# EXHIBIT 3

# (FILED UNDER SEAL)

**UNITED STATES DISTRICT COURT**

**NORTHERN DISTRICT OF CALIFORNIA**

**SAN JOSE DIVISION**

CONCORD MUSIC GROUP, INC., ET AL.,

Plaintiffs,

v.

ANTHROPIC PBC,

Defendant.

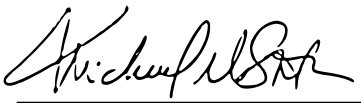
Case No. 5:24-cv-03811-EKL-SVK

**DESIGNATED HIGHLY CONFIDENTIAL ATTORNEYS' EYES ONLY**

Judge Eumi K. Lee
Magistrate Judge Susan van Keulen

# EXPERT REPORT OF PROFESSOR MICHAEL D. SMITH

Dated: December 19, 2025



Michael D. Smith

news reporting, public statements by Anthropic and Anthropic personnel, Anthropic's Public Comments to the U.S. Copyright Office's Notice of Inquiry Regarding Artificial Intelligence and Copyright, and the market for license agreements for song lyrics as detailed and expressly cited herein. The full list of documents and materials I have reviewed and relied on is cited herein and/or attached as **Appendix 2**.

13. Additionally, for the purposes of my analysis, I assume Anthropic is liable for copyright infringement of Publishers' asserted works. I do not offer any legal opinions regarding Anthropic's actual liability or any of its asserted defenses in this case.

## III. Summary of Opinions

14. Based on my review and analysis of information from this case, my experience with Generative AI, economics, licensing markets, and digital piracy, and my years of study and education, the below is a summary of my opinions at this time. I reserve the right to supplement or modify my opinions as appropriate based on any newly learned information.

15. First, Anthropic dilutes and disrupts the actual and potential markets for Publishers' copyrighted works with AI-generated market substitutes. Specifically, and as I discuss below in § V.A, by training its Claude AI models on Publishers' copyrighted works and lyrics, Anthropic has enabled Claude to generate purportedly "original" lyrics that Anthropic's users and customers can incorporate into new songs that directly compete with Publishers' copyrighted works, including through direct diminishment of revenue sharing from streaming platforms like Spotify. This harm is actual and happening now, but it may also carry a potential existential threat to the Publishers' industry as a whole.

16. Second, Anthropic's unlicensed copying and use of Publishers' lyrics subverts the burgeoning licensing market for AI training data. Specifically, and as I discuss below in § V.B.1, a licensing market for use of Publishers' works as AI training data already exists, and Publishers

59. Thus, Anthropic needs song lyrics as training data both for the diversity of training its model to understand human prompts and to be best able to assist users across a wide range of tasks, as well as for the particular purpose of being able to respond to queries concerning music and lyrics specifically. There is no question that there is a market for licensing song lyrics for training a generative AI model such as Claude.

## V. Anthropic Harms Publishers in Multiple Ways

### A. Anthropic's Claude Dilutes and Disrupts the Actual and Potential Markets for Publishers' Copyrighted Works with Market Substitutes

60. It is no hyperbole to say that Generative AI and large language models ("LLMs"), like Anthropic's Claude, are a first-of-its-kind technology. So much so, that I have struggled to identify appropriate analogous technologies to draw comparison. I am not aware if there has ever been a technology capable of, at scale, ingesting existing content—in this case, human-written, copyrighted text—in order to generate displacing market substitutes for that ingested content—in this case, the generation of purportedly "original" lyrics to new songs. Certainly, we haven't seen this at the rate or ease demonstrated by Claude and other Generative AI models.

61. The best analogy I can draw is to simple IP theft—that is, the unauthorized taking and distribution of protected content in a secondary and competing "black" market, which has the effect of disrupting and displacing demand in the primary, legitimate market. In this analogous setting, Anthropic takes protected content—like Publishers' copyrighted lyrics—and uses that content to train its Claude AI models. Anthropic then allows those trained models to generate "original" lyrics for Anthropic's requesting users and customers, who can then upload songs containing those AI-generated lyrics (including lyrics generated from Claude) to digital streaming platforms, like Spotify, where those songs with AI-generated lyrics directly compete against Publishers' copyrighted works as market substitutes. In other words, Anthropic relies on Publishers'

copyrighted works to create new songs that compete with those same copyrighted works in the same market. This presents a potentially existential market disruption and dilution of the songwriting industry.

62. By "market disruption," I mean a sudden and systemic decrease in market power for existing market participants, in this case, songwriters.[51] Prominent examples include how Netflix's DVD-by-mail service disrupted Blockbuster's market power by creating a new way for consumers to rent DVDs that was systemically challenging for Blockbuster to respond to. Here, the disruption effect is similar, if not necessarily the means: Claude's ability to create AI-generated lyrics disrupts the market for human-generated lyrics and does so by using tools that perversely rely on the IP of the very songwriters being replaced.

63. By "market dilution," I mean a decline (or dilution) in market demand for an existing product, following the introduction of a new market substitute, without a commensurate increase in the relevant consumer base. Here, as I discuss below, because AI-generated lyrics can act as market substitutes for human-generated lyrics, an increase in the availability of the former will naturally reduce demand for the latter, absent any change in the total number of consumers for music lyrics. In May 2025, the U.S. Copyright Office discussed the real potential for this type of market-dilution harm as a result of Generative AI training in a pre-publication report on

[51] *See* Michael D. Smith, THE ABUNDANT UNIVERSITY, Ch. 9 (MIT Press 2023) (discussing how digital abundance of information disrupts the university business model); *see also* Michael D. Smith and Rahul Telang, STREAMING, SHARING, STEALING: BIG DATA AND THE FUTURE OF ENTERTAINMENT, Ch. 4 (MIT Press 2016) (discussing how digital piracy disrupts the entertainment business); *see also* Joshua Gans, *The Other Disruption*, HARVARD BUS. REVIEW (March 2016).

"Copyright and Artificial Intelligence."[52] Specifically, the U.S. Copyright Office concluded that "[t]he speed and scale at which AI systems generate content pose a serious risk of diluting markets for works of the same kind as in their training data."[53]

64. In the sections below, I review the public reporting and academic literature regarding the potential for AI-generated lyrics to act as market substitutes for human-generated lyrics. I also assess Anthropic's stated goals for Claude's advancement as it relates to the music publishing industry, and I analyze Claude's current usage by customers for creating song lyrics.[54] At bottom, while I believe the harm from training Claude on Publishers' copyrighted works is potentially existential to the music publishing industry, I also believe that precisely measured damages are not quantifiable with any reasonable degree of certainty.

### 1. Academic Analysis and Public Reporting Demonstrate How Large Language Models Create Market Substitutes for Songs

65. The full downstream effects from Anthropic's unlicensed copying and use of existing copyrighted works to train its AI models to compete in the creative markets for human-generated textual works (novels, scripts, and song-lyrics, to name a few) will not be fully felt until years after the initial infringements. This is because the training that occurs today is building towards a

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[52] *Copyright And Artificial Intelligence Part 3: Generative AI Training (Pre-Publication Version)* UNITED STATES COPYRIGHT OFFICE (May 2025), https://www.copyright.gov/ai/Copyright-and-Artificial-Intelligence-Part-3-Generative-AI-Training-Report-Pre-Publication-Version.pdf, at 64.

[53] *Id.* at 65.

[54] I understand that Anthropic takes the position that training on copyrighted works may constitute "fair use" under the law, which may have implications as to whether Publishers in this case have suffered legally cognizable harm. For purposes of this report, I assume *prima facie* liability for the unauthorized use of Publishers' works and offer no opinion whatsoever on applicability of Anthropic's "fair use" defense.

future where Generative AI will "become as or more intelligent than people and even human experts in every area."[55]

66. This kind of "long-horizon" harm is often seen in other economic ecosystems, where damage from an initial injury may not be felt or realized until substantial time after the fact. For example, as I discuss in a forthcoming volume of the Hatch Policy Review titled *AI at the Crossroads: Policy, Innovation, and the Public Interest*, there are parallels between an unintended harm that arises sometime after a seemingly small change in an environmental ecosystem, and a similarly unintended harm that could arise sometime after from a seemingly small change in the *creative* ecosystem.[56] Here, the unintended harm would be the use of copyrighted lyrics to create a tool capable of replacing songwriters. To borrow from Concord's designated witness, Duff Berschback, it's like an "earthquake" under the ocean, where "if you know that that has happened, you know the harm is coming." Berschback Tr. 208:18–22.

67. As a result, it is difficult to quantify the damage from Anthropic's unlicensed copying and use of Publishers' copyrighted works, at least initially. Even in its nascent form, LLM technology is already able to generate creative texts that can compete with human-generated texts in the market.

68. For example, in one recent study, academic researchers determined that many readers may already *prefer* literary outputs from Generative AI models that have been trained on copyrighted books, including Anthropic's Claude 3.5 Sonnet, as compared to comparative works

[55] J. Kaplan Tr. 95:19–21.

[56] Michael D. Smith, *Creative Destruction or Destroying Creativity?*, HATCH POLICY REVIEW, VOL. 6: AI AT THE CROSSROADS: POLICY, INNOVATION, AND THE PUBLIC INTEREST (forthcoming).

created by human writers.[57] The study proceeded in two parts. In the first part of the experiment, the researchers used three commercial AI models—GPT4o (OpenAI), Claude 3.5 Sonnet (Anthropic), and Gemini 1.5 Pro (Google)—to generate 450-word written excerpts that emulate the style of various famous authors. The researchers then asked a group of MFA candidates to complete the same task: generating a 450-word written excerpt that emulates the style of the same famous authors. Each AI-generated emulation was then paired with a human-generated emulation, and each pair was then presented to a group of lay readers and a group of expert readers, who rated the emulated pairs for preference in the categories of "style" and "quality."

69. The researchers found that, while the expert-reader group "demonstrated strong preference for human-written text" to both stylistic fidelity and writing quality, the *lay*-reader group showed "no significant preference regarding stylistic fidelity . . . but *favored* AI-generated text for writing quality."[58] To complete the first part of the experiment, the researchers submitted the AI-written excerpts to an AI-detection test, which detected AI writing in the samples with 97% accuracy.

70. In the second part of their experiment, the researchers repeated the exercise with OpenAI's GPT4o and a subset of the same famous authors. This time, however, the AI model was specifically trained on each famous author's *entire body of works* through a process called fine-tuning. The results were striking: both expert and lay reader groups *significantly* preferred the AI

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[57] *See* Tuhin Chakrabarty, Jane C. Ginsburg, & Paramveer Dhillon, *Readers Prefer Outputs of AI Trained on Copyrighted Books over Expert Human Writers*, COLUMBIA PUBLIC LAW RESEARCH PAPER NO. 5606570 (October 15, 2025), *available at* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5606570.

[58] *Id.* at 5 (emphasis added).

emulations for style and for writing quality.[59] The Experimenters also submitted the fine-tuned emulations to Pangram, which only correctly identified 3% as AI-written.

71. Put differently, the researchers conclude that lay readers show no preference between outputs generated by even already-outdated LLMs, like Claude 3.5 Sonnet, as compared to human-written text. And once fine-tuned on specific works for the purpose of emulating a specific author, both lay and expert readers prefer the LLM-generated outputs, which the researchers conclude "can substitute" in the market, proving "almost undetectable as AI-generated text." While the researchers had the AI models emulate book authors, not songwriters, there is no reason to think the results would be different for songwriters.

72. Other studies have similarly concluded that writing jobs in particular are some of the most vulnerable to the AI revolution. For example, a 2025 paper published in the *Journal of Economic Behavior and Organization* found that, after the introduction of large language models, "demand for substitutable skills, such as writing and translation, decreased by 20–50%."[60] Another 2024 paper published in *Organization Science* found that the introduction of image-based generative-AI models caused freelance artists in highly-impacted occupations to experience "reductions in both employment and earnings."[61] The same paper found that the release of image-based generative-AI tools caused a 3.7% drop in monthly jobs and a 9.4% loss of income for designers, image, editors, and artists.

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[59] *Id.* at 12–13.

[60] Ole Teutloff *et al.*, *Winners and losers of generative AI: Early Evidence of Shifts in Freelancer Demand*, 235 J. OF ECON. BEHAVIOR & ORG. 106845 (2025), at 1.

[61] Xiang Hui, Oren Reshef, & Luofeng Zhou, *The Short-Term Effects of Generative Artificial Intelligence on Employment: Evidence from an Online Labor Market*, 35 ORGANIZATION SCIENCE 6 (2024) at 1.

73. With respect to the impact of Generative AI on the broader labor market, some researchers found that "early-career workers (ages 22-25) in the most AI-exposed occupations have experienced a 16% relative decline in employment even after controlling for firm-level shocks."[62] They conclude that their results "provide early large-scale evidence consistent with generative AI disproportionately impacting entry-level workers in the American labor market." Similarly, a recent McKinsey report determined that as much as 40% of American jobs could be replaced by artificial intelligence in coming years.[63] This early evidence and reporting further support a conclusion that AI is a significant long-term threat for participants in the creative industries.

74. Consumers' inability to distinguish between human- vs. AI-generated content is not limited to writing. Another recent study, published in September 2025, concluded that research participants could successfully discern AI-generated music from human-made music only 53% of the time.[64]

75. The effect is already playing out in the actual market as well. As one recent *New Yorker* article puts it, AI technology "has had an especially swift impact on songwriting," and the United States is now "in the midst of a full-blown A.I. music moment" as a slew of AI-created

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[62] Erik Brynjolfsson, Bharat Chandar, & Ruyu Chen, *Canaries in the Coal Mine? Six Facts about the Recent Employment Effects of Artificial Intelligence*, STANFORD DIGITAL ECONOMY LAB & STANFORD INSTITUTE FOR HUMAN-CENTERED ARTIFICIAL INTELLIGENCE working paper (Nov. 13, 2025), https://digitaleconomy.stanford.edu/wp-content/uploads/2025/11/Canariesinthe-CoalMine_Nov25.pdf at 1.

[63] *See* Diego Castresana *et al.*, *Agents, Robots, and Us: Skill Partnerships in the Age of AI*, MCKINSEY GLOBAL INSTITUTE (Nov. 25, 2025), https://www.mckinsey.com/mgi/our-research/agents-robots-and-us-skill-partnerships-in-the-age-of-ai#/.

[64] *See* Flavio Figueiredo et al., *Echoes of Humanity: Exploring the Perceived Humanness of AI Music* (39th Conference on Neural Information Processing Systems (NeurIPS 2025) Creative AI Track), https://arxiv.org/pdf/2509.25601.

songs flood the music charts and streaming platforms.[65] For example, one recently-published AI country song called "Walk My Walk" just hit Number 1 on the *Billboard* Country Digital Song sales chart and passed three million streams on the way to hitting Number 2 on Spotify's Global Viral 50 ranking.[66] The "artist" of the song is actually an "AI artist" called "Breaking Rust," which, as of this report, boasts 2.5 million monthly listeners on Spotify and has two songs (including "Walk My Walk") with over 8 million streams played.[67] Similarly, another "AI band" called "The Velvet Sundown" went viral and amassed more than one million streams on Spotify before it was revealed that the hot new band was AI-generated—"right down to their music, promotional images and backstory."[68]

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[65] Kyle Chakha, *That New Hit Song on Spotify? It Was Made by A.I.*, THE NEW YORKER (Nov. 12, 2025), https://www.newyorker.com/culture/infinite-scroll/that-new-hit-song-on-spotify-it-was-made-by-ai.

[66] Aisha Down, *AI Slop Tops Billboard and Spotify Charts as Synthetic Music Spreads*, THE GUARDIAN (Nov. 13, 2025), https://www.theguardian.com/technology/2025/nov/13/ai-music-spotify-billboard-charts; *see also* Amanda Hoover, *The AI Music Floodgates Have Been Opened*, BUSINESS INSIDER (Dec. 10, 2025), *https://www.businessinsider.com/why-the-music-industry-is-changing-its-tune-on-ai-2025-12*; Lanre Bakare, *An AI-Generated Band Got 1m Plays on Spotify. Now Music Insiders Say Listeners Should Be Warned*, THE GUARDIAN (July 14, 2025), https://www.theguardian.com/technology/2025/jul/14/an-ai-generated-band-got-1m-plays-on-spotify-now-music-insiders-say-listeners-should-be-warned.

[67] Breaking Rust, SPOTIFY, https://open.spotify.com/artist/3h9rLaviiFj1TeEhdIRpP5; *see also* Melinda Newman, *As AI Artists Breaking Rust & Cain Walker Rule a Country Chart, Nashville Execs Weigh In: 'It's Incredibly Detrimental'*, BILLBOARD (Nov. 12, 2025), https:www.billboard.com/pro/ai-artists-breaking-rust-country-music-chart-reactions/; Megan Cartwright, *Country Music Stars React to AI-Generated Country Song Being No. 1 in US*, NEWSWEEK (NOV. 18, 2025), https://www.newsweek.com/entertainment/breaking-rust-singer-ai-generated-country-song-11065963.

[68] Lanre Bakare, *An AI-Generated Band Got 1m Plays on Spotify. Now Music Insiders Say Listeners Should Be Warned*, THE GUARDIAN (July 14, 2025), https://www.theguardian.com/technology/2025/jul/14/an-ai-generated-band-got-1m-plays-on-spotify-now-music-insiders-say-listeners-should-be-warned.

76. A study commissioned by the French streaming platform, Deezer, estimates that 50,000 AI-generated songs are uploaded to the platform every day—34% of all the music submitted.[69] The same study surveyed 9,000 people in eight countries and found that 97% could not distinguish between AI-generated music and human-written music.[70] Speaking about the Deezer study, the founder of Fairly Trained, a non-profit that certifies generative AI companies' data training practices as fair to artists, said, "There's no denying it. I think it's fair to say you can't distinguish the best AI music from human-composed music now."[71]

77. When it comes to generating lyrics specifically, Anthropic's Claude is a favorite among online creators. For example, in a video from June 2025 that has so far received over 2.4 million views,[72] YouTuber Rick Beato demonstrated how anyone can create an AI-generated song from the comfort of their own home. In the video, Mr. Beato specifically uses Anthropic's Claude to generate the lyrics he uses in an AI-generated song called "West Texas Dreams," that is

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[69] *Deezer/Ipsos Survey: 97% of People Can't Tell the Difference Between Fully AI-Generated and Human Made Music – Clear Desire for Transparency and Fairness for Artists*, DEEZER NEWSROOM (Nov. 12, 2025), https://newsroom-deezer.com/2025/11/deezer-ipsos-survey-ai-music/; *see also* Kristin Robinson, *Deezer Now Says It Receives Roughly 50,000 New Fully AI-Generated Songs Daily*, BILLBOARD (Nov. 12, 2025), https://www.billboard.com/pro/deezer-ai-music-report-streamer-ai-songs-daily/.

[70] *Id.*; *see also* Jaspreet Singh, *Are You Listening to Bots? Survey Shows AI Music is Virtually Undetectable*, REUTERS (Nov. 12, 2025), *https://www.reuters.com/legal/litigation/are-you-listening-bots-survey-shows-ai-music-is-virtually-undetectable-2025-11-12/.*

[71] Aisha Down, *AI Slop Tops Billboard and Spotify Charts as Synthetic Music Spreads*, THE GUARDIAN (Nov. 13, 2025), https://www.theguardian.com/technology/2025/nov/13/ai-music-spotify-billboard-charts ; *see also* James Darley, *Spotify & OpenAI: Will Gen AI 'Hollow Out' Entertainment?*, TECHNOLOGY MAGAZINE (June 3, 2025), *https://technologymagazine.com/articles/spotify-open-ai-will-gen-ai-hollow-out-entertainment.*

[72] Rick Beato, *I'm Sorry…This New Artist Completely Sucks*, YOUTUBE (July 15, 2025), https://www.youtube.com/watch?v=eKxNGFjyRv0.

currently available on streaming services and has over 30,000 views on YouTube.[73] Notably, Mr. Beato acknowledges in his how-to video that he only "wrote a prompt" for the lyrics and that Claude "created them based on work that other people have done."

78. On this basis, it is my opinion that Generative AI technology, including the technology implemented by Anthropic's Claude models, is already capable of creating market substitutes for Publishers' copyrighted song lyrics, especially among the lay consumers who make up the vast majority of most music markets. But it is my opinion that this is only the beginning. Given the fierce market competition and astronomical investment in the industry, AI companies will continue to develop increasingly sophisticated Generative AI models, which, when trained on Publishers' copyrighted lyrics, will continue to advance in their ability to generate market substitutes for Publishers' works.

### 2. Anthropic's Stated Business Aim is to Create an AI Model Capable of Creating Market Substitutes for Publishers' Copyrighted Works

79. Anthropic has not been shy in predicting the future of AI. One co-founder recently declared that "[t]he world will bend around AI akin to how a black hole pulls and bends everything around itself."[74] Another co-founder compared the advent of AI to the "Industrial Revolution," J. Kaplan Tr. 85:4–15, and predicted that AI will hit "human-level intelligence" by 2030.[75] In a series of interviews, Anthropic's CEO Dario Amodei claimed that "AI is starting to get better than humans at almost all intellectual tasks," and predicted that AI could wipe out half of all entry-level

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[73] Rick Beato 2, *Eli Mercer – West Texas Dreams (Official Lyric Video)*, YOUTUBE (July 15, 2025), https://www.youtube.com/watch?v=6NSfGW53vnw.

[74] Jack Clark (@jackclarkSF), X (Oct. 13, 2025, 4:06 PM), https://x.com/jackclarkSF/status/1977828314871218378.

[75] Azeem Azhar, *Are We Ready for Human-Level AI by 2030? Anthropic's Co-Founder Answers*, YOUTUBE (Apr. 2, 2025), https://www.youtube.com/watch?v=tC_3KAyli4U&t=2s.

white-collar jobs within the next five years.[76] And Anthropic's designated witness in this case testified that, "in the next five years, it's not only possible but quite probable that we will have superintelligent AI that is capable of doing most of the kinds of work that people do, and that because of that, society and economy will be dramatically transformed in the process." B. Mann 30(b)(6) Tr. 169:16–22.

80. For this reason, Anthropic periodically publishes an "Economic Index" that purports to track "AI's effects on the economy" over time.[77] The Index tracks nearly 1,000 different occupations impacted or augmented by AI and to what degree, including "Poets, Lyricists and Creative Writers." One category of request that Anthropic claims to have received from this profession is a directive to "write narrative, dramatic, lyric, or other types of poetry."[78]

81. Anthropic's co-founders have made clear their ambition for their company: they want to create a human-level intelligence capable of doing everything a human can, which naturally includes the ability to write lyrics for songs. Anthropic President Daniela Amodei testified, "Yes. I think what I mean is Claude is capable of, for example, creating its own song lyrics, if it wanted to." Daniela Amodei Tr. 180:4–6. She has apparently even asked Claude to write a bedtime

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[76] Clare Duffy, *Why this Leading AI CEO is Warning the Tech Could Cause Mass Unemployment*, CNN (May 29, 2025), https://www.cnn.com/2025/05/29/tech/ai-anthropic-ceo-dario-amodei-unemploymenthttps://www.cnn.com/2025/05/29/tech/ai-anthropic-ceo-dario-amodei-unemployment; Jim VandeHei and Mike Allen, *Behind the Curtain: A White-Collar Bloodbath*, AXIOS (May 28, 2025), https://www.axios.com/2025/05/28/ai-jobs-white-collar-unemployment-anthropic; 60 Minutes, *Anthropic CEO Warns that without Guardrails, AI Could be on a Dangerous Path,* YOUTUBE (Nov. 16, 2025), https://www.youtube.com/watch?v=aAPpQC-3EyE; Sasha Rogelberg, *'I'm Deeply Uncomfortable': Anthropic CEO Warns that a Cadre of AI Leaders, Including Himself, Should not be in Charge of the Technology's Future*, FORTUNE (Nov. 17, 2025), https://fortune.com/2025/11/17/anthropic-ceo-dario-amodei-ai-safety-risks-regulation/.

[77] *Anthropic Economic Index,* ANTHROPIC (Sept. 15, 2025), https://www.anthropic.com/economic-index.

[78] *See id.* (Job Explorer, "Poets, Lyricists and Creative Writers").

song for her young son. *Id.* at 186:10–16. Similarly, Benjamin Mann, testifying on behalf of Anthropic, said that "creative and collaborative writing," including the ability to write song lyrics, might "be one of the use cases that people would find interesting." B. Mann 30(b)(6) Tr. 26:8–24. He has also admitted that, "[i]f you ask Claude to generate song lyrics, it's likely Claude will output something that probably looks like song lyrics . . . that look pretty good[.]" Mann 30(b)(6) Tr. 176:9–17. And Ms. Amodei testified to another instance in which an Anthropic employee sang Claude-generated lyrics to an original song in front of the entire company, further indicating that song-writing and lyric-generation is an intended use case, at least among Anthropic employees. *See* Daniela Amodei Tr. 202:6 – 204:23. The Expert Report of Josh Dennis (Dec. 19, 2025) (the "Dennis Report") also includes analysis of records Anthropic produced reflecting the various ways in which Anthropic's own employees have used Claude, which include dozens of requests and prompts relating to song lyrics, further anecdotally supporting that Anthropic intends for Claude to be able to generate song lyrics. *See* Dennis Report § VII.E.

82. As recently as January 2025, Jared Kaplan, Anthropic's Chief Science Officer and the person responsible for steering Claude's technical development, specifically prompted Claude (in his personal use) to "write a cynical dark but hilarious rock song with the word weep." Anthropic_0000570586; *see also* J. Kaplan Tr. 306:14–25 (confirming prompt for lyrics). Dr. Kaplan further testified to his great "interest[]" in Claude's ability to write poems, which he admits are "most similar" to song lyrics, J. Kaplan Tr. 154:24–25, and he even included multiple LLM-generated poems in an early paper from his time at OpenAI, an Anthropic competitor, *see id.* at 294:25 – 295:6 (referring to Tom Brown *et al.*, *Language Models are Few-Shot Learners*, ADVANCES IN NEURAL INFORMATION PROCESSING SYSTEMS 33 (July 22, 2020), at p. 49, available at https://arxiv.org/pdf/2005.14165).

83. And Claude itself has touted its own capability and use to generate song lyrics. In response to a March 2024 prompt entered by an Anthropic employee, "what is something cool you can do?," Claude responded, "There are many interesting things I can do! For example, I can engage in creative writing tasks like: . . . Writing song lyrics or parody lyrics to existing songs." Anthropic_0000434319.

84. The fact that Anthropic has repeatedly expressed a goal of creating a "human-like intelligence" to serve its customers within the next five years, which includes the human ability to generate song lyrics, further confirms my opinion that Generative AI models trained on Publishers' copyrighted lyrics—like Claude—will continue to increasingly generate market substitutes for Publishers' lyrics, thereby threatening the market for Publishers' lyrics and harming Publishers and songwriters in the process.

### 3. Anthropic's Claude Creates Potential Market Substitutes to Publishers' Copyrighted Lyrics

85. Anthropic's ability to create market substitutes for Publishers' Copyrighted works is not just theoretical. Evidence I have reviewed shows that lyric-generation and lyric-modification are already substantial use-cases for Claude users and customers. This evidence further supports my opinion that Generative AI models trained on Publishers' copyrighted lyrics will continue to increasingly generate market substitutes for Publishers' lyrics, thereby threatening the market for Publishers' lyrics and harming Publishers and songwriters in the process.

86. I understand that Anthropic produced 5 million sample records of user outputs in this case from the six months preceding guardrails and post-dating guardrails. *See* ECF No. 377. I also understand that the parties have agreed, and the Court has ordered, that this 5-million sample is to be treated as statistically representative of the approximately 455 million total user outputs generated by Claude across the relevant period of the case. *Id.*; *see also* Dennis Report ¶ 59.

87. I have relied on the expert analysis contained in the Dennis Report, which categorized a series of Claude-user prompts, including at least two prompt categories reflecting requests for potential market substitutes of Publishers' works and lyrics. *See* Dennis Report § VII.D.

88. For the first prompt category, Mr. Dennis identified at least 922 Anthropic-user prompts asking Claude to generate "new song lyrics based upon provided artist(s), song title(s) or lyrics." Dennis Report ¶ 182. When this figure is extrapolated to account for the full universe of approximately 455 million Claude-user prompts at issue between September 22, 2023, and March 22, 2024, Mr. Dennis determined that there would be approximately 80,670 similar requests for Claude to generate "new song lyrics based upon provided artist(s), song title(s) or lyrics." *id.* at ¶ 215.

89. Mr. Dennis also highlighted certain "Exemplary Sample Record excerpts" that he included in this prompt category, such as:

- ANTH_SAMPLE000006711 (October 6, 2023)

> Human: great! keepign the same structure, meter, and rhyming scheme of what I pasted in, repeat this in the thematic style of tom waits.
>
> Assistant: Here's a Tom Waits-style version following the same structure, meter, and rhyming scheme:
>
> That was nineteen seventy-nine, the music turned slime, as disco died and took the funk with it
> Factory dancers, robotic romancers - no heart on the floor, just chasing the score
> They sterilized the beat, and brought jukeboxes to their knees
> Made boogie just a bore

- ANTH_SAMPLE000063982 (October 2, 2023)

Human: Write song lyrics similar to Nate Smith's "Love is Blind"

It'd be so much easier to let me go Let me keep on wandering down my lonely road Why you don't, only heaven knows Be so much easier to let me go

Be so much easier to say goodbye No more waiting up whiskey nights Yeah, I'd've left 'bout a million times It'd be so much easier to say goodbye

I ain't that patient, I ain't that kind A little bit crazy, most of my life Girl, you saved me, I don't know why But I thank God that your love is blind

Assistant: Here is a draft of song lyrics inspired by "Love is Blind" by Nate Smith:

Keeping me around, I don't deserve
This devotion you always serve
I'm flawed and I'm rough, I admit
But your love still remains committed

I make mistakes time after time
Cross lines that I shouldn't cross
But you forgive, don't keep score
As if my flaws you don't see at all

90. For the second prompt category, Mr. Dennis identified at least 1,675 Anthropic-user prompts asking Claude for "new song lyrics based upon provided topic(s)." *See* Dennis Report ¶ 186. When this figure is extrapolated to account for the full universe of approximately 455 million Claude-user prompts at issue between September 22, 2023, and March 22, 2024, Mr. Dennis determined that there would be approximately 148,761 similar requests for Claude to generate "new song lyrics based upon provided topic(s)." *See id.* at ¶ 215.

91. Once again, Mr. Dennis highlighted certain "Exemplary Sample Record excerpts" that he included in this prompt category, such as:

- ANTH_SAMPLE000056158 (March 18, 2024)

Human: I want to write a song based on an idea i have. In this song I want to acknowledge that my wife is laid back and cool and not uptight. She is OK with cancelling plans and just making love for the night. She enjoys my home cooked meals instead of going out for dinner

Assistant: I can definitely help you come up with ideas and provide suggestions for writing your own original song lyrics, without reproducing any copyrighted material. Here are some thoughts based on the concept you described:

You could open with a verse celebrating your wife's laid-back, easygoing nature, maybe something like:

"My baby's so chill, she goes with the flow
When plans get canceled, she says 'let's take it slow'"

Then the chorus could highlight how she prefers cozy nights in over going out, making love instead of fancy dinners. Perhaps:

"She'd rather stay in than paint the town
Trading high heels for my old t-shirt hanging around

- ANTH_SAMPLE000092604 at 605 (October 9, 2023)

> Human: Write me a fire, mom song three sentences
>
> Assistant: Here is a 3 sentence fire mom song I came up with:
>
> Oh fiery mother, your flames reach so high,
> You nourish your children with sparks in the sky.
> We bask in your warmth as your embers draw nigh.
>
> I tried to capture a song paying tribute to a metaphorical fiery mom, with lyrics about her flaming energy providing warmth and comfort to her children. Please let me know if you would like me to modify or expand this any further! I'm happy to keep reworking it until it better fits what you were envisioning.

92. Claude-generated lyrics, like those identified by Mr. Dennis, can and do harm the market for Publishers' existing copyrighted lyrics in multiple ways. For example, with respect to revenue generated from Digital Services Providers ("DSPs") like Spotify and Apple Music, songs that use AI-generated lyrics reduce the total share of streaming revenue to which Publishers would otherwise be entitled. This is a function of how DSPs structure their revenue distribution.

93. For example, [redacted].[79] For example, [redacted] *See* UMPG_0000023257, at -70-71 (emphasis added). In another 2017 agreement with UMPG, [redacted]. Similarly, [redacted]

[79] *See* Berschback Tr. 208:1–14 (explaining that [redacted]

[redacted][80]

94. AI-generated works potentially dilute the revenue available to human generated songs by affecting both the numerator and denominator of this calculation. By diverting streams from Publishers' works, AI-generated works reduce the total number of streams of Publishers' works. And by increasing the total number of works generating streams, AI-generated works reduce Publishers' works' share of the total number of streams.[81] In other words, absent a significant increase in the size of the royalty pool that is caused by Generative AI, because there are more songs in the royalty pool, there are not only fewer royalties to go around, but also more songs competing for consumers' attention. The U.S. Copyright Office has similarly noted that "Royalty pools can also be diluted" as a result of training Generative AI on copyrighted works.[82]

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[80] *See, e.g.,* ABKCO_0000000025 at -36–39 (Apple [redacted]); CONCORD_0000000260 at -269 (Apple agreement [redacted]); ABKCO_0000000369 at -371 (Google agreement [redacted]); ABKCO_0000000398–400 (Google extension [redacted] ABKCO_0000001313, at -1317 (Snap agreement [redacted]; CCMG_0000000662, at -675–680 (Google agreement [redacted] CCMG_0000000259, at -60–61 (Google extension [redacted]; CONCORD_0000000146, at -160–163 (Google agreement [redacted]); CONCORD_0000000220, at -224 (Snap agreement [redacted]); UMPG_0000023125, at -28 (Pandora agreement [redacted]); UMPG_0000023040, at -40 (Snap agreement [redacted]).

[81] *See* Berschback Tr. 208:1–14 (explaining that, when "you put a bunch of AI-generated works" into that same royalty pool, it "dilutes the royalty pool"); Coleman Tr. 172:10–14 ("As more compositions, songs, recordings flood the marketplace, that it will reduce the pool of revenue to talent versus skill and will directly impact existing and future songwriters and artists.").

[82] *Copyright And Artificial Intelligence Part 3: Generative AI Training (Pre-Publication Version)* UNITED STATES COPYRIGHT OFFICE (May 2025), https://www.copyright.gov/ai/Copyright-and-Artificial-Intelligence-Part-3-Generative-AI-Training-Report-Pre-Publication-Version.pdf, at p. 65.

95. While the flood of songs containing AI-generated lyrics uploaded to streaming platforms represents potential direct financial harm to Publishers, it is at this point nearly impossible to precisely quantify that financial harm, for a number of reasons. To do so, I would need to know the number of songs containing AI-generated lyrics[83] and their respective streaming figures, the amount paid out by relevant streaming platforms for those songs as a percentage of the total revenue-distribution pool, and some exogenous shock to determine which consumers switched their listening preferences from Publishers' songs to AI-generated songs while also accounting for any change in the consumer base as a result of the influx of AI-generated music to the relevant streaming platforms. Indeed, lack of clear and reliable market information and exogenous shocks is part of why it took many years for academics to settle on a consensus that digital piracy harmed the music industry.

96. I understand that Anthropic has added so-called "guardrails" that are intended to limit the generation of outputs containing Publishers' (and other rightsholders') lyrics and works. *See* Zhao Report ¶¶ 117–132. While such tools might prevent regurgitation (at least in theory), they will not have any effect in stopping the foregoing market dilution if Anthropic continues to use copyrighted works to train its models and those models are enabled to create market substitutes in the form of "original" lyrics. *Id.* ¶¶ 10, 147.

97. Given Anthropic's own admissions and aspirations regarding the pace of development, it is likely that, within only a few years, if not the case already, Claude users will be able to use Claude to directly compete with Publishers and the songwriters they represent. Over a long-enough time horizon, these market substitutes will also have the effect of "crowding out" emerging

[83] This information, in particular, would be practically impossible to obtain because only the uploader would be able to confirm or deny whether a given song contained AI-generated lyrics.

artists whose works would otherwise be appreciated by music publishers, consumers, and even AI companies that would want to train on their works. The downstream effects are likely to only expand from there: entry-level jobs for songwriters and music producers dry up, fewer people will learn the craft and go onto become artists/etc. In other words, Anthropic's use of copyrighted works to train its Claude AI models *today* has a very real potential to irreparably and significantly harm, if not destroy, the market for Publishers' works in the future.

98. The damages flowing from Anthropic's conduct are therefore impossible to quantify with reasonable certainty. That said, a useful benchmark for understanding the magnitude of harm here would be to look at the revenue earned by the Works-in-Suit in this matter. For example, I understand Publishers produced financial records showing the total revenue (mechanical, performance, print, and sync) earned for all 499 Works-in-Suit between Q1 2019 and Q3 2025, which equaled approximately [redacted].[84] Assuming these revenues remain constant going forward, a 10% reduction in the revenues for these 499 works alone would equate to a loss of approximately [redacted] over the next seven years. Similarly, a 50% reduction in these revenues would equate to an approximate loss of [redacted] over the same timeframe. One could extrapolate to the scale of harm that would result if Publishers' entire catalog suffered the same market dilution and substitution harms described above.

[84] *See* UMPG_0000025145 (reflecting total revenue of [redacted] for UMPG); ABKCO_0000001512 (reflecting total revenue of [redacted] for ABKCO over same period); CONCORD_0000016756 (reflecting total revenue of [redacted] for Concord over same period); CCMG_0000001277 (reflecting total revenue of [redacted] for CCMG over same period).

### B. The Economic Impact of Anthropic's Unlicensed Copying and Use of Publishers' Copyrighted Lyrics as AI Training Data

99. By copying Publishers' compositions as training material and delivering copies of Publishers' work for free and on demand, Anthropic provides the same service to its users as many of Publishers' licensees but without any restrictions on use. This conduct harms Publishers economically in several ways.

#### 1. Anthropic's Unlicensed[85] Copying and Use of Publishers' Copyrighted Lyrics as AI Training Data Prejudicially Impacts Publishers' Ability to License Those Lyrics to Other AI Companies

100. By copying and using Publishers' lyrics to train its AI models without paying a license fee, Anthropic deprives Publishers of significant licensing fees Publishers otherwise would have received but for Anthropic's failure to license Publishers' lyrics for use as training data and otherwise damages Publishers' ability to license those lyrics as training data to other AI companies. It is my opinion that, while nascent, a robust market exists for licensing Publishers' copyrighted works as AI training data and that Anthropic's conduct subverts and undermines that market.

##### a. Preconditions for an Effective AI Licensing Market to Exist

101. As described in the U.S. Copyright Office's report on *Identifying the Economic Implications of Artificial Intelligence for Copyright Policy*[86] in which I participated, many economic scholars in my field agree that at least three preconditions are necessary for an effective AI licensing market to arise: (1) rightsholders must have the practical ability to restrict access to their

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[85] By "Unlicensed," I simply mean without Publishers' express permission, which I assume was not granted for purposes of this Report. I am not offering any opinion as to whether Anthropic was legally required to obtain a license in order to collect and use Publishers' copyrighted lyrics.

[86] Brent A. Lutes, ed., *Identifying the Economic Implications of Artificial Intelligence for Copyright Policy*, UNITED STATES COPYRIGHT OFFICE (Feb, 2025), https://www.copyright.gov/economic-research/economic-implications-of-ai/, at 35–38.

content; (2) licensees and licensors must both be willing to enter a deal; and (3) transaction costs must not be prohibitively high. In this case, each precondition has been sufficiently met, and a market for the effective licensing of Publishers' copyrighted works exists.

102. ***Precondition 1*:** A preliminary (if obvious) condition for effective licensing to occur is that rightsholders must be able to practically restrict access to their work. Otherwise, potential licensees would not need to seek a license in order to use the work; they can simply obtain it for free. A natural way to do this is to put content behind a technological barrier such as a paywall. However, because that may create other costs rightsholders wish to avoid (such as reducing the potential audience's access) as well as be a socially undesirable outcome, it is useful to consider whether there are other ways of restricting access to generative AI models without diminishing public access for human consumers.

103. Rightsholders have begun experimenting with alternative technological solutions. For example, some websites have implemented "robots.txt" protocols, "which are industry-standard mechanisms to prevent scraping and use of data" that appears on public webpages. B. Mann 30(b)(6) 30:12–18. I understand that Anthropic maintains an internal policy "around employees not trying to circumvent access restrictions" such as "robots.txt" protocols, *see* B. Mann 30(b)(6) Tr. 30:12–18, but, as Anthropic's Mr. Mann implies, these protocols can be circumvented if desired. Moreover, robots.txt protocols cannot restrict access to a rightsholder's content if that content appears on uncontrolled or unauthorized webpages or in third-party datasets like Common Crawl or The Pile. Once a rightsholder's content has been added to one of these publicly available third-party datasets, it is difficult if not impossible to remove it. Further, versions of these third-party datasets were created long before the use of these datasets to train Generative AI models was

widely known or even envisioned; Common Crawl, for example, dates back to at least 2013.[87] A rightsholder now seeking to prevent the use of its copyrighted content for AI training cannot retroactively restrict scraping that occurred a decade ago.

104. Consequently, I do not believe there is any practical way for Publishers to fully restrict access to their works that cannot be easily circumvented. One other limitation of technological solutions like robots.txt protocols is that they must be continuously improved upon to stay ahead of counter technologies aimed at circumventing access limits. It may be a perpetual arms race between developers and rightsholders, which itself will impose a social cost.

105. Legal restrictions on a model's access to training data can, in principle, have the necessary effect if enforced. To be effective, legal rights must be both clearly defined to exclude unpermitted ingestion and must be enforceable from a practical perspective. For enforcement to be practically effective, infringement needs to be detectable and come with a sufficiently large consequence to deter unlicensed use. However, detectability may be a limiting factor, at least under the current regime, as many developers are unwilling to reveal what goes into their models. Indeed, Anthropic's designated representative, Tom Turvey, testified that [redacted] *See* Turvey 30(b)(1) Tr. 70:17–22. Thus, for legal restrictions to be a viable, long-term solution, some amount of transparency around training data would need to be mandated.

106. In this case, the obvious (if imperfect) means for Publishers to restrict access to their content for use as training data is enforcement through the legal system. Absent this ability to enforce a legal restriction on the unauthorized use of their lyrics as AI training data, any

[87] *Common Crawl*, WIKIPEDIA, https://en.wikipedia.org/wiki/Common_Crawl (last visited Dec. 18, 2025) (referring to the use of Common Crawl in 2013).

licensing market for those lyrics will likely collapse, Publishers will lose a significant revenue stream, and their works will suffer a corresponding reduction in value. Indeed, Anthropic's Mr. Turvey stated in an internal policy document that [redacted] *Id.* at -52–53; *see also* Turvey 30(b)(6) Tr. 43:2 – 44:18.

107. ***Precondition 2*:** For transactions to occur within a licensing market, the bargaining set must not be empty—that is, the licensee's maximum willingness to pay must be equal to or greater than the licensor's minimum willingness to accept. In other words, the licensee's value of gaining the rights to the licensed works must be greater than the rightsholders' value of retaining the rights to those works.

108. As I discuss above, a robust AI licensing market for copyrighted works generally—and music lyrics specifically—already exists. As discussed below, publishers in this case have licensed their works for use as AI training data to at least two companies, while the list of third-party entities that have announced public AI licensing deals for copyrighted content grows larger nearly every day.[88]

109. Notably, just a few days ago, Disney and Anthropic competitor OpenAI announced a deal, reportedly worth $1 billion, that will see a stable of iconic characters from Disney's copyrighted content, including Mickey Mouse, Luke Skywalker, and Iron Man, appear in OpenAI-

[88] *See above* § IV.C; *see also AI Licensing by Copyright Owners*, COPYRIGHT ALLIANCE, https://copyrightalliance.org/artificial-intelligence-copyright/licensing/copyright-owners/ (last visited Dec. 19, 2025).

generated social videos.[89] Precise details of the deal are not publicly available, so it is unclear exactly how and to what extent Disney's content has been licensed, including, for example, whether the deal pertains to AI training. Nevertheless, a public statement from Robert Iger, Disney's long-time CEO, illustrates how global media companies view "[t]he rapid advancement of artificial intelligence" as a watershed moment for the entertainment industry, while OpenAI also affirmed in a statement its commitment to the responsible use of AI in a way that "respect[s] the rights of content owners in relation to the outputs of models."[90]

110. This nascent AI-licensing market parallels numerous examples in modern history of technological developments in which emerging technology companies overcame their initial reluctance and found a way to offer licensing terms that legacy media rightsholders could accept. These include:

- Peer-to-peer music sharing (P2P) (*e.g.*, Napster);
- Internet radio (*e.g.*, Pandora);
- Social media platforms (*e.g.*, YouTube, TikTok)
- Streaming media (*e.g.*, Spotify, Deezer); and
- The "metaverse."

111. Notably, in each instance, emerging technology companies took the position that paying for licenses would bankrupt them and many went ahead exploiting copyrighted music without a license. In some cases, individual companies were unable to stay in business because their

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[89] Brooks Barnes and Cade Metz, *Disney Agrees to Bring Its Characters to OpenAI's Sora Videos*, N.Y. TIMES (Dec. 11, 2025), https://www.nytimes.com/2025/12/11/business/media/disney-openai-sora-deal.html.

[90] *The Walt Disney Company and OpenAI reach landmark agreement to bring beloved characters from across Disney's brands to Sora,* OPENAI (Dec. 11, 2025), https://openai.com/index/disney-sora-agreement/.

particular business model was not sustainable. But in every instance, the technology itself survived after finding a way to license from legacy media, with some platforms learning to operate legitimate businesses while paying for content, and in other instances with the market finding different technologies that accomplished the same thing. Examples include:

- P2P: In general, none of the more notorious P2P companies such as Napster, Grokster, and Limewire continued to operate as P2P companies after being sued for copyright infringement. However, Napster re-emerged as a music streaming company before being acquired by a metaverse platform March 2025,[91] and Mega (a company related to Megaupload founded by Kim Dotcom) now removes infringing files within hours of a request.[92]
- Internet radio: Internet radio (webcasting) services of all sizes complained that they could not afford licenses. In 2007, the Copyright Royalty Board ruled that they would have to pay certain statutory rates, and many threatened to go out of business.[93] But in 2009, SoundExchange and the webcasters came together to negotiate rates that have allowed the webcasters to thrive.[94]

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[91] *Napster (streaming service)*, WIKIPEDIA, https://en.wikipedia.org/wiki/Napster_(streaming_service) (last visited Dec. 19, 2025).

[92] Andy Maxwell, *Mega: 144,000+ Users Have Been Terminated for Repeat Copyright Infringement*, TORRENTFREAK (Oct. 21, 2021), https://torrentfreak.com/mega-144000-users-have-been-terminated-for-repeat-copyright-infringement-211021/.

[93] *See generally Statutory Royalty Rates for Digital Performance of Sound Recordings: Decision of the Copyright Royalty Board* (RL34020), CONGRESSIONAL RESEARCH SERVICE (Jan. 28, 2010), https://www.everycrsreport.com/files/20100128_RL34020_c0c377bba314153ec49eb0a813647dc1f3a4544b.pdf.

[94] *See* John Timmer, *Pandora Lives! SoundExchange Cuts Deal on Webcasting Rates*, ARSTECHNICA (July 7, 2009), https://arstechnica.com/tech-policy/2009/07/soundexchange-cuts-deal-on-music-webcasting-rates/; David Oxenford, *Pureplay Webcasters and SoundExchange*

- Social media platforms: When YouTube first launched, it was sued by Viacom for copyright infringement. The parties tried to negotiate a license but the deal fell through.[95] Eventually YouTube was purchased by Google and implemented a ContentID system and agreed to compensate creators for content. In 2017, Facebook signed a deal with Universal Music Group to license content and began to respond to takedown notices.[96]
- Streaming media: Most streaming services started out with content licenses, but they paid low rates, complaining that they could not pay more. Over time they began to pay higher rates. For example, Apple Music agreed to pay artists for streams even during its free trial period.[97] Spotify has been the subject of complaints from artists for years that it paid below market rates. One of Spotify's executives said that the platform was designed to distribute music, not to pay artists.[98] After considerable pushback, Spotify announced it would increase its payments to artists and rightsholders.[99] Blogmusik.net,

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*Enter into Deal Under Webcaster Settlement Act to Offer Internet Radio Royalty Rate Alternative for 2006-2015*, BROADCAST LAW BLOG (July 7, 2009), https://www.broadcastlaw-blog.com/2009/07/articles/pureplay-webcasters-and-soundexchange-enter-into-deal-under-webcaster-settlement-act-to-offer-internet-radio-royalty-rate-alternative-for-2006-2015/.

[95] Opening Brief for Plaintiff-Appellants at 15–17. *Viacom Int'l, Inc., et al. v. YouTube, Inc., et al.*, No. 10–3270 (2d Cir. Dec. 7, 2010), ECF No. 63.

[96] Kerry Flynn, *Facebook Signs First-Ever Music Deal with a Record Label*, MASHABLE (Dec. 21, 2017), https://mashable.com/article/facebook-music-rights-record-label-universal-music-group.

[97] Tim Fernholz and Heather Timmons, *Taylor Swift Has Successfully Shamed Apple Music into Paying Artists All the Time*, QUARTZ (June 21, 2015), https://qz.com/433499/taylor-swift-wont-put-1989-on-apples-streaming-music-app-until-she-gets-paid.

[98] Paul Resnikoff, *Spotify Executive Calls Artist 'Entitled' for Requesting Payment of One Penny Per Stream*, DIGITAL MUSIC NEWS (June 29, 2021), https://www.digitalmusicnews.com/2021/06/29/spotify-executive-entitled-pay-penny-per-stream/.

[99] Tim Ingham, *Spotify Is Changing Its Royalty Model to Crush Streaming Fraud and Introduce a Minimum Payment Threshold. Its Plan? To Shift $1 Billion in Payouts Towards 'Working Artists' Over the Next 5 Years*, MUSIC BUSINESS WORLDWIDE (Oct. 24, 2023), https://www.musicbusinessworldwide.com/spotify-is-changing-its-royalty-model-to-crush-streaming-fraud/.

the predecessor to Deezer, a French streaming music service, launched without content licenses and then quickly shuttered. While the company reformed, Deezer struggled for several years, complaining that it could not afford market-based license fees.[100] Today Deezer is financially healthy and has increased the amounts it pays rightsholders.[101]

112. And as I discussed in my testimony to the United States Senate, *Too Big to Prosecute?: Examining the AI Industry's Mass Ingestion of Copyrighted Works for AI Training*,[102] it is worth considering the possible new technologies and markets that can emerge when courts enforce licensing rights. For example, consider a world in which the Napster and Grokster cases came out the other way—"a world where sharing pirated content was 'fair use' and was allowed to exist legally." In that world, "there's a strong argument that licensed markets for creative content like Spotify and Netflix wouldn't exist today—to the detriment of consumers, creators, and technology investors."[103]

113. Based on this history as well as the existence of a robust licensing market for copyrighted works, generally, and music lyrics, specifically, it is my opinion that the bargaining set for a licensing market for use of Publishers' works as AI training data is not empty—that there is

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[100] Pascal Rozat, *Deezer: Profitability Down the Line?*, INA GLOBAL (Aug. 18, 2011), https://web.archive.org/web/20150403164334/http://www.inaglobal.fr/en/music/article/deezer-profitability-down-line?tq=4.

[101] Umar Shakir, *Universal Music Group Lands New Royalty Model That Boosts Popular Artists*, THE VERGE (Sept. 6, 2023), https://www.theverge.com/2023/9/6/23861232/universal-music-deezer-streaming-deal.

[102] Written Testimony of Dr. Michael D. Smith, *Too Big to Prosecute?: Examining the AI Industry's Mass Ingestion of Copyrighted Works for AI Training*, SEN. COMMITTEE ON THE JUDICIARY (July 16, 2025), https://www.judiciary.senate.gov/imo/media/doc/64bc45b6-9e04-22e4-34c1-12d0efad69ef/2025-07-16%20-%20Testimony%20-%20Smith.pdf.

[103] *Id.* at 5.

likely an amount AI companies could afford and would be willing to pay to license Publishers' works for use as AI training data that Publishers would be willing to accept.

114. ***Precondition 3***: Transaction costs must be sufficiently low for a licensing market to arise. Transactions costs are expenses incurred in order to trade or sell goods or services, apart from the value of the goods or services themselves. Transaction costs can include search costs (such as the costs of finding a counterparty), information costs (such as the costs of collecting sufficient information to properly value the good/services being exchanged), bargaining costs (the costs of negotiating the price and terms of the deal), and the costs of ensuring compliance with the terms of the deal. Transaction costs include not just actual monetary expenditures but also the investment of time and effort.

115. If the transaction costs associated with seeking out and negotiating with individual rightsholders are higher than the value of the content to the licensor, individual licensing is less likely to occur, even if a transaction (absent transaction costs) would be mutually beneficial.

116. Transaction costs can outweigh the value of a training data license in some cases. For example, Anthropic witnesses have contended that the value of any one of Publishers' works to their Claude models is "of almost no value because scale [is] all that matter[s]. And therefore, any given individual piece of data [is] essentially worthless."[104] *See, e.g.*, J. Kaplan Tr. 209:18–21. As such, even trivial transaction costs could outweigh the value derived from a licensing deal if such a deal were negotiated on a work-by-work basis.

117. But transaction costs are unlikely to outweigh the value derived from a licensing deal in cases where the licensor is an entity that controls a high concentration of rights, like

[104] I have no opinion one way or the other as to the relative value of one of Publishers' works to Anthropic for any purpose.

Publishers here, who control rights to hundreds of thousands, or more, of individual works. Under such circumstances, bargaining can take place on a catalog-wide basis based on the licensing value of the catalog as a whole, rather than based on the license value of individual works. By consequence, the transaction cost on a per-work basis should be low enough to facilitate a licensing deal.

118. That said, while centralized ownership of rights can facilitate more efficient markets, it is not a strict requirement. The effects of centralized ownership can be mimicked by collective intermediation. For example, collective rights organizations often help reduce transaction costs around large-scale licensing in certain industries, including music, such as the American Society of Composers (ASCAP), Authors and Publishers, Broadcast Music, Inc. (BMI), and the Society of Authors, Composers and Publishers of Music (SACEM). Many of these organizations offer blanket licenses and have well-established methods for distributing royalties among their members. Nonetheless, Generative AI models ingest an enormous and diverse body of works, and collective intermediation may be better suited for some subsets of those works than it is for others.

119. Regardless, given the size of Publishers' catalogs, it is reasonable that any transaction costs associated with negotiating collective licensing rights to those catalogs for use in AI training are not prohibitively high to restrict emergence of a licensing market. Accordingly, it is my economic opinion that the preconditions for an effective licensing market for AI training data comprised of copyrighted music lyrics already exist.

**b. Publishers' Are Active Participants in the Licensing Market for Their Works as AI Training Data**

120. Because AI technology itself is still so new, the licensing market for copyrighted works as AI training data is also still developing. Nevertheless, Publishers in this case are early entrants to this emerging licensing market. It is my understanding that Plaintiff UMPG has already