Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
THE LIBRARY OF CONGRESS
Washington, D.C.

In the Matter of	
DETERMINATION OF ROYALTY RATES FOR DIGITAL PERFORMANCE IN SOUND RECORDINGS AND EPHEMERAL RECORDINGS (WEB IV)	**Docket No. 14-CRB-0001-WR (2016-2020)**

TESTIMONY OF DAVID B. PAKMAN,
PARTNER, VENROCK

I. BACKGROUND AND QUALIFICATIONS

1. I am a Partner at venture capital firm Venrock, where I have worked for the past six years. At Venrock, I focus on investing in and helping build early-stage internet, digital media, and consumer companies. I also have extensive prior experience in the digital music industry, not only as an investor, but also as the founder of a digital music services company and as a CEO and employee of others.

2. I joined Venrock in 2008. Venrock invests in early-stage internet and healthcare companies and works to build them into successful, stand-alone, high-growth businesses. Venrock's beginnings date back to 1938, when Laurance Rockefeller started doing what many people today call venture capital investing by providing the initial capital for both Eastern Airlines and McDonnell Aircraft. Mr. Rockefeller continued making a new investment or two each year for the next 30 years, at which time the financial construct of venture investment vehicles led to the creation of some of the iconic early venture firms, Venrock among them.

Today, Venrock continues Mr. Rockefeller's tradition of venture investing – the Rockefeller family and many other organizations are Limited Partner investors in our funds.

3. Prior to joining Venrock, I spent a number of years in the music industry. From 1991-1994, and then again from 1995-1997, I worked at Apple, first as a Product Manager and then as co-founder of the original Apple Music Group, which focused on advancing the state of the art in digital music distribution by partnering with, and developing digital products for, the music industry.

4. From 1997-1999, I worked at N2K, where I served as Vice President, Business and Product Development. At N2K, I oversaw the creation of e-mod, the first commercially available digital music download service.

5. In 1999, I co-founded MyPlay, Inc. and served as its President. At MyPlay, my co-founder and I created the first cloud-based digital music locker and grew the company to 8 million users. As part of that locker, we launched one of the first DMCA[1]-compliant, internet-only, non-interactive webcasting services, and we were one of the first companies to report and pay royalties to SoundExchange. During my time at MyPlay, I testified in the first webcasting proceeding to set sound recording performance royalties. I have overseen the modeling and creation of many different business models in digital music, including ad-supported, subscription commerce and a la carte download sales. In October 2001, we sold MyPlay to Bertelsmann eCommerce Group; I served at Bertelsmann BeMusic for an additional year following MyPlay's acquisition as Senior Vice-President, Corporate Development & Public Policy.

6. From 2003-2008, I served as the Chief Operating Officer, and then the Chief Executive Officer, of eMusic, at the time the largest retailer of independent music in the world

[1] "DMCA" refers to the Digital Millennium Copyright Act.

and the second largest online retailer of digital downloads in the world. During my tenure at eMusic, I helped grow its revenues from about $7 million to $68 million, made possible by thousands of agreements with independent record labels.

7. In all, I have spent more than 14 years in the digital music industry, negotiated hundreds of licensing agreements with major and independent labels, music publishers and performing rights organizations, sold music and music-related services to millions of consumers, and built and launched multiple successful digital consumer products. I also have testified before Congress on music licensing issues.

8. I hold a Computer Science Engineering degree from the University of Pennsylvania School of Engineering and Applied Science.

9. Appendix A is a copy of my most recent curriculum vitae. I am being paid an hourly rate of $650. My compensation is not dependent upon the conclusions I reach or the outcome in the proceedings.

II. ASSIGNMENT AND SUMMARY OF CONCLUSIONS

10. I have been retained by counsel for iHeartMedia, Inc. and for the National Association of Broadcasters to provide an opinion regarding the impact that the royalty rates for digital sound recording performances have had on webcasters and other digital music services and on investors' willingness to invest in those services.

11. Based on my long personal experience in this industry and my evaluation of potential investments while at Venrock, I conclude that this industry has fared poorly due primarily to royalty rates that are too high. This is evidenced by, among other things, a high failure rate for webcasting services and a lack of investment in these services relative to other digital industries.

III. VENROCK INVESTS IN MANY INTERNET AND OTHER HIGH-TECH COMPANIES, BUT IT AND OTHER INVESTORS ARE UNWILLING TO INVEST IN DIGITAL MUSIC SERVICES

12. Venrock is fortunate enough to have invested in and helped build some of the most important and iconic technology and healthcare companies ever created. These investments include Apple, which Venrock funded in 1977, only one year after Apple was founded, as well as Intel, Athenahealth, Check Point Software, and DoubleClick. Our firm has invested more than $2.6 billion in more than 450 companies over the past 40 years.

13. Collectively, as a firm, Venrock has invested in more than 200 internet and technology companies. Some of our more recent successful investments include Castlight Health (NYSE: CSLT), a leading provider of cloud-based software that brings transparency to health care prices, and Nest, the creator of the smart thermostat, recently acquired by Google.

14. At Venrock, I have invested in eight internet companies. These companies include Smartling, the leading cloud-based language translation management platform, Klout, the standard for measuring influence online (acquired by Lithium Technologies), and Dollar Shave Club, the largest direct-to-consumer men's grooming company.

15. Despite Venrock's heavy investment in internet and technology companies and my extensive experience as an entrepreneur in the digital music business, Venrock has never invested in any digital music or internet radio companies. The overwhelming majority of my venture capital colleagues have taken a similar approach by declining to invest in such services.

IV. HIGH ROYALTY RATES ARE THE PRIMARY REASON FOR THE LACK OF INVESTMENT IN WEBCASTING SERVICES AND THEIR HIGH FAILURE RATE

A. The Largest Single Cost for Webcasters Is the Sound Recording Performance Royalty

16. In my experience, licenses from record labels and music publishers are required for virtually any form of music use. In some cases, the licenses required are voluntary and, in my experience, require lengthy and burdensome negotiations. I also understand that some music uses, such as internet radio and webcasting, can be licensed under compulsory licenses, like those at issue in the current proceeding.

17. In 1995, the Digital Performance Right in Sound Recordings Act created such a license for subscription and interactive digital music services. In 1998, the DMCA extended that license to nonsubscription webcasting, paving a path for internet radio webcasters to enter the market with the certainty of legal operation and compensation to rights holders (although no royalty rate was set in the legislation). At the time, many of us heralded this as a major accomplishment, as the availability of a compulsory license obviated the need for costly and hard to negotiate voluntary licenses.

18. Nevertheless, royalties for sound recordings continue to represent the overwhelming amount of costs of goods sold ("COGS") in the webcasting business. That is, based on my experience in the music industry and as a venture capitalist evaluating potential investments in digital music companies, the biggest cost faced by webcasters is the amount of royalties paid to sound recordings rights holders like the record labels.[2]

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[2] *See* Pandora Media Inc., Form 10-K, at 10 (SEC filed Feb. 14, 2014), http://www.sec.gov/Archives/edgar/data/1230276/000104746914000909/a2218261z10-kt.htm ("Pandora Form 10-K") ("Pandora incurred content acquisition costs representing 48% of revenue for our internet transmissions of sound recordings during the eleven months ended December 31, 2013"); *see also* Spotify, *Spotify Explained: How We Pay Royalties: An*

B. **I Am Unaware of Any Standalone Webcaster Who Has Achieved Profitability to Date**

19. The high rates that have been set for the compulsory licenses for webcasting have resulted in widespread failure among webcasters. Indeed, I am not aware of a single standalone webcaster that has achieved profitability to date.[3] Market evidence shows that the royalty rates that have been set in the past are extraordinarily high relative to the amount of revenue that could be generated by internet radio services. Ultimately, the cost of music licensing royalties often exceeded the revenue generated by both advertising and subscription business models, producing businesses operating with negative gross margins, unable to generate any profit.[4]

20. During the late 1990s, spurred on by the easy availability of the DMCA compulsory internet radio sound recording license, many companies, both large and small, entered the internet radio market with new, non-retransmitted internet radio services. Notable early entrants include Spinner, Live365, Last.FM, SonicNet and Shoutcast. These services were

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Overview, http://www.spotifyartists.com/spotify-explained/#how-we-pay-royalties-overview ("Spotify pays royalties for all of the listening that occurs on our service by distributing nearly 70% of all the revenues that we receive back to rights holders.").

[3] *See, e.g., Behind the Music: Five Things To Consider Following the ASCAP-Pandora Rate Court Decision* (May 20, 2014), http://www.fortherechord.com/behind-the-music-five-things-to-consider-following-ascap-pandora-rate-court-decision (emphasis added):

> What we do know is that Internet radio is broke. ***The economics of the current business model have proven thus far that this marketplace is not financially sustainable. To date, no streaming service has turned an annual profit and many are no longer in operation***, like turntable.fm, imeem, Last.fm and LAUNCHCast. Pandora has yet to demonstrate sustained profitability, mostly due to high content costs (i.e. music licensing).

[4] *See, e.g.*, Generator Research, Digital Music Subscription Services, at 11 (Nov. 12, 2013) ("Our analysis is that no current music subscription service – including marquee brands like Pandora, Spotify and Rhapsody – can ever be profitable, even if they execute perfectly and the reason for this is that it is almost inconceivable that the music industry will agree to significantly reduced royalties.").

popular enough with consumers that many were acquired by larger companies. MTV acquired SonicNet and used it as the basis for their online music offerings, MTV Music.[5] AOL acquired Spinner to launch AOL Music.[6] Navarre acquired NetRadio.[7] Yahoo! acquired LAUNCH Media to create Yahoo! Music,[8] and CBS acquired Last.FM as the start for CBS Radio (online).[9]

21. Within several years, however, each of these larger parent companies operating internet radio services shut down their internet radio streaming services, unable to build successful businesses around them.[10] Many were unable to generate sufficient advertising and/or subscription revenue to overcome the costs of the royalties stipulated by the compulsory licenses.

22. In digital music, even high profile companies supported by the major labels and/or mobile carriers via cash investments failed because of the high royalty rates. For example, a company called Musicbank negotiated deals with all the major labels and raised more

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[5] *MTV To Acquire SonicNet*, CNN Money (May 20, 1999), http://money.cnn.com/1999/05/20/bizbuzz/mtv.

[6] Beth Lipton Krigel, *AOL Buys Spinner*, *Nullsoft for $400 Million*, CNET News (June 1, 1999), http://news.cnet.com/2100-1023-226540.html.

[7] *NetRadio, Navarre, ValueVision Announce Agreements*, Minneapolis/St. Paul Bus. J. (Mar. 10, 1997), http://www.bizjournals.com/twincities/stories/1997/03/10/daily1.html.

[8] *Yahoo Acquires Launch Media*, USA Today (June 28, 2001), http://usatoday30.usatoday.com/tech/news/2001-06-28-yahoo.htm.

[9] Peter Suciu, *CBS Acquires Europe's Last.fm for $280 million*, TechCrunch (May 30, 2007), http://techcrunch.com/contact/.

[10] Glenn Peoples, *Updated: AOL Music, Spinner Shutting Down*, Billboard (Apr. 26, 2013), http://www.billboard.com/biz/articles/news/digital-and-mobile/1559947/updated-aol-music-spinner-shutting-down; Chloe Albanesius, *Yahoo's Launchcast to be Powered by CBS Radio*, PC Magazine (Dec. 3, 2008), http://www.pcmag.com/article2/0,2817,2335884,00.asp; NetRadio Corporation Press Release, *NetRadio to Discontinue Broadcast Operations* (Oct. 17, 2001), http://www.sec.gov/Archives/edgar/data/1002636/000095012401503570/c65540ex99-1.htm; Steven Loeb, *Last.fm Shutting Down Streaming Service on April 28th*, Vator News (Mar. 26, 2014), http://vator.tv/news/2014-03-26-lastfm-shutting-down-streaming-service-on-april-28th.

than $20 million in capital.[11] Nevertheless, the company spent all these funds and never launched to consumers, unable to attract additional capital to fund the high costs of its licenses.[12]

23. This same trend of failure can be seen in many of the digital music services that were relied on to set rates in prior webcasting proceedings. For example, most non-retransmission webcasters providing testimony to the Copyright Arbitration Royalty Panel ("CARP") in the first rate-setting proceeding for the late 1998-2002 timeframe are now out of business or have shut down their radio webcasting services, irrespective of whether they were acquired by a larger company. For example, Echo Networks was a joint venture of six major music retailers, including Best Buy, Tower Records, and Virgin Entertainment Group – companies that are no strangers to selling music – and the company raised at least five million dollars in venture funding.[13] The venture was put on hold a little more than a year later, however, due in part to mounting development costs.[14] Other CARP participants have likewise

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[11] *See* Graeme Wearden, *Musicbank One Step Closer to Legal Online Music Deal*, ZDNet (October 31, 2000), http://www.zdnet.com/musicbank-one-step-closer-to-legal-online-music-deal-3002082286/.

[12] *See* Brad King, *BMG First Label to Sell Streams*, Wired (June 8, 2000), http://archive.wired.com/techbiz/media/news/2000/06/36888; Wall St. J., *Web Start-Up Musicbank Shuts Down before Launch Due to Lack of Funds* (Apr. 12, 2001), http://online.wsj.com/news/articles/SB987029642533366281.

[13] *See* Scarlett Pruitt, *Music retailers team to offer online services*, IDG News Service (Jan. 27, 2003), http://www.networkworld.com/article/2339560/software/music-retailers-team-to-offer-online-services.html; Catherine Bacon, *Echo Networks Receives $5 Million in Funding*, StreamingMedia.com (Nov. 13, 2000), http://www.streamingmedia.com/Articles/News/Online-Video-News/Echo-Networks-Receives-$5-Million-in-Funding-63374.aspx.

[14] *See* John Borland, *Big Music Stores Squelch Download Plan*, CNET News (June 11, 2004), http://news.cnet.com/Big-music-stores-squelch-download-plan/2100-1027_3-5231175.html.

shut down, often explicitly citing high licensing costs as factors, including Launchcast Media, Inc.[15] and NetRadio Corp.[16].

24. A similar story unfolded with Yahoo!, who acquired LaunchMedia in 2001[17] and whose experience in the wake of the CARP proceeding is particularly telling. The rates that were set in that proceeding were based on a single agreement between Yahoo! and the Recording Industry Association of America.[18] Yet within only two weeks after these rates were set, however, Yahoo! got out of the simulcasting business.[19] Many others followed suit.[20]

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[15] Antony Bruno, *CBS To Run Yahoo's Internet Radio Service*, Reuters (Dec. 3, 2008), http://www.reuters.com/article/2008/12/04/us-media-yahoo-idUSTRE4B30C220081204 (emphasis added):

> Chalk up another Internet radio casualty of ***significantly increased royalty fees*** for airing music online. Yahoo Music, once the top music destination on the Web, is handing over the bulk of its Launchcast Internet radio operations to CBS Radio…. Yahoo Music head Michael Spiegelman singled out more ***expensive royalty payments, under the most recent Copyright Royalty Board rate structure***, as key to the decision.

[16] NetRadio Corporation Press Release, *NetRadio to Discontinue Broadcast Operations* (Oct. 17, 2001), http://www.sec.gov/Archives/edgar/data/1002636/000095012401503570/c65540ex99-1.htm; *see also* Chris Nelson, *New Fees May Impact Internet Radio*, MTV News (June, 24, 1998), http://www.mtv.com/news/400066/new-fees-may-impact-internet-radio/ (noting that "because of these [licensing] fees and others, it's going to be difficult for start-ups down the road to enter into the game").

[17] Yahoo! Inc. Press Release, *Yahoo! to Acquire LAUNCH Media, Inc.* (June 28, 2001), https://investor.yahoo.net/releasedetail.cfm?releaseid=173851.

[18] Determination of Reasonable Rates and Terms for the Digital Performance of Sound Recordings and Ephemeral Recordings, 67 Fed. Reg. 45,242, 45,245 (Copyright Office, Library of Congress July 8, 2002), http://www.gpo.gov/fdsys/pkg/FR-2002-07-08/pdf/02-16730.pdf.

[19] *See, e.g.,* Nick Wingfield & Anna Mathews, *Yahoo Plans to Shut Down Some Broadcast Services*, Wall St. J. (June 26, 2002), http://online.wsj.com/news/articles/SB1025052018485386440.

[20] *See, e.g.,* Jefferson Graham, *Royalty Fees Killing Most Internet Radio Stations*, USA Today (Aug. 25, 2002), http://usatoday30.usatoday.com/tech/news/techpolicy/2002-07-21-radio_x.htm (emphasis added):

25. The digital music services whose license agreements were used to set rates in the second webcasting proceeding before the Copyright Royalty Judges for the 2006-2010 (Web II) timeframe scarcely fared better.[21] I have reviewed the services that SoundExchange's expert, Dr. Michael Pelcovits, relied upon to support SoundExchange's fee proposal, and many of them are no longer in business. I already have mentioned Yahoo!'s response to the high royalties set in the CARP proceeding; following the even higher royalties set in Web II, Yahoo! was forced to consider shutting down the internet radio service in its entirety, and it ultimately exited the market by selling the service to CBS.[22] Other services that are no longer in business as webcasters include:

> More than 200 Internet-based radio stations have shut down ***because of a royalty fee*** that takes effect in September, and more are closing daily. Most of the estimated 10,000 radio Webcasters are expected to follow suit, 'with the exception of Yahoo, AOL, Microsoft and other deep-pocketed conglomerates who can afford a loss leader,' says Kurt Hanson, editor of the Radio and Internet Newsletter.

See also Brad King, *Streaming Music Choked by Fees?*, Wired (May 2, 2002), http://archive.wired.com/gadgets/portablemusic/news/2002/05/52245?currentPage=all:

> The Copyright Royalty Arbitration Panel (CARP, a group working for the U.S. Copyright Office) has developed a fee that webcasters would be required to pay song writers, musicians and labels for use of their music. However, the initial rate of 14/100ths of a cent per listener per song could drive many webcasters to the poor house. It doesn't sound like much, but with tens of thousands of listeners, the costs add up.

[21] *See, e.g.*, Keith Regan, *Sound and fury* (Apr. 13, 2007), http://www.bizjournals.com/boston/blog/mass-high-tech/2007/04/sound-and-fury-2007-04-16.html?page=all (noting that the CRB "sent shockwaves across the web radio ecosystem, rocking the world of individual webcasters and Internet radio giants such as AOL Radio and RealNetworks alike when it issued new royalty rates for the 2006 to 2010 time frame").

[22] *See* Meg Tirrell, *Yahoo, AOL May Abandon Web Radio After Royalties Rise*, Bloomberg (Nov. 28, 2007), http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a0pKOrcpw6yE&refer=us ("Yahoo! Inc. and Time Warner Inc.'s AOL unit may shut down their Web radio services after being hit with a 38 percent increase in royalties to air music."). Yahoo! ended up selling the service to CBS. *See* Antony Bruno, *CBS To Run Yahoo's Internet Radio Service*, Reuters (Dec. 3, 2008), http://www.reuters.com/article/2008/12/04/us-media-yahoo-

- BellSouth WebTunes Gold and Platinum, Premium Stream[23]
- MusicMatch On Demand and MusicMatch Radio Gold[24]
- MSN Radio Plus[25]
- Virgin Digital and Radio Free Virgin Royal[26]
- Crosswalk Plus[27]
- MusicNet[28]

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idUSTRE4B30C220081204; *Rising royalties send Yahoo's Launchcast to CBS*, USA Today (Dec. 3, 2008), http://usatoday30.usatoday.com/tech/products/services/2008-12-03-yahoo-launchcast_N.htm (explaining that Yahoo's move is "driven by dramatically higher fees for airing music online").

[23]AT&T, which acquired BellSouth, has apparently shut down the WebTunes service entirely. *See* http://portalmigration.att.net/bellsouth/s/s.dll?spage=cg/yis/enh/web.htm&is=enh&iss=ins&_lid=528&_lnm=webtunes+more+information.

[24] Erik Larkin, *Yahoo's Musicmatch Jukebox canned*, PC World (July 9, 2007), http://www.pcworld.idg.com.au/article/187774/yahoo_musicmatch_jukebox_canned/.

[25] Microsoft, MSN Music Radio, http://music.msn.com/radio/.

[26] Tony Smith, *Virgin Unplugs Music Download Service*, The Register (Sept. 24, 2007), http://www.theregister.co.uk/2007/09/24/virgin_digital_closes/.

[27] Crosswalk.com, *Crosswalk Radio*, http://www.crosswalk.com/audio-video/crosswalk-radio/.

[28] MusicNet was a joint venture between three of the five major labels at the time – AOL Time Warner, EMI and Bertelsmann – and RealNetworks. *See* NAPressePortal, *AOL Time Warner, Bertelsmann, EMI and RealNetworks Create New Platform for Online Music Subscription Services* (Feb. 4, 2001), http://www.presseportal.de/pm/7842/236463/aol-time-warner-bertelsmann-emi-and-realnetworks-create-new-platform-for-online-music-subscription. Having failed to penetrate the consumer music market, MusicNet was sold to a venture capital firm, where it focuses on providing business-to-business digital entertainment services. *See MusicNet Announces Formation of 'MediaNet' Division* (June 22, 2006), http://www.prnewswire.com/news-releases/musicnet-announces-formation-of-medianet-division-56223257.html; Bob Grossweiner and Jane Cohen, *MusicNet Forms MediaNet* (June 27, 2006), http://encore.celebrityaccess.com/index.php?encoreId=19&articleId=17599.

For other services relied upon by Dr. Pelcovits – such as Wolf FM and Howlin' Oldies – I have been unable to confirm their ultimate fate, but I also have found no indication that they are still operating.

26. From my personal experience, investing in digital music companies is largely disfavored in the venture funding community, as those companies' failure rate is among the highest I have observed. My research in this area confirms the point. My research included using the PitchBook Platform, a proprietary database that Venrock and other venture capitalists regularly use for conducting research on industry financings and company performance, including successes and failures of companies in various market segments. The search criteria and functions in the database allowed me to compare the performance results for the mobile[29], Software-as-a-Service ("SaaS")[30], eCommerce[31], and digital music[32] sectors. To determine the

[29] I selected the "Mobile" vertical and "VC-backed" company universe resulting in 5,175 companies as of 10/6/14. PitchBook defines this vertical as "Companies whose primary revenue source comes from providing services for mobile devices or enabling mobile communications." To determine non-distressed exits, I selected "public investments" and "acquisitions" exit types resulting in 1,369 companies as of 10/6/14. To determine distressed outcomes, I selected "distress" exit type, resulting in 249 companies as of 10/6/14.

[30] I selected the "SaaS" vertical and "VC-backed" company universe resulting in 7,978 companies as of 10/6/14. PitchBook defines this vertical as "Information technology companies which provide their software using client-server architectures that host the application in a centralized, off-site location." To determine non-distressed exits, I selected "public investments" and "acquisitions" exit types resulting in 2,243 companies as of 10/6/14. To determine distressed outcomes, I selected "distress" exit type, resulting in 335 companies as of 10/6/14.

[31] I selected the "eCommerce" vertical and "VC-backed" company universe resulting in 1,800 companies as of 10/6/14. PitchBook defines this vertical as "Companies whose primary purpose is selling products or facilitating the selling of products through the internet. This includes online retailers, online marketplaces, social commerce and logistics and shipping for online retailers, and providers of software and hosting services for online retail." To determine non-distressed exits, I selected "public investments" and "acquisitions" exit types resulting in 407 companies as of 10/6/14. To determine distressed outcomes, I selected "distress" exit type, resulting in 117 companies as of 10/6/14.

number of VC-backed companies in each sector, I used the "VC-backed" company universe search criteria. I next determined outcomes for each sector – i.e., whether profitable for the investors or simply a distressed/bankruptcy exit. In that regard, I used an "exit type" search where "Public Investments, Acquisitions" indicated a profitable outcome and "Distress" indicated either a distressed exit or bankruptcy. In addition, I spot-checked the search results in an attempt to confirm accuracy. I discuss the comparative results of my research in subsections a) and b) below.

a) <u>Digital Music:</u> All in all, my research revealed that, since 1997, approximately 175 digital music companies were created and funded by venture investors. Of those, approximately 33 were acquired by larger companies, sometimes for less money than their investors put in. Of those who have exited, I believe only seven achieved meaningful venture returns for their investors by returning more than $25 million in profit to the investors (Last.FM, Spinner, MP3.com, Gracenote, Thumbplay, Pandora and possibly The Echo Nest), representing an investor success rate of only approximately 4%, far below that of other internet and technology market segments (*see* subsection b), below). Only two have achieved an IPO, and at least 15 companies have resulted in a distressed exit and/or filed for bankruptcy so far, for an 8.6% failure rate to

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[32] I selected the "eCommerce," "internet of things," "mobile" and "SaaS" verticals and added the keywords "music" and "internet radio." I then de-duplicated the two keyword searches and excluded 145 companies which were not companies in a business requiring the licensing of music or of providing music-related consumer utilities or internet radio services, or whose primary application did not involve music in some way. This resulted in 175 companies as of 10/6/14. To determine non-distressed exits, I selected "public investments" and "acquisitions" exit types resulting in 36 companies as of 10/6/14. I removed Spotify, Topspin Media and SoundCloud from this list, since two of those companies have not exited and Topspin Media did not exit profitably for its investors, according to my research, resulting in 33 companies. To determine distressed outcomes, I selected "distress" exit type, resulting in 15 companies as of 10/6/14.

date. Given that I know of no profitable standalone webcasting companies, I believe this failure rate will only worsen over the coming years as the remaining companies in this space continue to struggle.

b) Comparison to Other Market Segments: Although the venture capital industry is used to failure, the failure rate of webcasting and digital music companies is among the highest of any industry I have evaluated at Venrock. Other internet and technology market segments attract far larger numbers of startups and have produced positive investor outcomes at a rate which compares more favorably to the digital music market. For example, more than 5,175 venture-backed companies have been formed in the mobile communications space. Of those, approximately 1,369 have achieved an exit bringing a profitable return to their investors, for a success rate of 26.54% and only 249 have filed for bankruptcy for a 4.8% failure rate. In the SaaS sector, more than 7,987 venture-backed companies were created, and, so far, at least 2,243 had profitable liquidity events, a success rate of approximately 28% and only 335 have resulted in bankruptcy for a 4.2% failure rate. At least 1,800 eCommerce companies have been formed and venture-backed so far, with 407 profitable outcomes, or a 22.6% success rate and a bankruptcy rate of 6.5% (117). Perhaps most importantly, these figures demonstrate a dramatically lower level of venture investment into the digital music sector – 175 venture funded companies in digital music compared with thousands in many other technology sectors.

27. Pandora Media is the largest internet radio company, with more than 76 million monthly active listeners.[33] Even with this extraordinary scale – almost one-quarter of all Americans listen each month – the company is unable to generate a profit and never has.[34] And while many of its investors have made large returns on their invested capital through stock sales at higher prices than their cost basis, the company continues to remain unprofitable, even at the very large scale it currently enjoys.[35]

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[33] Pandora Media Inc. Press Release, *Pandora Reports Q2 2014 Financial Results* (July 24, 2014), http://investor.pandora.com/phoenix.zhtml?c=227956&p=irol-newsArticle&ID=1951104&highlight=.

[34] *See, e.g.*, Generator Research, *Digital Music Subscription Services*, at 11 (Nov. 12, 2013) (emphasis added):

> Our analysis is that ***no current music subscription service – including marquee brands like Pandora, Spotify and Rhapsody – can ever be profitable***, even if they execute perfectly and the reason for this is that it is almost inconceivable that the music industry will agree to significantly reduced royalties.

Likewise, Spotify, an on-demand music service with millions of users, may never be profitable. *See* Joshua Brustein, *Spotify Hits 10 Million Paid Users. Now Can It Make Money?*, Bloomberg Businessweek (May 21, 2014), http://www.businessweek.com/articles/2014-05-21/why-spotify-and-the-streaming-music-industry-cant-make-money (emphasis added):

> Scale is a magic word for so many cloud-based companies and services, but Beats and Spotify operate differently. ***Their margins don't improve as they get larger.*** If Spotify bought the rights to songs for a flat rate, then every subscriber it adds would mean free money for the company. But that isn't what it does. Instead, ***it spends a fixed proportion of its total revenue on royalties. So if Spotify doubles its subscriber base, it doubles the amount of money it pays out***. It may be that Spotify will gain some power over the royalties it pays once it has a critical mass of customers, but right now, many people think it can never get ahead of its costs.

[35] Michelle Jones, *Amazon.com, Pandora Media Dive Post-Earnings*, Seeking Alpha (July 25, 2014), http://seekingalpha.com/article/2343565-amazon-com-pandora-media-dive-post-earnings. *See also* Kevin Roose, *Can Apple and Beats Fix the Economics of Streaming Music?*, New York Magazine (May 14, 2014), http://nymag.com/daily/intelligencer/2014/05/can-apple-and-beats-fix-streaming-music.html (emphasis added):

> It's no secret that streaming music is a money-losing business. Pandora, for example, has never had a profitable year and said in its most recent quarterly filing that it expects to

28. The only outcomes that seem to produce success for investors and entrepreneurs are when music services are sold to larger companies willing to subsidize the poor economics in order to make profit elsewhere on other related businesses. For example, large companies like Google and Amazon seem to be willing to operate break-even or unprofitable digital music services because their other companion businesses are wildly profitable and subsidize the music service (Google's search engine and Android phones and mobile operating system, Amazon's traditional eCommerce business[36]). It would be a sign of an unhealthy market if the only remaining digital music companies are efforts owned by larger companies content to subsidize their music subsidiaries with unprofitable music services while only generating profit elsewhere in the businesses. Yet, in my experience, this is precisely the state of the digital music market; for a select few startups, exits to large companies are possible when the large company is willing to subsidize the digital music service and run it unprofitably or at break-even in order to support a profitable business elsewhere.

> continue losing money "in the near term." Spotify, which raised $250 million at a $4 billion valuation last year, has the same problem; according to Pitchfork, "the more Spotify expands in the U.S., the more money it loses." A recent report from Generator Research predicted that although streaming music services will grow massively (the report predicted 1.7 billion music-streamers by 2017), these services ***may never turn a profit. Most of why it's hard to make money from streaming music comes down to royalties***.

[36] *See, e.g.*, Jill Krasny, *Why Every Music Start-Up Will Fail (and Apple Will Win)*, Inc. (June 10, 2013), http://www.inc.com/jill-krasny/why-startups-are-entering-music-streaming-wars.html:

> According to Ted Cohen, a digital entertainment executive who's worked for Napster and EMI, tech giants also have the advantage of using music as a loss leader, something a single-purpose start-up can't do. Apple has a whole ecosystem of products to fall back on, while Amazon, who is reportedly eyeing the music space as well, can sell music subscriptions so long as customers keep shopping on its site.

C. Webcasting Services Are Not Attractive Investments for Venture Capital Due Primarily to High Sound Recording Royalty Rates

29. Investment capital is attracted to markets where the possibility of high returns exist when weighed against the potential risks. The pattern of near-certain failure irrespective of the amount of investment or the scale of the operator scares future investors away from the digital music sector. As a venture capitalist, I do not find webcasting companies operating under the Copyright Royalty Board ("CRB") rates to be attractive candidates for investment, particularly when weighed against the many other healthy internet sectors.[37] Unlike those healthy sectors, webcasting companies are burdened by high royalty rates charged for performing sound recordings that result in unsustainable gross margins and unprofitable companies. The overwhelming majority of my venture capital colleagues agree with me and avoid investing in this sector.

30. As compared to many internet companies, digital music companies are often less attractive investments because of their much lower gross margins. It would be possible for the labels and publishers to set rates in such a way as to allow licensees to experience healthier and sustainable gross margins, but the record labels have chosen not to do this, and the CARP and CRB rates likewise have resulted in unprofitable webcasting businesses.[38]

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[37] *See, e.g.,* Sarah Mitroff, *So You Want in on the Music Biz? Fred Wilson Has 4 Things to Tell You*, Wired (Nov. 16, 2012), http://www.wired.com/2012/11/music-startups/ (emphasis added):

> Unlike a typical software startup that can get up and running with $500,000, music startups often need at least $5 million and up to $20 million just to get started, says Wilson. ***Much of that money goes towards licensing music content from the copyright holder, which is usually a record label. "The startup costs for a legal and legitimate music service are extremely high relative to any other sector,"*** he says. Translation: VCs have plenty of other cheap sectors to go hunting for promising startups, so funding for music startups is hard to come by.

[38] *See, e.g.,* Raghav Gupta, *Face the Music: It's Time to Fix Licensing*, Gigaom (Aug. 28, 2008), http://gigaom.com/2008/08/28/face-the-music-its-time-to-fix-licensing/:

31. Again, even the largest and most popular internet radio company in America, Pandora, still only operates at about a 30% - 45% gross margin.[39] According to Pandora's annual report for FY 2014, fully 48% of Pandora's revenues were paid to SoundExchange in royalties for the eleven months ending on December 31, 2013.[40] To make matters worse, Pandora would be paying SoundExchange a lot more than that if it were paying at the current CRB statutory rates.[41] Yet even at its alternative rates, Pandora remains unprofitable.

32. In fact, I am unaware of *any* profitable standalone webcasting service operating currently or historically. With all music webcasters – even the largest one – unable to be profitable, many investors are unwilling to fund new music streaming companies.

33. Given these conditions and the lower-than-other-segments success rates, dramatically fewer entrepreneurs enter these markets and even fewer investors are willing to fund companies entering these markets as compared to many other software technology markets.[42]

> The point is that the labels have been lulled into the conviction that their rates are "market" since some [of the] companies have been willing to pay such rates to license music as a loss leader. The labels have been penny-wise and pound-foolish in cutting deals with seemingly lucrative rates. However, that is not the recipe for a vibrant, competitive ecosystem of licensees large and small, with no one company having too much market share – which is exactly what I'd want if I were in their shoes.

[39] YCharts, *Pandora Media Gross Profit Margin (Quarterly)*, http://ycharts.com/companies/P/gross_profit_margin.

[40] Pandora Form 10-K at 23 (SEC filed Feb. 2, 2014) ("The CRB … has consistently established royalty rates, including those established for the years 2011 through 2015 that would, if paid by us, consume a significantly greater portion of our revenue and negatively impact our ability to achieve and sustain profitability."), http://www.sec.gov/Archives/edgar/data/1230276/000104746914000909/a2218261z10-kt.htm.

[41] *See id*. at 23.

[42] *See, e.g.,* Generator Research, Digital Music Subscription Services, at 114-119, 121-122, 126 (noting, for example, that compared to other internet or technology companies, "Pandora is a

34. Companies trying to deliver these innovative services are unsustainable under the current rates and frequently shut down once their investors grow tired of subsidizing these high rates and elusive profits fail to arrive at any scale. The industry as a whole is not healthy due, in significant part based on my experience, to the high sound recording royalties that online music services must pay.

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clear outlier with a level of performance that is way below what a rational investor would expect: over the last three years about 2% of Pandora's revenue makes it through the company's day-to-day operations to emerge as operating positive cash flow. But other representative companies typically achieve around 20% or, in the case of Google, about 30%, which is between 10x and 15x better than Pandora.").

I declare under penalty of perjury that the foregoing is true and correct.

David B. Pakman

10/7/14
Date

Appendix A

David B. Pakman

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Senior Executive Profile

Entrepreneur – Executive Management – Venture Capital – M&A – Product Marketing – Product Development
Software – Network Applications – Digital Music – Media – Entertainment – eCommerce –
Digital Media Technology & Infrastructure

Six years experience venture investing, twelve years experience in launching and building innovative technology and media companies, building and managing large teams, running business development and product marketing/product development organizations, and overseeing $50M+ P&Ls. Exceptional business development executive with expertise in raising venture capital, negotiating complex deals and transactions, designing strategy, developing new business models, and taking companies from concept to IPO or acquisition.

- Strategic & Business Development
- Revenue/Market Growth & Profit Improvement
- New Business Development
- Legal & Business Affairs
- Competitive Strategy & Market Intelligence
- Managing P&Ls
- Product Strategy
- Product Marketing & Product Development
- Content Licensing
- Public Policy
- Funding Strategies & Raising Capital
- Public Speaking, Roadshows, PR
- M&A, IPO, Transactions

Professional Experience

VENROCK, New York, NY (November 2008 — Present)
Premiere venture capital firm investing in early stage internet and digital media companies

Partner

- Invested in Smartling, Dollar Shave Club, Dstillery (formerly Media6Degrees), Burner, Dasher, YouNow, Singly (acquired by Appcelerator), Klout (acquired by Lithium Technologies)
- Crunchyroll, Board Member (acquired by The Chernin Group)
- Nest, oversaw firm's investment (acquired by Google)
- CloudFlare, Board Observer

EMUSIC.COM, INC., New York, NY (2003 — November 2008)
Largest retailer of independent music

CEO/COO

- Completely rebuilt team and business
- Grew company 600% from $7M in revenue to $68M
- Grew subscription service from 50K subs to more than 450K in four years
- Managed 100 employees, operated in 28 countries

DIMENSIONAL ASSOCIATES, New York, NY (2003 — November 2008)
Private equity fund

Managing Director

- Purchased eMusic from Vivendi Universal
- Purchased The Orchard

MEDIACODE, Los Angeles, CA (2002 — 2003)
Strategic Advisor to VC-backed digital music company. Help sell company to Yahoo!

BERTELSMANN BEMUSIC, New York, NY (October 2001 — October 2002)
Largest music direct marketing company, $600M in sales and 12M customers, owned BMG Music Club & CDNOW

Senior Vice-President, Corporate Development & Public Policy

- Oversaw all record label and music publisher digital licensing efforts
- Achieved breakthrough economics in digital licensing from major labels
- Developed new business initiatives and partnerships
- Renegotiated and rationalized vendor contracts resulting in savings of more than $2M
- Member of executive team reporting directly to CEO, joined as part of Myplay acquisition

MYPLAY, INC., Redwood City, CA and New York, NY (June 1999 — October 2001)
Inventor of Digital Locker, online storage of digital media, over 8M customers, sold to Bertelsmann in 2001

President and Co-Founder
Founded and built the company which invented and launched the first digital locker, allowing customers to store and organize their music collections online and then access and listen from any net-connected device. Became locker service for scores of partners including AOL and Emusic. Myplay utilized highly-sophisticated 1-1 email marketing system to target its more than 8M customers based on music preferences.

- Raised more than $30M from Allen & Co, Redpoint Ventures, and Vulcan Ventures
- Oversaw business development, legal, public policy, industry relations, and product strategy
- Worked with CEO to hire and manage team of 75 employees
- Forged partnerships with hundreds of major and independent labels and artists to promote new releases
- Testified to Congress on copyright and intellectual property matters, lobbied Executive and Legislative branches extensively
- Participated in public policy debates and drafting sessions of key copyright legislation
- Outspoken and often-quoted pioneer of digital-age intellectual property matters and the future of the music industry

N2K, INC., New York, NY/**CDNOW, INC**., New York, NY (April 1997 – June 1999)
First ecommerce music/video retailer, over $100M in revenue, merged with CDNOW and sold to Bertelsmann in 2000
Vice-President, Business and Product Development

- Responsible for annual revenues of over $60M in sales
- Helped take N2K public and through secondary public offering, raising over $100M
- Helped complete $150M+ merger with CDNOW
- Constructed, negotiated, and managed the company's relationships with such partners as America Online, Netscape, Excite, Infoseek, Disney and ABC, Microsoft, and with artists such as The Tragically Hip and Stewart Copeland
- Managed company's business development efforts including the evaluation and negotiation of all strategic partnerships, the management and optimization of online marketing relationships, and the creation of economic models for new business initiatives such as custom compilations and digital music distribution.
- Responsible for the conceptualization, market research, and definition of product initiatives and feature sets for MusicBlvd (www.musicblvd.com). Built and managed a team of 25 business development and partner marketing employees
- Oversaw product management organization and set engineering and development priorities

APPLE COMPUTER, INC., Cupertino, CA and New York, NY (August 1991 – March 1997)
Manager of Programming, Apple Interactive Networks

- Managed group of 5 people creating continuous web-based interactive music programming
- Created cutting-edge websites, integrated new audio & video technologies
- Executive Producer for official webcast of the 39th GRAMMY awards, Metallica, and Mission: Impossible World Premiere webcasts.
- Negotiated technology, content, and artist partner relationships

Interactive Music Business Development Manager, Apple Music Group

- Co-founded Apple's Music Group
- Music industry liaison managing relationships with major music labels, artists, and music/multimedia developers
- Conceptualized, developed, and implemented new strategies and business models for Apple relating to key Apple technologies and their use in music and entertainment. Specific emphasis on internet-related music distribution models
- Co-created and Produced Macintosh New York Music Festival, first large-scale online music webcast.

Product Marketing Manager, Macintosh System Software Marketing

PROFESSIONAL PARTICIPATION

- **Board Member**, ITHAKA not-for-profit focused on education and technology
- **Board of Overseers**, University of Pennsylvania School of Engineering and Applied Science (2007-2010)
- **Board Member**, Digital Media Association (DiMA), Co-Chair Music Licensing Committee (until 7/02)
- **Director**, Knitting Factory Entertainment, Inc. (private $10M owner of Knitting Factory clubs & record labels)
- Published: “Copyright and the Consumer: How to Balance Protection for the Creator and Fair Use for the Consumer”, Copyright World, October 2001, issue 114
- Published: “Beyond Napster: Debating the Future of Copyright on the Internet”, American University Law Review, December 2000, Vol. 50, Number 2

EDUCATION

WALTER A. HAAS SCHOOL OF BUSINESS, **University of California at Berkeley**, Berkeley, CA
Executive Education Program, Competitive Marketing Strategies for High–Tech Products, April 1993.

SCHOOL OF ENGINEERING AND APPLIED SCIENCE, **University of Pennsylvania**, Philadelphia, PA
Bachelor of Science Engineering (BSE) in Computer Science Engineering, May 1991. Dean’s List.

PERSONAL

- Active drummer, songwriter, and band member, tennis, ice hockey

Appendix B

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
THE LIBRARY OF CONGRESS
Washington, D.C.

In the Matter of **DETERMINATION OF ROYALTY RATES FOR DIGITAL PERFORMANCE IN SOUND RECORDINGS AND EPHEMERAL RECORDINGS (WEB IV)**	**Docket No. 14-CRB-0001-WR (2016-2020)**

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