

Spotify: Face the Music (Update 2019)

Govert Vroom
Isaac Sastre Boquet

By March 2019, Ariana Grande's new album *Thank U, Next* had been streamed 2 billion times on Spotify,¹ not even two months after it had been released. Such figures were becoming increasingly less bewildering. After all, it was Grande's third album to reach 2 billion streams on the platform, and she was not alone. Global superstars such as Ed Sheeran, Drake and Justin Bieber routinely accrued hundreds of millions or even billions of streams of their hit songs.

Indeed, for many music fans, streaming had become *the* way to consume music, revitalizing an industry that was seeing growth rates in double digits for the first time since the 1990s. With its 96 million paid subscribers and 200 million total users, Spotify was at the top of the pile. Moreover, after a decade of Spotify struggling to find a path to profitability, operating losses had shrunk to \$48 million in 2018, down from \$378 million in 2017, while revenue had shot up to \$5.26 billion.²

Despite the encouraging data, Spotify's stock had been on a downward slope. Spotify was engaged in a bitter rivalry with Apple Music, which had become a success on its own and had reached 56 million subscribers by the end of 2018.³ Apple CEO Tim Cook claimed that Apple Music was already the top streaming service in the US music market, which was the largest in the world by revenue. Apple had announced plans to create a cultural one-stop shop that would include music, video, books and even video games. Likewise, the retail giant Amazon was already bundling music streaming with its own retail and video-streaming services.

Direct competitive threats were not the only issue for Spotify. Artists were criticizing it more for the low royalties Spotify paid since the rates were now even lower thanks to the new deals signed with the major music publishers in 2017. While those low rates were helping Spotify's quest for profitability, they risked alienating artists. Spotify's bottom line remained vulnerable. The company had just filed an appeal to the Copyright Royalty Board in the United States, hoping to prevent an increase in those royalties it paid that were independent of its deals with the majors.⁴

This case was prepared by Professor Govert Vroom and Isaac Sastre Boquet, case writer. July 2019.

IESE cases are designed to promote class discussion rather than to illustrate effective or ineffective management of a given situation.

Copyright © 2019 IESE. To order copies contact IESE Publishing via www.iesepublishing.com. Alternatively, write to publishing@iese.edu or call +34 932 536 558.

No part of this publication may be reproduced, stored in a retrieval system, used in a spreadsheet, or transmitted in any form or by any means - electronic, mechanical, photocopying, recording, or otherwise - without the permission of IESE.

Last edited: 28/6/21



Spotify's response seemed puzzling at first: less music. In February 2019, it announced it had bought two podcast companies for \$340 million.⁵ Spotify CEO Daniel Ek stressed the importance of that nonmusic gamble, saying that “audio—not just music—would be the future of Spotify.”⁶ But at that time podcasting was a very small market. Could Spotify work its magic twice, growing podcasting as it had done with music streaming? Would this be enough to strengthen its position in a market that was becoming more and more competitive?

The History of the Music Industry

The Music Industry Before the Digital Era

In 1999, the recorded-music industry was at its peak. With \$38 billion in global revenues,⁷ it was riding a wave of growth as more convenient playback media such as the CD had replaced vinyl records and cassettes. Playing CDs combined the accessibility of a small and cheap cassette player with much higher sound quality and fidelity.

Recorded music came into existence with the invention of the phonograph by Thomas Edison in 1877, which enabled sound to be reproduced using an engraved cylinder, the “record.” Recorded music would become popular throughout the 20th century with the emergence of mass media such as the radio, which brought music to millions of homes. Music enthusiasts wanted a way of listening to their favorite songs without having to wait for them to be broadcast again on the radio or television, and sales of recorded music exploded.

Soon, a new business model emerged where recording companies, called “music labels,” contracted artists to produce music for them. These labels acted as both producers and publishers, coordinating and handling the recording, manufacturing, promotion, marketing and distribution of music. The finished records were sent to final distributors (from small music stores to nationwide chains or department stores or eventually even online retailers such as Amazon), which sold them to the final customer.

Recorded music was published in albums of several tracks (usually around 10). Some would-be hit songs were released as singles, which could be sold for a lower price and were also used for promotional purposes, but the transition to compact disc (which had very similar production costs regardless of the length of the recording) reduced the sales importance of the single.

By 1999, this business model had remained undisturbed for decades. Eventually, the market had become concentrated in the so-called “big five” major labels: EMI, Sony Music, Universal Music Group, BMG, and Warner Music Group. These larger companies often also acted as the publishers of smaller independent companies, which lacked the capacity to develop effective distribution and marketing arms. This increased the major labels’ market share even further.

However, in June that year, 1999, while the recording industry was enjoying its best year ever, a group of entrepreneurs launched the file-sharing service Napster. The service allowed users to share files easily through the Internet and became the first step that would unravel the entire industry as it had been understood up to that point.

The Digital Medium and the Rise of Music Piracy

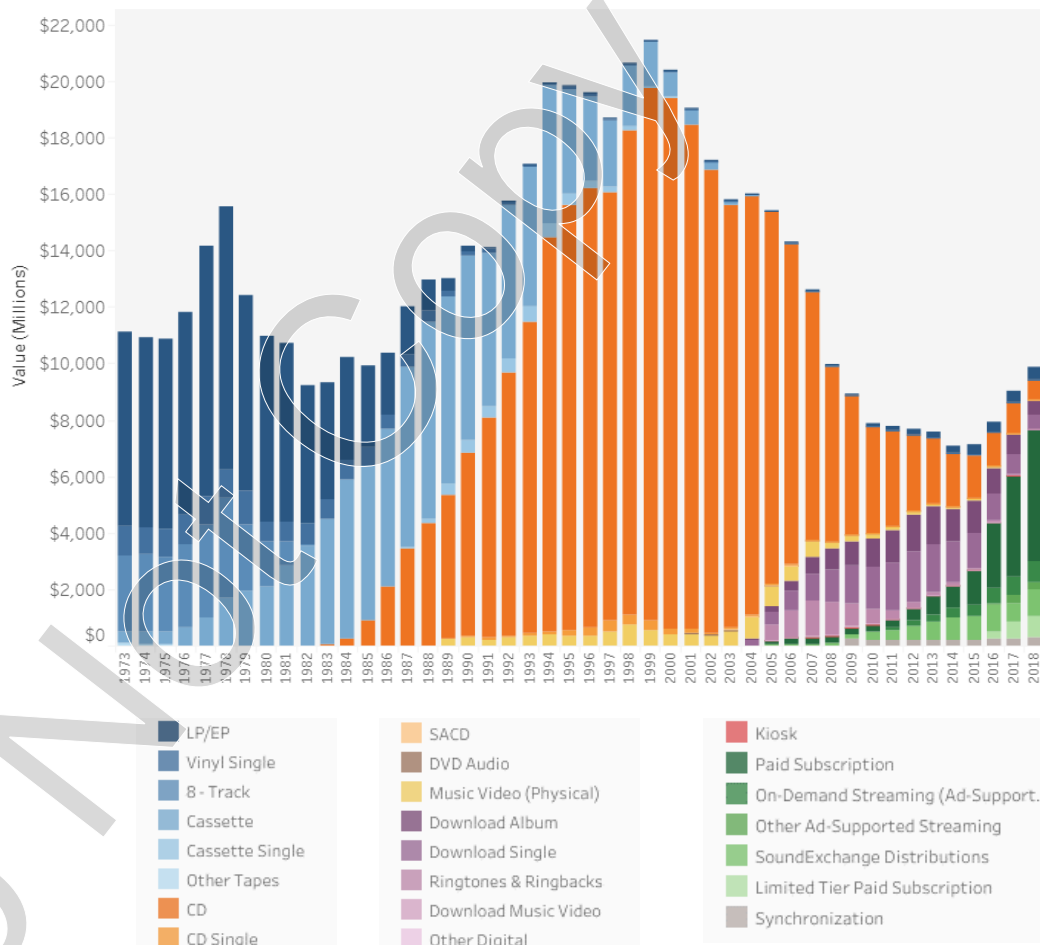
Two years later, in 2001, Judge Marilyn Hal Patel ordered an injunction against Napster, after the Recording Industry Association of America (RIAA) brought a suit against the company.⁸ Napster users had been using the service to share music in digital format illegally. In just two

years Napster had amassed 60 million users, who were swapping more than 165 million songs a day without paying artists or labels.⁹

Music sales had been falling dramatically, which had prompted the RIAA to start an intense campaign against music piracy. Yet, despite its efforts, sales would continue in free fall for years to come, reaching an all-time low of less than \$16 billion in 2011.¹⁰ In a little more than a decade, the music industry had been cut in half. **Figure 1** shows the dramatic drop in music spending per capita throughout the first decade of the 21st century, compared with the previous state of the industry.

Figure 1
US Recorded-Music Revenue, 1973–2018 (in 2018 Dollars per Capita)

U.S. Recorded Music Revenues by Format (Adjusted for Inflation, 2018 Dollars)
 1973 a 2018, Format(s): Todo
 Source: RIAA



Source: "US Sales Database," RIAA, <https://www.riaa.com/u-s-sales-database/>, accessed May 2019.



The industry, in general, blamed piracy for these lost sales¹¹ but Ek had his own opinion about what had happened:

I realized convenience quite often wins. . . . It's not that people don't want to pay for music. . . . It was the only point in time when the stolen product has been much, much better than the one you legally acquired. . . . For me it was a pretty big given why we ended up where we ended up in the music industry.¹²

What had happened? Three key developments had brought about the age of digital music:

- *MP3 compression technology.* In 1993 the Moving Picture Experts Group—the group tasked with setting the standards for digital audio and video formats—published the MPEG-1 Layer III standard for digital audio, commonly known as “MP3.” The MP3 standard reduced the size of a music file by an order of 10, while keeping a quality that was nearly undistinguishable from larger, lossless formats on all but high-end playing devices.¹³ The result was that users could rip their audio CDs, store their entire music collection on their computers, and easily share it with friends.
- *The rise of the Internet.* The Internet became available to the general public in the early 1990s and its use quickly skyrocketed. In 2000, 43% of the US population enjoyed Internet access, a percentage that rose and reached 87.3% in 2015.¹⁴ At first, most Internet connections were slow, and it took several minutes to download a single music track. However, soon faster connections were developed and offered by Internet service providers. These so-called broadband connections would eventually allow music tracks and videos to be played instantly. In 2015, it was estimated that there were 147 broadband connections per 100 inhabitants in the United States, of which the vast majority (116) were mobile connections.¹⁵
- *New devices.* These new digital formats spurred the development of a wide range of software and devices capable of creating and playing digital-music files. These devices had greater capabilities than the older analog or CD player technologies. For example, eventually a typical portable digital-music player was able to contain the user's entire music collection, rather than just the 60 to 90 minutes of a typical CD or cassette. Users could browse and play any song easily and they could store and display information such as song title, band name or genre. They could then create playlists of their favorite tracks and easily move music between the player and their computers. All in all, these players possessed features and usability that were unheard of in older technologies. Portable digital players quickly became very popular. Later, the mass adoption of smartphones would further increase the user base and capabilities of devices able to play digital music.

Despite the music industry's efforts to stop them, file-sharing networks similar to Napster would emerge: Gnutella, Kazaa, Torrent, and eMule, among others. Trying to shut them all down became a never-ending game of whack-a-mole. The genie was out of the bottle, and the industry would have to figure out what to do with it.

The First Steps to a Digital Industry

The first companies that marketed digital music usually lacked support from the recording industry. For example, in 2000, eMusic launched a service offering unlimited track downloads from a library of 125,000 tracks to those who paid a monthly subscription.¹⁶ However, only artists from independent labels were available. By way of comparison, in 2017 most leading



digital-music services claimed libraries in excess of 40 million tracks. Likewise, in 2001 MP3.com was offering unsigned artists the chance to distribute their music through its website, paying them according to the number of downloads.¹⁷ Both companies would change ownership and business models in the following years. MP3.com eventually shut down and sold some of its assets—including its coveted domain name—to CNET Networks in 2003.¹⁸ On the other hand, eMusic was still operating in 2017, allowing customers to download a fixed number of tracks (including from an audiobook library) for a set monthly fee.

The initial reaction of the major labels to the new technology was litigious. As well as suing the makers and users of music-sharing networks similar to Napster, they also tried—but failed—to obtain an injunction to prevent the sale of the Rio PMP300, the first commercially successful portable MP3 player.¹⁹

Indeed, the major labels' first attempts to enter the digital market demonstrated the industry's wariness of the new technology. In the early 2000s, two joint ventures backed by the major recording labels were launched: MusicNet—supported by EMI, Warner, and BMG—and Pressplay, backed by Sony and Universal. Both services had several limitations that made them unpopular with users (such as the limited number of tracks playable per month, and the limited number of tracks from the same artist playable per month). Furthermore, MusicNet and Pressplay only had the music of the labels that backed them, so users needed to purchase two separate subscriptions if they wanted to listen to all the major artists. Soon the labels abandoned these services: MusicNet was sold in 2005²⁰ and Pressplay was sold in 2003, merging with the Napster brand for the latter's relaunch as a legal service.²¹ Both MusicNet and Pressplay came joint ninth on PCWorld's list of the "worst tech products of all time."²²

The Success of the iTunes Model

The industry, however, did not have to wait long for its first massively popular digital-music service. In February 2003, Steve Jobs unveiled the iTunes Store during his keynote speech at a special Apple event. At launch, iTunes offered a catalog of 200,000 songs, with backing from major and independent labels, which sold for 99 cents a track.²³ Initially, iTunes was available for only Mac computers but support for Windows was added a few months later, greatly expanding the potential customer base.²⁴ By the end of the year, the store had already sold 25 million tracks.²⁵ The service would grow exponentially and, at its peak in 2012, it reportedly reached nearly \$4 billion in sales.²⁶ Despite these numbers, Apple long claimed that the iTunes music sales did not provide the company with significant profits.²⁷ However, the iTunes sales drove sales of iPods, which had big margins for the company.²⁸

On the heels of iTunes' success, several companies replicated its model for selling digital music. For example, Sony launched the Sony Connect Music Store in June 2004, selling tracks and albums at the same price as iTunes.²⁹ Likewise, Apple's longstanding rival Microsoft launched Zune Marketplace in 2006.³⁰ These stores were not as successful as iTunes: Sony Connect closed in 2008,³¹ while Microsoft discontinued the Zune brand and launched Xbox Music in 2012.³² Major labels fully backed these and other offerings, as they had done with iTunes.

Nevertheless, iTunes and other similar stores still came with a significant restriction. Digital rights management (DRM) technologies were embedded in the tracks purchased. These limited the number and type of devices on which these tracks could be used, ensuring that the customer could not distribute the files freely after purchasing them. They also allowed the stores to control how tracks could be used. For example, tracks purchased from iTunes could be played on no more than five devices.



Moreover, apart from a computer, only Apple devices such as the iPhone, iPod and iPad could play iTunes tracks. As a consequence, iPod sales skyrocketed in parallel with iTunes' success, reaching 22 million in 2009.³³ Likewise, Sony Connect tracks could be transferred only to compatible devices that supported Sony's ATRAC3 format, such as the Walkman or the PSP (PlayStation Portable) gaming console. Meanwhile, Zune customers had to procure a Microsoft-certified device, such as one of Microsoft's own Zune-branded line of players.

However, the situation changed in late 2007 when a new entrant, the online retailing giant Amazon, launched its own digital-music store. Labels allowed Amazon, unlike its competitors, to sell tracks without DRM.³⁴ Users could buy from Amazon and play the songs on any number of devices that supported the MP3 format, including iPods, Zune players and Walkmans. Unlike Sony and Microsoft, Amazon was successful and quickly became the second-largest digital-music store in the United States.³⁵ The competition soon followed in its footsteps: iTunes, the market leader, abandoned DRM in 2009.³⁶

Artists too began to experiment with the opportunities that the digital format presented. For example, in 2007, the high-profile British band Radiohead skipped music labels and released their album *In Rainbows* directly to their fans as a digital download on the band's website, letting customers choose the price they wanted to pay.³⁷ No sales figures were released. Attempts like Radiohead's to upset the usual release process were, however, piecemeal.

Streaming and the Smartphone Era

RealNetworks was a company that had thrived in the 1990s, developing video- and audio-streaming technologies for the fledging Internet. RealNetworks' protocols allowed users to watch videos and listen to audio without downloading the files to their computer. In April 2003, RealNetworks launched a new service: RealOne Rhapsody (later shortened to Rhapsody). This became the first major label-backed music-streaming service.

Rhapsody offered a subscription model where users paid a monthly fee of \$9.95 for the ability to stream an unlimited number of songs from a library of 330,000 tracks. Users could not download the tracks directly to their computers. Rhapsody was a moderate success, reaching 800,000 subscribers in 2009. However, its growth rate slowed and ultimately declined. In 2010 it had lost 100,000 subscribers, and analysts at the time doubted its ability to compete with other music services that were not using a streaming model. Rhapsody was spun off from RealNetworks in February 2010, in order to help the parent company achieve profitability.³⁸ In 2013 the now-independent Rhapsody acquired Napster³⁹ and started using that brand name, ultimately phasing out the Rhapsody brand in 2016.⁴⁰

Rhapsody's failure to gain traction seemed to indicate that the market preferred stores with the iTunes model, where users could buy and own digital music. However, other streaming services soon appeared. Pandora launched in 2005 and was followed by similar services such as Slacker Radio and MOG.⁴¹ Pandora allowed users to listen to customized "radio stations" for free, while it got revenue through advertising. Its Music Genome Project analyzed and broke down songs according to multiple traits. Users could then "like" or "dislike" songs that were being played, and the service would attempt to learn their music tastes and play only music that would interest them.

Throughout the 2010s, the use of smartphones exploded. They fused the functionality of a portable media player with a computer with an Internet connection. By 2019, it was estimated that there were 5.1 billion smartphone users worldwide.⁴² This greatly benefited streaming services, since it untied users from having to use a desktop system in order to access online



services. According to Pandora, the introduction of a smartphone app in 2008 practically doubled its growth overnight,⁴³ and Daniel Ek credited Spotify's free smartphone app with saving his company in 2013.⁴⁴

Spotify

Daniel Ek and Martin Lorentzon founded Spotify in Sweden in 2006 after having both worked for several Scandinavian-based online start-ups. Ironically, Sweden was infamous for hosting The Pirate Bay, the largest search engine for illegally downloading music and video content on the Internet. Spotify finally launched in October 2008 in Sweden and other Western European markets after announcing deals with all the major labels plus several independent companies that allowed Spotify to stream their catalogs.⁴⁵

Initially, Spotify allowed only a limited number of users to join its unpaid service. The company periodically sent out "invites" to its existing users, which they could use to invite their friends. People who wanted a paid subscription were not subjected to this limitation and could join at any time. Spotify lifted the limitation in February 2009 in the United Kingdom and proceeded to do the same in most of its markets in the following months.⁴⁶

Spotify launched in the United States in 2011, when it already had 10 million users throughout Europe. This time, Spotify used a different approach. Instead of throttling free users, it offered six months of free premium use to all US customers. Afterward, they could pay for a subscription or start using the free, ad-supported version of the service. Spotify grew quickly in the United States, and in March 2013 it claimed to have 1 million paid US subscribers and 6 million worldwide.⁴⁷ The growth accelerated, and in July 2016 the company achieved 30 million subscribers and 100 million total users worldwide.⁴⁸ By the end of 2018, this figure had ballooned to 96 million subscribers and 207 million total users.⁴⁹ Spotify went public on the New York Stock Exchange in April 2018, using a direct listing instead of an IPO. Shares opened at \$165.90, up nearly 26% from a reference price of \$132 set by the NYSE. The stock ended the session at \$149.01, valuing the company at \$26.5 billion.⁵⁰

Spotify kept expanding all over the world. In early 2018, Spotify was available in 65 countries or territories, spanning the Americas, Europe, Asia, and Oceania. This list included every major music market. In November that year, Spotify began breaking into emerging and immature markets, launching simultaneously in 13 countries in Africa and the Middle East and thus taking the total figure to 78. Moreover, it had recently reached an agreement with Tencent, the Chinese online retail giant, to swap 9% of stock between Spotify and Tencent's music-streaming services. Spotify was not available in the Chinese mainland but Tencent Music's customers numbered in the hundreds of millions and revenues were \$1.8 billion for the first half of 2018.⁵¹ In general, emerging markets posed a big challenge to companies such as Spotify. Piracy was still a big factor in them, so getting people to pay for music subscriptions was still a hard sell. However, Tencent Music had thrived in China by offering a free service and then monetizing it with ancillary purchases such as karaoke tools, digital gifts that could be kept or sent to friends, and the ability to watch live concerts. As of July 2019, Spotify and Tencent had yet to announce any concrete project resulting from this collaboration.



The Spotify Business Model

In 2019, Spotify was offering two service tiers in most of its markets: free and premium. Both tiers allowed on-demand unlimited listening of every song in the Spotify catalog (40 million tracks, and 1.5 billion listening hours) for an unlimited number of times from any personal computer or tablet. Users of the free service had their playback interrupted every few songs by short audio adverts. During the previous years, Spotify had slowly been increasing the number and frequency of the commercials and had added visual adverts to the user interface of free customers. However, premium users could listen to music without being interrupted by adverts, had access to higher-quality audio, and enjoyed other features.

Spotify also provided an app that could be installed on many devices, from Android and iOS smartphones and tablets to smart TV receivers and even Internet of Things devices such as the Amazon Echo. Notably, only premium users could play music on demand using the app. Free users were unable to select a particular song but could create a “station” that would play random music that followed certain user-provided guidelines (such as genre, era or artist). **Table 1** shows the differences between the two service tiers.

Table 1
Spotify Service Tiers (2019)

	Free	Premium
Full catalog access	Almost ^a	Yes
Playlists	Yes	Yes
Play tracks on demand	Partial ^b	Yes
Ad-free listening	No	Yes
Sound quality (kbit/s)	160	320
Offline mode	No	Yes
Monthly fee	\$0	\$9.99 ^c

^a Starting in 2017, some newly released tracks were held back from Spotify’s free version for a few months.

^b Free users on mobile platforms (such as iOS and Android) could select artists, playlists and albums but not the particular track to be played. Users of desktop platforms had unrestricted choice.

^c Price for the undiscounted baseline premium tier in the United States.

Source: Prepared by the authors.

Spotify often ran promotions to try to sign up more customers to its subscription services. For example, by 2019 it was offering a student subscription in several markets for \$4.99 or €4.99 a month. In the United States, this even included a free subscription to the video-streaming platform Hulu. The company also offered a Spotify family plan for \$14.95 or €14.95, which allowed people to share a single subscription with six other family members. Spotify also routinely offered free trials to its premium service, usually for around three months.

Spotify’s functionality was simple. When the user launched the application, music started to play automatically, resuming the last active playlist. Users could search for any song straight from the home screen, access their list of favorite songs and artists, access their playlists, and browse the most popular tracks and artists of the moment. The radio feature brought several preset themed



radio stations and allowed users to create new ones using a variety of guidelines. Spotify also had a “discover” feature that suggested new artists based on the user’s listening habits.

Spotify had several social features. Inside the app, users could “follow” their friends to see what music they were listening to. Users could also follow artists, bands and other personalities in order to get news about them and be alerted if they released new songs on Spotify. Integration with social media and messaging apps, such as Facebook, Twitter and Telegram, allowed users to see their friends’ activities and favorite music and artists. Playlists could be also shared and this had become such a popular feature that there were third-party websites devoted to sharing, commenting on and rating Spotify playlists (such as Playlists.net and SharePlaylists.com). Anyone could click on a song or playlist shared on social media and listen to it—noncustomers would simply be asked to register an account on Spotify.

In November 2016, Spotify relaunched Spotify for Artists, the platform that artists could use to harness the data generated by Spotify streams of their music, manage their profiles, and engage with fans.⁵² Artists could, for example, post pictures, sell merchandise, and upload tour data (which Spotify would use to tell users when their favorite artists were playing near them). Artists were able to check what kind of playlists they were getting added to. (For example, artists releasing a track in a new genre—in the hope of reaching new fans—could track whether the song was being added to playlists of that genre.) Artists were able to track in real time which songs were being played the most, segmented across many variables such as gender, age, and location. As an example of the new platform’s potential applications, the heavy metal band Metallica used it to tailor the setlists of its 2018 tour to include songs that were popular in the cities they were playing.⁵³

The Spotify for Artists revamp was not merely a public relations exercise in response to routine criticism of Spotify by artists. Rather, Daniel Ek viewed it as a cornerstone of Spotify’s strategy:

The marketplace strategy is important because it's not a win-lose scenario but it's truly a win-win scenario. By building tools and services for the music industry, we can make the music industry more efficient, thereby jointly benefiting together with the music industry at that.⁵⁴

Quick innovation and decision-making were key to Spotify’s culture. “Success for us will be determined by our ability to move faster than everybody else in this space,” Ek said.⁵⁵ As an example, Ek spoke about how the company had launched its free mobile app the very same day the licensing deals were signed. The company could just not afford a traditional testing calendar at a critical time for its growth. As Ek put it: “We aim to make mistakes faster than anyone else.”⁵⁶ The company was thus not afraid to tinker with its offering, pivot its strategies or even backtrack on some of the changes it had introduced. Its engineering culture was also influenced by agile working methodologies, which were adapted and changed as the company grew, with the view of always being quick to launch.

Financial Performance

When Spotify launched in 2008, it did so with major music labels taking 18% of its shares, for a combined contribution of around €8,800 (then about \$13,000).⁵⁷ Spotify’s rapid expansion required significant investment but the company had no trouble raising capital. Since 2007 it had successfully completed seven funding rounds, reportedly raising a cumulative total of \$1.06 billion with a 2015 valuation of \$8.53 billion.⁵⁸ It also raised an additional \$1 billion in debt in the first half of 2016, which was converted into equity when the company went public in April 2018.⁵⁹



On the face of it, Spotify's performance during its short life had been nothing less than exceptional, with the company posting staggering growth rates year after year. In 2014 it surpassed €1 billion in revenue for the first time, and milestones were reached at a frantic pace: €2 billion of revenue in 2015, €3 billion in 2016, and €5 billion in 2018. (See **Table 2** for Spotify's financial data.)

Table 2
Spotify Financial Data 2014–2018, in Millions of Euros

	2014	2015	2016	2017	2018
Revenues	1,085	1,940	2,952	4,090	5,259
• Premium	983	1,744	2,657	3,674	4,717
• Ad-supported	102	196	295	416	542
Cost of sales	911	1,714	2,551	3,241	3,906
as % of revenue	84	88	86	79	74
Gross profit	174	226	401	849	1,353
Operating expenses	365	461	750	1,227	1,396
• Research and development	114	136	207	396	493
• Sales and marketing	184	219	368	567	620
• General and administrative	67	106	175	264	283
Operating income	-191	-235	-349	-378	-43
as % of revenues	-18	-12	-12	-9	-1
Active users at end of year (millions)	60	91	124	160	207
Paid subscribers at end of year (millions)	15	28	48	71	96
Percentage of paid users	25	30	39	44	46
Paid user ARPU (euros per month)	—	6.84	6.20	5.32	4.81

Figures might not add up due to rounding.

Source: Spotify annual reports for 2016 and 2018, <https://investors.spotify.com/financials/default.aspx>, accessed May 2019.

There was a patent caveat in Spotify's growth story. Since its launch in 2008, the company had yet to post an annual profit. The company's explosive growth had been accompanied by losses. However, Spotify's financial situation was thought to be secure, given the amount of financing it had been able to obtain.

The single largest expense item was the cost of goods sold. This consisted mainly of the royalties Spotify paid to rights holders in order to get access to their catalog to offer to Spotify customers, plus the IT costs of delivering content to the customer.



The Royalty Issue

There were many types of royalties. Spotify had to make sure it had secured all of them in order to offer a particular music track to its customers, or else it could face legal problems. In general, though, royalties could be divided into two main categories:

- **Mechanical rights:** those covering the underlying composition of a song (the lyrics and the music composed by the songwriters) when the song is reproduced.
- **Performance rights:** those covering a particular rendition of that composition by an artist or band when a song is performed in public, including when it is streamed.

Performance rights were usually held by the publishing labels and were pricier. Spotify had signed several agreements with major labels in order to get access to their catalogs. The agreements in place in 2019 had been signed in 2017 and would be up for negotiation again in 2020. These contracts were very complex and could differ for different publishers and territories. However, they shared some common features:

- Spotify did not pay a fixed amount per stream. Instead, a percentage of monthly revenue was allocated to royalties, which were distributed according to the market share of each track within the total number of streams Spotify delivered during the period.
- The rates were tied to the overall user count and the ratio of free to premium. This meant that Spotify had to meet certain targets in order to access the most advantageous rates.
- The deals incorporated a floor, a minimum amount that had to be paid to the publisher even if the actual royalties accrued would not otherwise reach that figure.
- The free and premium services had different royalty rates. Spotify paid a larger percentage of its revenue on the free service (which was much smaller on a per-user basis). In 2018, for example, Spotify's cost of revenue for its premium service was 73%, while it was 82% for its free service.
- Spotify did not pay artists directly (except those who self-published on the platform). Spotify paid the publishers, which in turn paid artists in accordance with their own particular deals.
- Some of the deals incorporated most-favored-nation clauses. This meant that, if Spotify signed a deal with another publisher that was less advantageous to Spotify, the streaming company would need to adjust rates upward for the other publishers.

Mechanical rights were usually not negotiated in the free market but instead could be set by courts, government bodies, or performing rights organizations—depending on the territory. In 2019, Spotify was embroiled in a legal battle to prevent the Copyright Royalty Board (a body of the US government) from progressively raising the mechanical royalties from 11.4% to 15.1% of total revenue for the period from 2018 to 2022.⁶⁰

The new deals signed in 2017 with the major publishers had successfully lowered Spotify's costs and seemingly put the company on a path to profitability. The company had announced its first ever operating profit—of \$94 million—for the fourth quarter of 2018, although it still posted a loss of \$43 million for the overall year. Nonetheless, Spotify was being cautious and still expected an overall loss in 2019.⁶¹



Relations With Artists

Lower royalty rates had a significant side effect. Artists on Spotify were being paid on average \$0.004 every time one of their tracks was played. This was far lower than on other services such as Napster (\$0.019), Tidal (\$0.013) and even Spotify's most direct competitor Apple Music (\$0.007).⁶² To earn the minimum US monthly wage (\$1,472 in 2018), this meant artists on Spotify would need to have their songs played more than 330,000 times each month.

However, was there an alternative for artists? Artist-friendly platforms such as Tidal (which claimed to give the best terms to artists out of all the streaming platforms)⁶³ had not managed to reach a significant size, and even high-profile artists who had pulled their tracks from Spotify or other streaming services had been forced to accept the new realities of the market. That was the case with Taylor Swift, one of the best-selling artists of the 2010s, who had returned to Spotify in 2017 after removing her catalog from all streaming platforms in 2014.⁶⁴ "It doesn't matter what we felt two or three years ago," said Scott Borchetta, CEO of Taylor Swift's distributor Big Machine. "What we have now is what we have to make work."⁶⁵

In the past, artists such as Radiohead had tried to leverage digital technologies to access the market directly but those efforts had been largely isolated. Nonetheless, Spotify was beta-testing a feature that would allow unsigned artists to publish music on Spotify directly,⁶⁶ sidestepping the need for a publisher to act as middleman. Artists in the program could receive royalties directly from Spotify and keep track of the amounts. So far, the program was by invitation only, and Spotify had invited "a few hundred US-based independent artists" to participate.

All in all, the stakeholders in the music industry had come to grips with how consumers en masse were embracing Spotify and music streaming as their preferred way of consuming music. Streaming had become the backbone of the music industry as it emerged from the digital crisis affecting it since the first years of the 21st century.

The Music Industry in 2018

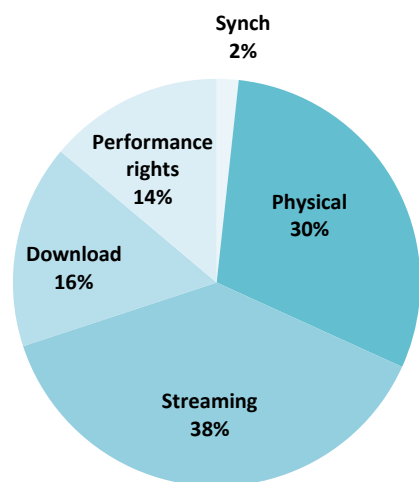
In 2017, the global music industry grew 8.1% year on year to \$17.3 billion, its third year of consecutive growth after 15 consecutive years of decline. Despite the growth, revenues were only at 68% of their peak of 1999.⁶⁷

Indeed, the music industry had changed a lot since the 1990s. The industry, once built exclusively on the sales of physical recordings from mainly brick-and-mortar stores, had seen digital take over as the biggest source of revenue. Once-renowned music-store chains such as Tower Records had closed down, while others such as Virgin had downsized their physical presence significantly. Now music was predominantly being bought and consumed in digital form. (See **Figure 2** for a breakdown of revenue sources.)

CDs, vinyl records and cassettes accounted barely for 30% of the global industry, with an annual drop of 5.4% in sales in 2017. Ironically, vinyl—which was once on the verge of extinction after the massive success of CDs in the 1990s—was the only physical segment experiencing growth (22%), as it had successfully been repurposed as a collector's item.



Figure 2
Revenues of Global Music Industry by Source (2017)



Royalties for synchronization rights were paid for permission to synchronize music with other media (such as films, TV shows and video games). Royalties for performance rights were paid for permission to play recorded music in public (including by TV and radio broadcasters and public venues).

Source: *Global Music Report 2018: Annual State of the Industry*, International Federation of the Phonographic Industry, April 24, 2018, <https://www.ifpi.org/downloads/GMR2018.pdf>, accessed May 2019.

Permanent purchases of downloaded music, which once had been the most successful digital business model, were declining rapidly, with that segment's revenues falling 20% globally in 2017. Streaming was the segment driving growth in the industry, with a staggering year-on-year global increase of 41.1% in revenues. (See **Exhibit 1** for data on streaming's revenue growth.)

Developed markets such as the United States, Japan, Germany and the United Kingdom were the largest global markets but emerging markets such as China and Brazil were already in the top 10. Growth was strong in both North America (13%) and Latin America (18%) but softer in Europe (4%) and Asia (5%). (See **Exhibit 2** for detailed music revenue data for the United States, the world's largest market.)

Regarding the labels, compared with the situation in 1999, the global music market had witnessed further concentration. The "big five" major labels had been reduced to three: BMG was sold to Sony in 2008, and EMI merged with Universal in 2011. In 2017, the three major labels accounted for nearly 70% of the global market of recorded music.



Table 3
Recording Industry's Global Market Share in 2017

Company	Share of total dollar revenues
Universal Music Group	29.7%
Sony Music Entertainment	21.9%
Warner Music Group	16.2%
Others	32.2%

Figures may not add up to 100% due to rounding.

Distribution market share includes sales of music owned by the label and music owned by third parties (generally artists or smaller labels) but distributed through the label.

Source: "UMG and WMG Make Recorded-Music Market Share Gains, Sony Outperforms in Publishing," Music & Copyright, May 15, 2018, <https://musicandcopyright.wordpress.com/2018/05/15/umg-and-wmg-make-recorded-music-market-share-gains-sony-outperforms-in-publishing/>, accessed May 2019.

The major labels thus still controlled most of the distribution of music, which was now being delivered to customers through two main types of digital retailer:

- Download operations sold single tracks or albums digitally. Users could select an album or a track, listen to a sample, and then pay an amount (typically around \$1 for a song and \$10 for an album) to download it to their computer or portable device. The market was dominated by Apple's iTunes. Other significant players were Amazon and Google Play Music.
- Streaming allowed customers to listen to music without downloading it to their device. Thus, unlike with downloads, users never owned the tracks. Streaming services usually obtained revenue via paid subscriptions or advertising. Spotify was the market leader in terms of users and revenue. Other important players were Pandora, Apple Music, Deezer, and Amazon (Prime Music and Amazon Music Unlimited).

The Competition

The Big Three

As Spotify proved the viability of streaming, the space began attracting the attention of some of the largest tech companies in the world: Apple, Amazon, and Google. Apple and Amazon in particular had been important players in digital music during the first decade of the 21st century, when digital downloads had been the first successful business model for digital music.

In June 2015, Apple announced Apple Music,⁶⁸ a streaming service that aimed to leverage the considerable number of people who were already using Apple products and services, particularly those who were already listening to music using iTunes. The new service boasted radio stations curated by famous DJs, social features that allowed artists to interact with fans, exclusive deals with artists, and integration with the Siri voice-controlled personal-assistant feature that most Apple products had.



All this was available at the same price point as Spotify's premium service: \$9.99 a month. Apple, however, was not offering a free version of the service. (See **Exhibit 3** for a comparison of Spotify, Apple Music and several other streaming music services operating in 2019. See **Exhibit 4** for estimated global market shares at the end of 2018—Spotify's market share had remained stable throughout 2018.)

Apple had been growing at a frantic pace, reporting 56 million users by late 2018. Moreover, Apple CEO Tim Cook had claimed that Apple was now the top music service in the United States.

The relationship between Apple and Spotify was bitter. Spotify complained that Apple's own marketplace—the App Store—gave Apple Music an unfair advantage. Apps for installation in the Apple ecosystem (which included the very popular iPhone and iPad mobile devices) had to come from the App Store. In exchange for listing them there, Apple obtained a 30% cut of sales of apps sold through the App Store. That meant that Apple Music's competitors had to either take a 30% cut on their margins or increase the price accordingly, which made them uncompetitive compared to Apple Music. Spotify launched a suit against Apple with the European Commission in March 2019.⁶⁹

Moreover, in the same month, Apple launched Apple Video and Apple News. Apple Video was a video-streaming platform, featuring original exclusive content. It was positioned to compete against Netflix and similar video platforms. Apple News aggregated subscriptions to many newspapers and magazines (such as the *Washington Post* and *New York Times*) in a single platform. Apple was expected to bundle its new video and news service with Apple Music, offering a one-stop shop for cultural products and information.

The leading online retailer Amazon launched Amazon Music Unlimited in late 2016.⁷⁰ A limited version of the application (with access to 2 million tracks), called Amazon Prime Music, was provided free to every Amazon Prime customer. Amazon Prime customers also got a discount for the full service, available at \$7.99 a month for them, compared to the usual \$9.99 a month that was the norm in the industry.

Google too had unsuccessfully tried to make a dent in the music-streaming space. Its latest attempt was YouTube Music, a service that offered unlimited streaming of music and music videos through the YouTube platform. According to the International Federation of the Phonographic Industry (IFPI), YouTube was still by far the Internet's largest site for streaming music, accruing 46% of music streamed all over the world.⁷¹ However, so far Google had failed to monetize that user base effectively. YouTube Music could also be bundled with YouTube Premium, a service that featured original video content on the same platform.

Other Players

Besides its large competitors, Spotify also faced competition from several other streaming-music services. These could be divided into two kinds:

- On-demand: The most similar competitors were other on-demand streaming services. Besides the aforementioned Apple Music, Amazon Music Unlimited, and YouTube Music, other noteworthy services were Napster, Tidal, and Deezer. These worked in a similar way to Spotify, allowing users to play any track they wanted from each service's catalog.
- Internet radio: These companies did not offer tracks on demand. Instead, users could listen to preset radio stations or create customized ones. This model allowed companies to pay reduced royalty rates compared with on-demand streaming services such as



Spotify, and therefore they were able to offer lower pricing. Pandora was the most successful of those services, although it was losing subscribers.

This intense competition had already claimed its first casualties. Last.fm, an Internet radio service owned by CBS Corporation, discontinued its music-streaming service in 2014. In November 2016, Rdio—a streaming service launched by Skype founders Janus Friis and Niklas Zennström—filed for bankruptcy and was purchased by Pandora.⁷² SoundCloud, another streaming service, laid off 40% of its staff and sought new investment to avoid closure in 2017.⁷³ Tidal, which had artists such as Jay-Z and Beyoncé among its shareholders and promised better terms to artists, was struggling and had to seek new investment in 2017.

These companies were smaller and less successful than Spotify. Nonetheless, Apple, Amazon, and Google were formidable competition for the Swedish company. They had much more financial backing and could synergize horizontally with the companies' other activities. In particular, they were becoming very active in producing original content (mostly video), which could be bundled with their music offerings. Moreover, some observers believed that these companies could afford to see their streaming businesses as loss leaders to drive customers to their core activities. As Tim Cook said in an interview: "We're not in it for the money."⁷⁴

Spotify's Nonmusic Gamble

Despite the encouraging financial results, in early 2019 many eyes were on Ek when he outlined Spotify's new audio strategy aimed at facing the tough times ahead:

Today, audio is only one-tenth of the size of the video market, so there is a massive opportunity here for audio to evolve into a more personalized, more immersive experience, much like how the video industry has evolved. We believe that, over time, more than 20% of all listening on Spotify will be nonmusic content, and we strongly believe that this opportunity in audio starts with podcasts.⁷⁵

Spotify had purchased three different podcast companies in the preceding months, across the entire value chain: Gimlet Media (content and publishing), Anchor (creation tools), and Parcast (content).

Podcasts are episodic series of audio files dealing with the same topic and can be streamed or downloaded by listeners. In essence, they are the digital versions of broadcast radio shows, the word "podcast" itself being a portmanteau of the words "iPod" and "broadcast." Podcasts are usually distributed via platforms that aggregate them and pay podcasters a share of the platform's ad revenue. Podcasters can, in addition, run their own ads within their podcasts, and some of the most successful podcasters are able to charge for their podcasts. Ek explained the rationale behind investing in that area:

It is primarily about driving that virtuous cycle. What we see very clearly as we're investing in more podcast content is engagement goes up. As engagement goes up, we both broaden the appeal to new users but we also increase the engagement of the existing ones on the platform—which drives down churn, which in turn makes the business overall much stronger. That's the continued path and, if that happened and if you also layer on top of it our marketplace business and the trend where gross margin on the core business keeps increasing, that's our expectation that this will happen over time as well.⁷⁶



This was not the first time that Spotify had attempted to produce original content as a way to drive up engagement and differentiation. The platform had been producing original video content since 2016. This was always music-related (music documentaries and behind-the-scenes shows) but even then the idea was not pursued vigorously. In early 2018, the chief content officer Stefan Blom left Spotify, after being “in charge of the company’s attempted push into video, which has stopped and started a few times without gaining traction.”⁷⁷

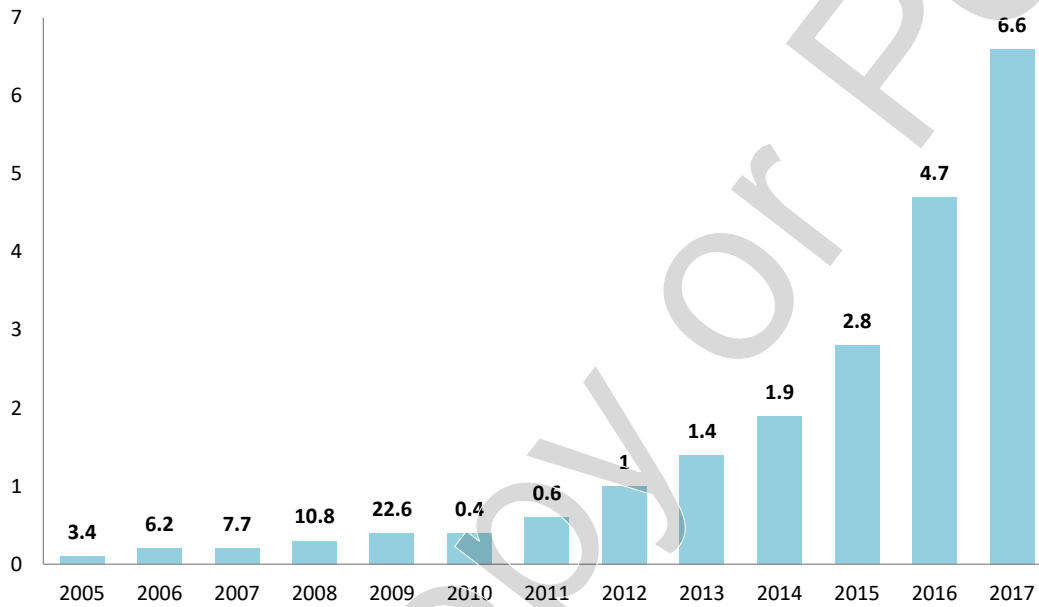
But was nonmusic audio the answer to Spotify’s quest for original content? Podcasting was still a very small market but it was growing rapidly. The Interactive Advertising Bureau and PricewaterhouseCoopers estimated that in 2017 it generated \$314 million in revenues in the United States, and was projected to hit \$659 million in 2020.⁷⁸ (See **Exhibit 5** for facts and figures on the podcast industry.)

Could Spotify grow podcasting as it had done with music streaming? Would podcasting be the answer to Spotify’s problem of how to compete with the industry giants threatening its space? And if podcasting was not the answer, what alternatives were there to increase Spotify’s long-term profitability?



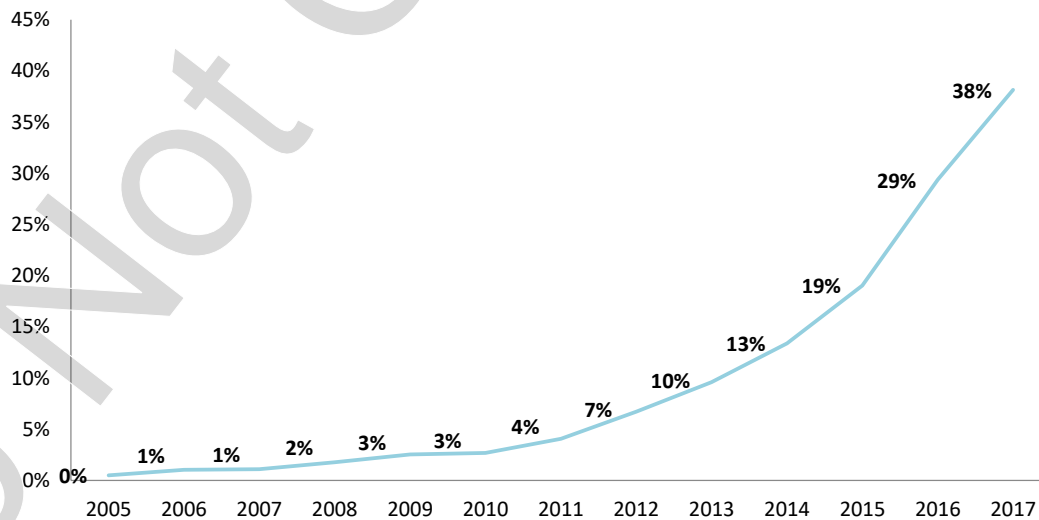
Exhibit 1 Streaming Growth

Worldwide Streaming Revenue (in Billions of US Dollars)



Source: Prepared by the authors using data from IFPI annual reports, <https://www.ifpi.org/resources-and-reports.php>, accessed May 2019.

Streaming as a Percentage of Music Industry Revenues



Source: Prepared by the authors using data from IFPI annual reports, available at: <https://www.ifpi.org/resources-and-reports.php>.



Exhibit 2

2018 Year-End Recording Industry Revenue Statistics

United States Unit Shipments and Estimated Retail Dollar Value (in Millions, Net After Returns)

Digital Permanent Download

		2017	2018	% change 2017–2018
(Units shipped)	Download single	553.5	399.8	-27.8
(Dollar value)		\$678.5	\$490.4	-27.7
	Download album	66.4	49.7	-25.1
		\$668.5	\$499.7	-25.3
	Ringtones and ringbacks	14.3	10.0	-29.8
		\$35.5	\$24.9	-29.8
	Other digital¹	2.7	2.2	-18.2
		\$21.9	\$24.1	
	TOTAL DOWNLOAD	\$1,404.5	\$1,039.1	-26.0

Digital Subscription and Streaming

	SoundExchange distributions²	\$652.0	\$952.8	46.1
	Paid subscription³	35.3	50.2	42.4
		\$3,500.5	\$4,656.0	33.0
	Limited-tier paid subscription⁴	\$591.6	\$747.1	26.3
	On-demand streaming (ad-supported)⁵	\$658.6	\$759.5	15.3
	Other ad-supported streaming⁶	\$261.8	\$251.4	-4.0
	TOTAL STREAMING	\$5,664.5	\$7,366.8	30.1

TOTAL DIGITAL VALUE

		\$7,069.0	\$8,405.8	18.9
--	--	-----------	-----------	------

	Synchronization royalties⁷	\$232.1	\$285.5	23.0
--	--	---------	---------	------

Physical

(Units shipped)	CD	87.7	52.0	-40.7
(Dollar value)		\$1,057.3	\$698.4	-33.9
	LP/EP	15.6	16.7	7.2
		\$388.5	\$419.2	7.9
	Music video	1.9	1.4	-25.7
		\$38.6	\$27.6	-28.6
	Other physical⁸	0.6	0.5	-21.8
		\$11.0	\$9.6	-12.6
	Total physical units	105.7	119.8	-33.3
	Total physical value	\$1,495.5	\$1,670	-22.8

TOTAL DIGITAL AND PHYSICAL

	Total units⁹	742.6	532.3	-28.3
	Total value	\$8,796.6	\$9,846.1	11.9

% of shipments ¹⁰	2017	2018
Physical	17%	12%
Digital	83%	88%

¹ Includes kiosks, music-video downloads and other digital music licensing.

² Estimated payments to performers and copyright holders for digital radio services under statutory licenses.

³ Streaming, tethered, and other paid subscription services not operating under statutory licenses.

Subscription volume is the annual average number of subscriptions.

⁴ Paid streaming services with interactivity limitations according to availability, device restriction, catalog limitations, on-demand access, or other factors.

⁵ Ad-supported audio and music-video services not operating under statutory licenses.

⁶ Revenues from services paid directly that are not distributed by SoundExchange and not included in other streaming categories.

⁷ Includes fees and royalties from synchronization of sound recordings with other media.

⁸ Includes CD singles, cassettes, vinyl singles, DVD audio, and SACD.

⁹ Units total includes both albums and singles, and does not include subscriptions or royalties.

¹⁰ Synchronization royalties excluded from calculation.

Source: Joshua P. Friedlander and Matthew Bass, *RIAA 2018 Year-End Music Industry Revenue Report*, Recording Industry Association of America (RIAA), 2019, <http://www.riaa.com/wp-content/uploads/2019/02/RIAA-2018-Year-End-Music-Industry-Revenue-Report.pdf>, accessed April 2019.

Exhibit 3

Comparison of Selected Music-Streaming Services Operating in 2019

	Launch date	Claimed library size	Major-label support	Play tracks on demand	Free service	Mobile app	Monthly basic fee (US market)
Spotify	2008 (Sweden)	40 million	Yes	Yes	Ad-supported Shuffle mode on mobile	Yes	\$9.99
Apple Music	2015 (US)	50 million	Yes	Yes	Not available	Yes	\$9.99
Deezer	2007 (France)	40 million	Yes	Yes	Ad-supported Shuffle mode on mobile	Yes	\$9.99
YouTube Music/ Google Play Music	2011 (as Google Play Music) (US)	40 million	Yes	Yes	Not available	Yes	\$9.99
Tencent Music	2016 (China)	—	Yes	Yes	Limited library	Yes	RMB 8 ¹
Pandora	2005 (US)	40 million	Yes	Yes (Pandora Premium only)	Ad-supported Six track skips per hour (24 per day maximum)	Yes	\$9.99
Amazon Music Unlimited	2016 (US)	50 million	Yes	Yes	Not available	Yes	\$9.99 ²
Napster (as Rhapsody) (US)	2001 (US)	30 million	Yes	Yes	Not available	Yes	\$9.99

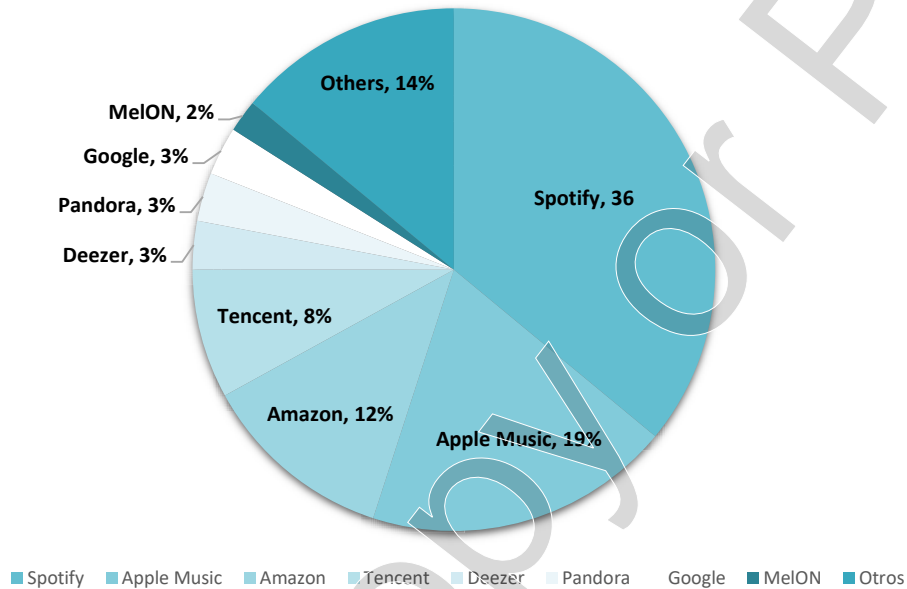
¹ \$1.19 at April 2019 exchange rates. Tencent Music was available only in China.

² \$3.99 when limiting playback to a single Amazon Echo, Echo Dot or Tap device.

Source: Prepared by the authors using data from the companies' websites.

Exhibit 4

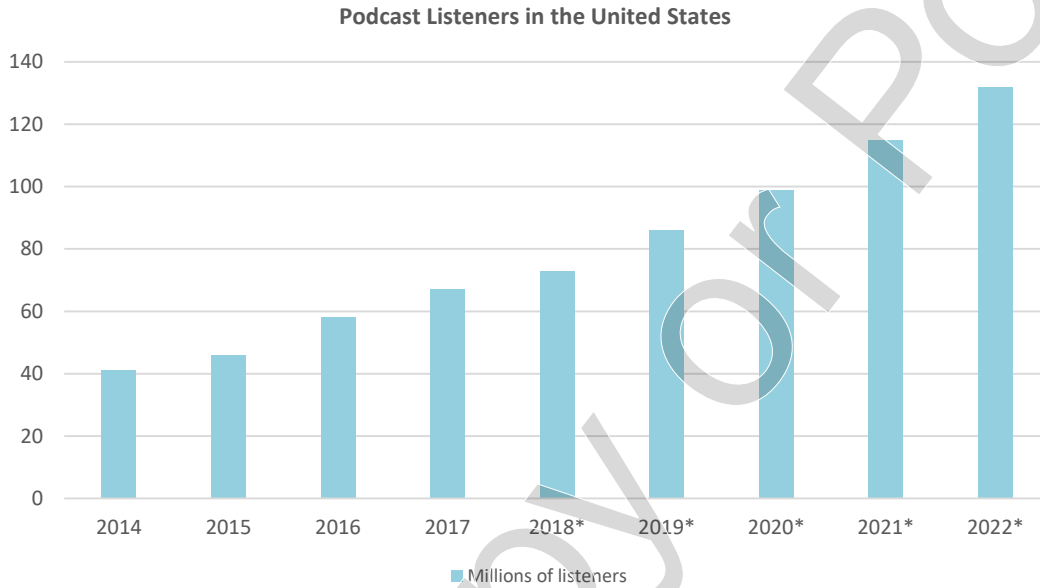
Global Streaming Market Share, First Half 2018 (Percentage of Active Subscribers)



Source: "Mid-Year 2018 Streaming Market Shares," Music Industry Blog, September 13, 2018, <https://musicindustryblog.wordpress.com/2018/09/13/mid-year-2018-streaming-market-shares/>, accessed May 2019.

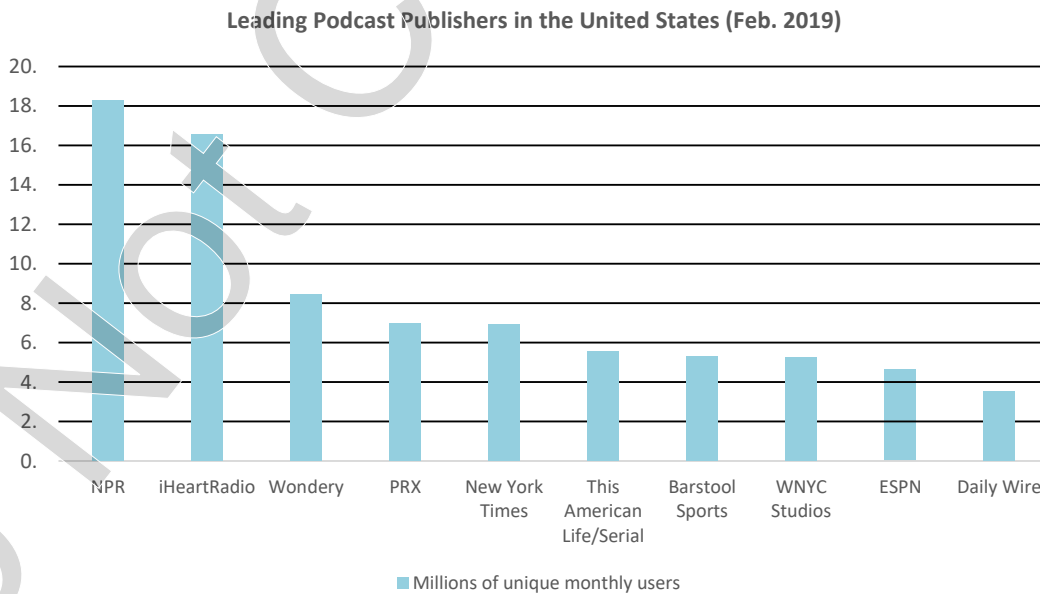


Exhibit 5 Podcast Industry Data



* Projected

Source: *Activate Tech and Media Outlook 2019*, Activate, p. 115, <http://activate.com/>, accessed May 2019.



Source: "Podcast Industry Audience Rankings," Podtrac, March 2019, <http://analytics.podtrac.com/industry-rankings/>, accessed May 2019.



Endnotes

- ¹ Sajaе Elder, "Ariana Grande's *Thank U, Next* Breaks Spotify Streaming Record With 2 Billion Streams," *The Fader*, March 23, 2019, <https://www.thefader.com/2019/03/23/ariana-grande-thank-u-next-2-billion-spotify>, accessed March 2019.
- ² Spotify, annual report for the fiscal year ended December 31, 2018, <https://investors.spotify.com/financials/default.aspx>, accessed March 2019.
- ³ "Apple Music Now Has 56 Million Users: Report," *Billboard*, December 3, 2018, <https://www.billboard.com/articles/business/8487726/apple-music-56-million-users-report>, accessed March 2019.
- ⁴ Meredith Filak Rose, "Spotify's Appeal to the Copyright Board, Decoded," Public Knowledge, April 10, 2019, <https://www.publicknowledge.org/news-blog/blogs/spotify-s-copyright-royalty-board-appeal-decoded>, accessed April 2019.
- ⁵ Jon Russell, "Spotify Says It Paid \$340M to Buy Gimlet and Anchor," TechCrunch, February 14, 2019, https://techcrunch.com/2019/02/14/spotify-gimlet-anchor-340-million/?guccounter=1&guce_referrer_us=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_cs=qT4rkV1SKBEfXecdbIWxiQ, accessed March 2019.
- ⁶ Daniel Ek, "Audio-First," Spotify, February 6, 2019, <https://newsroom.spotify.com/2019-02-06/audio-first/>, accessed March 2019.
- ⁷ Kevin Bostic, "iTunes, Other Digital Providers Boost Music Industry to First Revenue Growth in 13 Years," *Appleinsider.com*, February 26, 2013, <http://appleinsider.com/articles/13/02/26/itunes-other-digital-providers-boost-music-industry-to-first-revenue-growth-in-13-years>, accessed May 9, 2014.
- ⁸ "Napster's 11th Hour Frenzy," *Wired*, February 11, 2001, <http://archive.wired.com/techbiz/media/news/2001/02/41745>, accessed April 15, 2014.
- ⁹ Roger Parloff, "Killer App. Thanks to Its Ballyhooed Napster Alliance, Bertelsmann Faces More Than \$17 Billion in Copyright Lawsuits. Now That's a Real Killer App," *CNN Money*, September 1, 2003, http://archive.fortune.com/magazines/fortune/fortune_archive/2003/09/01/348194/index.htm, accessed August 29, 2016.
- ¹⁰ Bostic, "iTunes, Other Digital Providers."
- ¹¹ "Scope of the Problem," RIAA, http://www.riaa.com/physicalpiracy.php?content_selector=piracy-online-scope-of-the-problem, accessed May 9, 2014.
- ¹² Daniel Ek interview by Sarah Lacy of PandoMonthly, November 8, 2012, <http://pando.com/2012/11/08/pandomonthly-presents-a-fireside-chat-with-spotify-ceo-daniel-ek/>, accessed April 28, 2014.
- ¹³ "ISO/IEC 11172-3:1993 — Information Technology — Coding of Moving Pictures and Associated Audio for Digital Storage Media at Up to About 1.5 Mbit/s — Part 3: Audio," ISO, 1993, http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=22412, accessed April 10, 2014.
- ¹⁴ International Telecommunications Union, "ICT Development Index 2015," <http://www.itu.int/net4/ITU-D/idi/2015/#idi2015countrycard-tab&USA>, accessed October 20, 2017.
- ¹⁵ "OECD Broadband Statistics (December 2015)," OECD, August 6, 2016, <http://www.oecd.org/sti/broadband/1.2-OECD-WiredWirelessBB-2015-12.xls>, accessed August 29, 2016.
- ¹⁶ Richard Simon, "Emusic.com Launches MP3 Subscription Service," *MTV*, July 24, 2000, <http://www.mtv.com/news/1122406/emusiccom-launches-mp3-subscription-service/>, accessed May 5, 2014.
- ¹⁷ Sascha Segan, "Unsigned Artists Make Money Online," *ABC News*, March 5, 2001, <http://abcnews.go.com/Technology/story?id=98751>, accessed May 5, 2014.
- ¹⁸ Matt Hines, "CNET to Buy, Retune MP3.com," *CNET News*, November 14, 2003, <http://news.cnet.com/2100-1027-5107696.html>, accessed June 8, 2014.



- ¹⁹ Chris Oakes, "RIAA, Diamond Sweep Away Suit," *Wired*, April 8, 1999, <http://archive.wired.com/politics/law/news/1999/08/21089>, accessed May 8, 2014.
- ²⁰ John Borland, "Labels, Tech Owners Sell MusicNet to VCs," *CNET News*, April 12, 2005, http://news.cnet.com/Labels_tech_owners_sell_MusicNet_to_VCs/2100-1027_3-5668223.html, accessed May 2, 2014.
- ²¹ Associated Press, "Roxio Buys Pressplay, Napster Lives," *Wired*, June 19, 2003, <http://archive.wired.com/entertainment/music/news/2003/05/58895>, accessed May 2, 2014.
- ²² Dan Tynan, "The 25 Worst Tech Products of All Time," *PCWorld*, May 26, 2006, http://www.pcworld.com/article/125772/worst_products_ever.html?page=3, accessed May 2, 2014.
- ²³ "Apple Launches the iTunes Music Store," Apple Inc., April 28, 2003, <http://www.apple.com/pr/library/2003/04/28Apple-Launches-the-iTunes-Music-Store.html>, accessed May 2, 2014.
- ²⁴ "Apple Launches iTunes for Windows," Apple Inc., October 16, 2003, <http://www.apple.com/pr/library/2003/10/16Apple-Launches-iTunes-for-Windows.html>, accessed May 2, 2014.
- ²⁵ "iTunes Music Downloads Top 25 Million Songs," Apple Inc., December 15, 2003, <http://www.apple.com/pr/library/2003/12/15iTunes-Music-Store-Downloads-Top-25-Million-Songs.html>, accessed May 2, 2014.
- ²⁶ "After the Download: When Apple Turns Off the iTunes Store," *Music Industry Blog*, May 6, 2016, <https://musicindustryblog.wordpress.com/2016/05/06/after-the-download-when-apple-turns-off-the-itunes-store/>, accessed October 20, 2017.
- ²⁷ "Apple Inc. F1Q10 (Qtr End 12/26/09) Earnings Call Transcript," *Seeking Alpha*, January 25, 2010, <http://seekingalpha.com/article/184328-apple-inc-f1q10-qtr-end-12-26-09-earnings-call-transcript?part=single>, accessed May 9, 2014.
- ²⁸ Prince McLean, "Apple's New iPod Nano Sports Fattest Profit Margins Yet," *AppleInsider*, September 19, 2007, http://appleinsider.com/articles/07/09/19/apples_new_ipod_nano_sports_fattest_profit_margins_yet, accessed July 14, 2014.
- ²⁹ "Sony Connect Online Music Store Launches Today, Offering Music Fans More Than 500,000 Legal Downloads From Major and Independent Record Labels Around the Globe," Sony Corporation of America, June 4, 2004, www.prnewswire.com/news-releases/sony-connect-online-music-store-launches-today-offering-music-fans-more-than-500000-legal-downloads-from-major-and-independent-record-labels-around-the-globe-73767437.html, accessed August 29, 2016.
- ³⁰ "Microsoft's New Zune Digital Media Player on Store Shelves Tomorrow," Microsoft, November 13, 2006, <http://www.microsoft.com/en-us/news/press/2006/nov06/11-13zunelaunchpr.aspx>, accessed May 9, 2014.
- ³¹ Jack Schofield, "Sony Disconnects Connect and Adopts Microsoft's DRM for Portable Players," *The Guardian*, September 1, 2007, <http://www.theguardian.com/technology/blog/2007/sep/01/sonydisconnect>, accessed May 10, 2014.
- ³² Nick Wingfield, "R.I.P. Zune," *New York Times*, June 4, 2012, http://bits.blogs.nytimes.com/2012/06/04/r-i-p-zune/?_php=true&_type=blogs&_r=0, accessed May 10, 2014.
- ³³ "Apple Reports First Quarter Results," Apple Inc., January 21, 2009, <http://www.apple.com/pr/library/2009/01/21Apple-Reports-First-Quarter-Results.html>, accessed May 8, 2014.
- ³⁴ "Amazon MP3 Adds Music Audio Downloads From Warner Music Group," Amazon.com, December 27, 2007, <http://phx.corporate-ir.net/phoenix.zhtml?c=176060&p=irol-newsArticle&ID=1089999&highlight=>, accessed May 8, 2014.
- ³⁵ "The NPD Group: Amazon Ties Walmart as Second-Ranked U.S. Music Retailer, Behind Industry-Leader iTunes," NPD Group, May 26, 2010, https://www.npd.com/wps/portal/npd/us/news/press-releases/pr_100526/, accessed June 8, 2014.
- ³⁶ "Changes Coming to iTunes Store," Apple Inc., January 6, 2009, <http://www.apple.com/pr/library/2009/01/06Changes-Coming-to-the-iTunes-Store.html>, accessed May 8, 2014.
- ³⁷ Josh Tyrangiel, "Radiohead Says: Pay What You Want," *Time*, October 1, 2007, <http://content.time.com/time/arts/article/0,8599,1666973,00.html>, accessed May 11, 2014.



- ³⁸ Kathy Shwiff, "RealNetworks, Viacom to Spin Off Rhapsody," *Wall Street Journal*, February 10, 2010, <http://online.wsj.com/news/articles/SB10001424052748704182004575055742931769102?mg=reno64-wsj&url=http%3A%2F%2Fonline.wsj.com%2Farticle%2FSB10001424052748704182004575055742931769102.html>, accessed October 23, 2014.
- ³⁹ Julianne Pepitone, "Today Is Napster's Last Day of Existence," CNN, November 30, 2011, http://money.cnn.com/2011/11/30/technology/napster_rhapsody/, accessed May 5, 2014.
- ⁴⁰ "Rhapsody Is Becoming Napster," Napster, June 14, 2016, <http://blog.napster.com/2016/06/14/rhapsody-becoming-napster/>, accessed October 6, 2017.
- ⁴¹ "Pandora for Everyone," Pandora Media, August 29, 2005, http://blog.pandora.com/2005/08/29/pandora_for_eve/, accessed May 10, 2014.
- ⁴² Data from GSMA Intelligence, <https://www.gsmainelligence.com/> as of July 2019, accessed July 2019.
- ⁴³ Tom Conrad, "Happy Birthday to the Pandora App," Pandora Media, July 10, 2013, <http://blog.pandora.com/2013/07/10/happy-birthday-to-the-pandora-app/>, accessed May 10, 2014.
- ⁴⁴ Robert Safian, "Spotify's \$30 Billion Playlist for Global Domination," *Fast Company*, June 8, 2018, <https://www.fastcompany.com/90205519/spotify-playlist-for-global-domination>, accessed March 2019.
- ⁴⁵ "We've Only Just Begun!" Spotify, October 7, 2008, <http://news.spotify.com/us/2008/10/07/weve-only-just-begun/>, accessed May 11, 2014.
- ⁴⁶ "Spotify Now Available to Everyone in the UK," Spotify, <http://news.spotify.com/us/2009/02/10/spotify-now-available-to-everyone-in-the-uk/>, accessed May 11, 2014.
- ⁴⁷ Paul Sloan, "Spotify: Growing Like Mad, Yet Still Far to Go," CNET, March 12, 2013, <http://www.cnet.com/news/spotify-growing-like-mad-yet-so-far-to-go/>, accessed May 11, 2014.
- ⁴⁸ "Spotify monthly active user base reaches 100 million," Reuters, June 20, 2016, <http://www.reuters.com/article/us-spotify-users-idUSKCN0Z61FM>, accessed August 2016.
- ⁴⁹ "What Is Spotify?" Spotify, July 2017, <https://press.spotify.com/es/about/>, accessed January 16, 2018.
- ⁵⁰ Chuck Mikolajczak and Stephen Nellis, "Spotify Shares Jump in Record-Setting Direct Listing," Reuters, April 3, 2018, <https://www.reuters.com/article/us-spotify-ipo/spotify-shares-jump-in-record-setting-direct-listing-idUSKCN1HA12B>, accessed May 2019.
- ⁵¹ Eric Peckham, "What Spotify Can Learn From Tencent Music," TechCrunch, October 5, 2018, <https://techcrunch.com/2018/10/05/what-spotify-can-learn-from-tencent-music/>, accessed March 2019.
- ⁵² "Welcome to Spotify's New Home for Artists," Spotify, November 2, 2016, <https://artists.spotify.com/blog/welcome-to-the-new-spotify-artists>, accessed March 2019.
- ⁵³ Ashley Rodriguez, "Metallica Shapes Its Live Shows Around What Fans Are Listening to on Spotify," Quartz, July 26, 2018, <https://qz.com/1340887/metallica-bases-its-setlist-on-what-fans-listen-to-on-spotify/>, accessed March 2019.
- ⁵⁴ Daniel Ek, Spotify Q4 2018 Earnings Call webcast, 32:51, February 6, 2019, <https://investors.spotify.com/events/events-calendar/event-details/2019/Spotify-Q418-Earnings-Call/default.aspx>, accessed March 2019.
- ⁵⁵ Safian, "Spotify's \$30 Billion Playlist."
- ⁵⁶ Spotify Training & Development, "Spotify Engineering Culture – Part 1," Vimeo, January 30, 2014, video, 13:12, <http://vimeo.com/85490944>, accessed November 2014.
- ⁵⁷ Marcus Jerräng, "Documents Reveal Major Labels Own Part of Spotify," ComputerSweden, August 7, 2009, <http://computersweden.idg.se/2.2683/1.240046/documents-reveal-major-labels-own-part-of-spotify>, accessed August 29, 2016.
- ⁵⁸ Data from Spotify's entry in the CrunchBase start-up database, <http://www.crunchbase.com/organization/spotify>, accessed April 25, 2016.
- ⁵⁹ Theodore Schleifer and Peter Kafka, "How Spotify Solved a \$1 Billion Debt Problem That Will Help It IPO," Recode, January 3, 2018, <https://www.recode.net/2018/1/3/16847786/spotify-tpg-tencent-debt-dragoner-ipo-music-streaming>, accessed March 2019.



- ⁶⁰ Rose, "Spotify's Appeal."
- ⁶¹ Ek, Spotify Q4 2018 Earnings Call webcast.
- ⁶² Daniel Sanchez, "What Streaming Music Services Pay (Updated for 2019)," Digital Music News, December 25, 2018, <https://www.digitalmusicnews.com/2018/12/25/streaming-music-services-pay-2019/>, accessed March 2019.
- ⁶³ Jacqueline Sahagian, "Artists You Can't Find on Spotify in 2017," October 30, 2017, <https://www.cheatsheet.com/entertainment/artists-you-cant-find-on-spotify.html/?a=viewall>, accessed October 2017.
- ⁶⁴ Micah Singleton, "The Armistice Between Taylor Swift and Spotify Is Good for Everyone," The Verge, June 9, 2017, <https://www.theverge.com/2017/6/9/15766804/taylor-swift-spotify-streaming-umg-catalog>, accessed October 21, 2017.
- ⁶⁵ Safian, "Spotify's \$30 Billion Playlist."
- ⁶⁶ "Now in Beta: Upload Your Music in Spotify for Artists," Spotify, September 20, 2018, <https://artists.spotify.com/blog/now-in-beta-upload-your-music-in-spotify-for-artists>, accessed April 2019.
- ⁶⁷ *Global Music Report 2018: Annual State of the Industry*, International Federation of the Phonographic Industry, April 24, 2018, <https://www.ifpi.org/downloads/GMR2018.pdf>, accessed March 2019.
- ⁶⁸ "Introducing Apple Music – All the Ways You Love Music. All in One Place," Apple.com, June 8, 2015, <http://www.apple.com/pr/library/2015/06/08Introducing-Apple-Music-All-The-Ways-You-Love-Music-All-in-One-Place-.html?sr=hotnews.rss>, accessed April 25, 2016.
- ⁶⁹ Ingrid Lunden, "Spotify Files a Complaint Against Apple With the European Commission Over 'Apple Tax' and Restrictive Rules," TechCrunch, March 13, 2019, <https://techcrunch.com/2019/03/13/spotify-files-a-complaint-against-apple-with-the-european-commission-over-apple-tax-and-restrictive-rules/>.
- ⁷⁰ "Now Streaming: Amazon Music Unlimited," Amazon, October 12, 2016, <http://phx.corporate-ir.net/phoenix.zhtml?c=176060&p=irol-newsArticle&ID=2211067>, accessed October 8, 2017.
- ⁷¹ Hugh McIntyre, "Report: YouTube Is the Most Popular Site for On-Demand Music Streaming," *Forbes*, September 27, 2017, <https://www.forbes.com/sites/hughmcintyre/2017/09/27/the-numbers-prove-it-the-world-is-listening-to-the-music-it-loves-on-youtube/#570629851614>, accessed April 2019.
- ⁷² Nathan Ingraham, "As Rdio Files for Bankruptcy, Pandora Picks It Up for \$75 Million," Engadget.com, November 16, 2015, <http://www.engadget.com/2015/11/16/pandora-buying-rdio/>, accessed April 25, 2016.
- ⁷³ John Paul Titlow, "SoundCloud Gets the Investment Lifeline It Needs to Survive—for Now," Fast Company, August 11, 2017, <https://www.fastcompany.com/40451938/soundcloud-gets-the-investment-lifeline-it-needs-to-survive-for-now>, accessed October 9, 2017.
- ⁷⁴ Safian, "Spotify's \$30 Billion Playlist."
- ⁷⁵ Ek, Spotify Q4 2018 Earnings Call webcast.
- ⁷⁶ Ek, Spotify Q4 2018 Earnings Call webcast.
- ⁷⁷ Peter Kafka, "Spotify's Chief Content Officer Is Leaving Ahead of Its IPO," Recode, January 5, 2018, <https://www.recode.net/2018/1/5/16853616/stefan-blom-spotify-content-music-streaming-ipo>, accessed March 2019.
- ⁷⁸ Sarah Perez, "US Podcast Ad Revenues Hit Record \$314 Million in 2017," TechCrunch, June 11, 2018, <https://techcrunch.com/2018/06/11/u-s-podcast-ad-revenues-hit-record-314-million-in-2017/>, accessed March 2019.