The Past is Prologue—How Prior Challenges with New Technology May Guide the Music Industry in Dealing with AI

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INTRODUCTION

In a peer-to-peer file-sharing case[1] involving tens of millions of users sharing millions of sound recordings, Judge Sidney R. Thomas of the Ninth Circuit Court of Appeals wrote:

> The introduction of new technology is always disruptive to old markets, and particularly to those copyright owners whose works are sold through well-established distribution mechanisms. Yet, history has shown that time and market forces often provide equilibrium in balancing interests, whether the new technology be a player piano, a copier, a tape recorder, a video recorder, a personal computer, a karaoke machine, or an MP3 player.[2]

For the music industry,[3] artificial intelligence ("AI") is a technology full of virtue and promise that has already proven valuable in numerous ways. In the creation of music by human artists, AI has been useful in assisting in the production of songs and sounds, as well as in the automation of related tedious technical tasks, thereby freeing creators to focus more deeply on their artistry. With respect to consumers, AI has been useful

* I am currently General Counsel of EMPIRE, an independent record label, distributor, and music publisher. The views or opinions reflected herein are my own and are not intended to reflect the views or opinions of my employer or any other entity or organization. The style I employ will not be overly academic in the hopes that this Article will be useful to both industry insiders and the uninitiated alike. I would like to thank Fred Wistow (longtime mentor, friend, and (now) editor) for graciously helping me get my thoughts down on paper.

1. File-sharing services enabled the exchange of digital files between users without the need for a central server.

2. *See* Metro-Goldwyn-Mayer Studios, Inc. v. Grokster Ltd., 380 F.3d 1154, 1167 (9th Cir. 2004).

3. References to the "industry" or "music industry" herein refer to record labels, music publishers, artists, and songwriters.

in helping to organize, categorize, and index their music, as well as in supporting their discovery of music through song curation, playlist creation, and recommendation.[4]
At the same time, AI also poses a number of disruptive threats. By training on unauthorized uses of copyrighted works, AI can create music that has the potential to oversaturate the market, thereby undermining the artistic integrity of music created by human beings and threatening the economic welfare of creators.[5] How might these various threats be minimized so that AI neither inflicts serious harm to the careers of artists and songwriters nor cripples an industry that is based on and supports human creativity? History may offer a guide.

In this Article, I will:

(i) set out the issues surrounding four moments in music industry history in which a new technology (often, a new format) posed challenges to copyright law and/or business norms of the time;[6]
(ii) describe how those challenges were overcome and their disruptive effects muted; and
(iii) highlight how the lessons of these past challenges may be useful as the industry confronts the challenges posed by AI.

First, however, I will briefly describe the two foundational pillars that have provided support to the industry when faced with the arrival of a potentially disruptive technology.

I. MUSIC INDUSTRY CONFLICTS WITH NEW TECHNOLOGY

A. SETTING THE SCENE

1. Two Foundational Pillars

The two significant constants—in essence, the foundational pillars that have protected the music industry when technological challenges have arisen in the past—are copyright law and the power of music itself. They offer some comfort that the industry will adapt to and survive the threats posed by AI.

4. *See* Virtual Music Instruments, *AI in Music: The Future of Music Creation and Discovery*, YOUTUBE (Oct. 19, 2023), https://www.youtube.com/watch?v=8T5HMjGUPcg [https://perma.cc/E44N-4DYE] [https://web.archive.org/web/20250415201627/https://www.youtube.com/watch?v=8T5HMjGUPcg].

5. As ChatGPT itself puts it, "AI poses risks to the music industry by potentially displacing jobs, creating copyright challenges, homogenizing creativity, exploiting artists, and disrupting traditional business models." Prompt: "one sentence summary of main risks AI poses to the music industry", Tool: Chat GPT, basic model, April 18, 2025, https://chatgpt.com/?ref=dotcom.

6. In their book *"Key Changes,"* Howie Singer and Bill Rosenblatt provide a history of the rise and fall of new music formats over time. HOWIE SINGER & BILL ROSENBLATT, KEY CHANGES: THE TEN TIMES TECHNOLOGY TRANSFORMED THE MUSIC INDUSTRY (2023).

a. Copyright Law

The U.S. Constitution provides that, "[Congress shall have Power] . . . . . .[t]o promote the Progress of . . . useful Arts, by securing for limited Times to Authors . . . the exclusive Right to their respective Writings. . ."[7] The tenet is simple and clear. If society is to enjoy the arts, creators must be able to earn a living from their creations. The Copyright Act provides an exclusive right of "authors" to, among other things, make and distribute copies of their works, create derivative works, and perform or display their works publicly.[8] The law also contains provisions to remediate loss resulting from third-party infringing conduct,[9] and to deter infringement.[10] Copyright law thus provides creators, owners, and/or administrators of copyrighted works a seat at the table to negotiate issues that arise as new technologies seemingly run afoul of existing copyright law.

b. Inherent Power of Music.

More than twenty years ago, a tech company executive said something to me about harmonizing new technology with the public's love of music which I have never forgotten (and here I paraphrase):

> It is not our job to tell consumers how they should enjoy music, but to give them the experience they want and then find a way to earn enough from it to make a profit and properly pay the creators, owners, and administrators.

Implicit in his remark I recognized two principles: (i) almost everyone loves music; and (ii) because there is money to be made from that near-universal love, once the initial skirmishes between competitive interests have died down, the resolution of issues around new technologies is inevitable. Consumers' demand for experiences that satiate their love of music creates endless commercial opportunities to deliver on those demands. The problem is: How do we resolve disputes quickly so as to maximize consumer enjoyment and commercial gain?

2. The Players

There are three main sets of "players" or "stakeholders" in the four disruptive

7. U.S. CONST. art. I, § 8, cl. 8.
8. *See* Copyright Act of 1976, 17 U.S.C. §§ 101–1511 (2022); 17 U.S.C. § 106.
9. *See* 17 U.S.C. § 504 (b) (actual damages); 17 U.S.C. § 505 (court costs and attorney's fees).
10. *See* Digital Theft Deterrence and Copyright Damages Improvement Act of 1999, Pub. L. No. 106-160, 13 Stat. 1774; *see also* H.R. REP. NO. 106-216, at 3 (1999) (explaining that "many infringers do not consider the current copyright infringement penalties a real threat . . . In light of this disturbing trend, it is manifest that Congress respond appropriately with updated penalties to dissuade such conduct."). In lieu of seeking actual damages, a copyright owner may seek statutory damages, with awards ranging from $750 to $30,000 per infringement of a work and up to $150,000 per willful infringement of a work. 17 U.S.C. § 504(c)(1) and (2).

challenges described below.

The first stakeholder group consists of "rights holders," who control the copyrights either to (a) the musical composition (or "musical work," i.e., the notes and lyrics written by a composer and lyricist) or (b) the sound recording of a musical work (or "record," "recording," or "phonorecord"[11]) made by a performing artist or group. The rights holders of musical works are typically music publishers (such as Universal Music Publishing) and the rights holders for sound recordings are typically record labels (such as Atlantic and Columbia).

The second stakeholder group comprises tech companies (such as Apple or Sony) that develop a technology constituting, or enabling, a new format or mode of music distribution.

The third stakeholder group includes the music services ("digital service providers" or "DSPs" or "services," such as Spotify and YouTube) that distribute music to the consumer.

As we will see, trade associations of the rights holders are sometimes significant players, and, at times, a company (such as Apple and Sony) may simultaneously be a player in two or even three of the stakeholder groups.[12]

3. The Playbook

When a new technology rears its head, the prime motivation of rights holders is to preserve their existing business models and revenue streams against the technology's substitutional or cannibalistic effect. Because new technology is often unanticipated by copyright law, [13] legal uncertainty leads a tech company introducing that new technology either to obtain in advance of launch a license from rights holders or to launch its service without a license, begging forgiveness later.[14] Litigation to halt the launch or operation of a technology is deployed in a variety of ways and circumstances—sometimes to good effect, sometimes not. I refer to these common moves that play out among the players as the "playbook."

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11. A phonorecord is a material object "in which [audio-only sounds] are fixed . . . . . .and from which the sounds can be perceived, reproduced, or otherwise communicated. . .." 17 U.S.C. § 101.

12. For example, Sony Group Corporation owns both Sony Music Entertainment, a rights holder, and Sony Corporation of America, a tech company. Apple Inc. is a tech company which owns Apple Music, a digital service; Google LLC is a tech company which owns the YouTube service.

13. *See* Rod Smolla, *You Say Napster, I Say Grokster*, SLATE (Dec. 13, 2004), https://slate.com/news-and-politics/2004/12/you-say-napster-i-say-grokster.html [https://perma.cc/A24N-JNE3] [https://web.archive.org/web/20250310002614/https://slate.com/news-and-politics/2004/12/you-say-napster-i-say-grokster.html].

14. The "seek permission first and beg forgiveness after" approach was made popular in the 2000s. *See* Trapital, *AI and Music—Trapital Summit with Warner Music's Carletta Higginson and MIDiA's Tati Cirsano*, YOUTUBE (Nov. 19, 2024), https://www.youtube.com/watch?v=jHyKQ9BARBk [https://perma.cc/8EWG-U464]
[https://web.archive.org/web/20250310181553/https://www.youtube.com/watch?v=jHyKQ9BARBk] (interview with Carletta Higginson, EVP and Chief Digital Officer of Warner Music Group).

One important takeaway from these examples is that ineffective or misapplication of plays in the playbook may result in delays in the commercial adoption of a new technology, to the detriment of every player involved.

B. DISRUPTIVE MOMENTS

Between 1990 and 2010, the industry experienced the following four disruptive moments attributable to the introduction of new technologies:

(i) Consumer Digital Recording Devices and Media (1992):
Labels and publishers were concerned about the effects of the technology on record sales; tech companies sought to commercialize their new advances; resulting litigation was eventually settled by legislation (which was, in turn, undone by subsequent litigation);
(ii) Non-Interactive Streaming (Internet Radio) (1995):
Existing law was inadequate to protect recorded music revenue; governmental action encouraged labels and services to agree to certain definitional issues that were later partially resolved through litigation;
(iii) On-Demand Interactive Streaming (2001-08):
Music publishers' demand for a larger share of streaming revenue pitted labels and services, on the one hand, against publishers; an agreement later codified into law ultimately ended the conflict; and
(iv) The iPod and the iTunes Download Store (2003):
Labels sought to protect declining revenue streams from CDs and albums against a tech and service company's revolutionary innovation in music consumption; an industry-wide agreement and further technological innovation eventually resolved the dispute.

1. Consumer Digital Recording Devices and Media and the AHRA (1992)

In 1987, as compact disc sales continued to grow and the cassette began to decline, Sony introduced the digital audio tape ("DAT").[15] The new format represented an improvement over the read-only CD in that it allowed consumers to make perfect copies of digital audio recordings. Labels and music publishers, however, were concerned that consumers' ability to make perfect digital copies of music would significantly decrease demand for commercially pre-recorded music products.[16]

15. In 1992, Sony also introduced the MiniDisc, a recordable mini version of the CD. *See Studio Recorders Go Digital*, SONY, https://www.sony.com/en/SonyInfo/CorporateInfo/History/SonyHistory/2-10.html [https://web.archive.org/web/20240801222750/https://www.sony.com/en/SonyInfo/CorporateInfo/History/SonyHistory/2-10.html] (last visited Jan. 20, 2025).

16. See House Report 102-873 (Part 2), Wikisource, https://en.wikisource.org/wiki/House_Report_102-873_(Part_2) [https://perma.cc/SW78-6RNX]

At a meeting in Greece in 1989, the international recording industry and the consumer electronics industry reached a compromise (the "Athens Agreement")[17] which provided that: (i) a digital audio recording device ("DARD") must include a serial copy management system ("SCMS") that would allow a user to make one copy, but not another copy from that copy; and (ii) the recording industry would pursue legislation to provide for royalties on DARDs and the media on which copies of recordings were made.[18] The musical composition rights holders were not signatories to the Athens Agreement, and they had a different view. Famed songwriter Sammy Cahn and several music publishers unhappy with the absence in the Athens Agreement of a royalty scheme for musical works sued Sony and other manufacturers in order to prohibit the sale of DARDs.[19] The lawsuit was settled with all parties agreeing to support legislation that became the Audio Home Recording Act of 1982 ("AHRA").[20]

The AHRA: (i) required any manufacturer or distributor of DARDs to implement SCMS;[21] (ii) imposed a royalty scheme on DARDs (and media) payable to songwriters, publishers, recording artists, labels, and unions;[22] (iii) provided blanket protection from infringement claims to manufacturers and consumers for consumers' private, non-commercial use of DARDs;[23] and (iv) was the first U.S. copyright legislation to impose restrictions on both the circumvention of SCMS by any third party, and the importation, distribution, or manufacture of circumvention tools.[24]

[https://web.archive.org/web/20250416202915/https://en.wikisource.org/wiki/House_Report_102-873_(Part_2)] (last visited Apr. 16, 2025).

17. Tech manufacturers were represented by a trade group known as the Consumer Technology Association.

18. Joel L. McKuin, *Home Audio Taping of Copyrighted Works and the Audio Home Recording Act of 1992: A Critical Analysis*, 16 HASTINGS COMMC'N. & ENT. L.J. 311, 322 (1993).

19. *See* Cahn v. Sony Corp., No. 90 Civ. 4537 (S.D.N.Y. filed July 9, 1990).

20. The Audio Home Recording Act of 1992 ("AHRA") amended the Copyright Act by adding Chapter 10, "Digital Audio Recording Devices and Media." Audio Home Recording Act of 1992, Pub. L. No. 102-563, 106 Stat. 4237 (codified at 17 U.S.C. ch. 10).

21. 17 U.S.C. § 1002. *See also* S. REP. NO. 102-294 (1992).

22. 17 U.S.C. §§ 1003–1007 (royalty provisions). The principal determination whether a device was covered by the AHRA turned not on the device's ability to make digital recordings, but on whether the device was primarily marketed to make them. For example, a CD-R recorder included as part of a personal computer would not be deemed a DARD provided it was not marketed primarily for making copies of music. The same recorder, sold as a peripheral and marketed for the purpose of making digital audio recordings, would be deemed a DARD for purposes of the AHRA. 17 U.S.C. § 1001(3).

23. 17 U.S.C. § 1008.

24. 17 U.S.C. § 1002(c). Later, the Digital Millennium Copyright Act of 1998 ("DMCA") also included an anti-circumvention provision that prohibits any person from circumventing a technological measure (such as by removing encryption) that controls access to a copyright-protected work. Digital Millennium Copyright Act, Pub. L. 105-304, 112 Stat. 2860 (1998).

TAKEAWAYS—Digital Recording Devices

First, guided by the constitutional command to protect the rights of creators to earn a living from their "writings" and to ensure the availability of music for the public's personal enjoyment, the AHRA introduced a licensing framework.[25]

Second, SCMS technological and anti-circumvention measures were put in place to balance the interests of tech companies and music rights holders.

Third, litigation was employed to good effect in *Cahn* in that it led to legislation that restored some rationality and balance to the music and tech eco-system.[26] Subsequently, however, the Circuit Court of Appeals in *RIAA v. Diamond Multimedia* significantly narrowed the applicability of the AHRA in a highly technically-reasoned decision.[27]

Fourth, following the *Diamond* decision and with the later growth of services implementing technology designed to restrict or control access to and usage of copyrighted digital content ("digital rights management" or "DRM"),[28] SCMS declined in importance. [29]

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25. The combination of the blanket protection for manufacturers and users of DARDs coupled with rates for such uses effectively created this framework. 17 U.S.C. § 1008.

26. As the legislative record recounts, "[t]he opponents took their dispute to the courts the next month by filing suit against the Sony Corporation for contributory copyright infringement. . . . Negotiations among record companies, hardware manufacturers, music publishers, songwriters, and performing rights societies then took place, resulting in agreement in June 1991." *House Report 102-873 (Part 1)*, WIKISOURCE, https://en.wikisource.org/wiki/House_Report_102-873_(Part_1) [https://perma.cc/WV2H-YCJM] [https://web.archive.org/web/20250416211303/https://en.wikisource.org/wiki/House_Report_102-873_(Part_1)] (last visited Apr. 16, 2025).

27. *See* Rec. Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 1072 (9th Cir. 1999) (while each of the district and circuit court of appeals ruled in favor of the defendant device maker, they differed on whether the device in question was a DARD, with the circuit court concluding that it was not). For criticism of the Diamond case reasoning, see Ted J. Barthel, RIAA v. Diamond Multimedia Systems, Inc.: *The Sale of the RIO Player Forces the Music Industry To Dance To a New Beat*, 9 DEPAUL J. ART, TECH. & INTELL. PROP. L. 279, 306–07 (1999) ("As is painstakingly clear from the intricacies of the *Rio* case, the courts are ill-equipped to rule on the impact of emerging digital technologies on copyright law. It is the music industry as a whole that must take the initiative and grapple with the copyright issues . . . .").

28. "Digital rights management (DRM) is the use of technology to control and manage access to copyrighted material. . . . DRM enables authors, musicians, moviemakers, and other content creators to clarify and control what people can and cannot do with their content." Digital Rights Management (DRM), Fortinet, https://www.fortinet.com/it/resources/cyberglossary/digital-rights—management-drm [https://perma.cc/6YDG-2G9D] [https://web.archive.org/web/20240418112217/https://www.fortinet.com/it/resources/cyberglossary/digital-rights—management-drm] (last visited Apr. 16, 2025).

29. As technology has migrated away from physical audio media, the AHRA has basically become a "dead letter." The AHRA applies to less-prevalent devices and media and generates nominal royalties in the U.S., especially when compared to Europe and other regions. Chris Eggertsen, *SoundExchange Expanding into Private Copy Royalty Collection in the U.S.*, BILLBOARD (July 13, 2021) https://www.billboard.com/pro/soundexchange-private-copy-royalty-collection-us/ [https://perma.cc/MRD2-26X2] [https://web.archive.org/web/20250123172313/https://www.billboard.com/pro/soundexchange-private-copy-royalty-collection-us/]. While DRM and SCMS are both designed to prevent unauthorized copying of digital content, DRM has much more advanced technological features (such as encryption and license management) to control other uses of content such as sharing and playback.

2. Non-Interactive Streaming (Internet Radio) and Sound Recordings (1995)

Because Congress believed that terrestrial (i.e., over-the-air broadcast) radio fueled the sale of physical records, and such broadcast transmissions were therefore "promotional,"[30] a license for the public performance of sound recordings was not required.[31] But with the growing recognition that digital transmission of some kind was in the wings, and the likelihood that digital transmission would diminish creators' incentives and thus decrease the creation and consumption of new recordings, amending copyright law to protect sound recording rights holders became essential.[32]

Born out of these concerns, the Digital Performance Right in Sound Recordings Act of 1995 ("DPRA") was enacted, amending § 106 of the Copyright Act.[33] The DPRA provides a sound recording rights holder with an exclusive right "to perform the copyrighted work publicly by means of a digital audio transmission."[34] In so adopting the amendment, the Committee Report submitted to the Senate stated:

> [R]elevant technologies will continue to advance. The bill has been carefully drafted to accommodate foreseeable technological changes . . . . . .[but if] the language of the bill does not precisely anticipate . . . . . .changes, it is [our] intention that . . . the bill be interpreted in order to achieve [its] intended purposes.[35]

The DPRA provided a framework for licensing based on whether transmissions were either exempt, non-interactive, or interactive. "Exempt" from the DPRA were traditional over-the-air terrestrial broadcasts of sound recordings via those radio stations licensed by the Federal Communications Commission.[36] "Non-interactive" transmissions required a license, either directly from sound recording rights holders or via a compulsory licensing scheme established by the DPRA.[37] "Interactive" digital

30. S. REP. NO. 104-128, at 15 (1995). *See also id.* at 14–15 ("The [Senate Judiciary] Committee . . . recognizes that the sale of many sound recordings and the careers of many performers have benefitted considerably from airplay . . . provided by . . . over-the-air broadcasting.").

31. In contrast, a license was required for the public performance on broadcast radio of a musical composition. 17 U.S.C. § 106(4).

32. The House Committee on the Judiciary stated that "[t]rends within the music industry . . . suggest that digital transmission of sound recordings is likely to become a very important outlet for the performance of recorded music in the near future. . . . . However, in the absence of appropriate copyright protection in the digital environment, the creation of new sound recordings and musical works could be discouraged, ultimately denying the public some of the potential benefits of the new digital transmission technologies." H.R. REP. NO. 104-274, at 12–13 (1995).

33. Pub. L. No. 104-39, 109 Stat. 336 (1995). The DMCA, enacted in 1998, further amended the DPRA. *See supra* note 24.

34. 17 U.S.C. § 106(6).

35. S. REP. NO. 104-128, at 14 (1995).

36. 17 U.S.C. § 114(d)(1)(A). *See also* CONG. RSCH. SERV., ON THE RADIO: PUBLIC PERFORMANCE RIGHTS IN SOUND RECORDINGS 16 (2025) ("The United States is one of the only developed countries in the world that does not require broadcast radio stations to compensate performers for the right to play their music.").

37. For a "non-interactive" service to be eligible for a compulsory license, it must also limit the number of songs from an artist or an album that can be transmitted on a channel within a three-hour

transmissions could only be licensed by sound recording rights holders.[38] An "interactive service" is one from which a member of the public can receive a transmission of either (i) a program specially created for the recipient; or (ii) on request, "a particular sound recording . . . which is selected by or on behalf of the recipient."[39]

A decade after the enactment of the DPRA, in an effort to provide greater licensing assurances and unlock greater commercial opportunities, the staffs of Senators Specter and Feinstein invited representatives from the trade associations representing the record labels and the music services—respectively, the Recording Industry Association of America ("RIAA"[40]) and the Digital Media Association ("DiMA")—to negotiate the definition of "interactive."[41] While illuminating, the negotiation did not result in any greater clarity around the definition, and subsequent litigation added further uncertainty when the Second Circuit Court of Appeals determined, that, as a matter of law, a particular service known as LAUNCHcast was not interactive.[42]

TAKEAWAYS—Non-Interactive Streaming—Sound Recordings

First, the DPRA acknowledged the constitutional principles that works should be available to be enjoyed by the public and licenses be required so that creators are afforded the opportunity to enjoy the fruits of their creativity.

Second, a compulsory license with statutory rates, periodically adjusted, ensured the availability of recordings for non-interactive streaming and remuneration for the creators of those recordings.

Third, litigation can lead to bad outcomes;[43] mutual agreement among stakeholders is the most effective solution to conflict.

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programming block. *See* 17 U.S.C. § 114(j)(13). Seen as akin to terrestrial radio, non-interactive transmissions give a dissatisfied listener the option either to turn off the service or "turn the dial" to select a new channel.

38. The Judiciary Committee Report submitted to the Senate observed that "interactive services are most likely to have a significant impact on traditional record sales, and therefore pose the greatest threat to the livelihoods of those whose income [is dependent upon] traditional record sales." S. REP. NO. 104-128, at 16.

39. *See* 17 U.S.C. § 114(j)(7).

40. I was a member of this group.

41. The RIAA is a U.S. trade organization that represents the U.S. recording industry. DiMA is a trade organization that represents audio streaming companies.

42. Arista Records, LLC v. LAUNCH Media, Inc., 578 F.3d 148, 150 (2d Cir. 2009). LAUNCHcast users could exert considerable influence in creating stations closely customized to their specific tastes, including by inputting preferences for artists and genres, and rating, banning, and skipping songs during playback. Many in the industry disagreed with the Second Circuit's decision, proclaiming that the service differed vastly from a terrestrial radio experience, in that the stations were specially created for the recipient, and that the court had essentially re-written the definition of "interactive" to exclude every form of transmission shy of an on-demand experience.

43. One author's observation on the LAUNCHcast appeal: "After [losing the jury trial, an appeal was sought.] . . . Had there been no appeal, all there would have been is a jury verdict, which in any other case could have been explained away as being based on, and limited to, a jury's conclusion as to the facts of the Launch Media case. . . . . .[But the appeal resulted] in a 42-page appellate decision holding that 'as a matter of law' a personalized internet radio station of the type provided by Launch Media is NOT interactive, no

Fourth, in order to facilitate agreement between sound recording rights holders and services, antitrust safe harbors for the negotiation of license terms and royalty rates can lead to efficient, expedient and output-enhancing results.[44]

3. On-Demand Interactive Streaming—Musical Compositions (2001–08)

For decades, a musical work embodied in a sound recording on physical products such as vinyl or CD was licensed to labels based on statutory terms by the Harry Fox Agency ("HFA"[45]) (a "mechanical license"). Under § 115 of the Copyright Act, once a musical work has been authorized by the author to be performed on an audio-only record and is thereafter distributed in the United States, any subsequent person may obtain a compulsory license to perform and distribute that musical work on an audio-only record so long as such person accounts to and pays the owner of the musical work a royalty at the rate and in the manner prescribed by the statute.[46]

While the DPRA required interactive digital services to obtain a direct license to transmit a sound recording, the appropriate mechanism for the licensing of musical compositions to on-demand internet music services remained unaddressed.[47]

Two of the first on-demand services in late 2001 were MusicNet (owned by a tech company and three of the then-five major labels) and PressPlay (owned by the two other major labels). Although the music industry was at the time virtually fighting for its life trying to compete with the "free" product available through illegal file-sharing

matter what the jury might have found." Ray Beckerman, *RIAA Loses Its Case Against Yahoo's Launch Media Internet Radio Station* Provider, RECORDING INDUS. VS. THE PEOPLE (Aug. 22, 2009), https://recordingindustryvspeople.blogspot.com/2009/08/riaa-loses-its-case-against-yahoos.html [https://perma.cc/2YL8-TVQF]
[https://web.archive.org/web/20250310212324/https://recordingindustryvspeople.blogspot.com/2009/08/riaa-loses-its-case-against-yahoos.html].

44. Sound recording rights holders and services have antitrust exemptions to collectively negotiate and agree upon the royalty rates and the license terms and conditions for the performance of sound recordings. 17 U.S.C. § 114(e). *See also infra* notes 52 and 88.

45. HFA, established in 1927, today represents nearly 50,000 affiliated publishers and issues licenses on their behalf to more than 2,500 record labels. *History of HFA,* HFA, https://www.harryfox.com/history [https://perma.cc/Q934-VCBY]
[https://web.archive.org/web/20250416223323/https://www.harryfox.com/history] (last visited Apr. 16, 2025).

46. 17 U.S.C. § 115(a)(1)(A). Statutory licenses, commonly referred to as "compulsory licenses," were first introduced in the Copyright Act of 1909 for the right to use a musical composition on a record. The licenses issued by HFA, however, are "voluntary" (rather than statutory) licenses as they vary certain statutory requirements that make it administratively easier to license and to account for and pay royalties.

47. The legislative record reflects Congress's awareness of this uncertainty. S. REP. NO. 104-128, at 17 (1995) ("It is not clear under current law that a transmission can constitute a distribution of copies . . . of a work. . . . [E]ven a perception of uncertainty raises questions concerning the respective rights and obligations of musical work copyright owners . . . as [it relates] to digital transmissions of recorded music.") (Internal quotation marks omitted)).

services,[48] record labels granted licenses only to the particular service of which they were partial owners.[49]

It was clear that a public performance of a musical work digitally transmitted to a user required a public performance license (obtainable in the United States from performing rights organizations such as ASCAP and BMI), and it was clear that a reproduction license would be required for the various copies made in the ordinary course by an on-demand service, but what was unclear was whether more than one such reproduction license would be required for those various copies, and whether "buffer"[50] copies would fall within the provisions of § 115. In other words, it was complicated.

The § 115 compulsory mechanical license was available for certain exclusive rights granted by § 106. If the use of a sound recording on an on-demand service constituted a distribution of "phonorecords . . . .to the public by . . . rental, lease or lending" under § 106(3),[51] record labels believed they were entitled to a compulsory license under § 115 of the Copyright Act for the musical work embodied on that sound recording. As potential licensees, the labels pursued an industry course of action with sufficient antitrust protections provided under § 115.[52]

By 2001, however, the publishers had made it known that licensing for on-demand services would not be available through HFA.[53] A team of people at my then-company,[54] spent considerable time and effort to obtain statutory licenses for musical works embodied on its recordings without the assistance of HFA, but achieved only minimal success.[55]

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48. Competing with "free" was part of the industry vernacular denoting that consumers did not pay for this unauthorized content.

49. Given this conflict with publishers around on-demand service licensing, the following irony is worth noting: each of the major labels was affiliated with a music publisher.

50. In streaming music, a buffer copy is temporarily made to store a portion of the audio data on a playback device to prevent interruptions and otherwise to facilitate smooth delivery of the digital file.

51. 17 U.S.C. § 106(3).

52. *See* 17 U.S.C. § 115(d)(11) ("The antitrust exemption described in subsection (c)(1)(D) shall apply to negotiations and agreements between and among copyright owners and persons entitled to obtain a compulsory license for covered activities . . . ."). *See also* notes 44 and 88.

53. As reported in the announcement of the ultimate stakeholder settlement in December 2001, the stakeholders explained that up until the time of settlement they had been negotiating terms, but "[b]ecause of differences concerning legal and procedural questions implicated by the licensing of musical works for use in such service, it took some time for these negotiations to bear fruit." Joint Statement of the Recording Indus. Ass'n of Am., Inc., Nat'l Music Publishers' Ass'n, Inc., and the Harry Fox Agency, Inc. on the Mechanical and Digital Phonorecord Delivery Compulsory License, at 2 (Dec. 6, 2001) [hereinafter, "Joint Statement"], https://www.crb.gov/proceedings/2006-3/riaa-ex-a-120-dp.pdf [https://perma.cc/B4YU-ZUHH] [https://web.archive.org/web/20250311000722/https://www.crb.gov/proceedings/2006-3/riaa-ex-a-120-dp.pdf].

54. Warner Music Group.

55. The process involved the mailing of thousands of Notices of Intent to Obtain a Compulsory License, a tedious, work-by-work licensing process, that was the only non-HFA compulsory licensing route available before the adoption in 2018 of the Music Modernization Act ("MMA"), which amended § 115, and set out a new streamlined approach to obtain licenses on a blanket basis for digital phonorecords. *See* Orrin G. Hatch—Bob Goodlatte Music Modernization Act, Pub. L. No. 115-264, 132 Stat. 3676 (2018).

And so the playbook came into play. After another year or so of discussions, saber rattling and bluster on each side, the National Music Publishers Association ("NMPA") and the RIAA issued a Joint Statement to the Copyright Office announcing an agreement providing for bulk licensing of musical works through HFA that covered on-demand streams, limited downloads, and buffer copies.[56] The agreement set a framework for, but did not establish, a rate. The parties committed to engage in good faith negotiations and the statement went on to say, "[i]f negotiations fail . . . . . .rate[s] . . . will be established by a [rate-setting process] convened by the Copyright Office. . . . The Agreement represents the type of marketplace solution that Congress has urged to resolve these business and legal issues."[57] While the labels were willing to acknowledge the possibility of buffer copies in the agreement, the Copyright Office did not embrace that acknowledgment as a technically accurate interpretation of then-existing copyright law.[58]

Seven more years passed without agreement on rates. A review of ancient history makes clear why: the considerable inequality in the statutory rate for mechanical licenses. From 1909 until 1978, the statutory rate for mechanicals paid to publishers was locked in at 2 cents per song,[59] during which time, the retail price of a record increased over 400%.[60] With the need for immediate action in response to the rise in digital piracy, publishers had seized the opportunity to also re-set royalty rates for mechanical licenses.

In 2008, the NMPA and related publishing groups, the RIAA, and DiMA agreed to the "Interactive Streaming Settlement,"[61] which was adopted by the Copyright Royalty

56. *See* Joint Statement, *supra* note 53, at 8.

57. *Id.*

58. As amended by MMA, § 115 now contains a reference to incidental reproductions necessary for on-demand services to transmit the recording under the license. 17 U.S.C. § 115(d)(1)B)(ii).

59. For context, between 1913 and 1978, general consumer prices rose 691%. The U.S. Bureau of Labor Statistics began tracking inflation in 1913. https://www.bls.gov/data/inflation_calculator.htm (enter "1" in the dollar field; choose "January" and "1913" from dropdown; then choose "December" and "1978" from dropdown; then click "calculate"). When mechanical rates began to rise in and after 1978, many songwriters who were also recording artists had recording agreements that contained controlled compositions clauses which, much to the ire of the music publishing industry, capped or limited the mechanical royalties payable with respect to those musical works on an album written by the recording artist. *See What Is a "Controlled Composition Clause" in a Recording Contract?*, SONGTRUST, https://help.songtrust.com/knowledge/what-is-a-controlled-composition-clause-in-a-recording-contract [https://perma.cc/4837-LL76] [https://web.archive.org/web/20250125225215/https://help.songtrust.com/knowledge/what-is-a-controlled-composition-clause-in-a-recording-contract] (last visited Jan. 25, 2025).

60. In 1909, an Edison phonograph wax cylinder held 2-6 minutes of music and sold for between 25 and 50 cents. Singer & Rosenblatt, *supra* note 6, at 43. Between 1970 and 1980, a 45 RPM vinyl single (with a B Side) sold for between 99 cents and $1.49. Jon Pareles, '45' Single Record: A Disk in Decline, N.Y. Times, Oct. 30, 1986, at 81.

61. Urgent Message from David Isrealite, President and CEO of National Music Publishers' Association, Songwriters Hall of Fame (Sept. 24, 2008), https://www.songhall.org/news/view/urgent_message_from_david_isrealite_president_and_ceo_of_national_music_pub [https://perma.cc/2B28-62VU] [https://web.archive.org/web/20250417000316/https://www.songhall.org/news/view/urgent_message_from_david_isrealite_president_and_ceo_of_national_music_pub].

Board ("CRB").[62] Rates set for a musical composition on recordings transmitted by on-demand services were based on a complex percentage calculation and represented significant publisher gains in monetization. The rates set for physical single records and for permanent downloads was 9.1 cents (a 455% increase from the 2-cent rate from 1909–1978).[63] I refer to this as the "Great Reset."

One final note: The uncertainty surrounding what rights artists had granted to record labels under recording agreements entered into prior to rapid advances of technology began to take hold limited the availability of music for licensing to on-demand services in the 2000s.[64]

TAKEAWAYS—On-Demand Interactive Streaming—Musical Compositions

First, publishing and recorded music stakeholders had a vested interest in the success of on-demand services (which were, in effect, the new "format"), so resolution of the dispute was critical and, at some point, inevitable.

Second, the reproduction right, central to this conflict, was a cudgel in achieving the Great Reset. Whether or not the incidental copies that were made as an integral part of how on-demand services operated fell within that right, the issue brought all stakeholders to the table.

Third, antitrust exemptions under § 115 allowed for collective negotiation and licensing efficiency.

Fourth, the Interactive Streaming Settlement broke an impasse. While not perfect, it allowed for more efficient licensing. The CRB Judges pragmatically finessed the publishers' buffer copy assertions.[65] The lesson? For licensing to work, not everything

62. The CRB, consisting of three judges appointed by the Librarian of Congress, hears cases and sets copyright rates and terms for statutory licenses under § 801 of the Copyright Act. *See* 17 U.S.C. § 801.

63. In 2025, a mechanical for a musical composition on a physical record or permanent download is 12.7 cents, representing a 635% rate gain from 1909. See 37 C.F.R. § 385.11(a)(1).

64. Certain legacy superstar artists like The Beatles, Led Zeppelin, Metallica, and AC/DC, relying on their recording agreements, held back from allowing their works to appear on services, some until 2015. *See* Jon Porter, *One of the Last Remaining Music Streaming Holdouts Has Relented*, VERGE (July 30, 2019), https://www.theverge.com/2019/7/30/20746735/tool-music-spotify-apple-music-digital-streaming [https://perma.cc/A4WW-3UT5] [https://web.archive.org/web/20230419031249/https://www.theverge.com/2019/7/30/20746735/tool-music-spotify-apple-music-digital-streaming].

65. The CRB Judges decide cases that sometimes involve interpretation of copyright law. When the questions are novel and have not been determined in prior decisions or determinations, they must ask for the Register of Copyright's legal advice under 17 U.S.C. § 802(f)(1)(B). The judges did ask for such advice during the implementation of the Interactive Streaming Settlement relating to whether buffer copies could be licensed under § 115. The Register concluded that "the matter had many uncertainties". *See* U.S. Copyright Off., In re Determination of Rates and Terms for Mechanical and Digital Phonorecord Delivery Rate Adjustment Proceeding, at 9–10 (Nov. 24, 2008), https://www.copyright.gov/crb-referrals/docs/CRB_final_determination_2006-3.pdf [https://perma.cc/RJL2-XKTP] [https://web.archive.org/web/20250417002749/https://www.copyright.gov/crb-referrals/docs/CRB_final_determination_2006-3.pdf]. Congress subsequently passed MMA, which curtailed further challenges as to whether § 115 covered all reproduction rights required for on-demand services. *See* Orrin G. Hatch—Bob Goodlatte Music Modernization Act, Pub. L. No. 115-264, 132 Stat. 3676 (2018).

needs to be perfectly defined and wrapped up with a bow. Agreements should be encouraged.

4. The iPod and the iTunes Download Store (2003)

From the birth of Thomas Edison's phonograph cylinders up to the introduction of the CD in 1982, the music industry maintained substantial control over the production and distribution of music. The CD, however, was a vulnerable format because it held a relatively small amount of data and lacked copy protection. Those vulnerabilities combined with a variety of other stresses—the increased penetration of broadband, the ease of sharing hit tracks,[66] and the concept that music should be "free" (encouraged through marketing slogans such as Apple's "Rip, Mix, and Burn"[67])—put the format at risk. Global recorded music revenues declined from approximately $21 billion in 2000 to approximately $13 billion in 2014.[68]

Negotiations leading up to the launch reflected the labels' dual concerns that downloads would contribute to greater piracy and that the availability of the single as a standalone product at the low price of ninety-nine cents would lead to further revenue decline. The labels wanted to preserve their business, especially revenues from higher-priced albums. Apple wanted to grow its business by creating an integrated self-contained system of hardware (iPod and Mac), software (iOS and OS), and content (initially, music). To achieve that result, Apple believed that its marketing message had to be easy to understand—for example, a thousand songs in your pocket, each costing only ninety-nine cents.[69] To ease the labels' pricing concerns, Apple's "Fairplay" DRM balanced competing interests by limiting the number of devices that could access a particular track download and the number of times it could be burned to a CD. Warner

66. Stream-ripping technologies, the process of extracting audio data from a CD, and the original Napster service both made the process of sharing music easy.

67. With the introduction of the iPod in 2001, Apple launched a broad marketing campaign that encouraged CD copying. *See* xaviertic, *Rip. Mix. Burn. iTunes Commercial [Extended] 2001*, YOUTUBE (Oct. 17, 2009), https://www.youtube.com/watch?v=pleybGLgaEc [https://perma.cc/GD29-5HNT] [https://web.archive.org/web/20250310004427/https://www.youtube.com/watch?v=pleybGLgaEc].

68. By the close of 2024, global recorded music revenues had climbed back up to $29.6 billion. IFPI, GLOBAL MUSIC REPORT 2025: STATE OF THE INDUSTRY 6 (2025) https://ifpi-website-cms.s3.eu-west-2.amazonaws.com/GMR_2025_State_of_the_Industry_Final_83665b84be.pdf [https://perma.cc/YLY5-FTQ5] [https://web.archive.org/web/20250409111019/https://ifpi-website-cms.s3.eu-west-2.amazonaws.com/GMR_2025_State_of_the_Industry_Final_83665b84be.pdf].

69. The ninety-nine-cent price was from the outset a walk-away issue for Apple. The industry, in crisis, capitulated; the fight for higher pricing would be for another day. After all, this was a test—a high stakes one, but still a test. If the market collapsed around the ninety-nine-cent single, the industry could revoke its rights and pivot to other product offerings. In fact, throughout the 2000s the industry earnestly explored other products like multi-session physical formats (such as DVD-Audio and SACD), user-generated content (such as MySpace Music), and music kiosks (Starbuck's Hear Music), none of which sustained any long-lasting critical success.

Music granted Apple its first license for a limited duration to test the service.[70] The iTunes Store launched in 2003 and unlocked the digital music marketplace. Sales grew steadily year after year, helping to stem losses in revenue from piracy and the decline of the CD.[71]

TAKEAWAYS—iPod and the iTunes Download Store

First, licensed testing is the primary lesson. Tests are not the end game and therefore do not require perfection. Licenses need only have a sufficient term that allows an experiment the chance to fail or succeed.

Second, the right partner for a test does not necessarily mean the largest or most dominant player out there. Warner Music was the fourth largest of the then-five major labels.[72]

Third, the precise nature of a test does not dictate the terms of the ultimate license. Eventually, the iTunes Store eliminated DRM entirely in exchange for greater pricing flexibility.[73]

Fourth, the parties to this challenge adapted to market realities and consumer desires. The popularity of the service grew as Apple agreed to limit (and later to enhance) permitted uses of music. The superior product experience accelerated both consumer adoption and monetization.

Lastly, negotiating and collaborating with tech yielded a powerful result for all stakeholders.

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70. As recounted by Walter Isaacson in his book *"Steve Jobs,"* a turning point for the iTunes Store's future prospects came during a critically tense moment during a 2002 meeting with Warner Music Group. Immediately after Jobs had assailed the label for its backward thinking, a Warner executive, responding to Jobs, conceded "You're right… We don't know what to do. You need to help us figure it out." *See* WALTER ISAACSON, STEVE JOBS 906–07 (2011) (describing the seminal meeting in January 2002 that led to the launch of the iTunes Store in April 2003).

71. According to one analyst, ten years after launch, the iTunes Store revenues for 2013 vastly exceeded all of Apple's total revenue in 2004. Jim Tanous, Ten Years In, iTunes Store Revenue Higher than All of 2003 Apple, Mac Observer (Jan. 10, 2013), https://www.macobserver.com/news/itunes-store-revenue-2003-apple/ [https://perma.cc/R4FE-T3RP] [https://web.archive.org/web/20250417003532/https://www.macobserver.com/news/itunes-store-revenue-2003-apple/].

72. Leader Universal Loses Market Share in 2003, Billboard (June 16, 2004), https://www.billboard.com/music/music-news/leader-universal-loses-market-share-in-2003-1435455/ [https://perma.cc/S4UB-U7E7] [https://web.archive.org/web/20250417003809/https://www.billboard.com/music/music-news/leader-universal-loses-market-share-in-2003-1435455/].

73. In 2009, the labels agreed to allow Apple to drop DRM and Apple introduced varied pricing for new releases ($1.29), older "evergreen" titles (99 cents), and deeper catalog (69 cents). The mutual concessions were made possible by the recognition that consumers would support the superior music experience offered by the paid services over the degraded experience on the pirated "free" services. Ultimately, the iTunes Store and permanent downloads gave way to streaming services, including Apple's own Apple Music.

II. MINIMIZING CONFLICTS POSED BY AI

The AI space is constantly evolving and shifting, but music stakeholders' concerns—protecting the rights of creators and satisfying commercial needs—are the same as those during earlier inflection points.

Generative AI,[74] which creates new content, presents many nuanced and complex issues. As illustrative examples: Can the output generated by an algorithm that trained on copyrighted input be traced back to that input? Can the extent of that input be measured? Can various ownership rights in the output, if any, be allocable? How these and many other questions play out in practice may make music industry disruption inevitable, but if we learn from analogous challenges in history, growth may result.[75]

A. DELAY, INDUSTRY ALIGNMENT, AND FLEXIBLE ARTIST AGREEMENTS

The greatest risk to smoothly assimilating AI is delay. The music industry took nearly twenty years following the decline of the CD before streaming became the dominant format.[76] But how much more quickly would recovery have begun had the industry found a way to embrace file-sharing technology rather than try to sue it out of existence and then be forced to rebuild from the rubble?[77] Recall also that the struggle to achieve the Great Reset caused seven years of delay.[78]

We have seen the harm that comes when rights holders are not aligned around a new format. The first on-demand services, for example, suffered from the refusal by labels to cross-license. Accordingly, to increase the likelihood of a quick and successful introduction of any AI advance, recorded music and music publishing stakeholders

74. According to a definition generated by ChatGPT, "generative AI refers to a class of artificial intelligence models designed to create new, original content by learning from existing data. Unlike traditional AI systems, which are primarily designed to recognize patterns or classify information, generative AI can produce new content that resembles or is inspired by the data it was trained on to learn and create new content." AI-generated music is created by models (algorithms) that have been trained on existing musical compositions and sound recordings.

75. As part of an ongoing examination of issues surrounding generative AI, the Copyright Office has begun to publish some of its recommendations on these and other topics. The issues are not yet settled and questions remain. *See* U.S. COPYRIGHT OFF., COPYRIGHT AND ARTIFICIAL INTELLIGENCE PART 2: COPYRIGHTABILITY (2025), https://www.copyright.gov/ai/Copyright-and-Artificial-Intelligence-Part-2-Copyrightability-Report.pdf [https://perma.cc/4KBJ-PY2X] [https://web.archive.org/web/20250410131527/https://www.copyright.gov/ai/Copyright-and-Artificial-Intelligence-Part-2-Copyrightability-Report.pdf].

76. *See supra* note 68. *See also* Mark J. Perry, *Animated Chart of the Day: Recorded Music Sales by Format Share, 1973 to 2022*, AEI (Sept. 23, 2022), https://www.aei.org/carpe-diem/animated-chart-of-the-day-recorded-music-sales-by-format-share-1973-to-2022 [https://web.archive.org/web/20250417005211/https://www.aei.org/carpe-diem/animated-chart-of-the-day-recorded-music-sales-by-format-share-1973-to-2022/].

77. *See* Smolla, *supra* note 13 ("And Napster, the mother of all music-swapping services, was forced in 2001 to cease its operations by the federal 9th Circuit Court of Appeals.").

78. *See supra* text accompanying notes 61–63.

should align as tightly as possible. Because obtaining required music licenses can be challenging for tech companies, rights holders should explore innovative ways to remove licensing barriers.[79]

Two additional thoughts:

(i) A thorough review and, if necessary, amendment of existing artist contracts is a must to minimize the fragmentation of music available to services which can delay adoption of new AI models; and

(ii) The industry should acknowledge that AI tech companies will participate in monetization and that any agreement on a framework for licensing should not be primarily focused on reapportioning the pie, but rather be based on understanding that the new technology will grow the pie for all.

B. COLLABORATION AND TESTING

While there are already numerous music-related products and services based on AI (e.g., tools to assist in creating music,[80] and in organizing, discovering, and recommending music[81]), there are undoubtedly many unknown applications yet to be discovered. The music industry must engage in testing and have faith that the foundational pillars which have sustained it in the past will continue to do so. Discussions about testing should convene as soon as possible to shift the focus from divided interests to common purposes, from addressing stagnation and decline to growing a healthy marketplace. The iTunes Store was a success story of testing and collaboration. Not all technological developments will succeed, but some will result in valuable additions to the music space, benefitting not only music stakeholders but tech companies as well.

In testing, stakeholders should bear in mind:

(i) Testing of a new technology provides the opportunity to learn how the marketplace and users will respond;

(ii) If consumers desire the experience, stakeholders must find a profitable way to make that experience available;

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79. One author made the following observation for the licensing of musical works alone: "For those outside the music business, it's easy to assume that licensing a song is as simple as getting permission from the artist. But in reality, every track is a tangled web of rights, split across songwriters, producers, publishers and administrators, each with their own deals, disputes and gatekeepers. Now multiply the chaos of clearing one track by the millions of tracks needed for an AI training set, and you'll quickly see why licensing commercial music for AI at scale is a fool's errand today." Shara Senderoff, *Generative (Ethical) AI Could Be the Catalyst To Fix Music Licensing—But Only if the Industry Opts In (Guest Column)*, BILLBOARD (Mar. 24, 2025), https://www.billboard.com/pro/generative-ethical-ai-fix-music-licensing/ [https://perma.cc/AE4G-MNS8] .

80. For example, AI facilitates stem separation (which separates parts of a song to enable remixing, remastering, and editing) as well as the creation of sounds and effects as part of the song production process.

81. For example, streaming services and social media use AI to recommend music to users, and advertisers use AI to find music for use in advertisements.

(iii) Through collaboration, the industry and tech companies can address each other's concerns, explore technical solutions, and test different monetization frameworks.

Majors by their very size, are often less than ideal partners for initial product testing. Today's three remaining major labels either are, or are owned by, public companies, face heightened scrutiny, and thus go through extended periods of analysis and deliberation, all of which impede testing.

In contrast, executives in the independent label ("Indie") community often have authority to act quickly—provided the right incentives are in place. Indies flee from herd mentality and, as their very moniker implies, are predisposed to consider new ideas and accept change. Once testing has commenced, if the data yields suboptimal or adverse results, Indies' streamlined decision-making process enables them to adjust and modify ongoing tests. I encourage services to seek out Indies, and compensate them for the risks they are taking just as they would early-stage investors.[82]

It is in tech's own interests to lean in and collaborate with rights holders. Steve Jobs came to understand that partnering with labels afforded more and richer consumer experiences than a protracted rip-mix-burn scorched-earth approach. YouTube initially pursued a launch-now-and-beg-forgiveness-later campaign, only to come to the licensing table once the litigation heat got too high. Now owned by Google, YouTube has partnered with rights holders at the outset of its AI experiments and Music AI Sandbox to deepen the artist-fan connection.[83]

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82. In 2024, Merlin, an independent digital music licensing platform for Indies, announced Merlin Connect for just such a purpose. In the words of its CEO, "Merlin Connect is our commitment to finding and unlocking new opportunities for our members . . . Our audacious goal is to partner with the next suite of platforms that shape the future of music monetization for Merlin's members. We want our independent members and their artists to sit at the forefront of music and technology." *Merlin Connect: An Indie-Centric Initiative For Merlin's Members to Experiment with the Next Generation of Emerging Technology Platforms*, MERLIN (June 5, 2024), https://merlinnetwork.org/merlin-connect-an-indie-centric-initiative-for-merlins-members-to-experiment-with-the-next-generation-of-emerging-technology-platforms/ [https://perma.cc/S99L-4TPA] [https://web.archive.org/web/20240717163146/https://merlinnetwork.org/merlin-connect-an-indie-centric-initiative-for-merlins-members-to-experiment-with-the-next-generation-of-emerging-technology-platforms/].

83. *See* Lyor Cohen & Toni Reid, *An Early Look at the Possibilities as We Experiment with AI and Music*, YOUTUBE BLOG (Nov. 16, 2023), https://blog.youtube/inside-youtube/ai-and-music-experiment/ [https://perma.cc/5LEW-BPGP] [https://web.archive.org/web/20250126034014/https://blog.youtube/inside-youtube/ai-and-music-experiment/]. *See also Music AI Sandbox, Now with New Features and Broader Access*, GOOGLE DEEPMIND (Apr. 24, 2025), https://deepmind.google/discover/blog/music-ai-sandbox-now-with-new-features-and-broader-access/ [https://perma.cc/3LB9-2SVH] [https://web.archive.org/web/20250508161728/https://deepmind.google/discover/blog/music-ai-sandbox-now-with-new-features-and-broader-access/].

Newer tech entrants without capital reserves could set aside a portion of equity as early-stage seed capital for music rights holders whose permission is essential for testing of the technology.

C. LITIGATION

Litigation is the least effective form of stakeholder engagement. Often yielding less than satisfactory results, it should be employed as a prod to encourage negotiation or when irreparable harm is imminent and there is little or insufficient time for negotiating and testing. The exclusive right to make copies under copyright law was the cornerstone of enforcement efforts in the age of file-sharing services.[84] As a last resort, litigation is put to its best use as a deterrent, restraining other actors while litigation unfolds.[85]

D. INDUSTRY AGREEMENT AND LEGISLATION

The AHRA and the Interactive Streaming Settlement are good examples of how, following negotiation and agreement by relevant stakeholders, legislation memorializing such an agreement is most effective in resolving music rights issues.

Tech companies and services require copyrighted material upon which to train their algorithms for testing, and rights holders are entitled to receive fair remuneration for the limited license they grant for initial testing. Given the complexity of licensing for AI tech companies today,[86] I encourage rights holders, tech companies and services to work toward agreement on a legal framework that would facilitate initial generative AI algorithm testing. A model for this may be the licensing frameworks under the

84. *See* David L. Hayes, ADVANCED COPYRIGHT ISSUES ON THE INTERNET, at 2 (2022), https://assets.fenwick.com/documents/Hayes-Internet-Copyright-Treatise-7-25-24.pdf [https://perma.cc/UQ7W-72D9] [https://web.archive.org/web/20250310182109/https://assets.fenwick.com/documents/Hayes-Internet-Copyright-Treatise-7-25-24.pdf] ("The single most important copyright right implicated by the transmission and use of works on the Internet is the right of reproduction."); UMG Recordings, Inc. v MP3.com, Inc., 92 F. Supp. 2d 349 (S.D.N.Y. 2000) (ripping and copying of sound recordings from CDs onto servers was an unlicensed infringement of the rights holders' exclusive copyright); *see also* UMG Recording, Inc. v. Escape Media Grp., Inc., No. 11 Civ. 8407 (TPG), 2014 WL 5089743 at *25 (S.D.N.Y. Sept. 29, 2014) (a finding of infringement against defendants only requires that they uploaded works to defendant's online music service, Grooveshark, without authorization).

85. There are a number of important pending cases involving the question of fair use as it relates to the exclusive reproduction right in copyright law. *See, e.g.*, Complaint, Bartz v. Anthropic PBC, No. 24 Civ. 5417 (N.D. Cal. Aug. 19, 2024); Complaint, UMG Recordings, Inc. v. Suno, Inc., No. 24 Civ. 11611 (D. Mass. June 24, 2024); Complaint, UMG Recordings, Inc. v. Uncharted Labs, Inc., No. 24 Civ. 4777 (S.D.N.Y. June 24, 2024).

86. *See supra* note 79.

AHRA and §§ 114–115, which enhance content availability.[87] Also, as part of the framework, tech companies and services should strive to agree on the point at which initial testing shall have been completed and additional direct licenses would thereafter be required from rights holders.

Collaboration can eliminate the chill on innovation and usher in a rich new era of creation, consumer satisfaction, and monetization. Creating this type of framework paves the way for yet more licensing and more testing. It also has the added benefit of expanding availability of the rights to other, perhaps, less well-funded players, which could lead, in turn, to still further innovation.

Following the Athens Agreement example, I would suggest codifying stakeholder agreements and acknowledgements into copyright law. A limited statutory license would align with the constitutional principles of promoting the useful arts and the right of creators to profit from their creativity. An antitrust exemption akin to those introduced with the DPRA and under § 115 would be appropriate for this type of limited compulsory license.[88]

III. CONCLUSION

While AI presents vast opportunities for the music industry, its risks must be carefully managed to protect artists and preserve human creativity. By drawing lessons from history, fostering collaboration among and between technology and music stakeholders, AI's potential can be harnessed to accelerate the growth of the music industry without compromising its core values. With thoughtful oversight, collaboration and testing, AI can serve as a powerful tool that enhances rather than endangers the future of music.

87. As the CRB Judges were able to act in the Interactive Streaming Settlement, the judicial body presiding over licensing and rate setting should have sufficient autonomy to allow stakeholders to resolve conflict through industry agreement, thereby increasing the likelihood of establishing and sustaining new legislative frameworks. Any proposal for a statutory license for training AI without recompense would run counter to compulsory license principles and likely be met with hostile opposition. The proposed introduction of such an approach in the UK is being met with fierce opposition by all music stakeholders. *See* Andre Paine, *Major Label CEOs Unite To Back Campaign Against UK Government's 'Catastrophic' AI Proposals*, MUSIC WEEK (Feb. 21, 2025), https://www.musicweek.com/labels/read/major-label-ceos-unite-to-back-campaign-against-uk-government-s-catastrophic-ai-proposals/091466 [https://perma.cc/QGL9-8X43] [https://web.archive.org/web/20250311013125/https://www.musicweek.com/labels/read/major-label-ceos-unite-to-back-campaign-against-uk-government-s-catastrophic-ai-proposals/091466].

88. The House Report noted that the antitrust exemption in § 114 "is patterned after those contained in existing copyright law (see, e.g., 17 U.S.C. § 118(b), noncommercial broadcasting. . .") . . . ." H.R. REP. NO. 104-274, at 22 (1995).