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In the Matter of: DETERMINATION OF RATES AND TERMS FOR MAKING AND DISTRIBUTING PHONORECORDS (PHONORECORDS III)	Docket No. 16–CRB-0003–PR (2018-2022)

EXPERT REPORT OF LAWRENCE S. MILLER

Expert Witness for Copyright Owners

OCTOBER 30, 2016

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I. INTRODUCTION AND SUMMARY OF FINDINGS AND OPINIONS

1. My name is Lawrence (Larry) S. Miller. I am a Clinical Associate Professor at New York University (NYU) and Director of the undergraduate and graduate Music Business Programs at the NYU Steinhardt School of Culture, Education and Human Development. I have been engaged by the National Music Publishers' Association ("NMPA") and the Nashville Songwriters Association International ("NSAI" and with NMPA "Copyright Owners") to provide my expert opinion in this proceeding in support of the rates and terms proposed by the Copyright Owners. The NMPA is the principal trade association representing all American music publishers and their songwriter partners. NSAI is a non-profit trade organization of over 5,000 songwriter members, dedicated to advancing the interests of songwriters of all genres of music

A. Qualifications

2. I have observed and analyzed the growth and development of the music industry over the last 24 years since I first began advising music companies and, more recently, in the last five years while on the NYU faculty. My clients have included major recorded music companies, music publishers, commercial and public broadcasters, ratings services, music technology companies, private equity firms and other institutional investors.

3. At NYU, I teach undergraduate and graduate courses on Music Entrepreneurship, Music Analytics, Strategic Marketing and the Business Structure of the Music Industry. Through my consulting firm Musonomics LLC, I advise media and technology companies and their financial sponsors on capital formation and growth

strategy, digital product and service development, acquisitions, and restructurings. I also produce and host the Musonomics podcast.

4. From 2007 to 2009, I was a Partner at L.E.K. Consulting and a senior member of the firm's media and entertainment practice. I later served as Executive Vice President and General Manager of MediaNet Digital.

5. From 2001 to 2006, I operated Or Music, which I also founded. Or Music was a Grammy Award winning independent record label and music publisher. I signed, recorded and published multi-platinum artists Los Lonely Boys and Matisyahu, among others, to Or Music. I also produced the album *Por Vida: A Tribute to the Songs of Alejandro Escovedo* for Or Music, which the Wall Street Journal called "an artistic and humanitarian triumph."[1]

6. From 1996 to 2001, I was Vice President of Market Development at AT&T Labs Research where I co-founded AT&T a2b Music, an early digital music rights management business. In 1999, I merged a2b Music with Reciprocal. I then served as President of Reciprocal Entertainment through the sale of that company to Microsoft in 2001.

7. I began my career as a radio broadcaster in Boston and later in New York at Tribune, NBC Radio Entertainment and WHTZ/Z100 New York, regarded as the most successful start-up in U.S. radio history (the station went from "worst to first" within 72 days of signing-on in the country's most competitive radio market).

[1] Luke Torn, *Honoring and Aiding an Ailing Rocker*, THE WALL STREET JOURNAL (Dec. 2, 2004), http://www.wsj.com/articles/SB110195358290288916.

8. I have commented on music industry stories for major media outlets including CBS, ABC, CNBC, CNN, Fox News; NPR; the Wall Street Journal, The New York Times, Time, Business Week, Financial Times, Los Angeles Times and Billboard.

9. I earned a BA from Brandeis University and an MBA from Columbia Business School.

B. <u>Compensation</u>

10. I am being paid for my participation in this matter at my standard hourly rate. I have been asked by NMPA and NSAI and its counsel to provide my independent expert opinion on the issues addressed in this report. My compensation is not dependent upon my findings or on the outcome of this proceeding.

C. <u>Summary of Findings and Opinions</u>

11. Successive shifts in the manner in which music is distributed and consumed has negatively impacted songwriters and the music publishers that represent them. More music is being consumed in more places and with more mobility than ever before, the transition from album sales (on vinyl and compact disc) to the sale of permanent downloads, to the rental model of consumer access to music through on-demand streaming services, has been catastrophic for most non-performing or "pure" songwriters. They have lost the opportunity to earn mechanical royalties on all but the most popular singles.

12. The problem is exacerbated by the well-documented fact that songwriters and publishers are receiving micro-pennies from the digital services for even the biggest hits. In my opinion, a primary cause of these low payments is that the current

rate structure is tied to the services' business models, as opposed to the value of the music itself. The existing rate scheme does not encourage the digital services to maximize revenue from their music offerings and those services are deferring short-term revenue and profits from those offerings.

13. Some of the services are using music as a loss leader to promote the sale of other products and services. Apple and Google, for instance, are using their music services to draw in consumers to their vast ecosystems to sell more smartphones and other products and services. Amazon is using its new music service to sell Echo speakers and is charging subscription prices that are significantly less than what Apple and Google charge, and less than half of what those companies charge for Amazon subscribers who own Echo speakers. Further, the current rate structure does not sufficiently incentivize Spotify to turn the 60 million users of its ad-supported, free-to-the-customer service into paying subscribers. In my opinion, a rate structure based on the greater of a per-play rate and a per-user rate will be more fair to songwriters and publishers and will provide more transparency in the services' accounting.

14. Record labels and recording artists are paid more for the use of their recordings than pure songwriters and music publishers are paid for their songs. Historically, the justification for the disparity has been the argument that the record labels' expenses were significantly higher than those of the publishers. Recent trends in the music industry have placed music publishers and record labels at a greater level of parity in terms of costs incurred and financial risk taken. Music publishers have seen increased costs in areas such as A&R and promotion, and record labels have seen a reduction in their costs to create and distribute sound recordings.

15. Both labels and publishers continue to make investments in artists and songwriters, respectively, through the payment of advances that can range up to many millions of dollars for just one artist or writer. While mechanical royalties have declined for music publishers and songwriters, record labels have tapped into many additional sources of revenue. Labels are also not constrained by the compulsory license in negotiating with interactive streaming and limited download services and so they are able to negotiate more favorable royalty rates and, in some cases, even equity in the services. This greater level of parity in spending between labels and publishers should eliminate many of the antiquated justifications for paying labels significantly more than publishers when both are licensing a third party to use their sound recordings and musical works, respectively.

II. SUCCESSIVE SHIFTS IN THE MANNER IN WHICH MUSIC IS DISTRIBUTED AND CONSUMED HAS NEGATIVELY IMPACTED SONGWRITERS AND MUSIC PUBLISHERS

A. The Album Comes Undone

16. For nearly four decades, the record album – where multiple songs are bundled together to form a collective whole – was the primary method by which music was consumed. Following the introduction of the stereo LP in 1958,[2] albums quickly replaced singles as the dominant format for music consumption. By 1973, album formats (vinyl, 8-tracks and cassettes) accounted for 90% of U.S. music revenue. Meanwhile, vinyl singles – the only measured format available at the time in which

[2] *Association History*, MUSIC BUSINESS ASSOCIATION (Sep. 23, 2016 8:25 AM), https://musicbiz.org/history/?decade=1950.

individual songs were unbundled from their respective albums – accounted for only 9% of the U.S. industry's overall revenue.[3]

17. In 1983, the introduction of the CD further contributed to the dominance of the album as the primary means of music consumption in the U.S. CDs eliminated vinyl's distortion problems and the need to flip a record halfway through, and offered longer playing time.[4] Album sales exploded as the CD gained traction and labels began remastering catalog releases in the 1990s.[5] The peak of the album era and the U.S. music industry as a whole came in 1999 when album formats (CDs and cassettes) brought in 95% of the industry's $20.68 billion in overall revenue (adjusted for inflation to 2015 dollars). In comparison, CD singles and vinyl singles combined accounted for only 2% of the tota1.[6]

18. However, because the digital files on CDs were not copy-protected, they could be "ripped" from CDs and converted into file formats that could be easily transmitted over the Internet. Napster was the first to truly capitalize on this technological change by creating a "peer-to-peer" network used almost exclusively for the illicit trading of these digital files. The theft of music on these peer-to-peer networks contributed to declines in albums sales and, therefore, revenues.

19. In 2001, Apple introduced iTunes, then a music media management application to store digital music files (whether ripped from a CD, obtained on an

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[3] *U.S. Sales Database*, RIAA (Sep. 23, 2016 8:31 AM), https://www.riaa.corn/u-s-sales-database/.

[4] Bernard Holland, *Digital Compact Disks: Replacement for LPS?*, THE NEW YORK TIMES (Mar. 31, 1983), http://www.nytimes.com/1983/03/31/arts/digital-compact-disks-replacernent-for-lps.html.

[5] Joel Rose, *The CD, at 30, Is Feeling Its Age*, NPR MUSIC (Oct. 1, 2012), http://www.npr.org/sections/therecord/2012/10/01/162062347/the-cd-at-30-is-feeling-its-age.

[6] *U.S. Sales Database*, RIAA (Sep. 23, 2016 8:31 AM), https://www.riaa.com/u-s-sales-database/.

illegal peer-to-peer service, or purchased from a download store). In 2003, licensed alternatives to piracy began to catch on and Apple introduced the iTunes store,[7] which sold digital downloads and sent them directly to a user's iTunes song library. In 2004, the first year in which the sale of permanent digital downloads made an impact on RIAA measurements, revenue from digital singles ($173 million in 2015 dollars),[8] nearly tripled that of digital albums ($57 million in 2015 dollars), likely due to the iTunes Store's offering albums a la carte as singles as well as in bundled, album form.[9] Although Apple was seen as providing an early alternative to piracy, as Peter Stanwick and Sarah Stanwick point out in their textbook on business ethics, "Apple officials were not concerned with illegal music transfers *per se*, but wanted people to buy its computers."[10]

20. Just a few years following iTunes' introduction, as digital devices expanded into consumer life, digital music sales exploded. In 2008, iTunes surpassed Walmart as the top overall music retailer in the U.S.[11] By 2010, iTunes accounted for 28% of all music purchased by U.S. consumers. In addition, Amazon – bolstered by its growing Amazon MP3 digital download store and online CD sales – tied with Walmart

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[7] *Association History*, MUSIC BUSINESS ASSOCIATION (Sep. 23, 2016 8:43 AM), https://musicbiz.org/history/?decade=2000.

[8] *U.S. Sales Database*, RIAA (Sep. 23, 2016 8:31 AM), https://www.riaa.com/u-s-sales-database/.

[9] Nathan Ingraham, iTunes Store at 10: how Apple built a digital media juggernaut, THE VERGE (Apr. 26, 2013), http://www.theverge.corn/2013/4/26/4265172/itunes-store-at-10-how-apple-built-a-digital-media-juggernaut.

[10] PETER STANWICK & SARAH STANWICK, UNDERSTANDING BUSINESS ETHICS 410 (3d ed. 2016).

[11] CBS News, *iTunes Overtakes Wal-Mart In Music Sales*, CBS MONEY WATCH (Apr. 4, 2008), http://www.cbsnews.com/news/itunes-overtakes-wal-mart-in-music-sales/.

for second place, each with 12% of the overall market.[12] The market for downloads peaked in 2012 when combined sales of digital singles and albums accounted for 40% of total U.S. recorded music revenue. In comparison, the top two physical album formats (CDs and vinyl) accounted for 38% of overall U.S. recorded music revenue,[13] illustrating that digital formats had reached a point of parity with the physical marketplace.

21. The growth of digital downloads was tied to increasing broadband internet adoption in U.S. households, as the increased speed over dial-up was necessary to make the download experience palatable. For example, downloading a four-minute song with a 4MB file size from iTunes takes 1-to-16 seconds with a broadband internet connection, while that same file takes nearly 10 minutes to complete via a 56K dial-up connection.[14] However, broadband penetration may have reached a saturation point, with a peak of 70% of U.S. households reporting broadband connectivity in 2013 and only 67% reporting the same in 2014, largely due to the rising number of U.S. residents who use only their smartphones to connect to the internet (13% in 2014).[15]

22. The shift from the sale of albums to a la carte digital downloads resulted in songwriters earning less mechanical income. Whereas album cuts had previously

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[12] *The NPD Group: Amazon Ties Walmart as Second-Ranked U.S. Music Retailer, Behind Industry-Leader iTunes*, NPD (May 26, 2010), https://www.npd.corn/wps/portal/npd/us/news/press-releases/pr_100526/.

[13] *U.S. Sales Database*, RIAA (Sep. 23, 2016 8:49 AM), https://www.riaa.com/u-s-sales-database/.

[14] *About download times for the iTunes Store purchases and rentals*, APPLE, INC. (Sep. 23, 2016 8:49 AM), https://support.apple.cornien-us/HT201587.

[15] Mike Snyder, *Homes with Broadband Internet Hit Plateau*, USA TODAY (Dec. 21, 2015), http://www.usatoday.com/story/tech/2015/12/21/homes-broadband-intemet-hits-p1ateau177669066/.

sustained the careers of many songwriters, they came to produce very little income in a singles' marketplace.

B. Streaming Takes Hold And Further Solidifies <u>The Market As A Singles Market</u>

23. With the rise of smartphones, music consumption in the U.S. has begun to switch from an ownership model, in which consumers purchased downloads or physical products that they owned indefinitely, to an access model, in which they can play content from a variety of licensed services in exchange for a monthly subscription fee or, in some cases, for free (as in an advertising-supported model). Currently, nearly 80% of U.S. residents own a smartphone[16] and 40% of the smartphone market is controlled by Apple.[17] In the U.S., smart- phones using Apple iOS and Google Android operating systems comprised 97% of the market by the end of 2015.[18]

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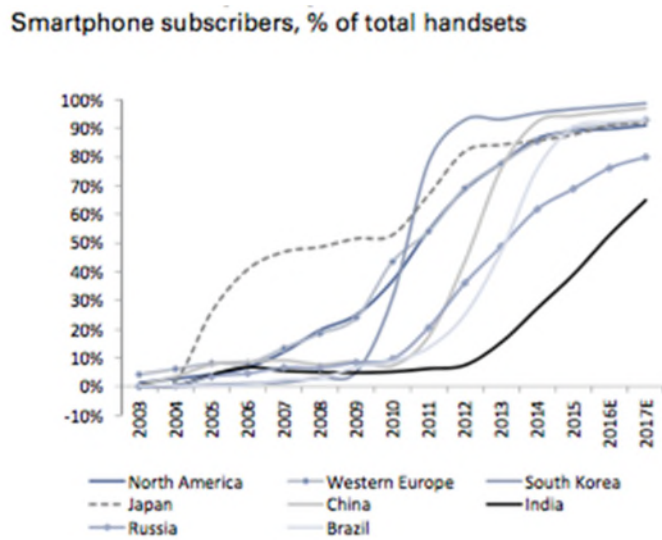
[16] *comScore Reports January 2016 US. Smartphone Subscriber Market Share,* COMSCORE (Mar. 4, 2016), http://www.comscore.com/Insights/Rankings/comScore-Reports-January-2016-US-Smartphone-Subscriber-Market-Share.

[17] *Apple iPhones accounted for 40% of US. smartphone market in 2015,* USA TODAY (Feb. 10, 2016), http://www.parksassociates.com/blog/article/pr-02102016-mwc.

[18] *Subscriber share held by smartphone operating systems in the United States from January 2012 to February 2016, STATISTIA* (2016), https://www.statista.com/statistics/266572/market-share-held-by-smartphone-platforms-in-the-united-states/.

FIGURE 1
SMARTPHONE PENETRATION[19]



24. The need for an access model was driven, in part, by the lower storage capacity of smartphones like the iPhone (maximum of 128GB on iPhone 6s)[20] compared to music storage devices like the iPod (maximum of 160GB on iPod Classic),[21] coupled with the increased storage demands of smartphones like the iPhone – which also stores photos and videos captured with its built-in camera, apps downloaded from Apple's App Store, and a variety of other data – compared to the iPod, which only stored music files. In addition, the introduction of 3G wireless connectivity to the iPhone in 2008, was crucial to the development of streaming

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[19] GOLDMAN SACHS: LISA YANG, HEATHER P. TERRY, MASARU SUGIYAMA, SIMONA JANKOWSKI & HEATHER BELLINI, MUSIC IN THE AIR: STAIRWAY TO HEAVEN 32 (Oct. 4 2016).

[20] *iPhone 6s*, APPLE, INC. (Sep. 23, 2016 9:05 AM), http://www.apple.com/iphone-6s/specs/.

[21] Ben Travis, *Why the loss of the iPod Classic is bad news for music fans*, THE TELEGRAPH (Sep. 10, 2014), http://www.telegraph.co.uk/technology/apple/11086805/Why-the-loss-of-the-iPod-Classie-is-bad-news-for-music-fans.html.

services,[22] as it enabled users to download a 4MB music file in only 16.4 seconds.[23] When 4G networks decreased the download time for a 4MB file to less than 1 second in 2012,[24] the stage was set for the streaming explosion, as the increased speed made it possible for high-quality music files to be streamed seamlessly via mobile with little to no interruption. Today, Spotify and many on-demand streaming services allow paying subscribers to cache music offline on their devices for easy access to their music libraries without consuming data and while outside of network coverage.

25. On-demand streaming's initial growth was constrained by the device and bandwidth considerations explained above. The first major player, Rhapsody, entered the market in 2001 and grew slowly over its first decade to only 1 million paid subscribers by December 2011. However, its growth then accelerated significantly, jumping to 3.5 million by December 2015.[25] Overall on-demand streaming growth was accelerated by the entrance of Spotify, which launched outside of the U.S. in 2008 and made its way to the U.S. in 2011. Since 2012, there have been several new entrants. Google Play launched in 2013; Apple Music and TIDAL launched their on-demand streaming services in 2015; SoundCloud launched its version of a premium on-demand streaming service in March 2016; iHeartMedia, which dominates U.S. radio with 858 stations, announced in September 2016 that it is launching an on-demand streaming

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[22] AOL.com Editors, *The Evolution of the iPhone*, AOL (Sep. 7, 2016), http://www.ao1.com/artic1e/2016/09/07/the-evolution-of-the-iphone/21467253/.

[23] Margeurita Tan, *How I Met Your Mother's Smartphone*, USA ONLINE, http://www.todayonline.com/brandstudio/singtel/mobilehistory.

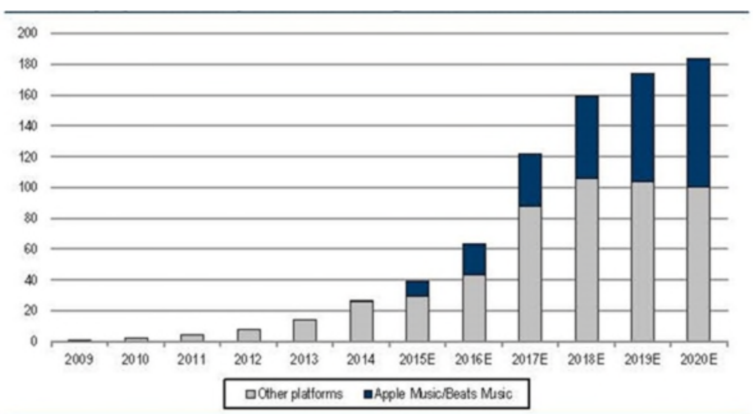
[24] *Id.*

[25] Billboard Staff, *Rhapsody Nears 3.5 Million Global Subscribers*, BILLBOARD (Dec. 4, 2015), http://www.billboard.com/artic1es/business/6806086/rhapsody-2015-global-subscribers-growth-streaming.

service; Amazon launched its standalone subscription interactive streaming service this October; and Pandora, the largest streaming service in the world, intends to launch an interactive streaming service to complement its non-interactive streaming service.

26. Today, depending on reports, Spotify counts anywhere from 17 million to 25 million paid subscribers, out of over 100 million total user worldwide, while Apple Music is already at 17 million.[26] One can clearly observe the growth of the paid streaming services in this Figure 1 from the April 2016 Credit Suisse report on the Global Music market.[27]

FIGURE 2:
PAID STREAMING PLATFORM SUBSCRIBERS 2009 — 2020E[28]



Source: Company data, Credit Suisse estimates

27. The growth of the market strongly correlates with peak broadband penetration in 2014 and the move to smartphones (see Figure 2).

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[26] Lizzie P1augic, *Apple Music Now Has 17 Million Subscribers*, THE VERGE (Sep. 7, 2016), http://www.theverge.com/2016/9/7/12836994/apple-music-17-million-subscribers-2016.

[27] James Cook, *The global downturn in the music industry may finally be over*, BUSINESS INSIDER (Apr. 4, 2016), http://www.businessinsider.com/credit-suisse-global-downturn-music-industry-streaming-apple-note-2016-4.

[28] *Id.*

28. These streaming and limited download services not only continue the market trend of offering individual tracks on an album on an a la carte basis, but also enable users to create and listen to playlists of individual tracks. Streaming has therefore further contributed to the unbundling of the album format that began with iTunes in 2003. CDs have been in decline for years, with revenues falling 17% from 2014 to 2015.[29] That trend shows no signs of slowing, as 73% of CD buyers are over 35, while 69% of streaming subscribers are under 35.[30]

C. The Shift To Streaming Harms Songwriters And Publishers In Numerous Ways

29. These switches from physical to digital, and from ownership to access, have impacted songwriters and their publishers, who receive mechanical royalties from the reproduction and distribution of musical compositions on recordings, whether a deep cut on a vinyl LP, a download from iTunes or a stream on Spotify. As a result of the settlement of the Phonorecords I proceedings two rate periods ago, a complex greatest-of rate structure was adopted for mechanical reproductions involving interactive streams and limited downloads. While this rate structure was negotiated when the streaming industry was nascent and when the prospects for digital streaming were unknown, it has turned out to be a bad deal for songwriters and publishers. It has been well publicized that the low effective per-play rates paid by some of these services – particularly those that are giving away the music for free – have resulted in

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[29] *Id.*

[30] Mark Mulligan, *The Steady Demise of the CD Buyer. How The Music industry is Sleepwalking Into a Revenue Collapse,* MIDIA (Feb, 2016), https://data.midiaresearch.com/reports/66.

dramatically decreased mechanical income on all songs, including major hits.[31] Below I describe (a) what I believe to be a root cause of the problem, and (b) some other perhaps less obvious ways that the shift to streaming has harmed songwriters and publishers.

30. First, as I noted above, the rate structure is problematic because it ties mechanical royalty payments payable to songwriters and publishers not to usage, but to the business models of the digital services which are not incentivized to maximize revenue from their music services. The digital services have, in fact, chosen to defer short-term revenue by charging low subscription prices (or no subscription prices) to gain market share. Some digital services are also using their music services as loss leaders to sell other products and services to consumers, all of which has resulted in lower payments to songwriters and publishers.

31. Apple, for example, has used family plans, student discounts and free, limited-duration trials as an inducement for customers to sign up with its music service. Amazon's Prime Music Service was an add on for those with a Prime membership. As of last month, Amazon is estimated to have 65 million U.S. Prime members, more than double what it had two years ago, according to Consumer Intelligence Research Partners. The research firm estimates Prime members spend about twice as much as non-Prime customers.[32] Amazon's new Music Unlimited is a central part of its

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[31] John Seabrook, *Will Streaming Music Kill Songwriting?* NEW YORKER (Feb. 8, 2016), http://www.newyorker.com/business/currency/will-streaming-music-kill-songwriting; Aloe Blacc, *Streaming Services Need to Pay Songwriters Fairly*, WIRED (Nov. 5, 2014), https://www.wired.com/2014/11/aloe-blacc-pay-songwriters.

[32] Steven Russolillo, *Amazon Can't Neglect Its Retail Roots*, THE WALL STREET JOURNAL (Oct. 26, 2016), http://www.wsj.com/articles/amazon-com-cant-neglect-its-retail-roots-1477510402.

marketing strategy to entice consumers to buy their new Echo smart speaker, introduced at a $180 price point.[33] Prime members can subscribe to Amazon Music Unlimited for $7.99 per month, and those who already have one of the company's voice-controlled Echo devices can subscribe to Amazon Music Unlimited for $3.99 a month, or 60% below the benchmark price of $9.99 being charged for the premium on-demand services offered by Spotify, Apple and Google. These strategies all reduce revenue from the music services, while increasing consumption, which lowers the effective per play rate the services pay to publishers and writers. Pandora acquired concert ticketing company Ticketfly in October 2015 for $450 million, and now Ticketfly sends concert notifications directly to listeners when a performer the listener has just heard is on tour near them.[34] The songs entice the consumers to the services' other products and offerings, but the songwriters and music publishers get no share of these other income streams. A mechanical rate structure based on music service revenue is not reasonable or fair when the service provider is not interested in running a profitable music business per se, but in acquiring customers to drive another, more profitable arm of the company.

32. The problems of a revenue-based mechanical royalty model are very troubling too with respect to ad-supported offerings. The royalties paid for an ad-supported offering may in fact approach zero for any particular songwriter under the

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[33] Hannah Karp & Laura Stevens, *Amazon's Music-Streaming Service Competes on Price and Robotic Assistanc*e, THE WALL STREET JOURNAL (Oct. 12, 2016), http://www.wsj.com/articles/new-amazon-music-streaming-service-costs-echo-speaker-owners-4-a-month-1476255600.

[34] Sarah Perez, *Pandora will now recommend nearby concerts, thanks to Ticketfly*, TECH CRUNCH (Jul. 27, 2016), https://techcrunch.com/2016/07/27/pandora-will-now-recommend-nearby-concerts-thanks-to-ticketfly/.

existing regulations, which require the payment of an all-in royalty of 10.5% of ad-revenue for performance and mechanical rights. If ad-revenue is low or non-existent, there is a very small pool of royalties to divide over millions of songs and billions of plays. With no per-play rate, there is no logical incentive for the services to maximize their ad-revenue beyond covering their own costs for these offerings.

33. Spotify's free service is particularly controversial. While the free, ad-supported streaming tier may have helped convert users to paid subscribers in Spotify's early days, since 2015, that conversion has been decreasing. As music industry analyst Mark Mulligan wrote, "free just wasn't converting at the same rate it once did in mature markets like the US."[35] The Spotify ad-supported service provides the user access to the same music library as the paid service, indefinitely. It seems intuitive that if a service really wanted to maximize conversion from free to paid, the service would provide free access for a limited time or with limited repertoire, or might increase advertising inventory or limit the ability of a user to multi-task by disabling the free user's ability to access music in the background while the user is doing something else like checking email or updating Instagram on their device in the foreground. Spotify has done none of these things.

34. The second way that the current rate structure negatively impacts songwriters and publishers is the lack of transparency it engenders. Working out the total music publishers' royalty under the current percentage calculation for an on-demand streaming subscription service requires knowing the service's monthly

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[35] *Spotify May Be Buying Soundcloud, But Who Wins?*, MUSIC INDUSTRY BLOG (Sep. 28, 2016), https://musicindustryblog.wordpress.com/category/ad-supported/.

revenue, the number of subscribers, the payments by the service to the record companies, and the payments for performance royalties. This makes it impossible for songwriters and publishers to ensure they are being paid fairly and completely, as they do not receive enough data to properly verify their royalty payments.

III. THE RELATIVE COSTS, RISKS, AND RETURNS OF PUBLISHERS AND LABELS JUSTIFIES PUBLISHERS RECEIVING A GREATER SHARE OF STREAMING ROYALTIES

35. Given their ability to operate in the free market and benefit from multiple income streams beyond the exploitation of the sound recording, record labels generally receive more revenue than music publishers. Historically record labels have claimed that the differential is warranted because their expenses are higher than those of the music publishers. This continued viability of this rationale, however, is questionable in the era of interactive streaming.

A. Labels Have More Sources Of Revenue Than Publishers

36. In 2015, the global recorded music industry brought in a total of $15 billion, an increase of 3.2% from the previous year largely fuelled by the growth of streaming. Digital revenue accounted for 45% of that amount (about $6.7 billion), while physical revenue accounted for 39% (about $5.8 billion). In addition, revenue from performance rights accruing to record companies and performers made up 14% of the total (about $2.1 billion) and synchronization revenue accounted for 2% (about $300 million).[36]

[36] *IFP1 Global Music- Report 2016*, IFPI (Apr. 12, 2016), http://www.ifpi.org/news/IFPI-GLOBAL-MUSIC-REPORT-2016.

37. In addition to the above income streams, recognizing the decline in value of the sales of recorded music, labels are increasingly signing artists to "360" deals, which give them a cut of the revenue generated from income streams previously beyond the reach of record companies. These income streams can include tour, concert, and live performance revenue; merchandise sales; endorsement deals; and fees for TV or movie appearances. Chief among these is touring and merchandising revenue. According to Nielsen's 2016 Music 360 study, live music events now account for 57% of consumer music spending, and that percentage is on the rise from 52% in 2015. These revenue sources are all beyond the grasp of music publishers,[37] and contribute to the disparity between label and publisher income.

38. Furthermore, while compulsory licenses restrain the ability of songwriters and publishers to negotiate with streaming services for the use of their catalogs, all three major record labels have been able to leverage the rights to their master recordings to acquire equity stakes in major streaming services such as Spotify. In fact, Universal Music Group, Sony Music Entertainment, and the Warner Music Group collectively hold $3 billion in equity in digital music start-ups, 20% of what all three labels are collectively worth.[38]

39. This arrangement allows labels to exploit new sources of income that are unavailable to songwriters and publishers. For example, Universal recently made $404

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[37] Heather McDonald, *How 360 Deals in the Music Industry Work*, THE BALANCE (Aug. 5, 2016), https://www.thebalance.com/how-360-deals-in-the-music-industry-work-2460343.

[38] Zack O'Malley, *Revenge Of The Record Labels: How The Majors Renewed Their Grip On Music*, FORBES (Apr. 15, 2015), http://www.forbes.com/sites/zackomalleygreenburg/2015/04/15/revenge-of-the-record-labels-how-the-majors-renewed-their-grip-on-music/#376caf06debe.

million from Apple's acquisition of Beats By Dre, of which Universal owned a 13% share.[39] Meanwhile, Warner owner Access Industries recently acquired a 50%-plus share of on-demand streaming service Deezer, effectively gaining full control of the company,[40] which launched in the U.S. in 2015.[41]

40. This situation presents at least a misalignment of interests. It stands to reason that the more profitable these music services are, the better their presumed exit events (either an IPO or trade sales) will be for their shareholders – income streams from which songwriters and publishers receive nothing.

41. To contrast, songwriters and music publishers currently have three major sources of income. The first source of income – mechanical royalties — covers money earned from the reproduction and distribution of a recording of a song, with rates set by the Copyright Royalty Board in proceedings such as the present one. In the case of permanent downloads and physical product, the statutory rate is a penny rate that has not kept pace with the rate of inflation.[42]

42. The second source of income – performance royalties – covers income earned from the public performance of music via terrestrial broadcast radio and television, digital music services, live performances and through general licensing to

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[39] *Id.*

[40] Tim Ingham, *Len Blavatnik's Access Industries takes 'exclusive control' of Deezer*, MUSIC BUSINESS WORLDWIDE (Sep. 7, 2016), http://www.musicbusinessworldwide.com/len-blavatniks-access-industries-takes-exclusive-control-deezer/.

[41] Micah Singleton, *Deezer's music-streaming service is now available for everyone in the US*, THE VERGE (Jul. 19, 2016), http://www.theverge.com/2016/7/19/12227120/deezer-available-us-music-streaming.

[42] *Historical Royalty Rotes*, HARRY FOX AGENCY, https://secure.harryfox.com/public/HistoricalRoyaltyRates.jsp.

physical outlets like restaurants, bars, gyms, and retail stores.[43] Performance royalties are collected by performing rights organizations (PROs) such as ASCAP, BMI, and SESAC. ASCAP and BMI, which represent 90% of the songs released commercially in the U.S. and account for 70% of performance distributions to music publishers,[44] operate under decades-old Consent Decrees with the U.S. Department of Justice. These Consent Decrees are overseen by federal "rate courts." Pursuant to their Consent Decrees, ASCAP and BMI require member or affiliate music publishers to make their full catalogs available to anyone who applies for a license.

43. The third major source of income – synchronization royalties – includes money earned from the placement or use of a song in conjunction with a video or visual image. Record labels or music publishers are not regulated with respect to issuing synchronization licenses. As a result, synchronization revenue is typically split 50/50 between writers and publishers.[45] This use is primarily driven by the use of music in film and television.

44. Mechanical and performance royalties accounted for 75% of U.S. music publisher revenues in 2013. Synchronization fees,[46] the only income source over which songwriters and publishers have free market control, accounted for 20% of such revenues. Meanwhile, U.S. revenue from synch royalties appears to be plateauing, as

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[43] *How Songwriters Get Paid*, NASHVILLE SONGWRITERS ASSOCIATION INTERNATIONAL, https://www.nashvillesongwriters.com/how-songwriters-get-paid.

[44] ALICE ENDERS & CHRIS HAYES, US MUSIC PUBLISHING 2014-17: POISED FOR GROWTH 7 (May 11 2015).

[45] *How Songwriters Get Paid*, NASHVILLE SONGWRITERS ASSOCIATION INTERNATIONAL, https://www.nashvillesongwriters.com/how-songwriters-get-paid.

[46] ALICE ENDERS & CHRIS HAYES, US MUSIC PUBLISHING 2014-17: POISED FOR GROWTH 7 (May 11 2015).

they were flat year-over-year in the first half of 2016 at $100 million.[47] Thus, it appears that going forward, an even greater percentage of songwriters' and music publishers' income may be subject to government price control.

B. The Gap Between Label and Publisher Expenditures Is Narrowing

45. As noted above, record labels have argued that they have higher costs than music publishers. The IFPI found that when labels sign a performing artist, they typically spend between $500,000 and $2 million on artist development, the vast majority of which is recoupable against the artist's future royalties. This means artists do not see royalty income from their master recordings until these expenses are recouped. These expenses include an advance of $50,000 to $350,000 payable to the artist, recording costs of $150,000 to $500,000, video production budget of $50,000 to $300,000, tour support of $50,000 to $150,000, and marketing and promotion costs of $200,000 to $700,000.[48]

46. Compare this, however, to advances paid by music publishers. For new songwriters, advances can range from $18,000 to $100,000 per year.[49] Superstar writers can earn advances of hundreds of thousands or even millions of dollars a year.[50] The level of advance may vary depending on whether the writer is a "pure songwriter" or is also an artist with a record deal.

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[47] Joshua P. Friedlander, *News and Notes on 2016 Mid-Year Music Shipment and Revenue Statistics*, RIAA (2016), http://www.riaa.com/wp-content/uploads/2016/09/RIAA_Midyear_2016Final.pdf.

[48] *Investing in Music*, IFPI (Sep. 23, 10:26 AM), http://www.ifpi.org/how-record-labels-invest.php.

[49] *See, e.g.*, DONALD S. PASSMAN, ALL YOU NEED TO KNOW ABOUT THE MUSIC BUSINESS 269 (7th ed. 2009).

[50] *Id.*

47. Music publishers are also investing more money in developing and marketing songwriters and the songs that they create. They are spending money to host and fly songwriters to all-expenses paid songwriter camps. They are providing recording facilities and paying for demos to be recorded in order to do their most important work: shop the songs to labels, managers and producers to get the right artists to record them. They also spend considerable amounts to place finished music in commercials, movies, TV shows, video games and other products,[51] to enforce their songwriters' copyrights, and to maintain their royalty administration infrastructure.

48. One important distinction between a record label and a music publisher is the "shelf life" of their intellectual property. A label will focus on an individual release for 3-18 months, but a music publisher will work to market a song for the life of the copyright, promoting it to new artists for cover versions and bringing it to music supervisors for use in films, TV and commercials. All of a music publishers' repertoire can be considered "current," whereas recordings at least 18-months old, that have fallen below No. 100 on the Billboard 200, or are re-issues of older albums are considered "catalog," not "front-line" product for record labels.[52] So while record labels may, in the short term, spend more to promote a particular recording, in the long term, a publisher's promotional investments in any given song may be greater.

49. Another significant justification offered in the past for paying greater royalties for sound recordings than for musical works was the cost of record production

[51] Todd Brabec & Jeff Brabec, *Songwriter and Music Publisher Agreements: A Relationship Necessary For Success*, ASCAP (2008), http://www.ascap.com/music-career/articles-advice/industryNotes/200809.aspx.

[52] *Catalog Albums*, BILLBOARD, http://www.billboard.com/charts/catalog-albums.

and distribution. However, the availability of low cost recording technology has led to reduced cost for recording a competitive album. Big city professional recording studios have been in crisis for over a decade as widely available music recording and production software tools like GarageBand, Logic and ProTools have enabled low cost commercial music production, often in bedroom studios. Indeed, GarageBand is ubiquitous. It comes pre-installed on every device sold by Apple, including the iPhone, iPad, and Mac computers. With nearly 300 million of those devices sold in 2015 alone, its market penetration is extensive, and these software applications are powerful. For example, indie-pop artist Grimes recorded her entire breakthrough album, Visions, on her own using GarageBand.[53]

50. Outside the few elite, superstar recording projects, record company advances typically fund the production of an average, competitive recording without the use of big commercial recording studios. One can extrapolate that the labels are leveraging the availability of lower-cost technology to drive down the cost of producing an average, competitive record, which reduces both the recording budget and therefore the risk of not recouping advance money paid to recording artists.[54]

51. The drop in the use of commercial recording studios is well-documented. The Hit Factory closed its New York location in 2005 to make way for condominium development. Sony Music Studios opened in 1993 and closed in 2007. In 2016, The Magic Shop and MSR (Manhattan Recording Studios), among the last surviving full

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[53] Art Tavana, *Democracy of Sound: Is GarageBand Good for Music?*, PITCHFORK (Sep. 30, 2015), http://pitchfork.com/features/article/9728-democracy-of-sound-is-garageband-good-for-music/.

[54] *Id.*

service recording studios in Manhattan, closed their doors. Avatar Studios, formerly known as the Power Station, is reportedly for sale.[55] Between 1999 and 2014, New York State's share of hit music production fell by 49.3%.[56] In a study authored by Jennifer Fowler of Belmont University in 2014 reviewing census data, Nashville's recording studios peaked at 96 in 2002 and employed 486 people in 2001, and fell to a low of 63 studios in 2010, and the number of employees dropped to a low of 158 in 2009.[57] The studio industry has continued to suffer since then, with high-profile closures of 16 Ton Studios, Sound Shop, Fireside Studios and others,[58] with the famed RCA Studio A only narrowly missing demolition.[59] Los Angeles, the third major location for recording, has also experienced a steep decline. As noted in a 2009 Los Angeles Times article, "Although nobody officially tracks the number of recording studios, the consensus among industry experts is that the big commercial facilities have taken a major hit. They estimate that as many as half of the L.A. area's commercial studios have closed or been sold to artists for private use. A key reason is that recording software emulates what old studio consoles and tape recorders used to do – at

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[55] Matt A.V. Chaban, *The Music May Stop at a Storied Manhattan Studio,* THE NEW YORK TIMES (Sep. 28, 2015), http://www.nytimes.com/2015/09/29/nyregion/as-hit-factory-fades-chrome-faucets-may-supplant-gold-records.html?_r=0.

[56] Downtown Music Publishing, *'New York Is Music' Reveals Stark Decline In New York State Music Production,* SHORE FIRE MEDIA (Feb. 13, 2015), http://shorefire.com/releases/entry/new-york-is-music-reveals-stark-decline-in-new-york-state-music-production.

[57] Nate Rau, *Music industry leaders push recording studio incentive*, THE TENNESSEAN (Oct. 27, 2014), http://www.tennessean.com/story/money/industries/music/2014/10/17/music-industry-leaders-push-recording-studio-incentive/17440619/.

[58] Nate Rau, *16 Ton Studios will go silent at end of year,* THE TENNESSEAN (Nov. 19, 2014), http://www.tennessean.com/story/news/2014/11/18/ton-studios/19248511/.

[59] *Historic RCA Studio A Saved From Demolition,* THE ROLLING STONE (Dec. 23, 2014), http://www.rollingstone.com/music/news/historic-rca-studio-a-saved-from-demolition-20141223.

a fraction of the price. Among the most widely used programs are Avid Technology Inc.'s Pro Tools, Steinberg Media Technologies' Cubase and Apple Inc.'s GarageBand."[60] Famed musician Dave Grohl even filmed a documentary about the closing of recording studio Sound City in 2011, where Tom Petty, Fleetwood Mac, Neil Young, and Nirvana all recorded seminal albums, and his purchase of its famed recording console.[61]

52. Technology has also revolutionized the record distribution side. Record labels used to have to press vinyl records or CDs, store them as inventory, and put them in trucks to be delivered to record stores. Now, all they need to do is send digital files to the digital services, who store them on their servers and provide them to consumers.

53. The role of the record label has been minimized not only by recording technology, but today, an artist need not even use a record label to distribute his or her recordings. Services such as CD Baby, Tunecore, and Distrokid have made it extremely easy and inexpensive for anyone to upload their music onto every major digital distribution platform. For example, CD Baby offers worldwide digital and CD distribution for $9.95 per single and $49 per album,[62] while Tunecore offers worldwide digital distribution for $9.99 per year per single and $29.99 for the first year of an album's release followed by $49.99 for each subsequent year.[63] Further driving down

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[60] Nathan Olivarez-Giles, *Recording studios are being left out of the mix*, LOS ANGELES TIMES (Oct. 13, 2009), http://articles.latimes.com/2009/oct/13/business/fi-smallbiz-studios13.

[61] Miriam Coleman, *Sound City Studios Owner Tom Skeeter Dead at 82*, THE ROLLING STONE (Sep. 14, 2014), http://www.rollingstone.com/music/news/sound-city-studios-owner-tom-skeeter-dead-at-82-20140914.

[62] CD BABY (Sep. 23, 2016 11:01 AM), https://members.cdbaby.com/cd-baby-cost.aspx.

[63] *Tunecore Pricing*, TUNECORE (Sep. 23, 2016 11:05 AM), http://www.tunecore.com/index/pricing.

the price is Distrokid, which charges only $19.99 per year for unlimited song and album uploads.[64]

54. In sum, while labels may still have greater costs than publishers, that gap is closing due to decreases in labels costs combined with publishers being forced to undertake more promotional activities and incur greater risk of loss than in the past.

IV. SUMMARY OF OPINIONS

55. The recorded music and music publishing businesses are undergoing transformative change driven by the long term transition from physical product and permanent downloads to on-demand streaming. The shift to an access model, combined with a statutory rate structure that ties the royalties of songwriters and publishers to revenues earned by digital services that are motivated by business interests other than generating revenue from their music offerings, has resulted in reduced mechanical royalty payments to songwriters and publishers generally, but particularly to non-performing or "pure" songwriters, who require royalties from album cuts to sustain themselves.

56. The steaming revolution has not had the same adverse effects on the recorded music industry, which has seen increased revenues fuelled by the growth of streaming as well as from additional revenue sources that are not available to music publishers and songwriters. At the same time, the historical justifications for record labels receiving a greater share of royalties than music publishers and songwriters when a sound recording embodying a musical work is sold or licensed are becoming

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[64] *How Much Does It Cost?*, DISTROKID (Sep. 23, 2016 11:05 AM), https://distrokid.desk.com/customer/portal/articles/1276095-how-much-does-it-cost-.

increasingly anachronistic. Recent trends in the music industry have placed music publishers and record labels at a greater level of parity in terms of both costs incurred and risk undertaken. Music publishers have seen increased costs in areas such as A&R and promotion, and record labels have seen a reduction in their costs to create and distribute sound recordings.

57. The recorded music and music publishing industries hit an inflection point in 2015, which solidified in the first half of 2016 as streaming became the largest revenue source for the U.S. recorded music business, overtaking physical CDs for the first time. The path forward is now clear. What is less clear, however, is how songwriters can sustain themselves in the absence of a per-play and per-user on-demand streaming rate. As we noted on an episode of the Musonomics podcast earlier this year, "If the songwriters can't make a living writing songs, where will the songs come from?"[65]

[65] *Songwriters, Consent and the Age of Discontent,* MUSONOMICS (2016) (downloaded using iTunes at https://itunes.apple.com/us/podcast/musonomics/id985799104?mt=2).

I declare under penalty of perjury that the foregoing testimony is true and correct to the best of my knowledge, information and belief.

Dated: October 28, 2016

Larry Miller

APPENDIX A

Materials Relied Upon by Lawrence S. Miller

Academic Books and Journal Articles

PETER STANWICK & SARAH STANWICK, UNDERSTANDING BUSINESS ETHICS 410 (3rd ed. 2016)

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APPENDIX B

Curriculum Vitae of Lawrence S. Miller

LARRY S. MILLER
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Strategic leader, teacher and music industry expert with over 20 years in all phases of music publishing and production, distribution and advanced technology, driving growth for the Fortune 100, startups and their investors. M&A advisory, business development, capital formation, recruiting and retaining the team, turning good ideas into amazing products, articulating the plan and executing with rigor in all economic cycles.

PROFESSIONAL EXPERIENCE

NYU – Steinhardt School of Culture, Education and Human Development **2013 - present**
Director, Music Business Program and Clinical Associate Professor

Courses taught: Undergraduate and graduate courses in

- Business Structure of the Music Industry: copyright, music publishing, recorded music, digital music services and venture economics
- Entrepreneurship in the Music Industry: the capstone course in the undergraduate program, where students generate a fundable music startup
- Data Analysis in the Music Industry: graduate course in music analytics; students learn literacy in the sources and uses of data as a strategic asset in the music industry
- Strategic Marketing in the Music Industry: an in-depth analysis of how the music industry is developing and implementing market opportunities in the context of the entertainment and mass media industries.

MediaNet **2012 - 2013** ***Executive***
Vice President & General Manager

Responsible for new service innovation in music and media rights administration, partner acquisition, and revenue growth for the company founded by Warner Music Group, BMG, EMI and Real Networks as MusicNet. Company provides 30 million licensed music files on behalf of all major labels and thousands of independents, and related metadata and infrastructure for digital music services including Beats Music, Google, MTV, Microsoft. Built team and executed go-to-market strategy for music publishing rights administration services.

Musonomics
Managing Director **2009 – Present**

Advisor to creators, distributors and investors in music and technology, enabling clients to understand the risks and potential of strategic acquisitions; help developers of music technology and web services analyze markets, define products, build a team and go to market.
- Senior Advisor to venture accelerator The Hatch Group
- Producer and host of the Musonomics podcast
- Led operational review of Sony/ATV-Universal Music Publishing joint venture
- Led global pricing study for Zildjian, world's largest manufacturer of cymbals

- Advised BV Investments (f/k/a Boston Ventures) on acquisitions in TV and film music

L.E.K. Consulting, New York **2007 – 2009**
Vice President/Partner, Co-Head of Media & Entertainment

Senior member of Media & Entertainment practice and East Coast practice leader of $250 million, London-based global strategy consulting firm. Established New York-based industry practice, developed trusted C-level client relationships, led pitch teams, consistently exceeded profitability and client satisfaction targets. Selected engagements:

- Developed and executed value-maximizing business strategy for Rodgers & Hammerstein Organization, supported auction process and acquisition by Imagem/ABP
- Led commercial due diligence team on acquisition of $4 billion global music company
- Advised Oaktree Capital Management and Triton Media on acquisition of Dial Global
- Crafted digital marketing strategy for $100 million Los Angeles standalone FM by Bonneville
- Advised NPR on digital affiliate services and pricing
- Devised a three-screen -- mobile, PC and television -- entertainment strategy for AT&T

Or Music, New York **2002 - 2006**
Founder and CEO

Signed and developed artists and songwriters, produced and released CD's, DVD's, websites and original broadband content; home of Los Lonely Boys, Matisyahu, Tower of Power, John Cale, Alejandro Escovedo. Worldwide distribution and joint ventures with Sony Music and EMI Music Publishing. Sold company to Sony Music and EMI Music Publishing in 2006 with excellent return on capital.

- Founded company, built business plan, raised capital, recruited and trained staff
- Developed trusted relationships with distributors and financial sponsors
- Identified and signed brilliant artists and made great records
- Drove sales from zero to $60 million and 4 million unit sales in three years

Reciprocal, New York **1999 – 2001** ***President,***
Reciprocal Entertainment

P&L responsibility for rights management technology services business in three US locations, London and Singapore. Led sales, marketing, professional services, account management, operations and media/analyst relations.

- Led post-merger integration of AT&T a2b music and Reciprocal
- Drove customer and revenue growth from zero to 50 customers/$5 million in revenue in 18 months
- Secured strategic partnerships with Microsoft, Reuters, Xerox, HP, First Data Corp, Bertelsmann, Softbank and Venrock
- Major clients included Sony Music Entertainment, BMG Entertainment, EMI, Warner Music Group, Universal Music Group, Pepsi, The Grammys and Yahoo
- Led organization through sale to Microsoft in 2001

AT&T, New York and Murray Hill, NJ **1996 – 1999**
Vice President, Advanced Technology Commercialization, AT&T Labs (1997 – 1999)

Incubated research projects into commercial enterprises. Co-founder and operating chief of AT&T a2b music, the digital content distribution intiative of AT&T Labs. Led spinout of a2b music to Reciprocal in 1999

- Secured exclusive use of audio compression and electronic licensing technology
- Recruited technical and operations team, scoped, developed, tested and launched end-to-end secure multimedia content distribution service
- Managed AT&T's joint development agreement with Universal Music Group, BMG and Matsushita
- Jointly authored U.S. Patent Pending Method for Secure Microbilling

Client Partner, AT&T Solutions Consulting (1995 – 1997)

Established New York office of AT&T's professional services business; managed P&L, opened New York office, recuited 25 consulting professionals and staff

- Developed and executed strategic consulting engagements in broadcasting, publishing, music and business information services

A.T. Kearney/EDS Management Consulting, New York **1994 - 1995**
Managing Consultant

Led client teams in media practice of national management consulting firm

EARLY CAREER HISTORY

Began career in broadcasting, ultimately rising to general management positions at **NBC Radio Entertainment** in affiliate relations, marketing and advertising sales, and at **Tribune Broadcasting's** WQCD-FM/CD101.9.

- Arrived in NY as the first production manager of **WHTZ/Z100** New York, the most successful startup in U.S. radio history.
- Recruited from product management/operations director at startup Radio Computing Services, developer of Selector music selection software
- Started out as a presenter and music director at commercial rock radio stations in Boston.

EDUCATION

Columbia Business School, MBA, Marketing and Finance, New York, NY
Brandeis University, BA, English and American Literature, Waltham, MA

AWARDS AND RECOGNITION

2005 Grammy Award for Best Pop Vocal Performance (Los Lonely Boys), 5 Grammy Nominations
BMI Music Publisher's Award for Most Performed Songs of the Year, 2004 and 2005
Executive Producer, *Por Vida*; "An artistic and humanitarian triumph," *Wall Street Journal*

LARRY MILLER
SELECTED RECENT MEDIA QUOTATIONS

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Los Angeles Times, “Sony is betting on love for the Beatles lasting in a new $750 million deal,” by Ryan Faughnder, March 16, 2016, http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-sony-music-atv-20160316-story.html

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Los Angeles Times, “David Bowie bonds were a ‘revolutionary business move, and here’s how they panned out,” by Samantha Masunaga, January 11, 2016, http://www.latimes.com/business/la-fi-bowie-bonds-history-20160111-story.html

Los Angeles Times, “Sony/ATV sale expected to attract rivals, private equity,” by Ryan Faughnder,” October 17, 2015, http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-sony-atv-music-20151017-story.html

New York Times, “Music Publishing Deal Driven by Shift from Sales to Streaming,” by Ben Sisario, July 6, 2015, http://www.nytimes.com/2015/07/07/business/media/music-publishing-deal-driven-by-shift-from-sales-to-streaming.html

CBS This Morning, “Apple vows to pay artists in response to Taylor Swift’s open letter,” June 23, 2015, https://www.youtube.com/watch?v=zVAe5rBE3gQ

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Los Angeles Times, “Apple’s new music streaming service could revive the recording industry,” by Ryan Faughnder, June 6, 2015, http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-apple-music-launch-20150606-story.html#page=1

New York Times, “Sony Terms With Spotify Uncovered in Contract,” by Ben Sisario, May 24, 2015. http://www.nytimes.com/2015/05/25/business/media/sony-terms-with-spotify-uncovered-in-contract.html

Los Angeles Times, “Top 10 juicy rationalizations for Apple’s $3.2 billion Beats deal,” by Chris O’Brien and Ryan Faughnder, May 10, 2014, http://www.latimes.com/business/technology/la-fi-tn-top-10-juicy-rationalizations-for-apples-32-billion-beats-deal-20140509-story.html

*Harvard Political Review, “*A Brave New World: Spotify and the Future of Music,” by David Freed, March 20, 2014, quoted throughout. http://harvardpolitics.com/covers/brave-new-world-spotify-future-music/

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Time, “Spotify and YouTube Are Just Killing Digital Music Sales,” by Victor Luckerson, January 3, 2014, quoted throughout. http://business.time.com/2014/01/03/spotify-and-youtube-are-just-killing-digital-music-sales/

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The Licensing Journal, "Metadata: How to Develop the Foundation for the Music Business of Tomorrow," by Larry Miller, Volume 33 Number 10, November/December 2013, pages 1-8, Aspen Publishers, Wolters Kluwer.

THE MUSONOMICS PODCAST

Musonomics is a twice-monthly podcast about the business of the music and culture industries. Hosted by Larry Miller and produced with support from the NYU Steinhardt Music Business Program, we use data, music and interviews with newsmakers and analysts to provide insight into what's happening now -- and what's coming next. Distributed on iTunes, Soundcloud and other podcasting platforms. Musonomics has been downloaded or streamed over 500,000 times in its first year and reaches 15,000 listeners each week.