

# The State of **Music** **Sharing** 2021

Examining the daily challenges  
of sharing digital audio files  
and streams within the  
music ecosystem.

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# 01. Introduction

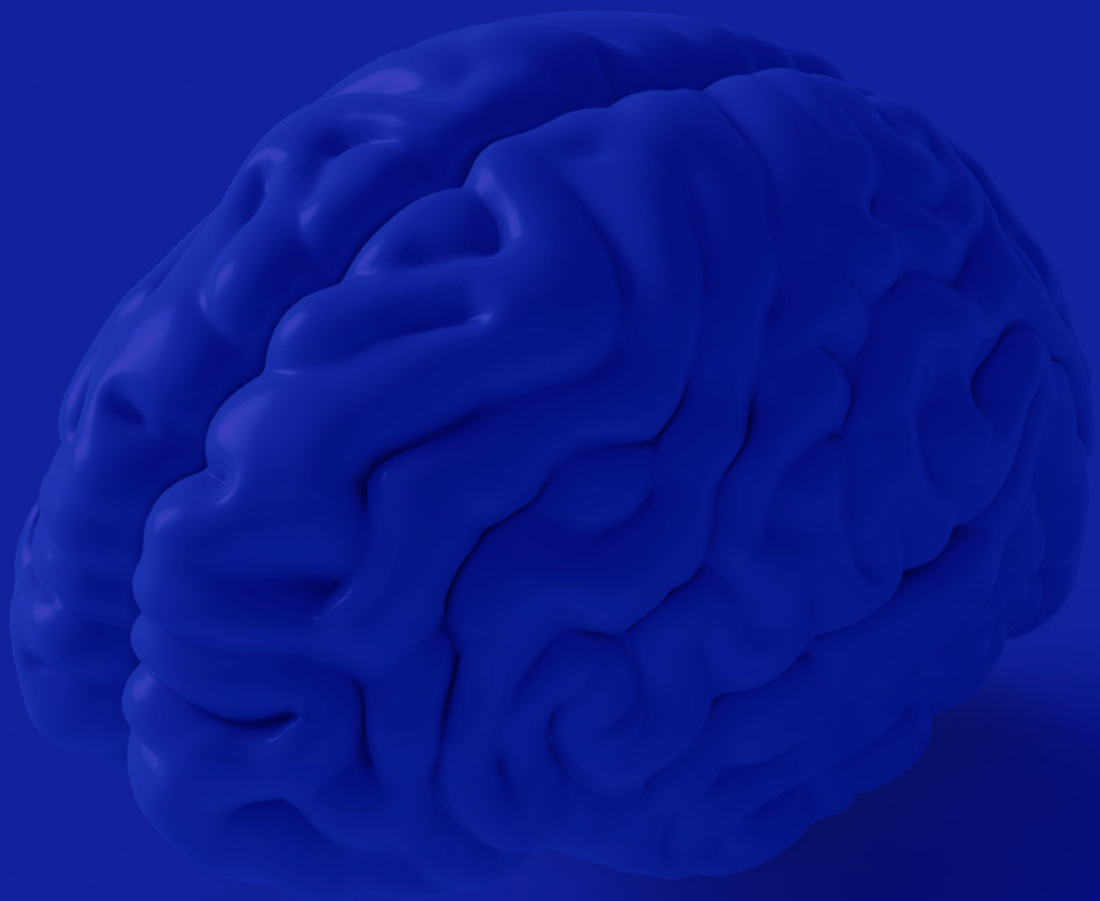


**In the world of music, few practices are more widespread than the sharing of digital audio files and streams. Whether you're a professional musician, a casual hobbyist or one of the countless people working behind the scenes in the industry, it's a near certainty that part of what you do involves sending or receiving files—and in many cases, both.**

At the same time, the execution of file sharing is anything but uniform. Numerous platforms exist, all of which have their own particular quirks, benefits and drawbacks. Users select these platforms for all sorts of different reasons, but even when they're using the same tools, they're often not used in the same way. Everyone has their own needs and preferences, and as such, their own set of frustrations about how file sharing tends to work.

If you get a few music professionals together in a room and ask them about file sharing, they'll quickly start rattling off complaints about everything from poorly designed interfaces and wobbly security measures to inconvenient file formats and missing metadata. In casual conversation, it's easy to write these hurdles off as trivial, but given their ubiquity, they shouldn't be so easily dismissed. These roadblocks are numerous, and they gum up day-to-day workflows throughout the music world, costing people time, opportunities and money.

# 02. Objective



**Despite these limitations, there's been little concerted effort to elevate discussion beyond the level of informal gripes between colleagues.**

To many, the problems with the current file-sharing status quo—and how best to remedy them—may seem obvious, but it's difficult to make concrete assertions, let alone actionable suggestions, when practically zero data has been formally collected.

So many questions need to be answered, many of them basic:

- What platforms are people using?
- How do they prefer to send and receive files?
- Do they pay for file-sharing services?
- How do any of these things correlate with their various roles in the music ecosystem?

In many cases, the unfortunate answer is, *"we don't know."*

The industry needs something better, and that's why Byta has elected to take action. Earlier this year, we conducted a wide-ranging, academically crafted survey of musicians and music professionals from around the globe. Collecting and compiling information was our starting point, and by analyzing survey responses, we've sought to build a coherent, data-backed snapshot of the larger file-sharing landscape. And after examining that snapshot, we've then attempted to properly diagnose some of its inherent challenges.



# 03. Methodology



**To capture a high-level understanding of common trends and use cases along with more nuanced insights from individuals, we chose a mixed-methods approach that combines quantitative and qualitative methods for data collection and analysis.**

Most of the survey was quantitative, comprising closed-ended questions with multiple choice or rating-scale answers, which provided fixed, empirical results from the numerical data. The qualitative elements consisted of three open-ended questions at the end of the survey for which respondents could write in their own textual responses, and semi-structured follow-up interviews with six of the respondents.

## Survey Metrics

The survey call for participation was distributed through music association newsletters, industry contacts and social media feeds, with an estimated 5000 people contacted directly and another 10,000 reached peripherally. The popular platform [SurveyMonkey](#) was used to administer the survey online, and a total of 284 valid responses were received and included in the analysis.

It is difficult to estimate exactly how large the music industry is globally; however, reports from the United States, UK and Canada show that nearly two million individuals are employed in the music industry in those three countries alone.<sup>1</sup> A standard calculation is used to evaluate the reliability of the survey findings (that is, how accurately the views of the respondents reflect the overall opinions of the total population), which is expressed as confidence level and margin of error. For a total population in the millions, our sample size of 284 provided a confidence level of 95% and margin of error of 6%, which fall well within the recommended range for survey quality.<sup>2</sup>

<sup>1</sup> See reports for the [United States](#), [United Kingdom](#), and [Canada](#).

<sup>2</sup> For more information on calculating survey reliability, see the [SurveyMonkey Margin of Error Calculator](#).



# 04. Survey Population



Before we could begin our analysis of file-sharing practices across the music industry, we first needed to know who our respondents were, which is why we began each survey with a series of demographic questions.

These inquiries also helped to ensure that our respondents were sufficiently representative of the music industry at large. Several of these questions focused on respondents' roles within the industry, which break down along the following lines.

Roles of survey participants

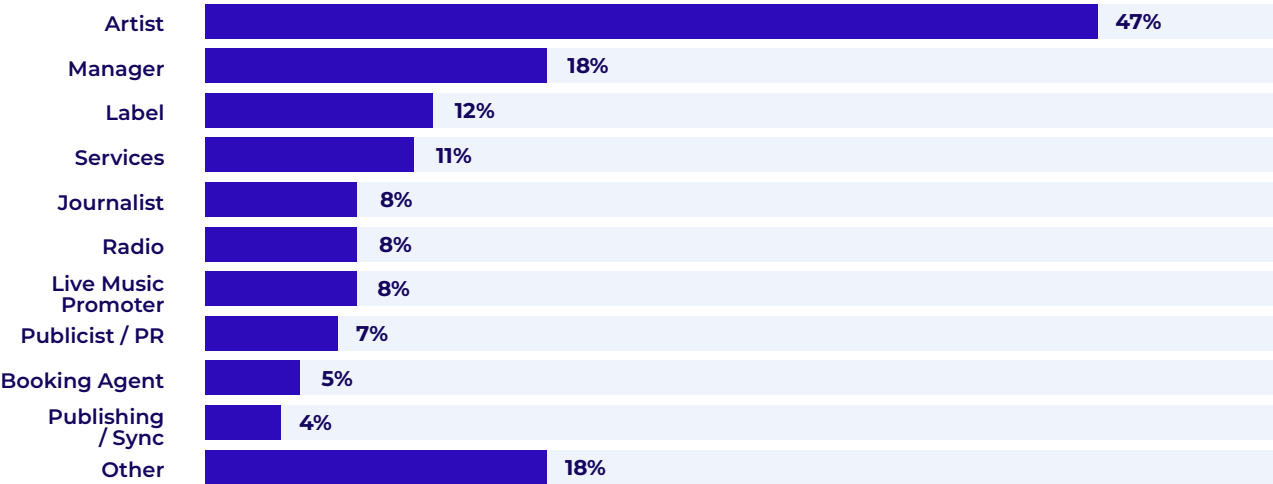


Fig. 1: What best describes your role(s)? Multiple selections were allowed.

Single vs. Multiple Roles

Nearly half of all respondents identified as an artist, and more than 25% of the survey population holds two or more roles within the industry. In our one-on-one interviews, some respondents spoke of "wearing two hats," and mentioned that depending on what role they're occupying at the time, how they share or receive files differs significantly.

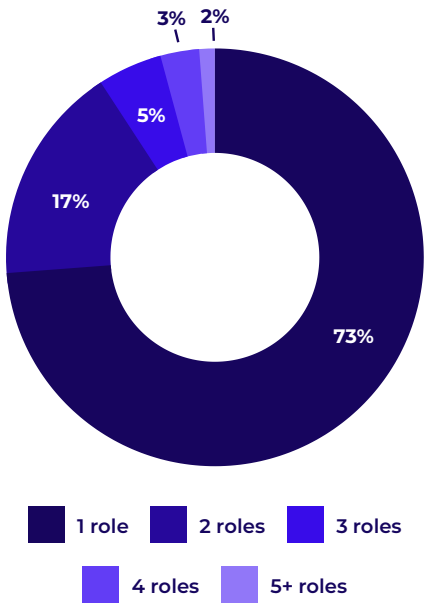


Fig. 2: Number of roles selected by each respondent.

## Age Groups

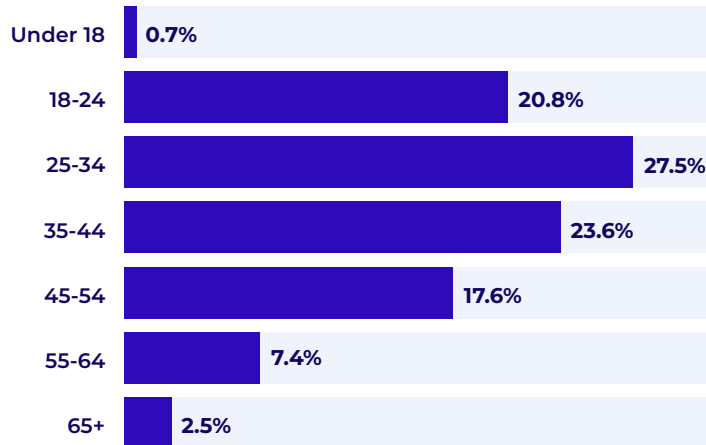


Fig. 3: Age groups of respondents.

In an effort to see whether file-sharing practices correlated with age, we asked each respondent how old they are. On this question, the survey population breaks down as follows.

## Genres

We also wanted to see if there was any relationship between genre and file-sharing practices, so we asked each respondent to select the primary genres that they work with. The list of genres was sourced from [allmusic.com](http://allmusic.com), and respondents were permitted to make multiple selections.



Fig. 4: Primary genres respondents play or work with.  
List of genres taken from the online music database [allmusic.com](http://allmusic.com)

# 05. Definitions



**As we started our analysis, we realized that it would be useful to group similar users and platforms into larger categories. These categories are outlined below, and will be used throughout the rest of the report.**

## User Categories

Survey respondents have been grouped into three separate categories: **Non-Artists**, **Artists** and **Artists/Other Roles**. According to these groupings, our survey population breaks down as follows:

### Roles Classification

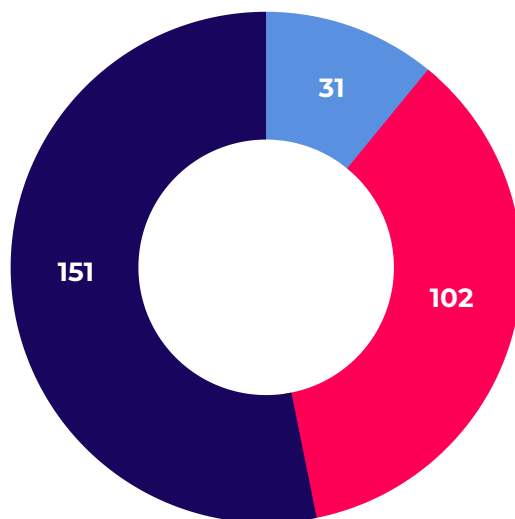


Fig. 5: Classification of roles between artists, artists who also work in other roles and non-artists. Numbers indicate total respondents for each segment.

#### ● Non-Artists

The music-industry professionals. They don't self-identify as artists (i.e. they don't make music of their own), but they do hold other formal roles within the industry.

#### ● Artists

The most self-explanatory group, which consists solely of people who self-identified as such when responding to the survey. In general, their primary role in the music sphere involves the creation and performance of music, and while they may take on other duties (e.g. promotion, marketing, booking) to further their own practice, they formally hold no additional roles in the industry.

#### ● Artists/Other Roles

A group whose responsibilities are mixed. While they do operate as artists, they also have at least one additional music-industry role.

# Platform Types

There are literally dozens of file-sharing platforms in existence, several of which have been specifically designed for the music world, but rather than discussing them individually, we've grouped them into three distinct categories: Generic File Services (GFS), Artist Streaming Platforms (ASP) and professional Watermark Promotion Services (WPS).



## Generic File Services

Perhaps the most recognizable platforms, especially because their usage and adoption isn't limited to the music world. Dropbox, Google Drive, WeTransfer and iCloud all fall into this category, and at their core, they function as a sort of digital lockbox. Accounts generally aren't public-facing, but they allow users to easily send/share files (of almost any type), including to/with people who aren't also on the platform. Most GFS offer a base-level free tier of some kind, along with paid tiers that usually include additional storage and/or services.

## Artist Streaming Platforms

Specifically tailored to the music world, these include outlets such as SoundCloud and Bandcamp. Like GFS, they tend to offer both free and paid tiers, but these platforms are generally marketed towards artists and other musical entities (e.g. labels) looking to showcase their work, whether that's for promotional purposes or giving fans the chance to stream and/or purchase the music. As such, they also have a social media component, where users create public-facing profiles, follow other accounts and have some sort of feed displaying new additions to the platform.

## Watermark Promotion Services

Also tailored to the music world, these include platforms such as Disco, PromoJukeBox and FATdrop. Of the three categories, WPS are the most specialized, and are largely intended for servicing music to journalists, DJs, radio programmers, music supervisors and anyone else who needs to evaluate new and upcoming releases. As such, they usually have a built-in option to collect recipient feedback, and also offer increased security measures, whether that's watermarking, user logins or something else. Given their professional orientation, WPS are generally paid services, with no free user tier.



# 06. Platforms and user behavior



## I. Which platforms are being used, and by who?

At the most basic level, the platforms being used most are the ones that cost the least. More than 90% of survey respondents use free file-sharing platforms, and that percentage holds steady for artists and non-artists alike.

### Free / paid services and platforms

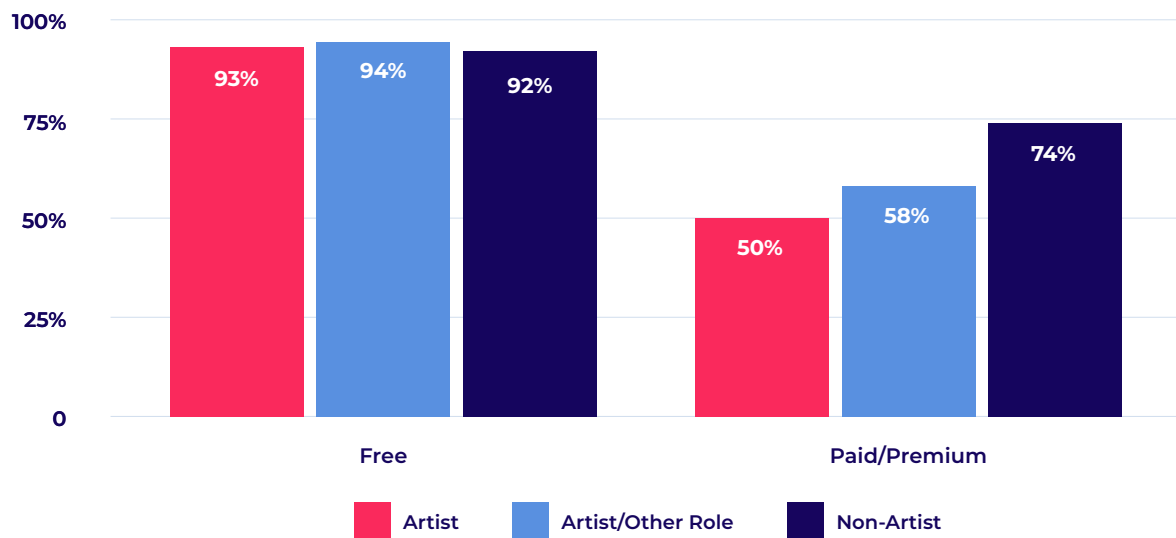


Fig. 6: Use of free and paid/premium services by role classification (artist, artists working in other roles and non-artists).

That being said, at least half of respondents in all user categories do pay for some sort of file-sharing service, and that percentage jumps significantly amongst non-artists surveyed.

## Types of services and platforms used

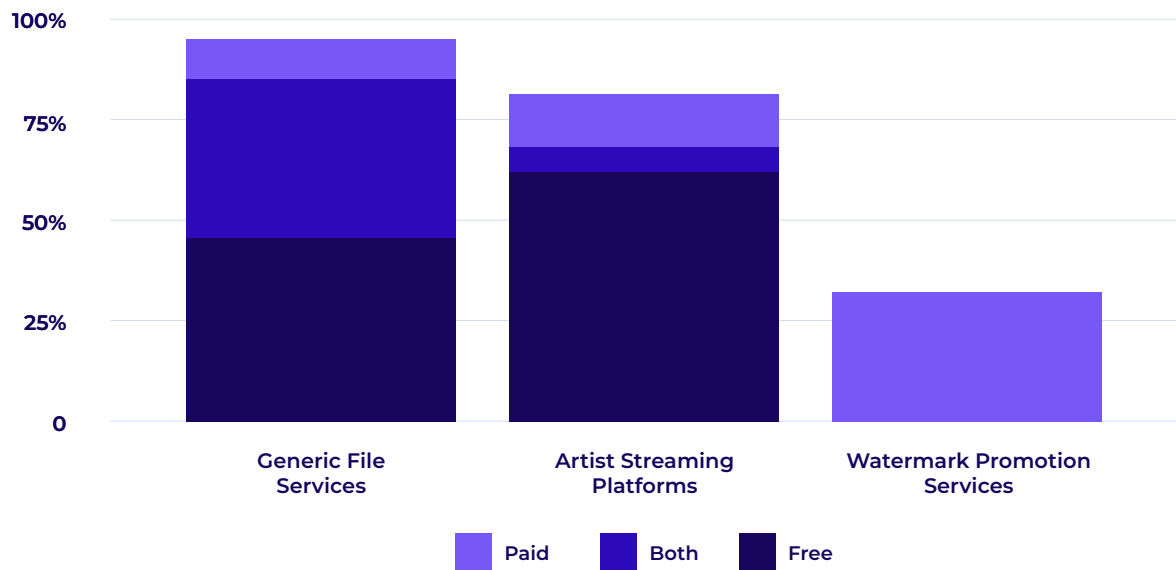


Fig. 7: Percentage of participants who use the three primary types of services and platforms. The bar segments indicate users of free, paid, and both free and paid tiers of services.

Breaking responses down by platform type, it's evident that the more general-use GFS platforms are the ones users are most likely to pay for, followed by WPS and ASP.

## Classes of services and platforms used

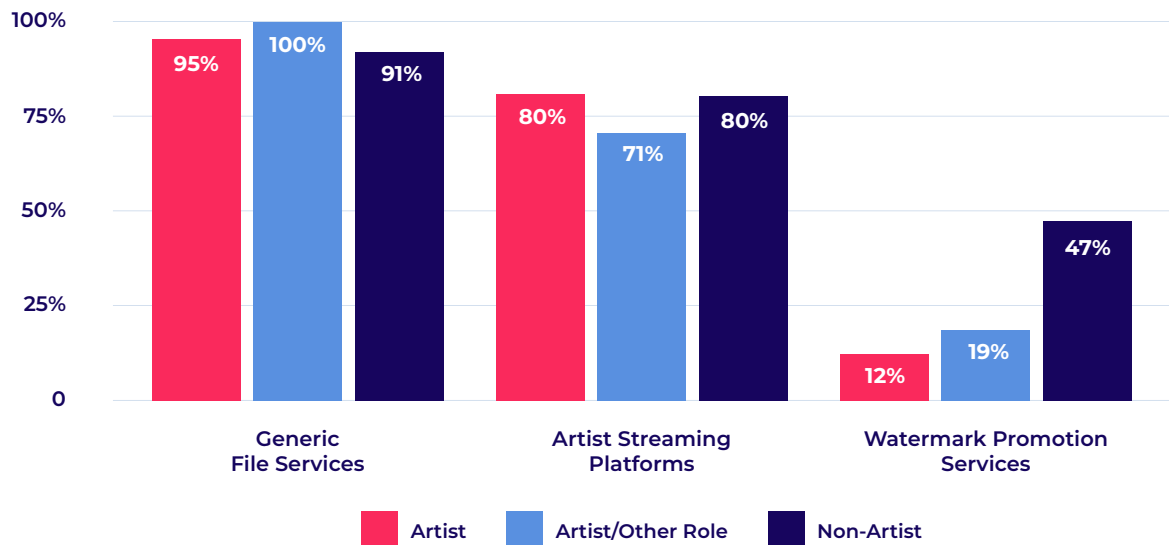


Fig. 8: Use of the three difference classes of services by role classification (artists, artists working in other roles, and non-artists).

Looking at each platform type by user category, the more specialized and professionally focused WPS are four times more likely to be used by non-artists than artists. (Artists surveyed use WPS in relatively low numbers.) Other platform categories, however, show less of a disparity, with GFS usage being almost universal amongst all survey respondents and ASP usage approaching 80%.

Nevertheless, while respondents in particular roles do tend to gravitate towards certain types of services, few of them limit their file sharing to one platform in particular.

## Average number of services used

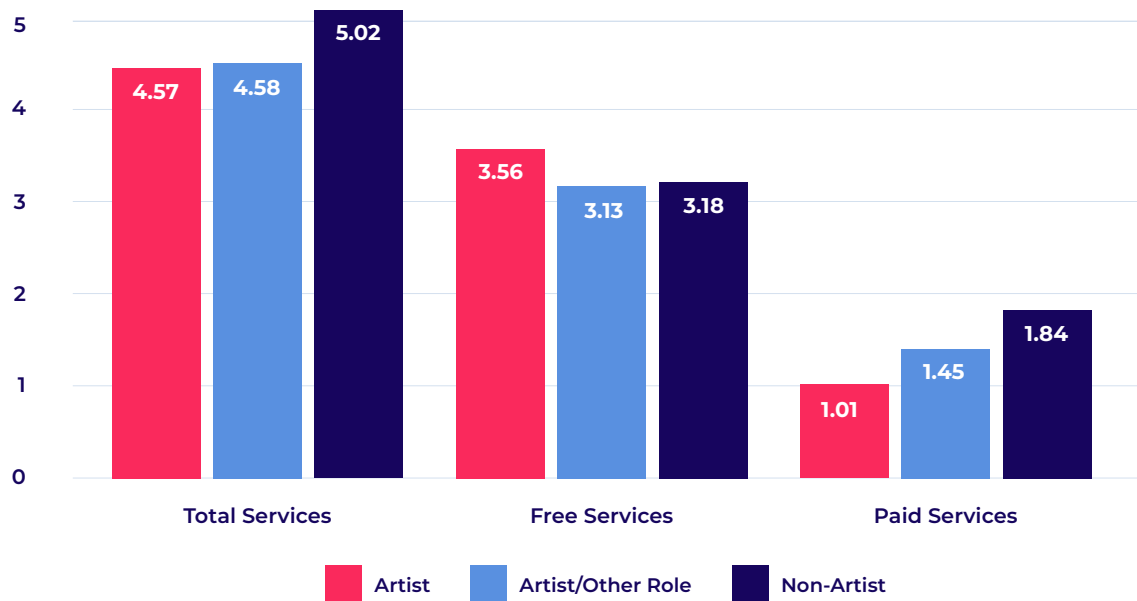


Fig 9: Average number of services used per respondent, broken out by role (artists, artists w/ other roles, non-artists) and by free and paid services.

Across all categories, survey respondents use an average of four to five different file-sharing services. One survey respondent summed up the situation by saying:

**“All of us use everything. If we could just use one service, that would be fantastic, but the world isn’t really doing that.”**

Flexibility has become a necessity, and though there’s a strong preference for free platforms—especially amongst artists, half of who only use free file-sharing services—the use of paid platforms is relatively widespread.

## How are platforms being used?

It's clear that file-sharing services have been widely adopted throughout the music sphere, but what they are used for on a day-to-day basis varies widely.

### Primary use by role classification

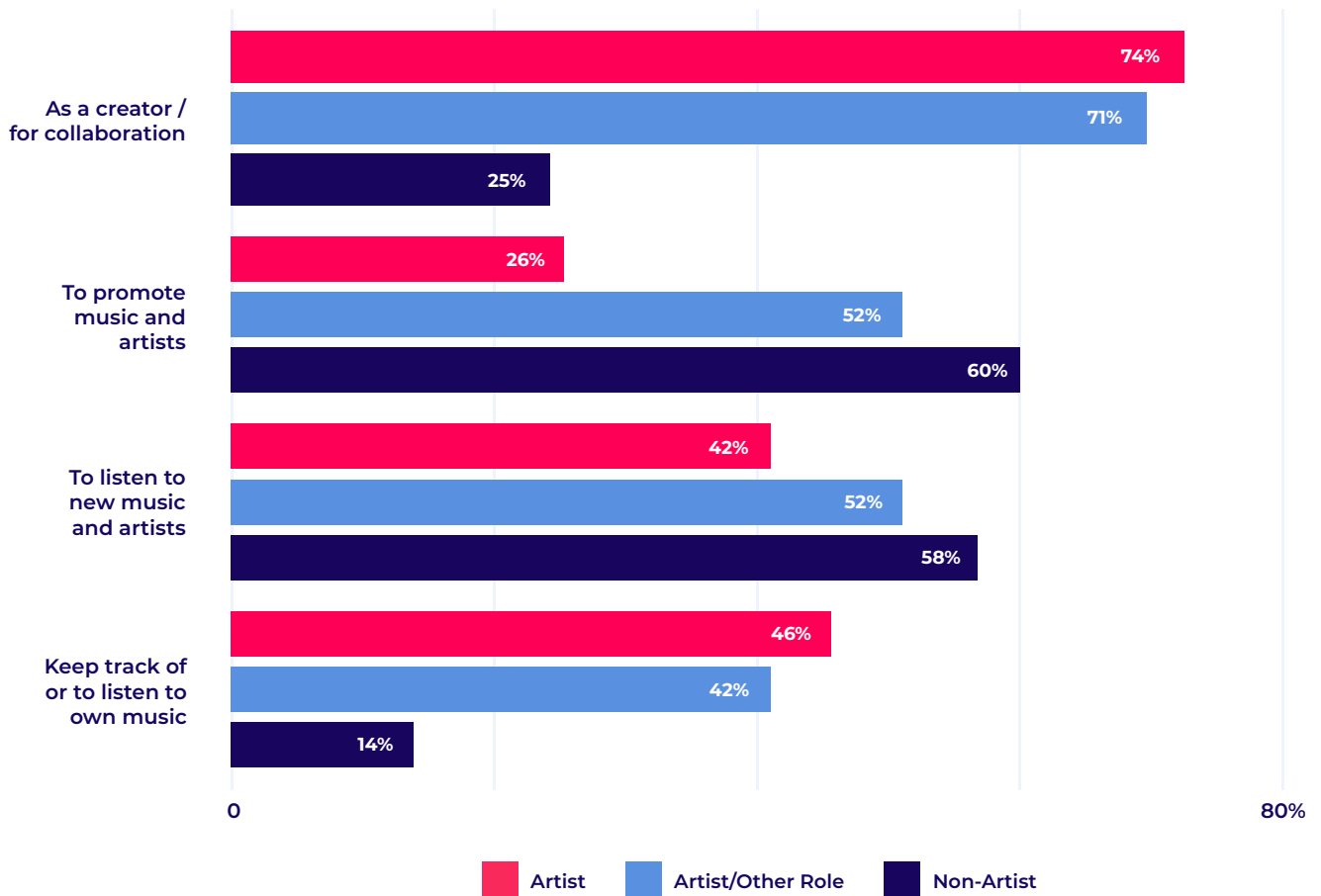


Fig. 10: Primary usage of streaming services and platforms (multiple choice, multiple answers accepted).

Artists are far more likely to primarily use file-sharing services for creation, collaboration and organization purposes, while non-artists tend to utilize these platforms for promotion and the review/discovery of new music.



## II. Sending and Receiving

At the most basic level, there are two sides to file sharing: **sending** and **receiving**. And when it comes to pre-release audio files, the responses to our survey make clear that at the individual user level, sending and receiving are frequently out of sync.

## Sending and Receiving, all respondents

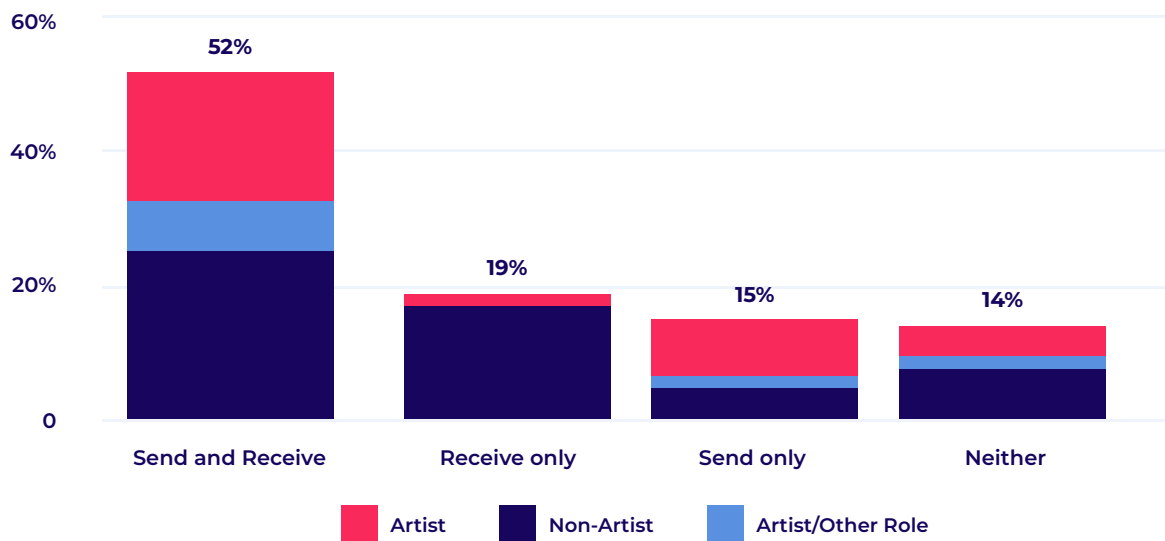


Fig. 11: Percent of total respondents that send or receive audio files pre-release.

More than half of all respondents both send and receive files, and while the “send only” and “receive only” camps are significantly smaller, they do highlight a key schism between artists and non-artists. The former are far more likely to only send files, while the “receive only” group is almost entirely populated by non-artists.

## Send or Receive by role

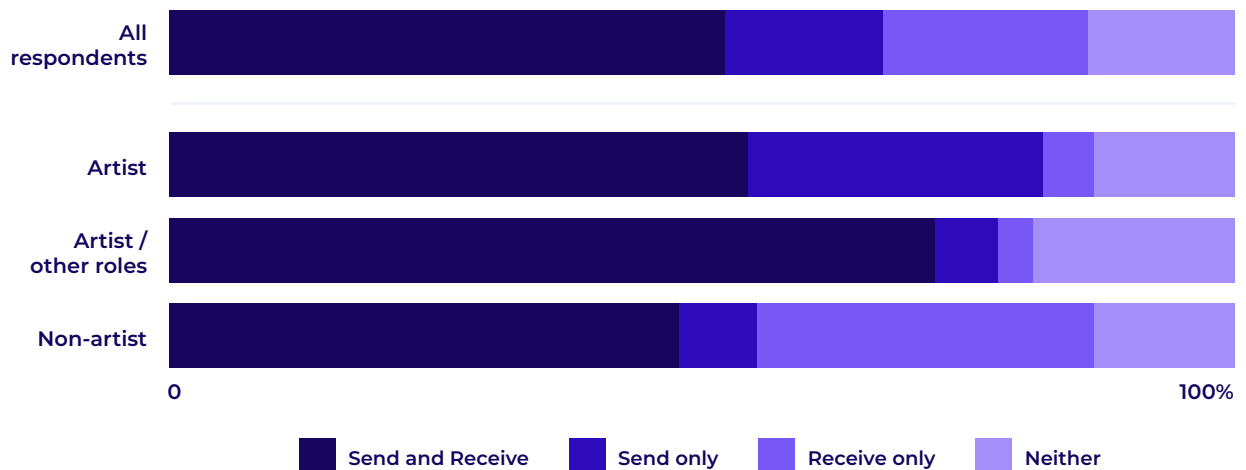


Fig. 12: Sending and receiving breakdown by role.  
(The top “All respondents” bar corresponds to Fig. 11)

## Sending

Survey respondents who send files are sending them to a wide variety of recipients.

### Who do senders send to (percentage of all senders)

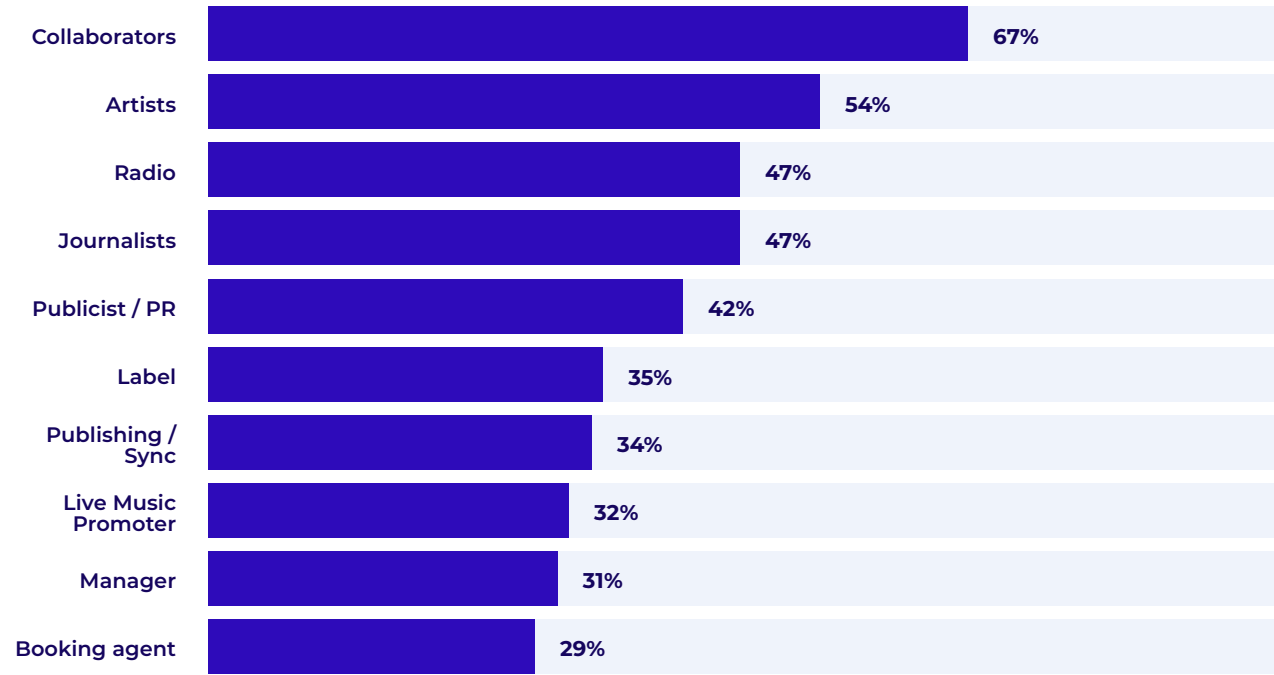


Fig. 13: Recipients of shared audio files from senders.

## Who do senders send to (percentage of sender role)

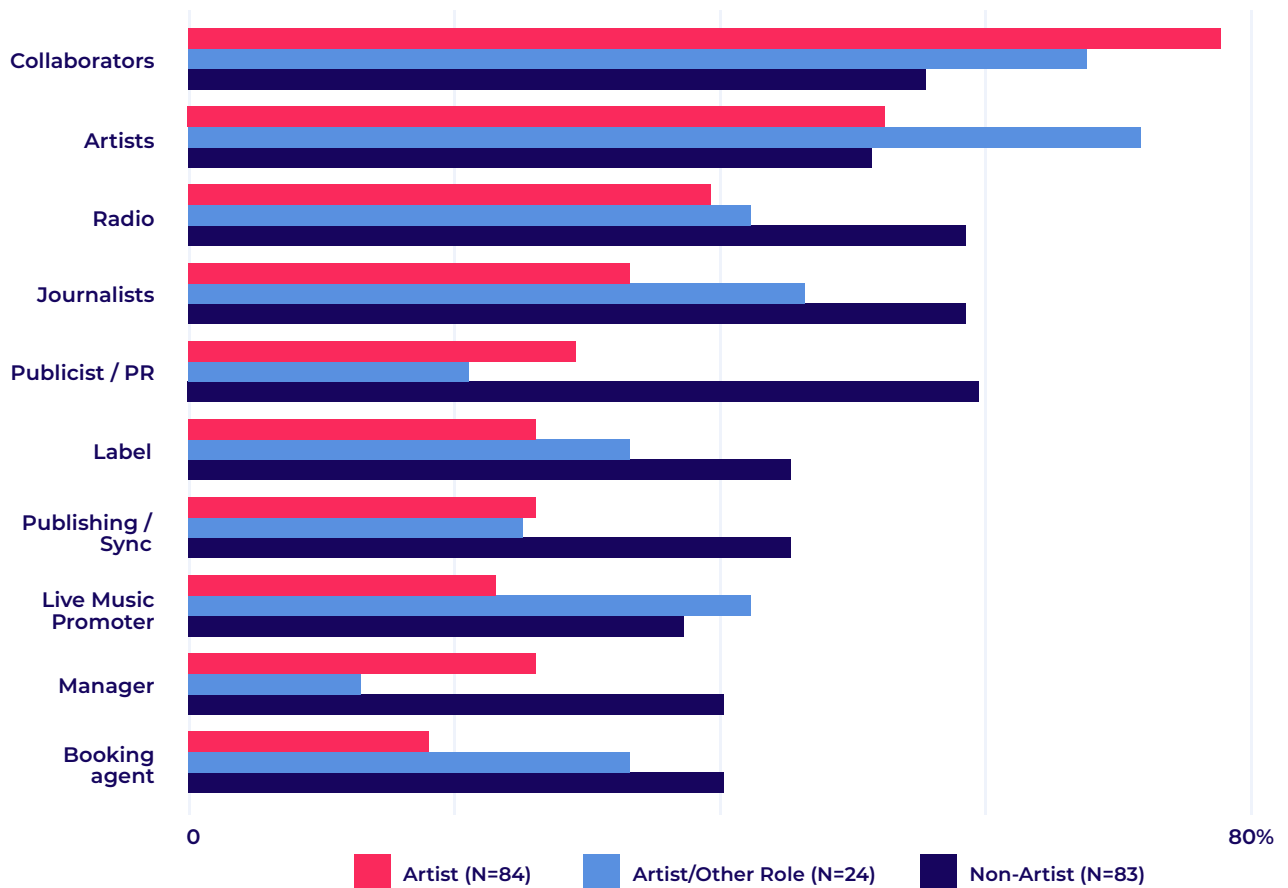


Fig. 14: Recipients of shared audio files from senders (by role).

Digging deeper into the numbers, the discrepancy between artists and non-artists becomes even more evident. More than half of artists surveyed send pre-release audio files to other artists and collaborators, but those percentages drop significantly when it comes to other groups within the music industry. Simply put, artists are most likely to send files to each other—rarely are they sending files directly to radio, journalists, labels, publicists, booking agents, etc.

The non-artists surveyed, on the other hand, are much more likely to send pre-release audio files to all sectors of the music industry. Like artists, they do frequently send files to artists and collaborators, but they are actually slightly more likely to regularly send files to radio, journalists and publicists. And when it comes to other professional/industry groups, such as labels, publishing, live music promoters, managers and booking agents, non-artists in the survey report sending them files at approximately twice the rate that artists did.

# Receiving

Survey respondents who receive files are receiving them from a wide variety of senders.

## Who do receivers receive from (percentage of all receivers)

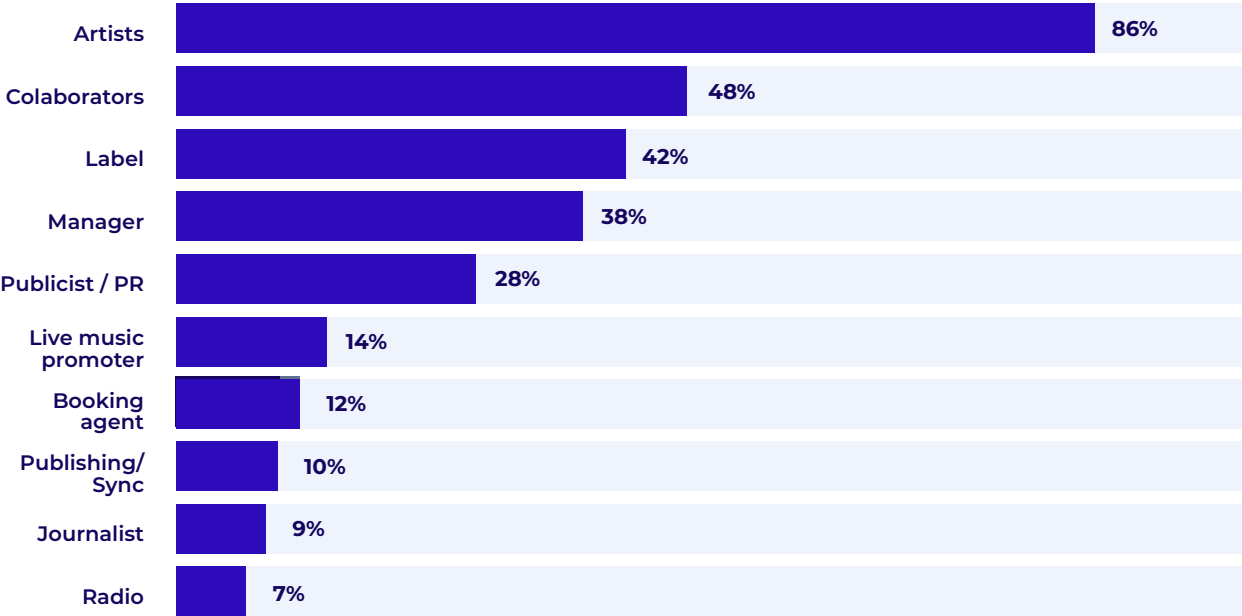


Fig 15: Senders of shared audio files to recipients.

## Who do receivers receive from (percentage of receiver role)

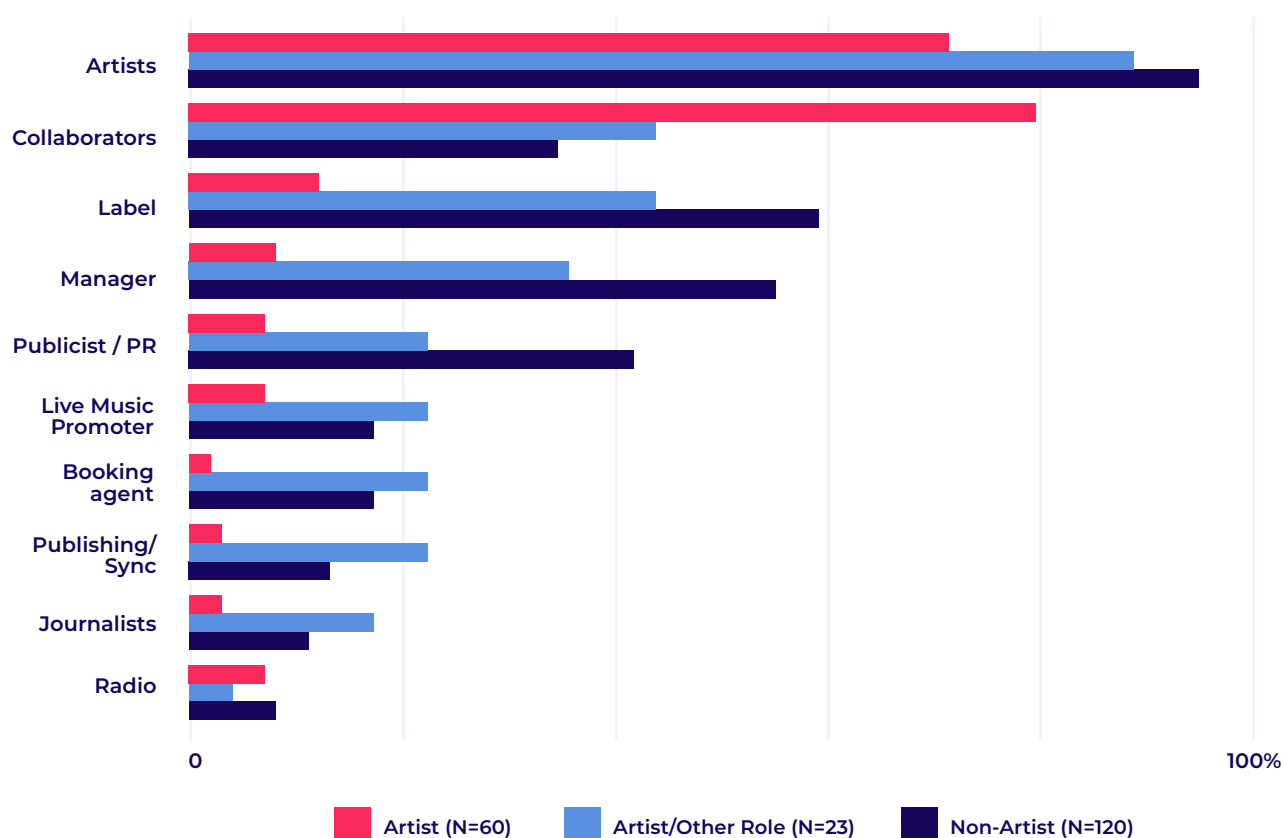


Fig 16: Senders of shared audio files to recipients (by role).

Looking at the data, it's clear that the non-artists represent the largest group of receivers, and the pre-release audio files they're being sent are coming from a wider array of senders. Nevertheless, when survey responses are broken down between artists and non-artists, the differences previously seen in the groups' sending behavior largely hold up. The artists surveyed are mostly receiving pre-release audio files from other artists and collaborators, while only a small fraction of them are receiving files from other sectors of the music sphere.

The receiving picture for non-artists is much more varied. Nearly 100% of them report receiving pre-release audio files from artist senders, and a significant percentage of non-artists surveyed also receive files from labels, managers and publicists. And though the overall receiving numbers are low from certain senders in the music sector (i.e. live music promoters, booking agents, publishers, journalists and radio), the pre-release audio files coming from those groups are overwhelmingly going to non-artists.



### III. Streaming Versus Downloading

In the past, the act of sending and receiving files was limited to the transmission of literal data files, which then usually had to be downloaded by the recipient. However, the rise of streaming technology (and platforms that use it) has significantly altered the landscape.

Audio files can still be sent of course, but they can now also be shared via streaming links, giving rise to a new slate of practices (and preferences) when it comes to sharing music.

For some respondents to our survey, this plethora of options isn't an issue. One artist manager states:

**“As long as it’s in a recognizable format and easy to access, I don’t mind.”**

Not everyone is so flexible though, and our survey reveals a significant split when it comes to preferences between streams and downloads.

## Preference for streams or downloads

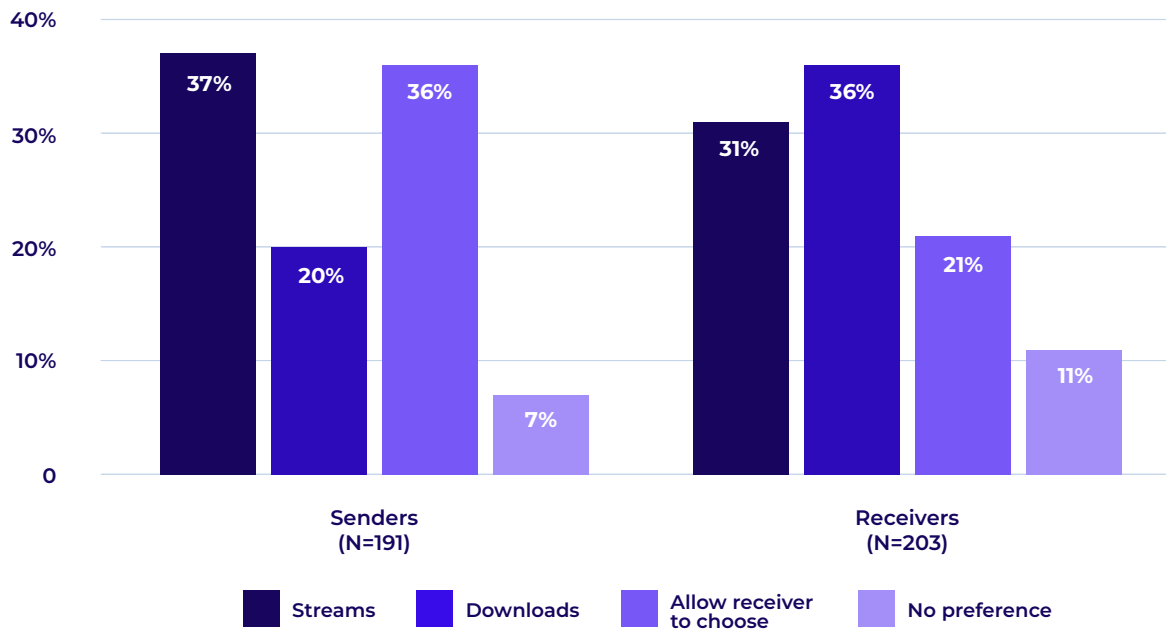


Fig. 17: Respondent preferences for sending or receiving streams versus downloads.

When it comes to pre-release audio files, more than half of senders and two-thirds of receivers in the survey specifically prefer either streams or downloads. Unfortunately though, those preferences don't quite line up between the two groups; while more than a third of receivers surveyed prefer a download link, only one-fifth of senders surveyed prefer to send files that way. (The numbers are much closer when it comes to those who prefer streaming.)

Complicating matters further is the fact that even amongst those who prefer downloads, there's no consensus about what file format is preferred. One survey respondent who works in radio states,

**“I hate it when people only send WAV files. I’m not your label/mix engineer/ etc. A 320 MP3 is broadcast quality. Please don’t fill up my computer with your large files.”**

An event manager surveyed notes similar concerns that spring up specifically in relation to classical music, saying,

**“The files are very heavy, as they are extremely long. This takes up a lot of space when downloading.”**

Age also plays a part in muddying the waters.

As one might expect, there's a notable tendency for younger respondents—senders and recipients alike—to prefer streams over downloads, while older respondents, especially those age 35 and up, prefer the opposite. The trend is particularly pronounced among file receivers, who strongly prefer downloads across all age groups, with that preference skyrocketing in the older age brackets.

### Senders: stream/download preference by age

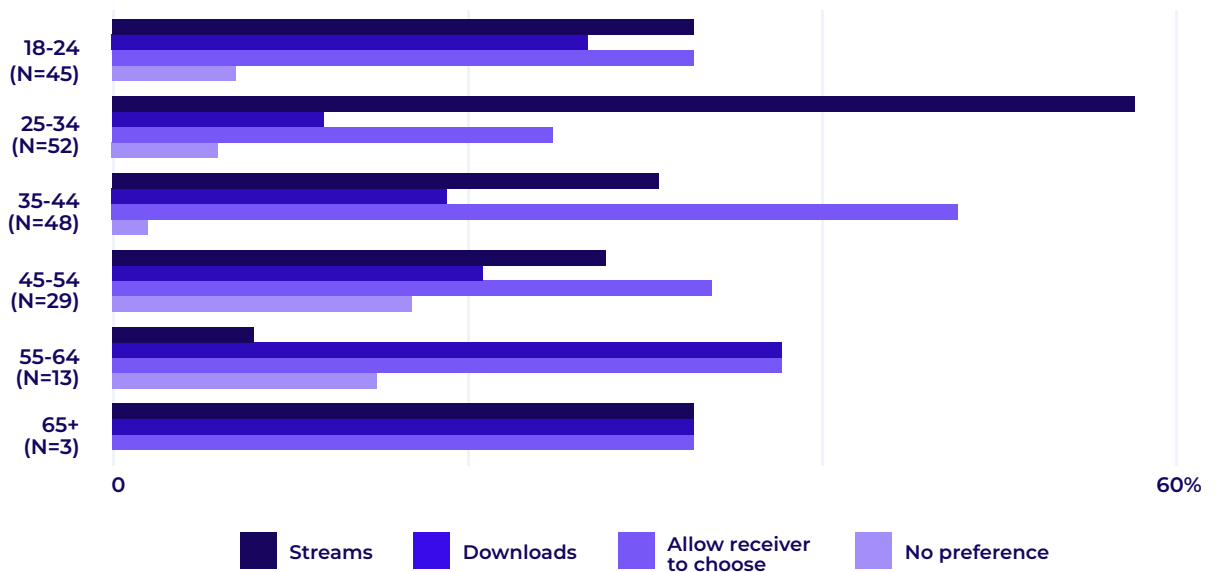


Fig 18: Preference for sending streams or downloads, broken out by age group.

### Recipients: stream/download preference by age

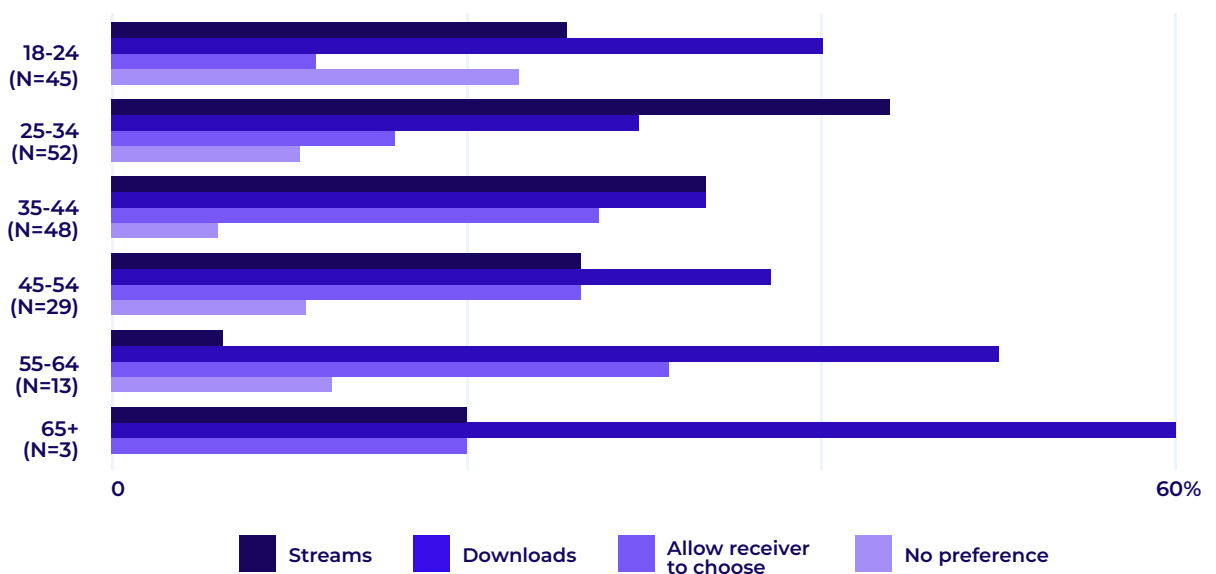


Fig 19: Preference for receiving streams or downloads, broken out by age group.

Knowing how to proceed is tricky, as one artist who responded to the survey specifically notes:

**“I’m often not sure if the receiver would prefer streams or downloads.”**

Many within the music sphere are in the same boat, and since receivers’ preferences are often unknown or unclear, it seems that many senders simply go with their own preference instead.

Another survey respondent who works as a journalist states:

**“Almost everything that comes my way comes in a different form that suits the sender, rather than those receiving files.”**

Given users’ shifting preferences and the lack of an agreed-upon industry standard, it would seem that the most prudent course of action would be to send both streaming and download options (i.e. allowing the recipient to choose). More than a third of senders surveyed do go that route, but amongst the recipients we surveyed, only 21% of them actually prefer to be given a choice. As stated earlier, a full two-thirds of receivers surveyed have a specific preference for either streams or downloads. They’re not concerned with pre-release audio files being sent in a way that makes the most sense for the most people; on the contrary, what they want is that files are sent in a way that matches up with their own personal preferences.

# 07. User Priorities and Frustrations





## Selecting a platform

**As previously discussed, cost does play a major role in determining what platforms people in the music sphere elect to use, but it's not the only factor influencing their decisions.**

Free options are plentiful, but almost all of them come with limitations (e.g. size and storage limitations, subpar user interfaces, functionality deficits). With more than half of survey respondents paying for at least one file-sharing service, we asked what else they take into account.

## Considerations when choosing services (1 - 5)

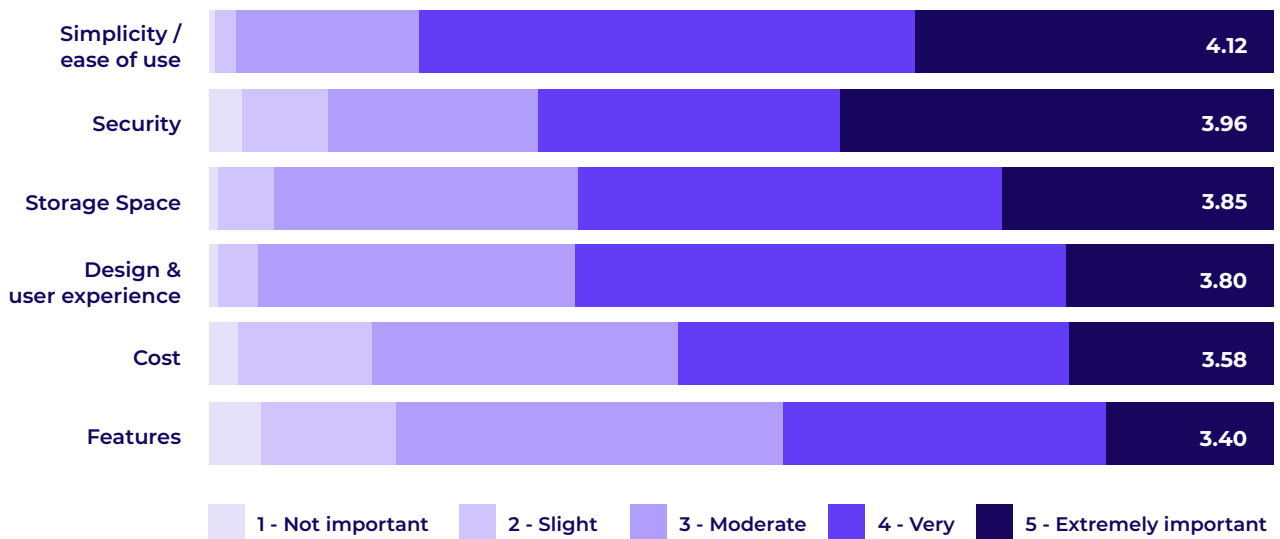


Fig. 20: Sender ratings of considerations when choosing file sharing services. Respondents rated each item from 1 (not important) to 5 (extremely important). The average rating for each item is shown on the far right.

Security and storage space are clear priorities, but more than anything, survey respondents want something that's simple and easy to use. A journalist who completed the survey writes:

**“I strongly dislike anything which adds layers to being able to click through and listen.”**

An event organizer/talent developer feels similarly, decrying:

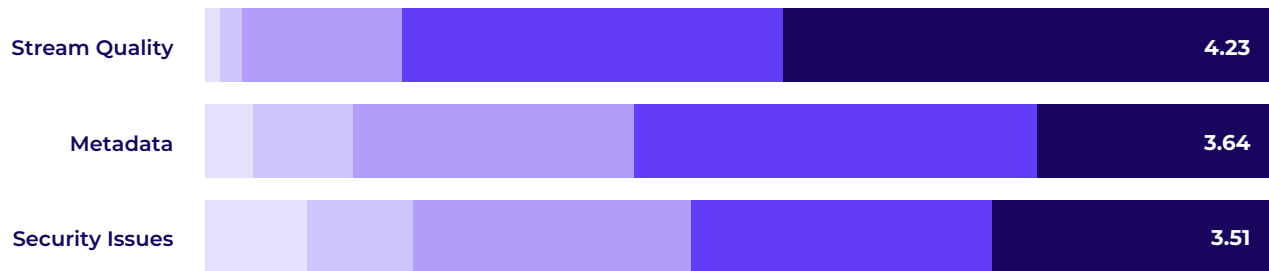
**“...anything which complicates the process, such as having to create an account.”**

They're not alone: more than three-fourths of respondents list simplicity and ease of use as factors that are “very important” or “extremely important,” a number that dwarfs all other factors—including cost.

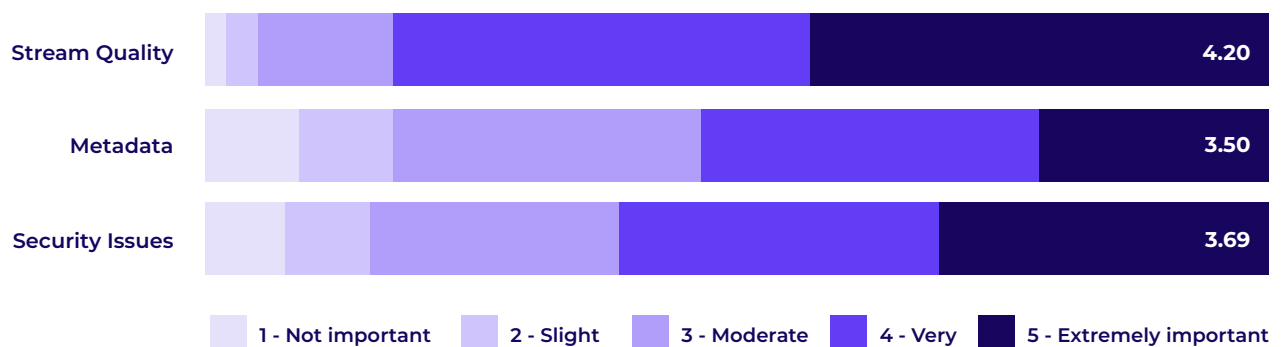
## Sending and Receiving

When respondents are asked specifically about sending and receiving files, the list of user priorities (and frustrations) expands a bit further, centering around three main issues: stream quality, metadata and security.

### Most important issues when sending



### Most important issues when receiving



Figs. 21 + 22: Respondent ratings of most important issues common with file sharing services.

For senders and receivers alike, stream quality is the top priority. Some survey respondents use words like **“poor”** and **“appalling”** to describe the audio quality on some free streaming platforms. There’s a concern that recipients of these subpar streams won’t be hearing the music properly, a situation that’s far from ideal when the evaluation of music can affect live bookings, syncs, radio/press coverage and an artist’s general potential for success.

As for security—a topic that includes everything from watermarking functionality to protection from potential piracy—its prioritization makes sense considering that file sharing often revolves around pre-release audio files.

As one artist surveyed says:

**“If I’m going to be sending things constantly to people around the world, I want to know that it’s not going to the wrong people, and that it’s not going to be easily transferred into the wrong hands.”**

Then there’s metadata, an issue which generated some of the most impassioned responses to our survey’s open-ended questions. One respondent, who works in radio, puts it simply:

**“Metadata is often all over the place, and file types are a mixed bag of MP3s, WAVs and FLACs.”**

A college radio program director adds, “If you’re taking WAV files, you don’t have any metadata to work with. You have to add that manually. With MP3s, it’s so haphazard when it comes to how people add their own metadata, and you always have to fix it. If you have a batch of 10 albums, you inevitably will have to fix five of them.”

# 08. Key Takeaways



## 1. **User behavior is highly personalized and context driven.**

In the absence of standard practices, users—many of which have notably different roles and responsibilities—are piecing together workflows that fit their specific preferences, using a combination of platforms with the exact functionalities they need. In this environment, loyalty to a single file-sharing platform is impossible, particularly when most users are both sending and receiving files on a regular basis. That alone breeds flexibility, as recipients continuously come into contact with files that have been sent in differing formats via a wide variety of platforms, while senders must contend with the preferences of their recipients (which frequently don't match up with their own). Navigating all of this is challenging, and gives rise to all sorts of frustrations but it also creates a potential opportunity, as any file-sharing platform that shows a similar sense of flexibility, allowing users to tailor services to align with their own personal needs, is bound to make significant headway in the marketplace.

## 2. **Flexibility is important, but functionality is an even bigger priority.**

Faced with a complex and ever-changing file-sharing landscape, simplicity is what users crave most, as they prioritize ease of use well ahead of all other factors, including security and even cost. Simply put, no one wants to get bogged down in the navigation of a file-sharing platform, no matter how many different bells and whistles it offers.

## 3. **Users want what they want.**

When it comes to file sharing, the most logical course of action would be to make as many formats available as possible for recipients. When surveyed, however, a majority of receivers say that they don't actually prefer to be given a choice. They want files to be delivered in a way that aligns with their own personal preferences.

4.

## **In the streaming versus downloads debate, there is no correct answer.**

Although trends indicate that preferences may be shifting, there are currently entrenched camps that specifically need either streams or downloads. Again, users want what they want, and for those that fall into these strict streaming or download groups, being sent files in the “wrong” format (i.e. one that doesn’t line up with their own preferences) is a source of major frustration.

5.

## **Paid file-sharing services shouldn’t be seen as a niche corner of the market.**

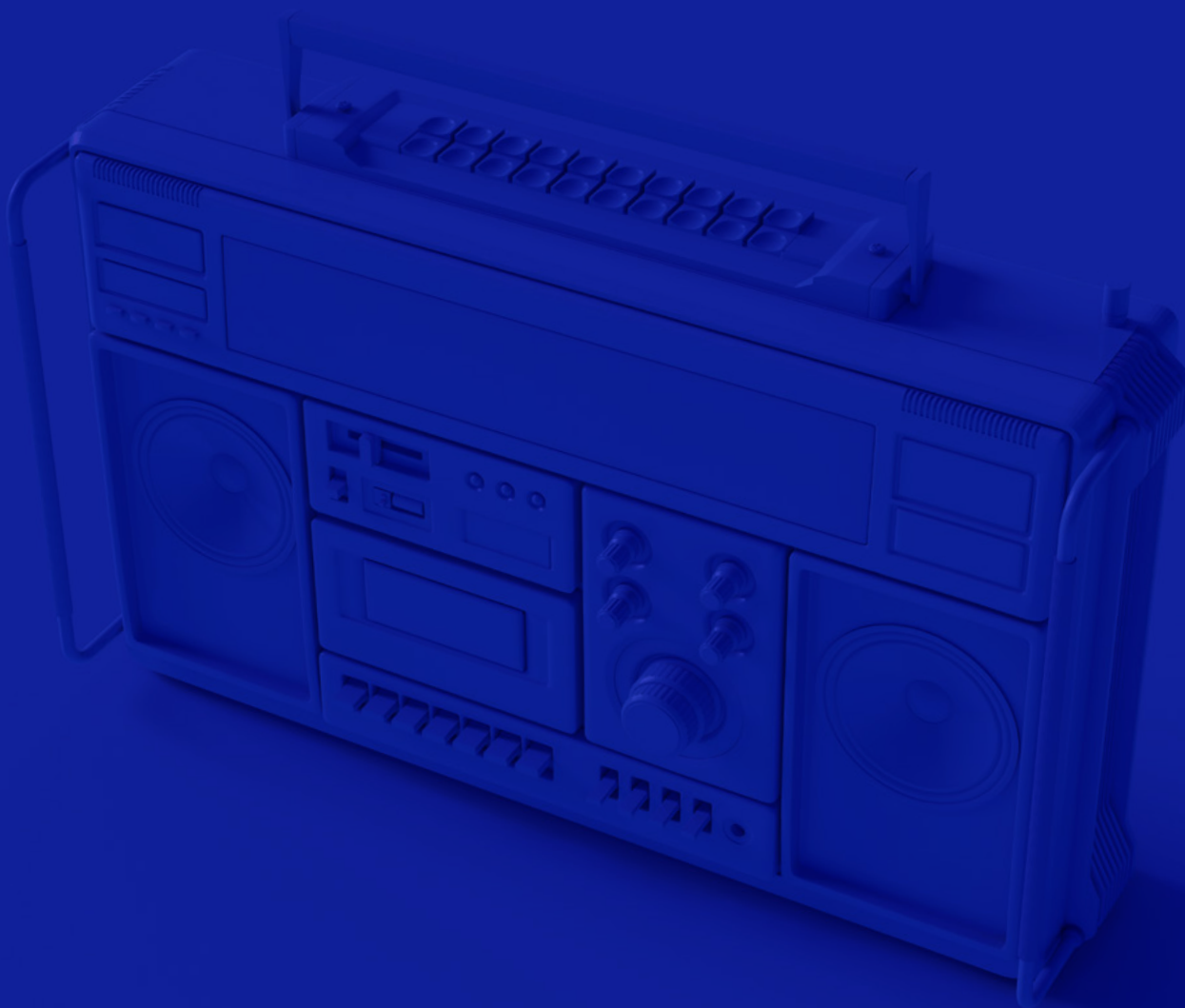
Although usage of free platforms has become practically universal, more than half of survey respondents—in all categories, including artists—pay for at least one platform. Amongst non-artists (i.e. music-industry professionals), the numbers go even higher, with many of them also paying for specialized, pay-only WPS platforms.

6.

## **Security and metadata also rank high on the list of user priorities, and frustrations, regarding the latter tend to rile up more emotional responses than nearly every other issue.**

The practical concerns of missing/incomplete/incorrect metadata are obvious (e.g. missed opportunities, misdirected royalty payments, etc.), but on a day-to-day level, users have little patience for files that can’t be easily identified. In a fast-paced music environment, no one wants to be forced to play detective or become a data-entry drone.

# 09. Next Steps





**Our survey was designed to help us ascertain the current state of music sharing, and after looking at the results, it's clear that the status quo is complicated, to say the least.**

When it comes to file sharing, there are no “industry standard” platforms or practices, and even users with similar roles will often have different approaches, needs and frustrations. Although a few trends are already visible—particularly when it comes to streaming versus downloading preferences, which users are paying for what kinds of file-sharing services and an overriding demand for functionality above all else—this survey is ultimately just the first step in what ought to be a much longer process. Gaining a more complete understanding of what's happening—and what users need—is something that will absolutely require additional research.

File sharing affects the entire music industry, and with any luck, the data we've collected will help to kick-start a conversation that's long overdue.

# 10. The Authors





## Shawn Reynaldo

Shawn Reynaldo is a Barcelona-based freelance writer and editor, and is also responsible for First Floor, a newsletter devoted to electronic music and issues affecting the larger music industry.

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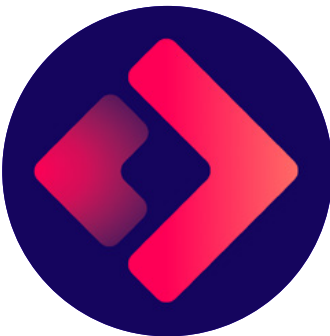


## John Sullivan

John Sullivan is musician and postdoctoral researcher working in the fields of music technology and human-computer interaction at McGill University in Montreal, Canada. His research investigates how musicians interact with new technologies, which he explores through user surveys, participatory design workshops and applied design collaborations.

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## Byta

This whitepaper was commissioned by Byta.

Byta is unrivaled in taking advantage of the unique properties found in audio files. By simplifying the reading and writing of file metadata, conversion of file formats and delivery of fast yet secure streaming, the platform enables everyone to send and receive digital audio in a clean, simple and secure way. Byta has also launched #HowWeListen, a not-for-profit organization that compliments the company's ultimate goal: providing artists and their teams with the tools and knowledge needed to move their careers forward.

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