit…You just see it in the amount of views or plays, that a vocal track gets more traction." [41] Mentioning that he was about to release a new vocal track later that same week, this musician said that he expected the song to perform better than a previous instrumental

track.

In a similar manner, “Min Joon” – a Korean EDM producer – reflected on the influence that stream counts have on the music that he subsequently creates:

I think it can be said that it has some influence. Because if I said that I worked on 10 different styles of songs and uploaded them, some of them might have low play counts and some might be really high. Even in my case, if I look at the songs I put on my SoundCloud, there are tracks that are around 500 (streams) on average. And the most-played song was played about 10,000 times… When I show the difference in numerical value like this, I can clearly see the data on which style people prefer among the songs I work on. (I ask myself) ‘The song went well, but should I do it this way?’ So, it seems to have an impact… [42]

These exchanges capture what is probably assumed to be the most common lens through which to see metrics – as straightforward measures of relative popularity. However, most musicians I interviewed rejected popularity as the dominant measure or order of worth. As “Rosa” – a trip-hop artist – expressed: “I think the danger is that you change your music into what people want to hear, and I don't want to do that. But I think a lot of people do that.” [43]

The drummer of a band that was signed to Sony Music at the time of our interview described how metrics can invade the creative process of making music. This musician pointed to the “hyper self-awareness” that results from paying too much attention to metrics and other forms of online feedback. He saw this as potentially paralyzing for a creative artist. Describing some of the musical acts in his local scene he remarked:

[T]hey're too reflective inside of the creative process…[T]his is something you see a lot within the artists I know. They are very aware and very occupied with all these different questions and feedback loops that I guess were initiated by the feedback that social media gave them. [44]

As we can see from these quotes, artists make value judgements about how metrics are used, and how they *should* be used. In doing so, they implicitly or explicitly compare one order of worth with another. Metrics thus can be evaluated quite differently depending on the order of worth one employs to establish meaning. Finnish pop singer “Elsa” provides a very clear example of this:

I’ve been kind of deliberately trying not to think or inspect those numbers too much because it takes my focus out of the actual doing. After all I’m an artist and not a business person, even though I make a product which is branded and marketed and all…. But I want to keep the art and musicianship as a priority, so I think it’s a good thing to protect myself from those things. Even though it can be quite difficult because you see so much data all the time without even wanting to. So, I don’t want to dig into it any deeper than I already see. [45]

Here we can see Elsa attempting to contrast what Boltanski and Thévenot call the “inspired order” (which is closely associated with artists) with the “market order” of business people

selling branded products. Many of the artists I interviewed made this same distinction in articulating their position on performance metrics. In doing so, they are expressing the familiar sentiment that metrics are corrupting. This is because metrics are often associated with the market or commerce, and as Keith Negus and Michael Pickering put it "[c]ommerce corrupts creativity and leads to compromise." [46]

Boltanski and Thévenot did not mean to imply that these different orders of worth were mutually exclusive: rather they interact and influence each other. When the artists I interviewed attempted to justify the actions and decisions they took in regards to performance metrics, they often drew upon multiple orders of worth at the same time. This is not surprising. Artists have always received feedback from fans, critics, their peers, and others. For career musicians this has often meant making strategic decisions about what feedback to acknowledge and what to ignore, while balancing the romantic notion of art for art's sake with the need to build a fanbase. The proliferation of performance metrics – and access to these metrics – has only amplified this struggle.

However, it is clear from the interviews I conducted that musicians are rarely "blinded by the light" of metrics. Instead, they judiciously apply various evaluative orders of worth through which to understand and justify how they will respond to performance metrics. To the extent that we can say that metrics influence musicians, this influence is always the result of a process of sensemaking that emerges out of the imposition of evaluative orders. The analogy of the prism helps us to conceptualize how these various orders bend or refract the "light" of metrics.

3. Reflection

If the prism analogy reminds us that performance metrics are always refracted on their path to the receiver, there is also a second manner in which this analogy is productive. This comes from the recognition that light which passes through a prism is not only refracted, but also reflected.

The artists I interviewed often used their metrics to reflect upon themselves and their self-image. In other words, musicians see a reflection of themselves through their performance metrics. In this sense, metrics don't tell you what *to do* so much as tell you *who you are.* These numbers are thus very intimate and personal for musicians – sometimes *too* personal. Irish singer "Olivia" remarked:

It's hard not to take it personally if some video you just put up just tanks and doesn't connect at all. I think that affects me more as a solo artist than it did with a band because it is just me, and it's under my real name. So, it's very hard not to take that personally. [47]

Just as we might be disappointed by the reflection we catch of our ourselves as we pass by a window or mirror, Olivia reminds us that metrics are not always flattering. While significant attention has been paid to the abuses and harms caused by social media

comments, [48] metrics provide feedback that is seemingly less personal, and thus less hurtful. However, the apparent objectivity of numbers is precisely what makes them so effective as seeds for self-doubt: performance metrics cannot be so easily dismissed as the errant rantings of an isolated individual. As one musician admitted to me, "I'm not really insecure a lot, but . . . I'm a bit insecure by these numbers." [49]

Internet scholar Nancy Baym describes metrics as shaping the "sense of self-worth and professional value" of individual musicians. [50] A Korean indie pop guitarist and songwriter I interviewed opened up to me about the self-doubt that can creep in after releasing an album and getting the first wave of feedback:

Working on real music is something that takes a long time. For example, if you were to prepare 10 songs for a full-length album, it was an album that you had to prepare for a whole year to release… (but) the moment I visually check the data, I start to think that the things I've been doing aren't good enough**.** [51]

This sense of worth and value is always developed relationally. In place of any objective measure of success, musicians generally evaluate their own performance by comparing their metrics to other artists. Indeed, the very existence of metrics, as Wendy Espeland and Stacy Lom point out, "make it almost impossible not to compare." [52] The authors of a recent report on British musicians' mental health and well-being write, "social media [is] often the vehicle through which [musicians] observe the achievements of others, and . . . compare their own fortunes to that of their peers and competitors." [53] In addition, musicians "compare themselves to a version of themselves which they imagined they might be." [54]

Of course, such comparisons may also reflect favorably from time to time. "Hank" – a singer-songwriter based in the Netherlands – revealed that he was quite happy with the spike in his Facebook metrics that followed his performance on De Wereld Draait Door – a Dutch talk show that has a live music segment:

We got around 400 likes that first day, on Facebook, from 1,400 followers. That's a good score! I saw other bands that have, like, 14,000 followers on Facebook and they played the same show and got 300 (likes), or something. [55]

Here Hank is determining the "success" of his performance through comparison to his peers. The fact that his ratio of likes-to-followers was higher than another band that played the same show is judged to be a "good score" and sufficient evidence of a successful performance. But this was not a "fair" competition: pleasure is derived, and success is defined in relation to the asymmetry of the competition. As Hank continues: "It was also a pleasant surprise because you kind of feel like the underdog, with less likes than some other bands who are much bigger and have four or five times your spread, and then you're able to beat them on the same stuff." [56]

Metrics from streaming and social media thus offer a seemingly objective reflection of where you stand in relation to other artists. This is particularly ground-breaking for

musicians in countries where there has traditionally been a dearth of official statistics available for musicians. In his research amongst hip-hop musicians in Kyrgyzstan, Florian Coppenrath talked to a veteran rapper who was quite enthusiastic about the changes that streaming platforms had brought about: "I am telling you, we entered the game, so to say, for the first time… I know how many times the album was downloaded, how many times it was listened to. I will know how much I earned." [57]

For this rapper, as for many others in music economies in which piracy and informal distribution previously dominated, having access to metrics about music consumption for the first time provides a sense of certainty in a highly uncertain field. As streaming metrics grow a feeling of progress emerges. More accurately, these metrics provide an indicator of *quantitative* progression, regardless of the whether there is any change in the *quality* of one's music. Nevertheless, in my research I heard from musicians who became more psychologically motivated by simply seeing their views or streams increase from day-to-day.

Through the metrics provided by streaming and social media platforms, musicians are able to watch the drama of their own success or failure unfold in real time. In doing so, metrics turn musicians into an audience of themselves. It is thus through performance metrics that a musician comes to know themself as a performer – and to see themself as a competitor within a field of competition. As Erving Goffman observed in a different context, "the performer comes to be his own audience; he comes to be performer and observer of the same show." [58]

However, the real-time availability and pervasiveness of performance metrics can also cause some to feel like they are trapped in a hall of mirrors. As one artist remarked: "It makes you very passive…that your belief in yourself as an artist just depends on the appreciation of people, and not just people, but clicks and likes, and numbers." [59] Several musicians I interviewed described how overwhelming these numeric reflections of the self were and they expressed a desire to escape this hall of mirrors. However, they also uniformly admitted the difficulty of this task. Ignoring metrics, it seems, is even harder than not reading one's reviews. They often described how seductive dashboards like YouTube Analytics or Spotify for Artists have become. "Nobody has the discipline not to look at their streams," laughed the Finnish singer "Elsa". [60]

As we can see from the selected quotes above, musicians *are* influenced by their metrics, but this influence is complicated and ambivalent. Metrics more often appear to result in processes of self-reflection and social comparison rather than in practices of optimization and strategic decision-making – such as deliberately tweaking a track to make it more "streamable." I thus argue that it is important to consider how performance metrics reflect back at musicians, like light reflecting back from a prism, and the effects this may have on self-identity and well-being.

Conclusion

This chapter contributes to broader discussions aboutthe risks and unintended consequences of the increased availability and use of data in the music sector. I focus on a particular and highly prevalent form of data – online performance metrics. Through social media platforms and streaming services music artists perform for their audiences. In turn, the metrics generated by these performances are important determinants of career viability in an increasingly data-driven music industry.

The purpose of this chapter is to better understand how musicians relate to their metrics and to nuance discussions surrounding how performance metrics influence music artists. How can we conceptualize the influence metrics have on musicians? In the attempt to answer this question, I offer an analogy for understanding the complex and contingent influence of performance metrics in the music sector.

Datafied feedback in the form of performance metrics influence artists – but rarely in a direct or uncomplicated manner. While we can no doubt find evidence of musicians who exhibit a "metricated mindset," most musicians, most of the time, do not slavishly follow what their performance metrics tell them. Instead, metrics exert influence in a far more ambiguous or enigmatic manner. The analogy of the prism is employed to better understand this process. Prisms both refract and reflect light and I argue that we can conceptualize performance metrics as light that is both refracted and reflected on the way to the artist. This analogy is offered to counter the simplistic notion that datafied feedback in the form of performance metrics should be understood as a beam of light that travels straight from the source to the subject with no mediation.

Just like light beams that pass through an optical prism, performance metrics are refracted as they pass through a variety of interpretive prisms. These prisms engage artists in the work of sensemaking. Performance metrics also reflect back on the musician. As they follow the real time change in their streams, plays, or views, metrics turn musicians into an audience of themselves. In doing so, metrics compel musicians to see themselves in a new light.

This analogy presents us with a more complex and ambivalent picture than provided by either critics of "metric power" or proponents of Big Data. It also hopefully provides an opportunity for researchers to begin to empirically explore the sensemaking practices and personal experiences of interacting with performance metrics in diverse musical fields, cultures, and contexts.

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